

EXECUTIVE SUMMARY

In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15123, this chapter of the Draft Program Environmental Impact Report (PEIR) contains an overview of the proposed project, its potential environmental effects and mitigation measures, and a summary of the alternatives to the proposed project evaluated in this Draft PEIR.

ES.1 INTRODUCTION

This PEIR evaluates the potential environmental impacts associated with the adoption of the 2012-2035 RTP/SCS by the Southern California Association of Governments (SCAG). SCAG prepared this PEIR, pursuant to the CEQA, for the 2012-2035 Regional Transportation Plan and Sustainable Communities Strategy (2012-2035 RTP/SCS, Plan or Project). The 2012-2035 RTP/SCS is a long-range regional transportation plan that provides a blueprint to help achieve a coordinated regional transportation system by creating a vision for transportation investment throughout the region and identifying regional transportation and land use strategies to address mobility needs. The 2012-2035 RTP/SCS includes goals, policies and performance indicators, identifies specific projects, programs and implementation, and includes a description of regional growth trends that identify future needs for travel and goods movement. The PEIR for the 2012-2035 RTP/SCS serves as an informational document to inform decision-makers and the public of the potential environmental consequences of approving the proposed Plan. The PEIR includes mitigation measures designed to help avoid or minimize significant environmental impacts.

A PEIR may serve as a first-tier document for later CEQA review of individual projects included in the program. These project-specific CEQA reviews will focus on project-specific impacts and mitigation measures, and need not repeat the broad analyses contained in the PEIR. As discussed by the California Supreme Court, “it is proper for a lead agency to use its discretion to focus a first-tier EIR on only the...program, leaving project-specific details to subsequent EIRs when specific projects are considered” (*In re Bay Delta* (2008) 43 Cal. 4th 1143, 1174).

As such, the focus of the environmental analysis in the PEIR is on regional-scale and cumulative impacts of implementation of the Plan and the alternatives. The long-range planning horizon of more than 20 years necessitates that many of the highway, arterial goods movement, and transit projects included in the Plan (and the alternatives) are identified at the conceptual level. This document addresses environmental impacts to the level that they can be assessed without undue speculation (CEQA Guidelines § 15145). This PEIR acknowledges this uncertainty and incorporates these realities into the methodology to evaluate the environmental effects of the Plan, given its long-term planning horizon.

The degree of specificity in an EIR corresponds to the degree of specificity of the underlying activity being evaluated (CEQA Guidelines Section 15146). Also, the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project (CEQA Guidelines Sections 15151 and 15204(a)). The activity being evaluated in this PEIR is the long-term Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS). This Draft PEIR strives to provide as much quantitative detail as feasible regarding the regional environmental impacts of the Plan. Not all impacts can be feasibly and/or accurately quantitatively analyzed at a regional level and/or up to the year 2035.

A Notice of Preparation (NOP) for this Draft EIR was issued on May 10, 2011 by SCAG for a 30-day public review period. A total of 22 comment letters were received. Information, data and observations resulting from these letters are included throughout this Draft EIR where relevant. The NOP and copies of each

comment letter received are included in Appendix A of this Draft PEIR. Two scoping meetings were held on Thursday, May 26, 2011. The purpose of these meetings was to provide early consultation for the public to express their concerns about the proposed project, and acquire information and make recommendations on issues to be addressed in the Draft PEIR.

In accordance with Sections 15087 and 15105 of the CEQA Guidelines, this Draft PEIR is being circulated for a 45-day public review period. Responsible and trustee agencies and the public are invited to comment in writing on the information contained in this document. Persons and agencies commenting are encouraged to provide information that they believe is missing from the Draft PEIR and to identify where the information can be obtained. All comment letters received concerning the Draft PEIR will be responded to in writing, and the comment letters, together with the responses to those comments will be included in the Final PEIR.

ES.2 SUMMARY OF THE PROPOSED PROJECT

The 2012-2035 RTP/SCS provides land use and transportation recommendations to help achieve a coordinated balance of land uses and transportations such that vehicle trips and vehicle trip lengths are reduced and land is used efficiently and sustainably, thereby minimizing energy and water consumption. The 2012-2035 RTP/SCS contains transportation and urban form strategies that encourage compact growth, increased jobs/housing balance and transit-oriented development, where feasible, in all parts of the region. The 2012-2035 RTP/SCS is described in Chapter 2.0 Project Description.

ES.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15382 of the State CEQA Guidelines defines a significant impact on the environment as “a substantial, or potentially substantial, adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” In order to approve a project with unavoidable and significant impacts, the lead agency must adopt a Statement of Overriding Considerations (in accordance with Section 15093 of the State CEQA Guidelines) indicating that the benefits of approving the proposed project outweigh the negative environmental consequences. Based on the analysis contained in this PEIR, the proposed project would create significant and unavoidable impacts related to the following topics:

- **Aesthetics** (Scenic Vistas, Scenic Highways, Visual Character, Light and Glare/Shade and Shadow)
- **Air Quality** (Criteria Pollutants Emissions and Construction Emissions)
- **Biological Resources and Open Space** (Special Status Species and Habitat, Natural Lands, Loss of Open Space)
- **Cultural Resources** (Historical Resources, Archeological Resources, Paleontological Resources and Human Remains)
- **Geology, Soils, and Mineral Resources** (Seismicity, Soil Erosion, Expansive Soils, and Aggregate and Mineral Resources)
- **Greenhouse Gas Emissions** (Total GHG Emissions and AB 32 Analysis)
- **Hazardous Materials** (Routine Transport, Upset and Accident Conditions, Contaminated Property, and Schools)
- **Land Use and Agricultural Resources** (Consistency with Plans and Policies, Division of Communities, and Agricultural and Farmlands)
- **Noise** (Construction Noise and Vibration, Land Use Compatibility, and Vibration)
- **Population, Housing and Employment** (Population and Displacement)
- **Public Services and Utilities** (Police, Fire Protection & Emergency Services, Wildfire Hazards, Educational Facilities, Recreational Facilities, Non-Renewable Energy Consumption)

- **Transportation, Traffic and Security** (Vehicle Miles Traveled, Truck Delay)
- **Water Resources** (Water Supply, Wastewater, Riparian Habitats, Groundwater, Water Quality, and Runoff/Drainage)

ES.4 LESS-THAN-SIGNIFICANT OR NO IMPACT

Based on the analysis contained in this Draft PEIR, the following were found to result in a less-than-significant impact or no impact:

- **Air Quality** (Change in Risk Levels Adjacent to the Freeway and Increased Population))
- **Greenhouse Gas Emissions** (SB 375 Analysis)
- **Transportation, Traffic and Security** (Worker Commute, Transportation System Fatality Rate, Transportation System Injury Rate)

ES.5 SUMMARY OF ALTERNATIVES

CEQA requires that an EIR describe a range of reasonable alternatives to the project or to the location of the project that could feasibly avoid or lessen significant environmental impacts while substantially attaining the basic objectives of the project. An EIR should also evaluate the comparative merits of the alternatives. The range of feasible alternatives is selected and discussed in a manner intended to foster meaningful public participation and informed decision making. Among the factors that may be taken into account when addressing the feasibility of alternatives (as described in CEQA Guidelines Section 15126.6[f][1]) are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the proponent could reasonably acquire, control, or otherwise have access to the alternative site. Alternatives considered for the proposed project are:

Alternative 1 – No Project Alternative. The **No Project Alternative** includes only those transportation projects that are under construction, undergoing right-of-way acquisition included in the first year of the previously conforming transportation plan and/or TIP, or have completed environmental review by December 2010. These reasonably foreseeable projects fulfill the definition of the CEQA-mandated “No Project Alternative.” The growth scenario included in the No Project Alternative is based on 2008 RTP local input which was then adjusted to reflect 2012-2035 RTP/SCS regional population, housing and jobs totals.

Alternative 2 – Modified 2008 RTP Alternative. The Modified 2008 RTP Alternative is an update of the adopted 2008 RTP to reflect the most recent growth estimates and transportation planning decisions and assumptions. This alternative does not include urban form strategies included within SCS, but includes all of the modifications and projects in the 2008 RTP through RTP Amendment 4. The growth scenario for the 2008 Modified RTP Alternative is a combination of local input and existing general plan and land use data provided by local jurisdictions.

Alternative 3 – Envision 2 Alternative. The Envision 2 Alternative builds on the enhanced density and ideas of the SCS as described in the Plan and goes further. It includes far more aggressive densities than the 2012-2035 RTP/SCS, especially around High Quality Transit Areas (HQTAs), increases mobility, reduces emissions, and limits the development of single-family housing that would be built in the region. The Envision 2 transportation network is similar to the Plan network with minor changes to goods movement and transit projects. The growth network associated with Envision 2 maximizes urban centers, TODs and HQTAs; it also includes a more progressive jobs/housing distribution optimized for TOD and infill.

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
AESTHETICS AND VIEWS		
Potential to obstruct views of scenic resources or scenic vistas.	<p>MM-AV1: Prior to the issuance of permits, project sponsors can and should require and projects should, to the extent feasible, construct noise barriers of materials whose color and texture complements the surrounding landscape and development. Noise barriers should be graffiti resistant and landscaped with plants that screen the barrier, preferably with either native vegetation or landscaping that complements the dominant landscaping of surrounding areas. Natural landscaping should be used to minimize contrasts between the project and surrounding areas. Wherever possible, interchanges and transit lines at the grade of the surrounding land should limit view blockage.</p> <p>MM-AV2: Project sponsors can and should use natural landscaping to minimize contrasts between the project and surrounding areas. Wherever possible, structures should be designed to limit view blockage. Edges of major cut-and-fill slopes should be contoured to provide a more natural looking finished profile. Project sponsors should replace and renew landscaping along corridors with road widenings, interchange projects, and related improvements. New corridor landscaping should be designed to respect existing natural and man-made features and to complement the dominant landscaping of surrounding areas.</p> <p>MM-AV3: Prior to project approval, project sponsors can and should implement design guidelines, local policies, and programs aimed at protecting views of scenic corridors and avoiding visual intrusions. Projects should be designed to minimize contrasts in scale and massing between the project and surrounding natural forms and developments. Avoid, if possible, large cuts and fills when the visual environment (natural or urban) would be substantially disrupted. Site or design of projects should minimize their intrusion into important viewsheds and use contour grading to better match surrounding terrain.</p>	Significant and Unavoidable
Potential to alter the appearance of scenic resources along or near designated scenic highways and vista points.	<p>MM-AV4: Project sponsors can and should construct sound walls of materials whose color and texture complements the surrounding landscape and development and use color, texture, and alternating facades to “break up” large facades and provide visual interest. Where there is room, project sponsors should landscape the sound walls with plants that screen the sound wall, preferably with either native vegetation or landscaping that complement the dominant landscaping of surrounding areas.</p> <p>MM-AV5: SCAG shall coordinate with Caltrans and local agencies as part of SCAG’s outreach and technical assistance to local governments under Compass Blueprint and Toolbox Tuesdays, to advocate that projects avoid locally designated scenic highways and/or vista points. Project sponsors can and should avoid construction of transportation facilities in state and locally designated scenic highways and/or vista points. When avoidance is not possible, project sponsors should minimize visual quality intrusions to the maximum extent feasible.</p> <p>MM-AV6: For projects in designated or eligible Scenic Highway corridors, prior to project approval, project sponsors can and should complete design studies and develop site-specific mitigation measures to minimize impacts on the quality of the views or visual experience that originally qualified the highway for scenic designation.</p> <p>MM-AV7: SCAG shall coordinate with Caltrans and local agencies as part of SCAG’s outreach and technical assistance to local governments under Compass Blueprint and Toolbox Tuesdays, to advocate that projects be consistent with applicable guidelines and regulations for the preservation of scenic resources along scenic highways. If projects are constructed in state- and locally-designated scenic highways and/or vista points, design, construction, and operation of the</p>	Significant and Unavoidable

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Impact	Mitigation Measures	Significance After Mitigation
	transportation facility can and should be consistent with applicable guidelines and regulations for the preservation of scenic resources along the designated scenic highway.	
Potential to create significant contrasts with the overall visual character of the existing landscape setting or add urban visual elements to an existing natural, rural, and open space area.	<p>MM-AV8: Project sponsors can and should design projects to minimize contrasts in scale and massing between the project and surrounding natural forms and development. Project sponsors should design projects to minimize their intrusion into important viewsheds and use contour grading to better match surrounding terrain. To the maximum extent feasible, landscaping along highway corridors should be designed to add significant natural elements and visual interest to soften the hard-edged, linear travel experience that would otherwise occur.</p> <p>MM-AV9: Project sponsors can and should develop design guidelines projects that make elements of proposed buildings/facilities visually compatible with surrounding areas. Visual design guidelines should, at a minimum, include setback buffers, landscaping, color, texture, signage, and lighting criteria. The following methods should be employed whenever possible:</p> <ul style="list-style-type: none"> • Transportation systems should be developed to be compatible with the surrounding environment (i.e., colors and materials of construction material). • Vegetation used as screening and landscaping should blend in and complement the natural landscape. • Trees bordering highways should remain or be replaced so that clear-cutting is not evident. • Grading should blend with the adjacent landforms and topography. <p>MM-AV10: In visually sensitive areas and prior to project approval, local land use agencies can and should apply development standards and guidelines to maintain compatibility with surrounding natural areas, including site coverage, building height and massing, building materials and color, landscaping, site grading, etc</p> <p>MM-AV11: Project sponsors can and should ensure that sites should be kept in a blight/nuisance-free condition. Any existing blight or nuisance should be abated within 60-90 days of approval, unless an earlier date is specified elsewhere.</p>	Significant and Unavoidable
Potential to result in shade and shadow or light and glare impacts.	MM-AV12: Project sponsors can and should ensure that proposed lighting fixtures are adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans should be submitted to the Lead Agency (or other government agency as appropriate) for review and approval. All lighting should be architecturally integrated into the site.	Significant and Unavoidable
Potential to result in a cumulative loss of scenic resources.	See Mitigation Measures MM-AV1 through MM-AV12 .	Significant and Unavoidable
AIR QUALITY		
Mobile source emissions of ROG, NOX, CO, PM 10 PM2.5, and SOX would stay approximately the	<p>MM-AQ1: Transportation Control Measures (TCMs) shall be implemented as appropriate by SCAG and can and should be implemented by local agencies and project sponsors as appropriate. TCMs included in the Plan are identified in the Transportation Conformity Appendix to the 2012-2035 RTP/SCS (starting on page 26). CAA Section 108(f)(1)(A) lists the following sixteen measures as illustrative of TCMs:</p> <ol style="list-style-type: none"> I. Programs for improved use of public transit; II. Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or HOV; 	Significant and Unavoidable

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Impact	Mitigation Measures	Significance After Mitigation
<p>same or decrease (often substantially) when compared to existing conditions. This is considered to be a beneficial impact. Re-entrained roadway dust would increase proportionate to VMT. This would be a significant impact.</p>	<p>III. Employer-based transportation management plans, including incentives; IV. Trip-reduction ordinances; V. Traffic flow improvement programs that achieve emission reductions; VI. Fringe and transportation corridor parking facilities, serving multiple occupancy vehicle programs or transit service; VII. Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration, particularly during periods of peak use; VIII. Programs for the provision of all forms of high-occupancy, shared-ride services, such as the pooled use of vans; IX. Programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place; X. Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas; XI. Programs to control extended idling of vehicles; XII. Programs to reduce motor vehicle emissions, consistent with Title II of the CAA, which are caused by extreme cold start conditions; XIII. Employer-sponsored programs to permit flexible work schedules; XIV. Programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity; XV. Programs for new construction and major reconstruction of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation, when economically feasible and in the public interest; and XVI. Programs to encourage the voluntary removal from use and the marketplace of pre- 1980 model year light duty vehicles and pre-1980 model light duty trucks. The Plan has been prepared to facilitate implementation of TCMs and they also serve as air quality mitigation measures for the purposes of the PEIR.</p> <p>MM-AQ2: Local air districts, local jurisdictions and project sponsors can and should implement measures adopted by ARB designed to attain federal air quality standards for PM2.5 and 8-hour ozone. ARB's strategy includes the following elements:</p> <ul style="list-style-type: none"> • Set technology forcing new engine standards; • Reduce emissions from the in-use fleet; • Require clean fuels, and reduce petroleum dependency; • Work with USEPA to reduce emissions from federal and state sources; and • Pursue long-term advanced technology measures. <p>Proposed new transportation-related SIP measures include :</p> <p>On-road Sources</p> <ul style="list-style-type: none"> ✓ Improvements and Enhancements to California's Smog Check Program ✓ Expanded Passenger Vehicle Retirement ✓ Modifications to Reformulated Gasoline Program ✓ Cleaner In-Use Heavy-Duty Trucks ✓ Ship Auxiliary Engine Cold Ironing and Other Clean Technology ✓ Cleaner Ship Main Engines and Fuel 	

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	<ul style="list-style-type: none"> ✓ Port Truck Modernization ✓ Accelerated Introduction of Cleaner Line-Haul Locomotives ✓ Clean Up Existing Commercial Harbor Craft <p>Off-road Sources</p> <ul style="list-style-type: none"> ✓ Cleaner Construction and Other Equipment ✓ Cleaner In-Use Off-Road Equipment ✓ Agricultural Equipment Fleet Modernization ✓ New Emission Standards for Recreational Boats ✓ Off-Road Recreational Vehicle Expanded Emission Standards <p>MM-AQ3: Project sponsors can and should ensure that water or “toxic free” dust suppressants are applied to exposed earth surfaces to control emissions as necessary to control dust and comply with applicable regulations.</p> <p>MM-AQ4: Project sponsors can and should ensure that all excavating and grading activities should cease during second stage smog alerts and periods of high winds.</p> <p>MM-AQ5: Project sponsors can and should ensure that all trucks hauling dirt, sand, soil, or other loose materials off-site should be covered or wetted or should maintain at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer).</p> <p>MM-AQ6: Project sponsors can and should ensure that all construction roads that have high traffic volumes, should be surfaced with base material or decomposed granite, or should be paved or otherwise be stabilized.</p> <p>MM-AQ7: Project sponsors can and should ensure that public streets should be cleaned, swept or scraped at frequent intervals or at least three times a week if visible soil material has been carried onto adjacent public roads.</p> <p>MM-AQ8: Project sponsors can and should ensure that construction equipment should be visually inspected prior to leaving the site and loose dirt should be washed off with wheel washers as necessary.</p> <p>MM-AQ9: Project sponsors can and should ensure that water, hydroseed, or non-toxic soil stabilizers are applied to inactive construction areas as needed to reduce off-site transport of fugitive dust.</p> <p>MM-AQ10: Project sponsors can and should ensure that traffic speeds on all unpaved surfaces should not exceed 25 mph.</p> <p>MM-AQ11: Project sponsors can and should ensure that low sulfur or other alternative fuels or diesel powered vehicles with Tier 3 or better engines or retrofitted/repowered –to meet equivalent emissions standards as Tier 3 engines –should be used in construction equipment where feasible.</p> <p>MM-AQ12: Project sponsors can and should ensure that deliveries related to construction activities that affect traffic flow should be scheduled during off-peak hours (e.g., 10:00 a.m. and 3:00 p.m.) and coordinated to achieve consolidated truck trips. When the movement of construction materials and/or equipment impacts traffic flow, temporary traffic control should be provided to improve traffic flow (e.g., flag person).</p> <p>MM-AQ13: Project sponsors can and should ensure that to the extent possible, construction activity should utilize electricity from power</p>	

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	<p>poles rather than temporary diesel power generators and/or gasoline power generators.</p> <p>MM-AQ14: Local jurisdictions or agencies can and should, as practical and feasible, revegetate exposed earth surfaces following construction. Application of xeriscape principles, including such techniques and materials as native or low water use plants and low precipitation sprinklers heads, bubblers, drip irrigation systems and timing devices, should also be considered.</p> <p>MM-AQ15: Local jurisdictions can and should set specific limits on idling time for commercial vehicles, including delivery and construction vehicles.</p> <p>MM-AQ16: Project sponsors can and should ensure that sandbags or other erosion control measures are installed to prevent silt runoff to public roadways as needed.</p> <p>MM-AQ17: Project sponsors can and should designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties should include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons should be provided to the local air district prior to the start of construction as well as posted on-site over the duration of construction.</p> <p>MM-AQ18: Project sponsors can and should ensure that appropriate wind-breaks are installed at the construction site to minimize windblown dust.</p>	
<p>Under the Plan, carcinogenic health risk related to air toxics within any given distance of mobile sources in the region would decrease when compared to existing conditions. Total acute and chronic risk associated with criteria pollutants from mobile sources at given distances would also decrease when compared to existing conditions. Non-carcinogenic health incidences due to VMT-related re-entrained dust would increase under the Plan. However, increases in these</p>	<p>Impacts related to health incidences were determined to be less than significant because of the decrease in risk at any given distance from freeways (due to emission controls).</p>	<p>Less Than Significant</p>

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health incidences would be at least partially offset by the decrease in health incidences related to air toxics and criteria pollutants generated by vehicle exhaust. (See also Impact 3.2-3 related to shifting populations.)		
Potential to increase population within 500 feet of transportation facilities that could expose residents (schools and other sensitive receptors) to elevated (as compared to average) cancer and other health risks.	<p>MM-AQ19: In order to comply with the California Air Resources Board Air Quality and Land Use Handbook (June 2005) and achieve an acceptable interior air quality level for sensitive receptors, appropriate measures, project sponsors can and should be incorporated into project building design. The appropriate measures should include one of the following methods:</p> <ol style="list-style-type: none"> a. The project sponsor should retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the California Air Resources Board and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to stationary air quality pollutants prior to issuance of a demolition, grading, or building permit. The HRA should be submitted to the Lead Agency for review and approval. The sponsor should implement the approved HRA recommendations, if any. If the HRA concludes that the air quality risks from nearby sources are at or below acceptable levels, then additional measures are not required. b. The project sponsor should implement the following features that have been found to reduce the air quality risk to sensitive receptors and should be included in the project construction plans. These should be submitted to the appropriate agency for review and approval prior to the issuance of a demolition, grading, or building permit and ongoing. <ol style="list-style-type: none"> i. Do not locate sensitive receptors near distribution center's entry and exit points. ii. Do not locate sensitive receptors in the same building as a perchloroethylene dry cleaning facility. iii. Maintain a 50 foot buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year). iv. Install, operate and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, that meets the efficiency standard of the MERV 13. The HV system should include the following features: Installation of a high efficiency filter and/or carbon filter-to-filter particulates and other chemical matter from entering the building. Either HEPA filters or ASHRAE 85% supply filters should be used. v. Retain a qualified HV consultant or HERS rater during the design phase of the project to locate the HV system based on exposure modeling from the mobile and/or stationary pollutant sources. vi. Maintain positive pressure within the building. vii. Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air. viii. Achieve a performance standard of at least 4 air exchanges per hour of recirculation ix. Achieve a performance standard of .25 air exchanges per hour of in unfiltered infiltration if the building is not positively pressurized. c. Project sponsor should maintain, repair and/or replace HV system or prepare an Operation and Maintenance 	Less Than Significant

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	<p>Manual for the HV system and the filter. The manual should include the operating instructions and maintenance and replacement schedule. This manual should be included in the CC&R's for residential projects and distributed to the building maintenance staff. In addition, the sponsor should prepare a separate Homeowners Manual. The manual should contain the operating instructions and maintenance and replacement schedule for the HV system and the filters. It should also include a disclosure to the buyers of the air quality analysis findings.</p> <p>MM-AQ20: To the maximum extent practicable the Lead Agency can and should ensure that private (individual and common) exterior open space, including playgrounds, patios, and decks, should either be shielded from stationary source of air pollution by buildings or otherwise buffered to further reduce air pollution for project occupants.</p>	
<p>Emissions of short-term criteria pollutants would increase under the Plan as a result of construction of Plan transportation projects and development in the region. Therefore the Plan would result in a significant impact related to construction emissions.</p>	<p>See Mitigation Measures MM-AQ1 through MM-AQ18.</p>	<p>Less Than Significant</p>
<p>Trains, airplanes, ships and stationary and area sources substantially contribute to emissions in the region; these sources are addressed by the applicable AQMPs and not substantially affected by the Plan. All such emissions are anticipated to be consistent with applicable AQMPs and SIPs and within regional conformity emission budgets. Therefore, the Plan</p>	<p>Impacts related to cumulatively considerable emissions were determined to be less than significant without mitigation.</p>	<p>Less Than Significant</p>

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Impact	Mitigation Measures	Significance After Mitigation
would result in a less-than-significant impact related to cumulatively considerable emissions.		
BIOLOGICAL RESOURCES AND OPEN SPACE		
Potential to develop previously undisturbed land and displace natural vegetation, and thus habitat, which includes sensitive species habitat.	<p>MM-BIO/OS1: Project sponsors can and should assess displacement of habitat due to removal of native vegetation during route planning/project location planning. Routes/project sites can and should be planned in coordination with state and local resources agencies and should consider inventories of natural resources, such as CDFG and CNDDDB. Routes can and should be planned in order to avoid and/or minimize removal of native vegetation, by comparing proposed infrastructure with state and local conservation plans and by creating maps of resource habitat overlaid with the transportation network. Projects located in or adjacent to habitat areas can and should incorporate buffers to minimize lighting, noise, and other project impacts that can severely disrupt wildlife. Vegetation buffers can and should be appropriate to the adjacent vegetation association and protect the genetic integrity of the adjacent habitat. If avoidance is not possible, agencies/project sponsors can and should consult with the appropriate resource agencies to develop mitigation activities.</p> <p>MM-BIO/OS2: When avoidance of native vegetation removal is not possible, project sponsors can and should replant disturbed areas with commensurate native vegetation of high habitat value adjacent to the project (i.e., as opposed to ornamental vegetation with relatively less habitat value). When possible, habitat rehabilitation can and should use recycled material from rehabilitated infrastructure.</p> <p>MM-BIO/OS3: Project sponsors can and should include on-site habitat enhancement as a first priority and offsite habitat enhancement or restoration to compensate for unavoidable habitat losses from each project site as appropriate and necessary.</p> <p>MM-BIO/OS4: Pre-construction special status species surveys can and should be conducted by a qualified biologist to verify presence or absence of species at risk. Species surveys can and should occur during the portion of the species' life cycle where the species is most likely to be identified within the appropriate habitat. In all cases, impacts on special status species and/or their habitat can and should be avoided during construction to the maximum extent feasible.</p> <p>MM-BIO/OS5: For projects located in sensitive habitat areas, project sponsors can and should develop and implement a Worker Awareness Program (environmental education) to inform project workers of their responsibilities in regards to avoiding and minimizing impacts on sensitive biological resources.</p> <p>MM-BIO/OS6: Project sponsors can and should appoint an Environmental Inspector to serve as a contact for issues that may arise concerning implementation of mitigation measures, and to document and report on adherence to these measures.</p> <p>MM-BIO/OS7: Project sponsors can and should schedule construction activities to avoid sensitive times for biological resources (e.g. steelhead spawning periods during the winter and spring) and to avoid the rainy season when erosion and sediment transport is increased.</p>	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-BIO/OS8: Project sponsors can and should schedule projects to avoid construction during critical life stages or sensitive seasons (e.g. the nesting season; see Mitigation Measures MM-BIO/OS25, and MM-BIO/OS15 through MM-BIO/OS35).</p> <p>MM-BIO/OS9: Project sponsors can and should precede construction, as appropriate, by pre-construction monitoring to ensure no sensitive species' habitat would be unnecessarily destroyed (also see Mitigation Measures MM-BIO/OS4 through MM-BIO/OS13). All discovered sensitive species habitat can and should be avoided where feasible, or disturbance should be minimized.</p> <p>MM-BIO/OS10: Project sponsors can and should fence and/or mark sensitive habitat to prevent unnecessary machinery or foot traffic during construction activities.</p> <p>MM-BIO/OS11: Project sponsors can and should ensure that sensitive habitats (native vegetative communities identified as rare and/or sensitive by the CDFG) and special-status plant species (including vernal pools) impacted by projects can and should be restored and augmented, if impacts are temporary, at a 1:1 ratio (compensation acres to impacted acres). Permanent impacts can and should be compensated for by creating or restoring habitats at a 3:1 ratio as close as possible to the site of the impact. The CDFG may recommend mitigation ratios that vary on a project-by-project basis and may exceed those recommended in Mitigation Measure MM-BIO/OS17.</p> <p>MM-BIO/OS12: When work is conducted in or adjacent to identified sensitive habitat areas, and/or areas of intact native vegetation, construction protocols can and should require the salvage of perennial plants and the salvage and stockpile of topsoil (the surface material from 6 to 12 inches deep) and can and should be used in restoring native vegetation to all areas of temporary disturbance within the project area.</p> <p>MM-BIO/OS13: When removal and/or damage to sensitive species habitat are unavoidable during construction, project sponsors can and should ensure that any disturbed natural areas are replanted with appropriate native vegetation following the completion of construction activities. In the case of permanent losses to sensitive species habitat, mitigation can and should follow the offsite habitat compensation guidance.</p> <p>MM-BIO/OS14: A qualified wetland scientist can and should review construction drawings as part of each project-specific environmental analysis to determine whether wetlands will be impacted, and if necessary, perform a formal wetland delineation. Appropriate state and federal permits can and should be obtained, but each project EIR will contain language clearly stating the provisions of such permits, including avoidance measures, restoration procedures, and in the case of permanent impacts compensatory creation or enhancement measures to ensure a no net loss of wetland extent or function and values.</p> <p>MM-BIO/OS15: Suitable habitat for listed vernal pool crustaceans can and should be avoided to the extent feasible. If infeasible, impacts should be mitigated in accordance with the Programmatic Biological Opinion (PBO) for vernal pool invertebrates, issued by the USFWS Sacramento Field Office in 1995. Surveys should be conducted, with USFWS approval, in accordance with the 1996 <i>Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods</i>, to establish whether or not listed invertebrates are present.</p> <p>MM-BIO/OS16: Project sponsors can and should avoid removal of wetland or riparian vegetation. Specific vegetation that is not to be removed should be so marked during construction. Wetland and riparian vegetation removal should be minimized as</p>	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>much as possible.</p> <p>MM-BIO/OS17: Project sponsors can and should replace any disturbed wetland, riparian or aquatic habitat, either on-site or at a suitable off-site location at ratios to ensure no net loss. See Mitigation Measures MM-BIO/OS1 through MM-BIO/OS14.</p> <p>MM-BIO/OS18: Project sponsors can and should ensure that when individual projects include unavoidable losses of riparian or aquatic habitat, adjacent or nearby riparian or aquatic habitat should be enhanced (e.g., through removal of non-native invasive wetland species and replacement with more ecologically valuable native species).</p> <p>MM-BIO/OS19: For projects near water resources project sponsors can and should implement Best Management Practices (BMPs) at construction sites to minimize erosion and sediment transport from the area. BMPs include encouraging growth of vegetation in disturbed areas, using straw bales or other silt-catching devices, and using settling basins to minimize soil transport. (See also Water Resources Mitigation Measures.)</p> <p>Mitigation for occupied habitat impacted is likely to be compensatory off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS.</p> <p>MM-BIO/OS20: If specific project area trees are designated as “Landmark Trees” or “Heritage Trees”, then approval for removals can and should be obtained through the appropriate entity, and appropriate mitigation measures can and should be developed at that time, to ensure that the trees are replaced. Mitigation trees can and should be locally-collected native species.</p> <p>MM-BIO/OS21: Retention of trees on-site can and should be prioritized consistent with local regulations. Adequate protection can and should be provided during the construction period for any trees that are to remain standing, including the following, plus any recommendations of an arborist:</p> <ul style="list-style-type: none"> a. Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work, can and should be securely fenced off. Such fences can and should remain in place for duration of all such work. All trees to be removed can and should be clearly marked. A scheme can and should be established for the removal and disposal of logs, brush, earth and other debris that will avoid injury to any protected tree. b. Where proposed development or other site work could encroach upon the protected perimeter of any protected tree, special measures can habitat for listed vernal pool crustaceans can and should be avoided to the extent feasible. If infeasible, impacts should be mitigated in accordance with the Programmatic Biological Opinion (PBO) for vernal pool invertebrates, issued by the USFWS Sacramento Field Office in 1995. Surveys should be conducted, with USFWS approval, in accordance with the 1996 <i>Interim</i> and should be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter should be minimized. No change in existing ground level should occur from the base of any protected tree at any time. No burning or use of equipment with an open flame should occur near or within the protected perimeter of any protected tree. c. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees should occur from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials should be operated or stored within a distance 	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>from the base of any protected trees. Wires, ropes, or other devices should not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, should be attached to any protected tree.</p> <p>d. Periodically during construction, the leaves of protected trees can and should be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.</p> <p>e. If any damage to a protected tree should occur during or as a result of work on the site, the project sponsor can and should immediately notify the appropriate local agency of such damage. If, such tree cannot be preserved in a healthy state, the local agency can and should require replacement of any tree removed with another tree or trees on the same site deemed adequate by the local agency to compensate for the loss of the tree that is removed.</p> <p>f. All debris created as a result of any tree removal work can and should be removed by the project sponsor from the property within two weeks of debris creation, and such debris can and should be properly disposed of by the project sponsor in accordance with all applicable laws, ordinances, and regulations.</p> <p>MM-BIO/OS22: Project sponsors with projects within the range and within suitable habitat for species listed as threatened or endangered under California Endangered Species Act (such as the Mohave ground squirrel) or the Federal Endangered Species Act (such as the Arroyo toad) can and should conduct surveys, with CDFG and/or USFWS approval, in accordance with established and approved survey methods appropriate for the species of interest, such as the 1999 USFWS <i>Survey Protocol for the Arroyo Toad</i>, to establish whether or not the species is present. If species is determined present then the following applies:</p> <ul style="list-style-type: none"> • A pre-construction survey shall be conducted by a qualified biologist at each site to identify suitable habitat for the species of interest and to determine what avoidance measures, including relocation, fencing installation, and avoidance of breeding season will be required. • Mitigation for occupied habitat impacted is likely to be compensatory off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG). • Project sponsors must obtain an Incidental Take Permit under Section 2081 of the Fish and Game Code before proceeding with authorization of any project subject to CESA. Additional authorization may be required by the USFWS for take of federal-listed species or their occupied habitat. <p>MM-BIO/OS23: Project sponsors with projects within the range and within suitable habitat for the blunt-nosed leopard lizard can and should conduct surveys, with USFWS approval, in accordance with the 2004 CDFG <i>Approved Survey Methodology for the Blunt-Nosed Leopard Lizard</i>, to establish whether or not the species is present. If species is determined present then the following applies: Mitigation for occupied habitat impacted is likely to be compensatory off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG). No direct taking of the blunt-nosed leopard lizard should occur as this is a CDFG fully protected species with no regulatory mechanism to authorize direct taking (killing) of individuals.</p> <p>MM-BIO/OS24: Project sponsors with projects within the range and within suitable habitat for the California red-legged frog can and should implement the measures detailed in the Programmatic Biological Opinion (PBO) for construction impacts to the red-legged frog that was issued by the USFWS (Federal Register 1999) to the USACE. The measures listed below are taken largely from the PBO and, if applied to the western pond turtle as well as the frog, would be adequate as</p>	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>standard mitigation for both species. A similar level of effort for survey protocol can also be applied to the Mountain yellow-legged frog, with adjustments to its climate, habitat, and breeding requirements.</p> <ul style="list-style-type: none"> • The name and credentials of a biologist qualified to act as a construction monitor will be submitted to USFWS for approval at least 15 days prior to commencement of work; • The USFWS-approved biologist can and should survey the site two weeks prior to the onset of work activities and immediately prior to commencing work. If red-legged frog adults, tadpoles, or eggs are found, the approved biologist can and should contact USFWS to determine whether relocating any life stages is appropriate; • The USFWS-approved biologist can and should ensure that the introduction or spread of invasive exotic plant species is avoided to the maximum extent possible, by removing weeds from areas of exposed bare soil within the construction zone where construction occurs in riparian vegetation. • The number and size of access routes, staging areas, and total area of activity should be limited to the minimum necessary to achieve the project goal; • If work sites require dewatering, the intakes can and should be screened with a maximum mesh sizes of 5 millimeters; • The USFWS-approved biologist can and should permanently remove and destroy from within the project area any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent practicable. <p>MM-BIO/OS25: Project sponsors with projects within the range and within suitable habitat for the California tiger salamander can and should conduct surveys, with USFWS approval, in accordance with the 2003 USFWS <i>Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander</i>, to establish whether or not the species is present. In addition to measures described for the California red-legged frog, which would also serve to protect the California tiger salamander, the following measures can and should be implemented to further minimize adverse effects to the California tiger salamander.</p> <ul style="list-style-type: none"> • A pre-construction survey can and should be conducted at each site to identify suitable pond and upland burrow aestivation areas. As feasible within the context of the work area, aestivation areas should be temporarily fenced and avoided. • At locations where upland aestivation habitat is identified and cannot be avoided, aestivation burrows can and should be excavated by hand prior to construction and individual animals moved to natural burrows or artificial burrows constructed of PVC pipe within 0.25 miles of the construction site as approved by the USFWS. • To ensure compliance with these measures and minimize California tiger salamander take, a qualified biological monitor can and should be present during all new site disturbance construction activities (vegetation removal, clearing, grubbing, grading) at locations with suitable upland aestivation habitat. • Impacts on breeding ponds can and should be avoided until the ponds have dried. • Upon approval by the USFWS, preconstruction surveys to salvage and relocate individual California tiger salamanders can and should include installation of drift fences and pitfall traps within construction sites to identify and relocate animals. Following removal of individuals, construction areas should be fenced with temporary exclusionary silt fencing. • Temporary impacts on upland aestivation habitat can and should be restored to grassland habitat. • Mitigation for occupied habitat permanently impacted is likely to be compensatory off-site acquisition or protection of 	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG).</p> <p>MM-BIO/OS26: Project sponsors with projects within the range and within suitable habitat for the Coachella Valley fringe-toed lizard can and should conduct surveys, with USFWS/CDFG approval, in accordance with the CDFG <i>Protocol for Determining Coachella Valley Fringe-Toed Lizard (CVFTL) Presence</i>, to establish whether or not the species is present. The measures listed below are taken largely from the CDFG protocol recommendations and would be adequate as standard mitigation for this species. If the species is determined present then the following applies:</p> <ul style="list-style-type: none"> • Mitigation for occupied habitat impacted is likely to be compensatory off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG). <p>MM-BIO/OS27: Project sponsors with projects within the range and within suitable habitat for the desert tortoise can and should conduct surveys, with USFWS approval, in accordance with the 1992 USFWS <i>Field Survey Protocol For Any Federal Action That May Occur Within The Range Of The Desert Tortoise</i>, to establish whether or not the species is present. If the species is determined present then the following applies:</p> <ul style="list-style-type: none"> • Upon approval by the USFWS, preconstruction surveys of project impact areas can and should be required to salvage and relocate individual desert tortoise out of harms. Following removal of individuals, construction areas should be fenced with temporary exclusionary silt fencing. <p>Mitigation for occupied habitat impacted is likely to be compensatory acquisition of mitigation credits or off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG).</p> <p>MM-BIO/OS28: California species of special concern (CSC), such as the two-striped garter snake and several bat species are considered special-status species that meet the definition of rare, threatened or endangered species for the purposes of CEQA. Projects within the range and within suitable habitat for California species of special concern can and should conduct surveys in accordance with the best professional judgment of a qualified biologist. The following measures can and should be implemented to further minimize adverse effects to CSC species:</p> <ul style="list-style-type: none"> • Preconstruction surveys of project impact areas can and should be required to salvage and relocate individual two-striped garter snakes out of harm. Following removal of individuals, construction areas should be fenced with temporary exclusionary silt fencing. • Similarly appropriate survey, salvage, and mitigation measures can and should be taken with regard to other CSC classified species. If avoidance of impacts to species is not feasible, on site and/or off site protection of appropriate mitigation lands in perpetuity should be secured for these species. • Mitigation for occupied habitat is likely to be compensatory acquisition of mitigation credits or off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG. The two-striped garter snake is not formally listed but considered a special-status species worthy of measures to avoid and minimize impacts to the extent feasible. 	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-BIO/OS29: Project sponsors can and should ensure that to avoid disrupting nesting Swainson’s hawks, construction activities at known nesting locations can and should occur between September and March outside the nesting season (nesting typically occurs from March 1 through September 1). Alternatively, if construction activities take place during the nesting season, a qualified biologist can and should conduct a pre-construction survey no more than two weeks before the start of construction for any given milepost and report whether or not there are nesting Swainson’s hawks within 500 feet of any project (assuming available authorized access). If there are nesting Swainson’s hawks present within the 500-foot buffer areas, construction will be delayed until the CDFG has been consulted to determine suitable avoidance measures. A potential avoidance measure may include delaying all construction activity within 500 feet of an active Swainson’s hawk nest until the adult and/or young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist.</p> <p>MM-BIO/OS30: Project sponsors can and should ensure that no more than two weeks before construction in any given milepost, a survey for burrows and burrowing owls can and should be conducted by a qualified biologist within 500 feet of the project (assuming available authorized access). The survey will conform to the protocol described by the California Burrowing Owl Consortium’s 1993 Burrowing Owl Protocol and Mitigation Guideline which includes up to four surveys on different dates if there are suitable burrows present as well as the CDFG’s 1995 Staff Report on Burrowing Owl Mitigation. Both mitigation guidelines also recommend habitat land acquisition and protection in perpetuity for project-related loss of occupied wintering and breeding habitat for burrowing owls. If occupied burrowing owl dens are found within the survey area, a determination can and should be made by a qualified biologist in consultation with CDFG whether or not project work will impact the occupied burrows or disrupt reproductive behavior.</p> <ul style="list-style-type: none"> • If it is determined that construction will not impact occupied burrows or disrupt breeding behavior, construction will proceed without any restriction or mitigation measures. • If it is determined that construction will impact occupied burrows during August through February, the subject owls will be passively relocated from the occupied burrow(s) using one-way doors. There should be at least two unoccupied burrows suitable for burrowing owls within 300 feet of the occupied burrow before one-way doors are installed. Artificial burrows should be in place at least one-week before one-way doors are installed on occupied burrows. One-way doors will be in place for a minimum of 48 hours before burrows are excavated. • If it is determined that construction will physically impact occupied burrows or disrupt reproductive behavior during the nesting season (March through July) then avoidance is the only mitigation available. Construction should be delayed within 300 feet of occupied burrows until it is determined that the subject owls are not nesting or until a qualified biologist determines that juvenile owls are self-sufficient or are no longer reliant on the natal burrow as their primary source of shelter and survival. • Mitigation for occupied habitat is likely to be compensatory acquisition of mitigation credits or off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG. <p>MM-BIO/OS31: Project sponsors can and should ensure that when working within 100 feet of salt or brackish marshland presence for the California black rail, California clapper rail, and Yuma clapper rail should be assumed for either species during the period February 1- August 31 and construction should be scheduled to begin no earlier than September 1 and end no later than January 31 to avoid potential impact on reproduction. The Department of Fish and Game and United States Fish and Wildlife Service can and should be consulted when projects identify occupied habitat or habitat capable of</p>	

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	<p>supporting California clapper rail, light-footed clapper rail, and Yuma clapper rail.</p> <p>MM-BIO/OS32: Project sponsors with projects within the range and within suitable habitat for the coastal California gnatcatcher can and should conduct surveys, with USFWS approval, in accordance with the 1997 USFWS <i>Coastal California Gnatcatcher Presence/Absence Survey Guidelines</i>, to establish whether or not the species is present. If the species is determined present then the following applies:</p> <ul style="list-style-type: none"> • To avoid disrupting nesting coastal California gnatcatchers, construction activities at known nesting locations should occur between September and March outside the nesting season (nesting typically occurs from March 1 through September 1). Alternatively, if construction activities take place during the nesting season, a qualified biologist can and should conduct a pre-construction survey no more than two weeks before the start of construction for any given milepost and report whether or not there are nesting coastal California gnatcatchers within 500 feet of any project (assuming available authorized access). If there are nesting coastal California gnatcatchers present within the 500-foot buffer areas, construction will be delayed until the USFWS and/or CDFG has been consulted to determine suitable avoidance measures. A potential avoidance measure may include delaying all construction activity within 500 feet of an active coastal California gnatcatchers nest until the adults and/or young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist. • Mitigation for occupied habitat impacted is likely to be compensatory off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG). <p>MM-BIO/OS33: Project sponsors with projects within the range and within suitable habitat for the least Bell's vireo can and should conduct surveys, with USFWS approval, in accordance with the 2001 USFWS <i>Least Bell's Vireo Survey Guidelines</i>, to establish whether or not the species is present. If the species is determined present then the following applies:</p> <ul style="list-style-type: none"> • To avoid disrupting nesting least Bell's vireo, construction activities at known nesting locations can and should occur between September and March outside the nesting season (nesting typically occurs from March 1 through September 1). Alternatively, if construction activities take place during the nesting season, a qualified biologist can and should conduct a pre-construction survey no more than two weeks before the start of construction for any given milepost and report whether or not there are nesting least Bell's vireo within 500 feet of any project (assuming available authorized access). If there are nesting least Bell's vireo present within the 500-foot buffer areas, construction will be delayed until the CDFG has been consulted to determine suitable avoidance measures. A potential avoidance measure may include delaying all construction activity within 500 feet of an active least Bell's vireo nest until the adults and/or young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist. • Mitigation for occupied habitat impacted is likely to be compensatory off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted or other similar ratio with the approval of the USFWS and/or CDFG). <p>MM-BIO/OS34: Project sponsors with projects within the range and within suitable habitat for the southwestern willow flycatcher can and should conduct surveys, with USFWS approval, in accordance with the 2000 USFWS <i>Southwestern Willow Flycatcher Protocol Survey Guidelines (Revision 2000)</i>, to establish whether or not the species is present. If the species</p>	

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	<p>is determined present then the following applies:</p> <ul style="list-style-type: none"> • To avoid disrupting nesting southwestern willow flycatcher, construction activities at known nesting locations can and should occur between September and March outside the nesting season (nesting typically occurs from March 1 through September 15). Alternatively, if construction activities take place during the nesting season, a qualified biologist can and should conduct a pre-construction survey no more than two weeks before the start of construction for any given milepost and report whether or not there are nesting southwestern willow flycatcher within 500 feet of any project (assuming available authorized access). If there are nesting southwestern willow flycatchers present within the 500-foot buffer areas, construction will be delayed until the CDFG has been consulted to determine suitable avoidance measures. A potential avoidance measure may include delaying all construction activity within 500 feet of an active southwestern willow flycatcher nest until the adults and/or young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist. • Mitigation for occupied habitat impacted is likely to be compensatory off-site acquisition or protection of similar habitats at a ratio of 3:1 (compensation acres to that impacted) or other similar ratio with the approval of the USFWS and/or CDFG). <p>MM-BIO/OS35: Project sponsors can and should ensure that suitable nesting sites for migratory nongame native bird species protected under the Federal Migratory Bird Treaty Act and/or trees with unoccupied raptor nests (large stick nests or cavities) should only be removed prior to February 1, or following the nesting season.</p> <p>A survey to identify active raptor and other migratory nongame bird nests can and should be conducted by a qualified biologist at least two weeks before the start of construction at project sites from February 1st through August 31st. Active raptor nests can and should be re-located within 500 feet of the project to the extent feasible and assuming available authorized access. Suitable nesting habitat for protected native birds can and should be re-located within 300 feet of the project.</p> <ul style="list-style-type: none"> • Beginning thirty days prior to the disturbance of suitable nesting habitat, the project sponsor can and should arrange for weekly bird surveys conducted by a qualified biologist with experience in conducting breeding bird surveys to detect protected native birds occurring in the habitat that is to be removed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors) as access to adjacent areas allows. The last survey can and should be conducted no more than 3 days prior to the initiation of clearance/construction work. • If an active raptor nest is found within 500 feet of the project or nesting habitat for a protected native bird is found within 300 feet of the project a determination can and should be made by a qualified biologist in consultation with CDFG whether or not project construction work will impact the active nest or disrupt reproductive behavior. • If it is determined that construction will not impact an active nest or disrupt breeding behavior, construction will proceed without any restriction or mitigation measure. If it is determined that construction will impact an active raptor nest or disrupt reproductive behavior then avoidance is the only mitigation available. Construction can and should be delayed within 300 feet of such a nest (within 500 feet for raptor nests), until August 31 or as determined by CDFG, until the adults and/or young of the year are no longer reliant on the nest site for survival and when there is no evidence of a second attempt at nesting as determined by a qualified biologist. Limits of construction to avoid a nest can and should be established in the field with flagging and stakes or construction fencing marking the protected area 300 feet (or 500 feet) from the nest. Construction personnel can and should be instructed on the sensitivity of the area. 	

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	<ul style="list-style-type: none"> Documentation to record compliance with applicable State and Federal laws pertaining to the protection of native birds can and should be recorded. <p>MM BIO/OS 44 through MM BIO/OS 46, MM-BIO/OS49, MM-BIO51 through MM-BIO53 and MM-BIO/OS55 through MM-BIO/OS59 would also address this impact.</p>	
<p>Potential to contribute to the fragmentation of existing habitat, decreasing habitat sizes, reducing habitat connectivity, and causing direct injury to wildlife. The 2012-2035 RTP/SCS includes new transportation corridors and development that may form barriers to animal migration and/or foraging routes.</p>	<p>Mitigation Measures BIO/OS 1 through BIO/OS 35 above would also address this impact.</p> <p>MM-BIO/OS36: Project sponsors can and should conduct site-specific analyses of opportunities to preserve or improve habitat linkages with areas on- and off-site. Habitat linkages/wildlife movement corridors can and should be analyzed on a broader and cumulative impact analysis scale to avoid adverse impacts from linear projects that have potential for impacts on a broader scale or critical narrow choke points that could reduce function of recognized movement corridors on a larger scale. A qualified biologist will review construction drawings and habitat connectivity mapping provided by the CDFG or CNDDDB will be used to determine the risk of habitat fragmentation. Mitigation banking to preserve habitat linkages and corridors (opportunities to purchase, maintain, and/or restore off-site habitat) is one opportunity that project sponsor and local jurisdictions may pursue.</p> <p>MM-BIO/OS37: Project sponsors can and should evaluate the potential for overpasses, underpasses, and culverts in cases where a roadway or other transportation project may interrupt the flow of species through their habitat. Wildlife crossings/access can and should be provided in accordance with proven standards, such as FHWA's Critter Crossings or Ventura County Mitigation Guidelines and in consultation with wildlife corridor authorities with sufficient knowledge of both regional and local wildlife corridors, and at locations useful and appropriate for the species of concern.</p> <p>MM-BIO/OS38: Project sponsors can and should include analysis of wildlife corridors during project planning. Impacts to these corridors should be avoided and/or minimized.</p> <p>MM-BIO/OS39: Project sponsors can and should use wildlife fencing where appropriate to minimize the probability of wildlife injury due to direct interaction between wildlife and roads. Wildlife fencing used can and should be based on proven designs for impacted species and developed in conjunction with wildlife corridor authorities with sufficient knowledge of both regional and local wildlife corridors. Project sponsors can and should take advantage of natural environmental buffers (i.e. streams or fields) to protect wildlife habitat from nearby transportation infrastructure. Inclusion of this mitigation measure can and should be considered on a case-by-case basis, as use of wildlife fencing could further increase the effects of habitat fragmentation and isolation for many species. Also see MM-BIO/OS1 through MM-BIO/OS21.</p> <p>MM-BIO/OS40: Project sponsors can and should avoid siting new 2012-2035 RTP/SCS transportation facilities within areas not presently exposed to impacts from transportation facilities. If avoidance is infeasible, the project should minimize vehicular accessibility to areas beyond the actual transportation surface. This can be accomplished through fencing and signage. Additionally, the area of native habitats to be lost to proximity to a transportation facility should be assessed and habitat at a quality of equal or superior value can and should be secured and protected in perpetuity.</p>	<p>Significant and Unavoidable</p>
<p>Potential to increase near-road human disturbances such as</p>	<p>MM-BIO/OS41: Project sponsors can and should establish litter control programs in appropriate areas, such as receptacles at road turnouts, rest stops, and viewpoints. All refuse containers can and should be provided with mechanisms which prevent scavenging animals from gaining access to the contents of such containers.</p>	<p>Significant and Unavoidable</p>

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litter, trampling, light pollution, and road noise in previously relatively inaccessible and undisturbed natural areas.	MM-BIO/OS42: Project sponsors can and should use road noise minimization methods, such as brush and tree planting, at heavy noise-producing transportation areas that might affect wildlife. Native vegetation can and should be used.	
Potential to increase near-road human disturbances such as litter, trampling, light pollution, and road noise in previously relatively inaccessible and undisturbed natural areas.	MM-BIO/OS1 through MM-BIO/OS42 would also address this impact.	Significant and Unavoidable
Potential to damage natural vegetation and other habitat components as a result of trampling or off-road machinery during construction activities. Direct fatalities to wildlife would also potentially occur.	MM-BIO/OS7, MM-BIO/OS8, MM-BIO/OS 10, MM-BIO/OS12, and MM-BIO/OS13 would also address this impact. MM-BIO/OS43: Project sponsors can and should avoid and/or minimize construction activities that have the potential to expose species to noise, smoke, or other disturbances. Pre-construction surveys can and should be conducted as appropriate to determine the presence of any species that would need to be protected from such an impact.	Significant and Unavoidable
Potential to create noise, smoke, lights and/or other disturbances to biological resources during construction and operation of projects.	MM-BIO/OS7 through MM-BIO/OS9, MM-BIO/OS12, MM-BIO/OS13, and BIO/OS43 would also address this impact.	Significant and Unavoidable
Potential to displace riparian or wetland habitat.	MM-BIO/OS11 through MM-BIO/OS19 would also address this impact.	Significant and Unavoidable
Potential to increase	MM-BIO/OS-50 below would also address this impact.	Significant

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
siltation of streams and other water resources from exposures of erodible soils during construction activities.		and Unavoidable
Conflict with any provisions of an adopted Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP).	No direct impacts to existing HCPs and NCCPs are anticipated.	Less than Significant
Substantial disturbance and/or loss of open space and rangelands used for foraging.	MM-BIO/OS46 through MM-BIO/OS49 and MM-BIO/OS54 would also address this impact.	Significant and Unavoidable
Potential to contribute to a cumulatively considerable loss of habitat and biological resources..	<p>MM-BIO/OS44: Future impacts to biological resources shall be minimized through cooperation, information sharing, and program development as part of SCAG’s regional planning efforts. SCAG shall consult with the resource agencies, such as USFSW and CDFG, as well as local jurisdictions to incorporate any local HCPs or other similar planning documents. Planning efforts shall be in accordance with the approach outlined in the California Wildlife Action Plan.</p> <p>MM-BIO/OS45: SCAG shall develop a conservation strategy in coordination with local jurisdictions and agencies, including CTCs to determine priority conservation areas and develop regional mitigation policies. SCAG shall produce and maintain a list/map of potential conservation opportunity areas based on most recent land use data. These conservation opportunity areas may be used by local jurisdictions and project sponsors as priority areas for mitigating impacts to open space resources. SCAG’s forthcoming regional conservation planning policy will include additional information on conservation opportunity areas.</p> <p>MM-BIO/OS46: SCAG shall use its IGR process to review projects with potentially significant impacts to open space and recommend impact avoidance and mitigation measures.</p> <p>MM-BIO/OS47: Project sponsors can and should ensure that transportation systems proposed in the 2012-2035 RTP/SCS avoid or mitigate significant impacts to natural lands, community open space and important farmland, including cumulative impacts and open space impacts from the growth associated with transportation projects and improvements.</p> <p>MM-BIO/OS48: Individual projects submitted for IGR review can and should either avoid significant impacts to regionally significant open space resources or mitigate the significant impacts through measures consistent with regional open space policies for conserving natural lands, community open space and farmlands. All projects submitted for IGR review can and should demonstrate consideration of alternatives that would avoid or reduce impacts to open space.</p>	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-BIO/OS49: Project sponsors can and should include into project design, to the maximum extent practicable, mitigation measures and recommended best practices aimed at minimizing or avoiding impacts to natural lands, including, but not limited to FHWA's Critter Crossings, Ventura County Mitigation Guidelines, CDFG's Wildlife Action Plan and any applicable conservation plans.</p> <p>MM-BIO/OS50: For projects adjacent to natural watercourses, project sponsors can and should submit a vegetation management plan for review and approval by the Lead Agency that includes, as deemed appropriate, the following measures:</p> <ul style="list-style-type: none"> • Identify and do not disturb a 20-foot buffer from the top of the natural watercourse. If the top of bank cannot be identified, leave a 50-foot buffer from the centerline of the watercourse or as wide a buffer as possible between the watercourse centerline and the proposed site development. • Identify and leave "islands" of vegetation in order to prevent erosion and landslides and protect nesting habitat. • Leave at least 6 inches of vegetation on the site. • Trim tree branches from the ground up (limbing up) and leave tree canopy intact. • Leave stumps and roots from cut down trees to prevent erosion. • Plant fire-appropriate, drought-tolerant, preferably native vegetation. • Err on the side of caution; if a plant, tree or area is sensitive, obtain a second opinion before cutting. • Provide erosion and sediment control protection if cutting vegetation on a steep slope. • Leave tall shrubbery at least 3-feet high. • Fence off sensitive plant habitats and creek areas to protect from animal grazing as appropriate and necessary. • Do not clear-cut vegetation. This can lead to erosion and severe water quality problems and destroy important habitat. • Do not remove vegetation within 20-feet of the top of bank. If the top of bank cannot be identified, do not cut within 50-feet of the centerline of the natural watercourse or as wide a buffer as possible between the natural watercourse centerline and the proposed site development. • Do not trim/prune branches that are larger than 4 inches in diameter. • Do not remove tree canopy. • Do not dump cut vegetation in a creek. • Do not cut tall shrubbery to less than 3-feet high. • Do not cut of short vegetation (grasses, ground-cover) to less than 6-inches high. <p>MM-BIO/OS51: As appropriate conduct a biological assessment for any site/corridor where there is the potential for impacts to significant biological resources including threatened or endangered species, sensitive habitats/species and/or protected trees.</p> <p>MM-BIO/OS52: Shade Tree Planting: Local jurisdictions or agencies can and should promote the planting of shade trees and establish shade tree guidelines and specifications, including:</p> <ul style="list-style-type: none"> • Recommendations for tree planting based on the land use (residential, commercial, parking lots, etc.); • Recommendations for tree types based on species size, branching patterns, whether deciduous or evergreen, whether roots are invasive, etc.; • Recommendations for placement, including distance from structures, density of planting, and orientation relative to structures and the sun. 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-BIO/OS53: Urban Forestry Management: Local jurisdictions or agencies can and should develop an Urban Forestry Program to consolidate policies and ordinances regarding tree planting, maintenance, and removal, including:</p> <ul style="list-style-type: none"> • Establish a tree-planting target and schedule to support the goals of the California Climate Action Team to plant 5 million trees in urban areas by 2020; • Establish guidelines for tree planting, including criteria for selecting deciduous or evergreen trees low-VOC-producing trees, and emphasizing the use of drought-tolerant native trees and vegetation. <p>MM-BIO/OS54: Local jurisdictions or agencies can and should establish policies and programs to restore, protect, manage and preserve conservation areas, including forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas, that remove and sequester carbon from the atmosphere.</p> <p>MM-BIO/OS55: Conservation Area Development: Local jurisdictions or agencies can and should establish programs and funding mechanisms to create protected conservation areas, including:</p> <ul style="list-style-type: none"> • Imposing mitigation fees for development on lands that would otherwise be conservation areas, and use the funds generated to protect other areas from development; • Proposing for voter approval a small tax increment (e.g., a quarter cent sales tax, perhaps for a finite time period that could be renewed) to fund the purchase of development rights in conservation areas, or purchase of the land outright. <p>MM-BIO/OS56: Conservation Area Preservation: Local jurisdictions or agencies can and should establish policies to preserve existing conservation areas, and to discourage development in those areas.</p> <p>MM-BIO/OS57: Local jurisdictions or agencies can and should manage its stock of vegetation to reduce GHG emissions.</p> <p>MM-BIO/OS58: Local jurisdictions can and should conduct a comprehensive inventory and analysis of the urban forest, and coordinate tree maintenance responsibilities with all responsible departments, consistent with best management practices.</p> <p>MM-BIO/OS59: Local jurisdictions or agencies can and should evaluate existing landscaping and options to convert reflective and impervious surfaces to landscaping, and install or replace vegetation with drought-tolerant, low-maintenance native species or edible landscaping that can also provide shade and reduce heat-island effects.</p>	
CULTURAL RESOURCES		
<p>Potential to cause a substantial adverse change in the significance of a historical resource.</p>	<p>MM-CUL1: As part of the appropriate project/environmental review of individual projects, project sponsors can and should identify potential impacts to historic resources. A record search at the appropriate Information Center should be conducted to determine whether the project area has been previously surveyed and whether historic resources were identified.</p> <p>MM-CUL2: If indicated as necessary by a records search, prior to construction activities, project sponsors can and should obtain a qualified architectural historian to conduct historic architectural surveys as recommended by the Information Center. In the event the records indicate that no previous survey has been conducted, the Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for historical resources within 1,000 feet of the project.</p> <p>MM-CUL3: Project sponsors can and should comply with Section 106 of the National Historic Preservation Act (NHPA) including,</p>	<p>Significant and Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	<p>but not limited to, projects for which federal funding or approval is required for the individual project. This law requires federal agencies to evaluate the impact of their actions on resources included in or eligible for listing in the National Register. Federal agencies must coordinate with the State Historic Preservation Officer in evaluating impacts and developing mitigation. These mitigation measures may include, but are not limited to the following:</p> <ul style="list-style-type: none"> • Where appropriate, project sponsors should employ design measures to avoid historical resources and undertake adaptive reuse where appropriate and feasible. If resources are to be preserved, as feasible, project sponsors should carry out the maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction in a manner consistent with the Secretary of the Interior's Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. If resources would be impacted, impacts should be minimized to the extent feasible. • Where feasible, noise buffers/walls and/or visual buffers/landscaping should be constructed to preserve the contextual setting of significant built resources. <p>MM-CUL4: Project sponsors can and should secure a qualified environmental agency and/or architectural historian, or other such qualified person to document any significant historical resource(s), by way of historic narrative, photographs, and architectural drawings, as mitigation for the effects of demolition of a resource. However, such documentation will not mitigate the effects to less than significant.</p>	
<p>Potential to cause a substantial adverse change in the significance of an archaeological resource.</p>	<p>MM-CUL5: As part of the appropriate project/environmental review of individual projects, project sponsors can and should consult with the Native American Heritage Commission (NAHC) to determine whether known sacred sites are in the project area, and identify the Native American(s) to contact to obtain information about the project site.</p> <p>MM-CUL6: Prior to construction activities, project sponsors can and should obtain a qualified archaeologist to conduct a record search at the appropriate Information Center of the California Archaeological Inventory to determine whether the project area has been previously surveyed and whether resources were identified.</p> <p>MM-CUL7: Prior to construction activities, project sponsors can and should obtain a qualified archaeologist or architectural historian (depending on applicability) to conduct archaeological and/or historic architectural surveys as recommended by the Information Center. In the event the records indicate that no previous survey has been conducted, the Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for archaeological resources.</p> <p>MM-CUL8: If the record search indicates that the project is located in an area rich with cultural materials, project sponsors can and should retain a qualified archaeologist to monitor any subsurface operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property.</p> <p>MM-CUL9: Construction activities and excavation can and should be conducted to avoid cultural resources (if identified). If avoidance is not feasible, further work may be needed to determine the importance of a resource. Project sponsors shall obtain a qualified archaeologist familiar with the local archaeology, and/or as appropriate, an architectural historian who should make recommendations regarding the work necessary to determine importance. If the cultural resource is determined to be important under state or federal guidelines, impacts on the cultural resource will need to be mitigated.</p> <p>MM-CUL10: Project sponsors can and should stop construction activities and excavation in the area where cultural resources are</p>	<p>Significant and Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	found until a qualified archaeologist can determine the importance of these resources.	
Potential to directly or indirectly destroy unique paleontological resources or sites or unique geological features.	<p>MM-CUL11: As part of the appropriate project/environmental review of individual projects, project sponsors can and should obtain a qualified paleontologist to identify and evaluate paleontological resources where potential impacts are considered high; the paleontologist should also conduct a field survey in these areas.</p> <p>MM-CUL12: Project sponsors can and should ensure that construction activities avoid known paleontological resources, if feasible, especially if the resources in a particular lithic unit formation have been determined through detailed investigation to be unique.</p> <p>MM-CUL13: Project sponsors can and should ensure that when a construction activity could significantly disturb soils or geologic formations in areas identified as having a moderate to high potential to support paleontological resources, a qualified researcher must be stationed on-site to observe during excavation operations and recover scientifically valuable specimens. As part of this mitigation, the following actions should be taken:</p> <ul style="list-style-type: none"> • A certified paleontologist should be retained (or required to be retained) by the project sponsor prior to construction to establish procedures for surveillance and the preconstruction salvage of exposed resources if fossil-bearing sediments have the potential to be impacted. • The paleontologist should provide preconstruction coordination with contractors, oversee original cutting in previously undisturbed areas of sensitive formations, halt or redirect construction activities as appropriate to allow recovery of newly discovered fossil remains, and oversee fossil salvage operations and reporting. • This measure should be placed as a condition on all plans where excavation and earthmoving activity is proposed in a geologic unit having a moderate or high potential for containing fossils. • Excavations of paleontological resources should be overseen by the qualified paleontologist and the paleontological resources given to a local agency, or other applicable institution, where they could be displayed or used for research. <p>MM-CUL14: Where practicable, project sponsors can and should avoid routes and project designs that would permanently alter unique features with archaeological and/or paleontological significance.</p>	Significant and Unavoidable
Construction and implementation of projects from the 2012-2035 RTP/SCS could disturb human remains, including those interred outside of formal cemeteries.	<p>MM-CUL15: As part of project oversight of individual projects, project sponsors can and should, in the event of discovery or recognition of any human remains during construction or excavation activities associated with the project, in any location other than a dedicated cemetery, should cease further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner of the county in which the remains are discovered has been informed and has determined that no investigation of the cause of death is required.</p> <p>MM-CUL16: If any discovered remains are of Native American origin:</p> <ul style="list-style-type: none"> • The coroner shall contact the Native American Heritage Commission in order to ascertain the proper descendants from the deceased individual. The coroner should make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods. This may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains; or 	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	<ul style="list-style-type: none"> • If the Native American Heritage Commission is unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified by the commission, the landowner or their authorized representative can and should obtain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance where the following conditions occur: <ul style="list-style-type: none"> ○ The Native American Heritage Commission is unable to identify a descendent; ○ The descendant identified fails to make a recommendation; or ○ The landowner or their authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner. 	
Potential to contribute to a cumulatively considerable loss of cultural resources.	MM-CUL17: Impacts to cultural resources shall be minimized through cooperation, information sharing, and SCAG's ongoing regional planning efforts such as web-based planning tools for local government including CA Lots, and direct technical assistance efforts such as Compass Blueprint's Toolbox Tuesday series. Resource agencies, such as the Office of Historic Preservation, shall be consulted during this process.	Significant and Unavoidable
GEOLOGY, SOILS, AND MINERAL RESOURCES		
Implementation of the 2012 RTP/SCS could expose people or structures to potential substantial adverse effects including risk of surface rupture, ground shaking, liquefaction, landsliding or other seismically-induced hazards such as tsunami and seiche waves.	<p>MM-GEO1: Project sponsors can and should ensure that projects located within or across Alquist-Priolo Zones comply with design requirements provided in Special Publication 117, published by the California Geological Survey, as well as relevant local, regional, State, and federal design criteria for construction in seismic areas.</p> <p>MM-GEO2: Project sponsors can and should ensure that projects are designed in accordance with county and city code requirements for seismic ground shaking. The design of projects should consider seismicity of the site, soil response at the site, and dynamic characteristics of the structure, in compliance with the appropriate California Building Code and State of California design standards for construction in or near fault zones, as well as all standard design, grading, and construction practices in order to avoid or reduce geologic hazards.</p> <p>MM-GEO3: Project sponsors can and should ensure that site-specific geotechnical investigations conducted by a qualified geotechnical expert should be required prior to preparation of project designs. These investigations would identify areas of potential failure and recommend remedial geotechnical measures to eliminate any problems.</p>	Significant and Unavoidable
Significant earthwork associated with implementation of the 2012-2035 RTP/SCS could result in substantial soil erosion and/or the loss of topsoil in some	<p>MM-GEO4: Project sponsors can and should ensure that site-specific geotechnical investigations conducted by a qualified geotechnical expert are conducted to ascertain soil types and local faulting prior to preparation of project designs. These investigations would identify areas of potential failure and recommend remedial geotechnical measures to eliminate any problems.</p> <p>MM-GEO5: Project sponsors can and should ensure that project designs provide adequate slope drainage and appropriate landscaping to minimize the occurrence of slope instability and erosion. Design features should include measures to reduce erosion caused by stormwater. Road cuts should be designed to maximize the potential for revegetation.</p>	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
cases potentially resulting in slope failure.	MM-GEO6: Project sponsors can and should ensure that, prior to preparing project designs, new and abandoned wells are identified within construction areas to ensure the stability of nearby soils.	
Potential to be located on expansive soils, a geologic unit or soil that is unstable, or that would become unstable as a result of the Plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	<p>MM-GEO7: Project sponsors can and should ensure that projects avoid geologic units or soils that are unstable, expansive soils and soils prone to lateral spreading, subsidence, liquefaction, or collapse wherever feasible.</p> <p>MM-GEO8: Project sponsors can and should ensure that projects avoid landslide areas and potentially unstable slopes wherever feasible.</p> <p>MM-GEO9: Project sponsors can and should ensure that site-specific geotechnical investigations conducted by a qualified geotechnical expert should be required prior to preparation of project designs to identify the potential for subsidence and expansive soils. These investigations would identify areas of potential failure and recommend remedial geotechnical measures to eliminate any problems. Recommended corrective measures, such as structural reinforcement and replacing soil with engineered fill, should be implemented in project designs.</p> <p>MM-GEO10: SCAG shall minimize future impacts to geological resources through cooperation, information sharing, and regional program development as part of SCAG's ongoing regional planning efforts, such as web-based planning tools for local government including CA Lots, and direct technical assistance efforts such as Compass Blueprint's Toolbox Tuesday series. Resource agencies, such as the U.S. Geology Survey, should be consulted during this update process.</p>	Significant and Unavoidable
Potential to result in the loss of availability of known aggregate and mineral resources that would be of value to the region and residents of the State.	<p>MM-GEO11: SCAG shall coordinate with the Department of Conservation, California Geological Survey to maintain a database of 1) available resources in the SCAG region including permitted and un-permitted and 2) the anticipated 50-year demand. Based on the results of this survey SCAG should work with local agencies to develop an appropriate response to the anticipated demand, including identifying future sites that should seek permitting and working with industry experts to identify ways to encourage and increase recycling to reduce the demand for aggregate.</p> <p>MM-GEO12: Local jurisdictions can and should review availability of aggregate and mineral resources in their jurisdiction and should develop a long-range plan to meet demand.</p>	Significant and Unavoidable
Potential to contribute to a cumulatively considerable increase in risk associated with geologic hazards and impacts to mineral resources.	MM-GEO1 through MM-GEO12 would address cumulative impacts.	Significant and Unavoidable.
GREENHOUSE GAS EMISSIONS		
Under the Plan, GHG emissions from	<p>Mitigation measures under Air Quality, Land Use and Transportation would also reduce GHGs.</p> <p>MM-GHG1: SCAG shall update any future Regional Transportation Plans/Sustainable Community Plans and Regional</p>	Significant and

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
<p>residential and commercial building construction and operational energy demand and total mobile source emissions would increase (from 141 million metric tons) when compared to existing conditions (130 million metric tons). Therefore, the Plan would result in a significant impact related to total emissions.</p>	<p>Comprehensive Plans to incorporate policies and measures that lead to reduced greenhouse gas (GHG) emissions. Such policies and measures may be derived from the General Plans, local jurisdictions' Climate Action Plans (CAPs), and other adopted policies and plans of its member agencies that include GHG mitigation and adaptation measures or other sources.</p> <p>MM-GHG2: SCAG shall, through its ongoing outreach and technical assistance programs, work with and encourage local governments to adopt policies and develop practices that lead to GHG emission reductions. These activities will include, but are not limited to, providing technical assistance and information sharing on developing local Climate Action Plans</p> <p>MM-GHG3: SCAG shall work with the business community, including the Southern California Leadership Council and the Global Land Use and Environment Council, to develop regional economic strategies that promote energy savings and GHG emission reduction.</p> <p>MM-GHG4: SCAG shall develop statewide strategies and approaches to reducing GHG emissions and implement SB 375 through its ongoing coordination effort with other MPOs.</p> <p>MM-GHG5: SCAG shall assist ARB and air districts in efforts to implement the AB 32 Scoping Plan.</p> <p>MM-GHG6: SCAG shall develop a regional climate and economic development strategy that assesses the cost effectiveness of GHG reduction measures and prioritizes strategies that have greatest overall benefit to the economy.</p> <p>MM-GHG7: SCAG, in its capacity as a Clean Cities Coalition, shall work with member local governments to promote the use of alternative fuel technology.</p> <p>MM-GHG8: SCAG shall work with utilities, sub-regions, and other stakeholders to promote accelerated penetration of zero emission electric vehicles in the region, including developing a strategy for the deployment of public charging infrastructure.</p> <p>MM-GHG9: SCAG member cities and the county governments can and should adopt and implement Climate Actions Plans (CAPS, also known as Plans for the Reduction of Greenhouse Gas Emissions as described in CEQA Guidelines Section 15183.5 Tiering and Streamlining the Analysis of Greenhouse Gas Emissions) that contain the following information:</p> <ol style="list-style-type: none"> a) Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within their respective jurisdictions; b) Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable; c) Identify and analyze the GHG emissions resulting for specific actions or categories of actions anticipated within their respective jurisdictions; d) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; e) Establish a mechanism to monitor the plan's progress toward achieving that level and to require amendment if the plan is not achieving specified levels; and f) Be adopted in a public process following environmental review. 	<p>Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>CAPs can and should, when appropriate, incorporate planning and land use measures from the California Attorney General's latest list of example policies to address climate change at both the plan and project level. Specifically, at the plan level, land use plans can and should, when appropriate, incorporate planning and land use measures from the California Attorney General's latest list of example policies to address climate change (http://ag.ca.gov/globalwarming/pdf/GP_policies.pdf), including, but not limited to policies from that web page such as:</p> <ul style="list-style-type: none"> • Smart growth, jobs/housing balance, transit-oriented development, and infill development through land use designations, incentives and fees, zoning, and public-private partnerships • Create transit, bicycle, and pedestrian connections through planning, funding, development requirements, incentives and regional cooperation, and create disincentives for auto use • Energy and water-efficient buildings and landscaping through ordinances, development fees, incentives, project timing, prioritization, and other implementing tools <p>In addition, member cities and the county governments can and should incorporate, as appropriate, policies to encourage implementation of the Attorney General's list of project specific mitigation measures available at the following web site: http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf, including, but not limited to measures from the web page such as:</p> <ul style="list-style-type: none"> • Adopt a comprehensive parking policy that discourages private vehicle use and encourages the use of alternative transportation • Build or fund a major transit stop within or near development • Provide public transit incentives such as free or low-cost monthly transit passes to employees, or free ride areas to residents and customers • Incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments • Require amenities for non-motorized transportation, such as secure and convenient bicycle parking. <p>They should also incorporate, when appropriate, planning and land use measures from additional resources listed by the California Attorney General at the following webpage: http://ag.ca.gov/globalwarming/ceqa/resources.php.</p> <p>In addition, CAPs can and should also incorporate analysis of climate change adaptation, in recognition of the likely and potential effects of climate change in the future regardless of the level of mitigation and in conjunction with Executive Order S-13-08, which seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of State's first climate adaptation strategy.</p> <p>MM-GHG10: Project sponsors can and should require Best Available Control Technology (BACT) during construction and operation of projects, including:</p> <ol style="list-style-type: none"> a) Solicit bids that include use of energy and fuel efficient fleets; b) Solicit preference construction bids that use BACT; c) Employ use of alternative fueled vehicles; d) Use lighting systems that are energy efficient, such as LED technology; e) Use CEQA Guidelines Appendix F, Energy Conservation, to create an energy conservation plan; f) Streamline permitting process to infill, redevelopment, and energy-efficient projects; g) Use an adopted emissions calculator to estimate construction-related emissions; 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>h) Use the minimum feasible amount of GHG-emitting construction materials that is feasible; i) Use of cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production; j) Use of lighter-colored pavement where feasible; k) Recycle construction debris to maximum extent feasible; and l) Plant shade trees in or near construction projects where feasible.</p> <p>MM-GHG11: SCAG shall in its capacity as a Clean Cities Coalition, and local jurisdictions can and should establish a coordinated, creative public outreach campaign, including publicizing the importance of reducing GHG emissions and steps community members can take to reduce their individual impacts.</p> <p>MM-GHG12: Pedestrian and Bicycle Promotion: SCAG shall and local jurisdictions can and should work with local community groups and downtown business associations to organize and publicize walking tours and bicycle events, and to encourage pedestrian and bicycle modes of transportation.</p> <p>MM-GHG13: Waste Reduction: Local jurisdictions can and should organize workshops on waste reduction activities for the home or business, such as backyard composting, or office paper recycling, and will schedule recycling drop-off events and neighborhood chipping/mulching days.</p> <p>MM-GHG14: Water Conservation: SCAG shall and local jurisdictions can and should organize workshops on water conservation activities, such as selecting and planting drought tolerant, native plants in landscaping, and installing advanced irrigation systems.</p> <p>MM-GHG15: Energy Efficiency: SCAG shall and local jurisdictions can and should organize workshops on steps to increase energy efficiency in the home or business, such as weatherizing the home or building envelope, installing smart lighting systems, and how to conduct a self-audit for energy use and efficiency.</p> <p>MM-GHG11: Climate Protection Summit/Fair: SCAG shall and local jurisdictions can and should organize an annual Climate Protection Summit or Fair, to educate the public on current climate science, projected local impacts, and local efforts and opportunities to reduce GHG emissions, including exhibits of the latest technology and products for conservation and efficiency.</p> <p>MM-GHG12: Schools Programs: SCAG shall and local jurisdictions can and should develop and implement a program to present information to school children about climate change and ways to reduce GHG emissions, and will support school-based programs for GHG reduction, such as school based trip reduction and the importance of recycling.</p>	
<p>Regarding the AB 32 GHG emission reduction targets (based on mobile sources and residential and commercial building energy use) the Plan</p>	<p>See Mitigation Measures MM-GHG1 through MM-GHG12.</p>	<p>Significant and Unavoidable</p>

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Impact	Mitigation Measures	Significance After Mitigation
<p>would meet the applicable AB 32 reduction targets (identified in SB 375) with respect to light duty vehicles. However, without technical details as to how each sector of the economy will comply with AB 32, growth anticipated to occur under the Plan could result in a significant impact related to AB 32 and the Scoping Plan.</p>		
<p>Per capita CO2 emissions from light duty trucks and autos would meet the ARB 8 percent less than 2005 in 2020 target and would achieve even greater emission reductions in 2035 as compared to the 13 percent less than 2035 target (the region would achieve 16 percent per capita emission reductions in 2035). Therefore, the Plan would result in a less-than-significant impact related to per capita emissions and SB 375.</p>	<p>No mitigation measures were necessary as the project impact would be less than significant.</p>	<p>Less Than Significant</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
HAZARDOUS MATERIALS		
Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	<p>MM-HM1: SCAG shall encourage the United States Department of Transportation (USDOT), the Office of Emergency Services, and California Department of Transportation (Caltrans) and the private sector to continue to conduct driver safety training programs.</p> <p>MM-HM2: SCAG shall encourage the USDOT and the California Highway Patrol to continue to enforce speed limits and existing regulations governing goods movement and hazardous materials transportation.</p> <p>MM-HM3: Project sponsors can and should comply with all applicable laws, regulations, and health and safety standards set forth by federal, state, and local authorities that regulate the proper handling of such materials and their containers to the routine transport, use, and disposal of hazardous materials does not create a significant hazard to the public or the environment.</p>	Significant and Unavoidable
Potential to create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during transportation.	MM-HM3 above would address this impact.	Significant and Unavoidable
Potential to create a hazard to the public or the environment by emitting hazardous materials within one-quarter mile of a school.	MM-HM4: Project sponsors can and should consider any known or planned school locations when determining the alignment of new transportation projects and modifications to existing transportation facilities as well as any industrial or other use that could pose a hazard to students.	Significant and Unavoidable
Potential to create a hazard to the public or the environment through the disturbance of contaminated property during the construction of new	<p>MM-HM1 through MMHM4 above would also address this impact.</p> <p>MM-HM5: Project sponsors can and should ensure that Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These should include the following:</p> <ul style="list-style-type: none"> • Follow manufacturer’s recommendations on use, storage, and disposal of chemical products used in construction; • Avoid overtopping construction equipment fuel gas tanks; • During routine maintenance of construction equipment, properly contain and remove grease and oils; • Properly dispose of discarded containers of fuels and other chemicals; 	Less Than Significant

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
<p>transportation or expansion of existing transportation facilities and the disturbance of contaminated sites as a result of population, housing and employment growth in the region.</p>	<ul style="list-style-type: none"> • Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples should be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building; and • If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the project sponsor should cease work in the vicinity of the suspect material, the area should be secured as necessary, and the project sponsor should take all appropriate measures to protect human health and the environment. Appropriate measures should include notification of regulatory agency(ies) and implementation of actions as necessary, to identify the nature and extent of contamination. Work should not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate. <p>MM-HM6: As appropriate, project sponsors can and should submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis should be submitted to the appropriate government agency for review and approval, along with a Phase II report if warranted by the Phase I report for the project site. The reports should make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. The project sponsor should implement the approved recommendations.</p> <p>MM-HM7: As appropriate each project sponsor can and should submit a Hazardous Materials Business/Operations Plan for review and approval by the appropriate local agency. Once approved this plan should be kept on file with the Lead Agency (or other appropriate government agency) and will be updated as applicable. The purpose of the Hazardous Materials Business/Operations Plan is to ensure that employees are adequately trained to handle the materials and provides information to the local fire protection agency should emergency response be required. The Hazardous Materials Business/Operations Plan should include the following:</p> <ul style="list-style-type: none"> • The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids • The location of such hazardous materials • An emergency response plan including employee training information • A plan that describes the manner in which these materials are handled, transported and disposed <p>MM-HM8: Project sponsors can and should implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards.</p> <ul style="list-style-type: none"> • Soil generated by construction activities should be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal should be in accordance with applicable local, State and federal agencies laws. • Groundwater pumped from the subsurface should be contained onsite in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls should be utilized, which include impermeable barriers to prohibit groundwater and 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>vapor intrusion into the building.</p> <ul style="list-style-type: none"> • Prior to issuance of any demolition, grading, or building permit, the sponsor should submit for review and approval by the Lead Agency (or other appropriate government agency), written verification that the appropriate federal, State and/or local oversight authorities, including, but not limited to the Regional Water Quality Control Board (RWQCB), have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site. <p>MM-HM9: Project sponsors can and should consult all known databases of contaminated sites and undertake a standard Phase I Environmental Site Assessment in the process of planning, environmental clearance, and construction for projects included in the 2012-2035 RTP/SCS, including development projects.</p> <p>MM-HM10: Where contaminated sites are identified, project sponsors can and should develop appropriate mitigation measures to assure that worker and public exposure is minimized to an acceptable level and to prevent any further environmental contamination as a result of construction.</p> <p>MM-HM11: If asbestos-containing materials (ACM) are found to be present in building materials to be removed project sponsors can and should submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code Section 25915-25919.7; and other local regulations as applicable.</p> <p>MM-HM12: Prior to issuance of demolition, grading, or building permits, project sponsors can and should submit to the appropriate agency responsible for hazardous materials/wastes oversight, a Phase II Environmental Site Assessment report if warranted by a Phase I report for the project site. The reports should make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.</p> <p>MM-HM13: Project sponsors can and should submit a comprehensive assessment report to the appropriate agency, signed by a qualified environmental professional, documenting the presence or lack thereof of ACM, lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.</p> <p>MM-HM14: If a Phase II Environmental Site Assessment report recommends remedial action, the project sponsor can and should:</p> <ul style="list-style-type: none"> • Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps; • Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency; and • Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans. 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-HM15: If lead-based paint is present, project sponsors can and should submit specifications to the appropriate agency, signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: California Occupational Safety and Health Administration's (Cal OSHA's) Construction Lead Standard, Title 8 California Code of Regulations (CCR) Section 1532.1 and Department of Health Services (DHS) Regulation 17 CCR Sections 35001-36100, as may be amended. If other materials classified as hazardous waste by State or federal law are present, the project sponsor should submit written confirmation to the appropriate local agency that all State and federal laws and regulations should be followed when profiling, handling, treating, transporting and/or disposing of such materials.</p> <p>MM-HM16: If materials classified as hazardous waste by State or federal law are present, project sponsors can and should submit written confirmation to appropriate local agency that all State and federal laws and regulations should be followed when profiling, handling, treating, transporting and/or disposing of such materials</p>	
Potential to contribute a cumulatively significant increase in risk associated with hazardous materials transport outside of the SCAG region.	MM-HM1 through MM-HM4 would address this impact.	Significant and Unavoidable
LAND USE AND AGRICULTURE RESOURCES		
Potential to result in inconsistencies with currently applicable adopted local land use plans and policies.	<p>MM-LU1: SCAG shall encourage cities and counties in the region to provide SCAG with electronic versions of their most recent general plan (and associated environmental document) and any updates as they are produced.</p> <p>MM-LU2: SCAG shall encourage, through regional policy comments, that cities and counties update their general plans at least every ten years, as recommended by the Governor's Office of Planning and Research.</p> <p>MM-LU3: SCAG shall work with its member cities and counties to ensure that transportation projects and growth are consistent with the RTP and general plans.</p> <p>MM-LU4: SCAG shall coordinate with member cities and counties to encourage that general plans reflect RTP/SCS policies and strategies. SCAG will work to build consensus on how to address inconsistencies between general plans and RTP/SCS policies.</p> <p>MM-LU5: SCAG shall provide technical assistance and regional leadership to implement the RTP/SCS goals and strategies and integrate growth and land use planning with the existing and planned transportation network.</p> <p>MM-LU6: SCAG shall provide planning services to local jurisdictions through Compass Blueprint Demonstration Projects. These projects will help local jurisdictions:</p> <ul style="list-style-type: none"> • Update General Plans to reflect Compass Blueprint principles and integrate land use and transportation planning. • Develop specific plans, zoning overlays and other planning tools to enable and stimulate desired land use changes that are consistent with the future land development pattern in the 2012-2035 RTP/SCS 	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<ul style="list-style-type: none"> • Complete the economic analysis and community involvement efforts that will ensure that the planned changes are market feasible and responsible to stakeholder concerns. • Visualize potential changes, through innovative graphics and mapping technology to inform the dialogue about growth, development and transportation at the local and regional level. <p>MM-LU7: SCAG shall continue with a targeted public relations strategy that emphasizes regional leadership, the benefits and implications of Compass Blueprint principles and sustainable growth, and builds a sense of common interests among Southern Californians.</p> <p>MM-LU8: SCAG shall use its Intergovernmental Review Process to provide review and comment on large development projects regarding their consistency with the RTP and other regional planning efforts.</p> <p>MM-LU9: SCAG shall develop and implement coordinated mitigation programs for regional projects, with an emphasis on regional transportation projects.</p> <p>MM-LU10: Local jurisdictions can and should provide for new housing consistent with the regional Housing Needs Assessment (RHNA) to accommodate their share of the forecasted regional growth.</p>	
<p>Potential to disrupt or divide established communities.</p>	<p>MM-LU11: Significant adverse impacts to community cohesion resulting from the displacement of residences or businesses can and should be mitigated with specific relocation measures as dictated by local, state or federal requirements on a project-by project basis. Such measures include assistance in finding a new location, assistance with moving, or compensation for losses. Where it has been determined that displacement is necessary and displaced individuals are eligible, a relocation assistance program consistent with the State Uniform Location Assistance and Real Properties Acquisition Policies Act provides compensation and assistance in finding new residence for displaced individuals.</p> <p>MM-LU12: Project sponsors can and should design new transportation facilities that consider access to existing community facilities. During the design phase of the project, community amenities and facilities can and should be identified and considered in the design of the project.</p> <p>MM-LU13: Project sponsors can and should design roadway improvements that minimize barriers to pedestrians and bicyclists. During the design phase, pedestrian and bicycle routes should be determined that permit connections to nearby community facilities.</p>	<p>Significant and Unavoidable</p>
<p>Potential to result in substantial disturbance and/or loss of forestlands, prime farmlands and/or grazing lands, throughout the six-county SCAG region.</p>	<p>MM-LU14: For projects that require approval or funding by the USDOT, project sponsors can and should comply with Section 4(f) U.S. Department of Transportation Act of 1966 (USDOT Act).</p> <p>MM-LU15: Project sponsors can and should ensure that at least one acre of unprotected open space is permanently conserved for each acre of open space developed as a result of transportation projects/improvements.</p> <p>MM-LU16: Local jurisdictions can and should seek funding to prepare specific plans and related environmental documents to facilitate mixed-use development at selected sites, and to allow these areas to serve as receiver sites for transfer of development rights away from environmentally sensitive lands and rural areas outside established urban growth boundaries.</p> <p>MM-LU17: Local jurisdictions can and should preserve and create open space and parks. Preserve existing trees, and plant</p>	<p>Significant and Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>replacement trees at a set ratio.</p> <p>MM-LU18: Project sponsors can and should consider corridor realignment, buffer zones and setbacks, and berms and fencing where feasible, to avoid agricultural lands and to reduce conflicts between transportation uses and agricultural lands.</p> <p>MM-LU19: Prior to final approval of each project and when feasible and prudent, the project sponsor can and should establish conservation easement programs to mitigate impacts to prime farmland.</p> <p>MM-LU20: Prior to final approval of each project, the project sponsor can and should to the extent practical and feasible, avoid impacts to prime farmlands or farmlands that support crops considered valuable to the local or regional economy.</p> <p>MM-LU21: SCAG shall use its intergovernmental review (IGR) process to review projects with potentially significant impacts to important farmlands and recommend impact avoidance and mitigation measures.</p> <p>MM-LU22: SCAG shall work with member agencies and the region's farmland interests to develop regional guidelines for buffering farmland from urban encroachment, resolving conflicts that prevent farming on hillsides and other designated areas, and closing loopholes that allow conversion of non-farm uses without a grading permit.</p> <p>MM-LU23: Local jurisdictions can and should establish programs to direct growth to less agriculturally valuable lands and ensure, where possible, the continued protection of the most agriculturally valuable land within each county. The following are offered as examples of programs:</p> <ul style="list-style-type: none"> • The development or participation in transfer of development rights programs to encourage the preservation of agricultural lands. • Tools for the preservation of agricultural lands such as eliminating estates and ranchettes and clustering to retain productive agricultural land. • Easing restrictions on farmer's markets and encourage cooperative farming initiatives to increase the availability of locally grown food. • Considering partnering with school districts to develop farm-to-school programs. <p>MM-LU24: Local jurisdictions can and should avoid the premature conversion of farmlands by promoting infill development and the continuation of agricultural uses until urban development is imminent; if development of agricultural lands is necessary, growth can and should be directed to those lands on which the continued viability of agricultural production has been compromised by surrounding urban development on the loss of local markets.</p> <p>MM-LU25: Local jurisdictions can and should encourage patterns of urban development and land use, which reduce costs on infrastructure and make better use of existing facilities. Strategies local jurisdictions can and should pursue include:</p> <ul style="list-style-type: none"> • Increase the accessibility to natural areas lands for outdoor recreation. • Promote infill development and redevelopment to revitalize existing communities • Utilize "green" development techniques • Promote water-efficient land use and development. <p>MM-LU26: Project sponsors and local jurisdictions can and should promote infill development and redevelopment to encourage the efficient use of land and minimize the development of agricultural and open space lands.</p> <p>MM-LU27: Local jurisdictions can and should consider the following land use principles that use resources efficiently, and to the</p>	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>extent practical and feasible minimize pollution and reduce waste generation:</p> <ul style="list-style-type: none"> • Mixed-use residential and commercial development that is connected with public transportation and utilizes existing infrastructure. • Land use and planning strategies to increase biking and walking trips. <p>MM-LU28: Individual projects must be consistent with federal, state, and local policies that preserve agricultural lands and support the economic viability of agricultural activities, as well as policies that provide compensation for property owners if preservation is not feasible.</p> <p>MM-LU29: For projects in agricultural areas, project sponsors can and should contact the California Department of Conservation and each county's Agricultural Commissioner's office to identify the location of prime farmlands and lands that support crops considered valuable to the local or regional economy. Impacts to such lands can and should be evaluated in project-specific environmental documents. The analysis can and should use the land evaluation and site assessment (LESA) analysis method (CEQA Guidelines §21095), as appropriate. The project sponsors or local jurisdictions can and should be responsible for ensuring adherence to the mitigation measures prior to construction. Mitigation measures may include conservation easements or the payment of in-lieu fees.</p> <p>MM-LU30: For those projects that require federal funding, the federal agency evaluates the effects of the action to agricultural resources using the criteria set forth in the Farmland Protection Policy Act (FPPA). The FPPA is administered by the NRCS, which determines impacts to farmland that could occur due to the proposed project. The determination is made through coordination between the federal agency proposing or supporting the project and NRCS. The assessment of potential impacts to farmland from corridor type projects, which is typical of transportation projects analyzed in this PEIR, will require completion of Form NRCS-CPA-106, Farmland Conservation Impact Rating for Corridor Type Projects. NRCS will make a determination, using set thresholds, as to whether additional project specific mitigation would be required.</p> <p>MM-LU31: Prior to final approval of each project, the project sponsor can and should encourage enrollments of agricultural lands for counties that have Williamson Act programs, where applicable.</p> <p>MM-LU32: SCAG shall support policies that preserve and promote the productivity and viability of agricultural lands, including promoting the availability of locally grown and organic food in the region.</p> <p>MM-LU33: Project sponsors and local jurisdictions can and should submit for IGR review projects with potentially significant impacts to important farmlands. Projects can and should include mitigation measures to reduce impacts and demonstrate project alternatives that avoid or lessen impact to agricultural lands. Mitigation can and should occur at a 1:1 ratio.</p> <p>MM-LU34: Preserve forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas and other open space that provide carbon sequestration benefits.</p> <p>MM-LU35: Require best management practices in agriculture and animal operations to reduce emissions, conserve energy and water, and utilize alternative energy sources, including biogas, wind and solar.</p>	
Potential to influence the pattern of	MM-LU36: Local jurisdictions can and should encourage patterns of urban development and land use, which reduce costs on	Significant and

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
<p>urbanization in the region such that land use incompatibilities could occur.</p>	<p>infrastructure and make better use of existing facilities.</p> <p>MM-LU37: SCAG's Compass Blueprint program and other ongoing regional planning efforts will be used to build a consensus in the region to support changes in land use to accommodate future population growth while maintaining the quality of life in the region.</p> <p>MM-LU38: Local jurisdictions can and should adopt and implement General Plan Housing Elements that accommodate the housing need identified through the RHNA process. Affordable housing can and should be provided consistent with the RHNA income category distribution adopted for each jurisdiction.</p> <p>MM-LU39: Local jurisdictions can and should consider shared regional priorities, as outlined in the Compass Blueprint, 2012-2035 RTP/SCS and other ongoing regional planning efforts, in determining their own development goals and drafting local plans.</p> <p>MM-LU40: Local jurisdictions and subregional organizations can and should encourage the cleanup and redevelopment of brownfield sites.</p> <p>MM-LU41: Local jurisdictions or agencies can and should adopt and implement a development pattern that utilizes existing infrastructure; reduces the need for new roads, utilities and other public works in new growth areas; and enhances non-automobile transportation.</p> <p>MM-LU42: Local jurisdictions or agencies can and should establish an urban growth boundary (UGB) with related ordinances or programs to limit suburban sprawl; local jurisdictions or agencies can and should restrict urban development beyond the UGB and streamline entitlement processes within the UGB for consistent projects.</p> <p>MM-LU43: Urban development can and should occur only where urban public facilities and services exist or can be reasonably made available.</p> <p>MM-LU44: The improvement and expansion of one urban public facility or service can and should not stimulate development that significantly precedes the local jurisdiction's ability to provide all other necessary urban public facilities and services at adequate levels.</p> <p>MM-LU45: Local jurisdictions can and should redirect new growth into existing city/urban reserve areas.</p> <p>MM-LU46: Local jurisdictions can and should maintain a one dwelling unit per 10-acre minimum lot size or lower density in areas outside designated urban service lines.</p> <p>MM-LU47: Local jurisdictions can and should encourage high-density, mixed-use, infill development and creative reuse of brownfield, under-utilized and/or defunct properties within the urban core.</p> <p>MM-LU48: Local jurisdictions can and should increase densities in urban core areas to support public transit.</p> <p>MM-LU49: Local jurisdictions can and should remove barriers to the development of accessory dwelling units in existing residential neighborhoods as appropriate</p> <p>MM-LU50: Local jurisdictions can and should reduce required road width standards wherever feasible to calm traffic and encourage alternative modes of transportation.</p>	<p>Unavoidable</p>

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Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-LU51: Local jurisdictions can and should reduce parking space requirements, unbundle parking from rents and charge for parking in new developments.</p> <p>MM-LU52: Local jurisdictions can and should add bicycle facilities to streets and public spaces.</p> <p>MM-LU53: SCAG shall promote infill, mixed-use, and higher density development, and provide incentives to support the creation of affordable housing in mixed use zones.</p> <p>MM-LU54: Local jurisdictions can and should plan for and create incentives for mixed-use development.</p> <p>MM-LU55: Local jurisdictions can and should identify sites suitable for mixed-use development and establish appropriate site-specific standards to accommodate the mixed uses. Site-specific standards could include:</p> <ul style="list-style-type: none"> • Increasing allowable building height or allowing height limit bonuses; • Allowing flexibility in applying development standards (such as FAR2 and lot coverage) based on the location, type, and size of the units, and the design of the development; • Allowing the residential component to be additive rather than within the established FAR for that zone, and eliminating maximum density requirements for residential uses in mixed use zones; • Allowing reduced and shared parking based on the use mix, and establishing parking maximums where sites are located within 0.25 miles of a public transit stop; • Allowing for tandem parking, shared parking and off-site parking leases; • Requiring all property owners in mixed-use areas to unbundle parking from commercial and residential leases; • Creating parking benefit districts, which invest meter revenues in pedestrian infrastructure and other public amenities; • Establishing performance pricing of street parking, so that it is expensive enough to promote frequent turnover and keep 15 percent of spaces empty at all times. <p>MM-LU56: Local jurisdictions can and should enable prototype mixed-use structures for use in neighborhood center zones that can be adapted to new uses over time with minimal internal remodeling.</p> <p>MM-LU57: Local jurisdictions can and should identify and facilitate the inclusion of complementary land uses not already present in local zoning districts, such as supermarkets, parks and recreational fields, schools in neighborhoods, and residential uses in business districts, to reduce the vehicle miles traveled and promote bicycling and walking to these uses.</p> <p>MM-LU58: Local jurisdictions can and should work with employers developing larger projects to ensure local housing opportunities for their employees, and engage employers to find ways to provide housing assistance as part of their employee benefits packages; major projects in mixed-use areas can and should include work-force housing where feasible.</p> <p>MM-LU59: Local jurisdictions can and should revise zoning ordinance(s) to allow local-serving businesses, such as childcare centers, restaurants, banks, family medical offices, drug stores, and other similar services near employment centers to minimize midday vehicle use.</p> <p>MM-LU60: Local jurisdictions can and should develop form-based community design standards to be applied to development projects and land use plans, using a comprehensive community outreach, for areas designated mixed-use.</p> <p>MM-LU61: Local jurisdictions can and should mix affordable housing units with market rate units as opposed to building</p>	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>segregated affordable housing developments.</p> <p>MM-LU62: Where practical and feasible, local jurisdictions can and should develop programs that enable the reuse of underutilized commercial, office and/or industrial properties for housing or mixed-use housing.</p> <p>MM-LU63: Local jurisdictions can and should ensure consistency with “smart growth” principles – mixed-use, infill, and higher density projects that provide alternatives to individual vehicle travel and promote the efficient delivery of services and goods.</p> <p>MM-LU64: Local jurisdictions can and should meet recognized “smart growth” benchmarks.</p> <p>MM-LU65: SCAG shall educate the public about the many benefits of well-designed, higher density development.</p> <p>MM-LU66: Project sponsors can and should incorporate public transit into the project’s design.</p> <p>MM-LU67: Project sponsors can and should include pedestrian and bicycle facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.</p> <p>MM-LU68: Local jurisdictions can and should encourage residential development in High Quality Transit Areas (HQTAs). Such development can and should include a generally a walkable transit village that has a minimum density of 20 dwelling units per acre and is within a ½ mile of a well-serviced transit stop, and includes transit corridors with minimum 15-minute or less service frequency during peak commute hours.</p> <p>MM-LU69: Local jurisdictions can and should promote greater linkage between land uses and transit, as well as other modes of transportation.</p> <p>MM-LU70: Local jurisdictions can and should ensure new development is designed to make public transit a viable choice for residents, including:</p> <ul style="list-style-type: none"> • Locating medium-high density development near activity centers that can be served efficiently by public transit and alternative transportation modes; • Locating medium-high density development near streets served by public transit whenever feasible; • Linking neighborhoods to bus stops by continuous sidewalks or pedestrian paths. <p>MM-LU71: Local jurisdictions can and should establish city-centered corridors, directing development to existing transportation corridors.</p> <p>MM-LU72: Local jurisdictions can and should develop form-based community design standards to be applied to development projects and land use plans, using a comprehensive community outreach program, for areas designated mixed-use</p> <p>MM-LU73: Local jurisdictions can and should locate affordable housing in transit-oriented development whenever feasible</p> <p>MM-LU74: Local jurisdictions can and should consider jobs/housing balance, to the extent practical and feasible, and encourage the development of communities where people live closer to work, bike, walk, and take transit as a substitute for personal auto travel.</p> <p>MM-LU75: SCAG and local jurisdictions shall minimize public expenditure for infrastructure and facilities to support urban type land uses in areas where public health and safety could not be guaranteed.</p>	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-LU76: Project sponsors can and should consider community cohesion in designing projects through communities. Transit facilities should be designed to integrate with the community and encourage walking and bicycling as well as park and ride. New or widened roadways (and freeways) should be designed to minimize impacts to the extent feasible through landscaping, pedestrian furniture as appropriate. New roadways or freeways should consider feasible innovative designs such as cap parks that maintain community cohesion.</p> <p>MM-LU77: Local jurisdictions can and should promote development and preservation of neighborhood characteristics that encourage walking and bicycle riding in lieu of automobile-based travel.</p> <p>MM-LU78: Local jurisdictions can and should create and preserve distinct, identifiable neighborhoods whose characteristics support pedestrian travel, especially within, but not limited to, mixed-use and transit-oriented development areas, including:</p> <ul style="list-style-type: none"> • Designing or maintaining neighborhoods where the neighborhood center can be reached in approximately five minutes of walking; • Increasing housing densities from the perimeter to the center of the neighborhood; • Directing retail, commercial, and office space to the center of the neighborhood; • Encouraging pedestrian-only streets and/or plazas within developments, and destinations that may be reached conveniently by public transportation, walking, or bicycling; • Allowing flexible parking strategies in neighborhood activity centers to foster a pedestrian-oriented streetscape; • Providing continuous sidewalks with shade trees and landscape strips to separate pedestrians from traffic; • Encouraging neighborhood parks and recreational centers near concentrations of residential areas (preferably within one quarter mile) and include pedestrian walkways and bicycle paths that encourage non-motorized travel. <p>MM-LU79: Local jurisdictions can and should ensure pedestrian access to activities and services, especially within, but not limited to, mixed-use and transit-oriented development areas, including:</p> <ul style="list-style-type: none"> • Ensuring new development that provides pedestrian connections in as many locations as possible to adjacent development, arterial streets, thoroughfares; • Ensuring a balanced mix of housing, workplaces, shopping, recreational opportunities, and institutional uses, including mixed-use structures; • Locating schools in neighborhoods, within safe and easy walking distances of residences served; • For new development, primary entrances shall be pedestrian entrances, with automobile entrances and parking located to the rear; • Support development where automobile access to buildings does not impede pedestrian access, by consolidating driveways between buildings or developing alley access; • Street parking provided shall be utilized as a buffer between sidewalk pedestrian traffic and the automobile portion of the roadway; • Establish pedestrian and bicycle connectivity standards for new development, with block sizes between 1 and 2 acres; • For existing areas that do not meet established connectivity standards, prioritize the physical development of pedestrian connectors; 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	<ul style="list-style-type: none"> Prioritizing grade-separated bicycle / pedestrian crossings where appropriate to enhance connectivity or overcome barriers such as freeways, railways and waterways. <p>MM-LU80: Local jurisdictions can and should review fee structures and other opportunities to provide financial and administrative incentives to support desired land uses, development patterns, and alternative modes of transportation.</p> <p>MM-LU81: Local jurisdictions can and should promote desired land uses by scaling developer fees based on desired criteria, for example:</p> <ul style="list-style-type: none"> Increasing or reducing fees proportionally with distance from the city center or preferred transit sites; Increasing or reducing fees based on the degree to which mixed uses are incorporated into the project; Reducing fees for creative re-use of brownfield sites; Increasing fees for the use of greenfield sites. <p>MM-LU82: Local jurisdictions can and should provide fast-track permitting and reductions in processing fees for desired projects. Local jurisdictions can and should research and implement a program of incentives for development projects that are fully consistent with the 2012-2035 RTP/SCS.</p> <p>MM-LU83: Local jurisdictions can and should provide incentive funding and/or infrastructure loans to support desired projects.</p> <p>MM-LU84: Local jurisdictions can and should give preference for infrastructure improvements that support or enhance desired land uses and projects.</p> <p>MM-LU85: Local jurisdictions can and should reduce heat gain from pavement and other hardscaping, including:</p> <ul style="list-style-type: none"> Reduce street rights-of-way and pavement widths to pre-World War II widths (typically 22 to 34 feet for local streets, and 30 to 35 feet for collector streets, curb to curb), unless landscape medians or parkway strips are allowed in the center of roadways; Reinstate the use of parkway strips to allow shading of streets by trees; Include shade trees on south- and west-facing sides of structures; Include low-water landscaping in place of hardscaping around transportation infrastructure and in parking areas; Install cool roofs, green roofs, and use cool paving for pathways, parking, and other roadway surfaces; Establish standards that provide for pervious pavement options; Remove obstacles to xeriscaping, edible landscaping and low-water landscaping. 	
Potential to change patterns of growth beyond the SCAG region.	See Mitigation Measures MM-LU1 through MM-LU87 .	Significant and Unavoidable
NOISE		
Grading and construction activities associated with the proposed freeway,	MM-NO1: To reduce noise impacts due to construction, project sponsors can and should require construction contractors to implement a site-specific noise reduction program, subject to the Lead Agency (or other appropriate government agency) review and approval, which includes the following measures:	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
<p>arterial, transit, and rail projects, identified in the 2012-2035 RTP/SCS, as well as development projects anticipated by the Plan would intermittently and temporarily generate noise and vibration levels above ambient background levels. Noise and vibration levels in the immediate vicinity of the construction sites would increase substantially sometimes for extended duration. Therefore, without mitigation, the Plan would result in a significant impact related to construction noise and vibration.</p>	<ul style="list-style-type: none"> • Equipment and trucks used for project construction can and should utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible). • Except as may be exempted by the Lead Agency (or other appropriate government agency), impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction can and should be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust should be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves should be used, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures should be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures. • Stationary noise sources can and should be located as far from adjacent sensitive receptors as possible and they should be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the Lead Agency (or other appropriate government agency) to provide equivalent noise reduction. <p>MM-NO2: Prior to the issuance of a building permit, along with the submission of construction documents, each project sponsor can and should submit to the Lead Agency (or other government agency as appropriate) a list of measures to respond to and track complaints pertaining to construction noise. These measures should include:</p> <ul style="list-style-type: none"> • A procedure and phone numbers for notifying the Lead Agency staff and local Police Department; (during regular construction hours and off-hours); • A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign should also include a listing of both the Lead Agency and construction contractor's telephone numbers (during regular construction hours and off-hours); • The designation of an on-site construction complaint and enforcement manager for the project; • Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and • A preconstruction meeting can and should be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed. <p>MM-NO3: Project sponsor can and should implement use of portable barriers in the vicinity of sensitive receptors during construction including construction of subsurface barriers, debris basins, and storm water drainage facilities.</p> <p>MM-NO4: For projects that require pile driving or other construction noise above 90 dBA in proximity to sensitive receptors, to further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90dBA, a set of site-specific noise attenuation measures can and should be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures should be submitted for review and approval by the Lead Agency (or other appropriate government agency) to ensure that maximum feasible noise attenuation will be achieved. This plan should be based on the final design of the project. A third-party peer review, paid for by the project sponsor, may be required to assist the Lead Agency in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project sponsor. The criterion for approving the plan should be a determination that maximum feasible noise attenuation will be achieved. The noise reduction plan can and should</p>	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>include, but not be limited to, an evaluation of implementing the following measures. These attenuation measures can and should include as many of the following control strategies as applicable to the site and construction activity:</p> <ul style="list-style-type: none"> • Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; • Implement “quiet” pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; • Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; • Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and • Monitor the effectiveness of noise attenuation measures by taking noise measurements. <p>MM-NO5: Noise generated from any rock-crushing or screening operations performed within 3,000 feet of any occupied residence can and should be mitigated by the project sponsor by strategic placement of material stockpiles between the operation and the affected dwelling or by other means approved by the local jurisdiction.</p> <p>MM-NO6: Where feasible, pile holes can and should be pre-drilled to reduce potential noise and vibration impacts.</p> <p>MM-NO7: As necessary, each project sponsor can and should retain a structural engineer or other appropriate professional to determine threshold levels of vibration and cracking that could damage any adjacent historic or other structure subject to damage, and design means and construction methods to not exceed the thresholds.</p>	
<p>Noise-sensitive land uses could be exposed to operational noise in excess of normally acceptable noise levels and/or could experience substantial increases in noise as a result of; a) the operation of expanded or new transportation facilities (i.e., new or increased traffic resulting from new highways, addition of highway lanes, roadways, ramps,</p>	<p>MM-NO8: Project sponsors can and should comply with all local sound control and noise level rules, regulations, and ordinances.</p> <p>MM-NO9: As part of the appropriate environmental review of each project, a project specific noise evaluation can and should be conducted and appropriate mitigation identified and implemented.</p> <p>MM-NO10: Project sponsors can and should employ, where their jurisdictional authority permits, land use planning measures, such as zoning, restrictions on development, site design, and use of buffers to ensure that future development is compatible with adjacent transportation facilities.</p> <p>MM-NO11: As a last resort, project sponsors can and should eliminate noise-sensitive receptors by acquiring freeway and rail rights-of-way. This would ensure the effective operation of all transportation modes.</p> <p>MM-NO12: Project sponsors can and should, to the extent feasible and practicable, maximize the distance between noise-sensitive land uses and new roadway lanes, roadways, rail lines, transit centers, park-and-ride lots, and other new noise-generating facilities.</p> <p>MM-NO13: Project sponsors can and should construct sound reducing barriers between noise sources and noise-sensitive land uses. Sound barriers can be in the form of earth-berms or soundwalls. Constructing roadways so as appropriate and feasible that they are depressed below-grade of the existing sensitive land uses also creates an effective barrier</p>	<p>Significant and Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
goods movement facilities, grade separations and new transit facilities, etc.); and/or b) increased vehicle activity (autos, trucks, buses, planes, trains, etc.) from increased activity associated with development resulting in increased ambient noise next to transportation facilities. Without mitigation, the Plan would result in a significant impact related to land use compatibility.	<p>between the roadway and sensitive receptors.</p> <p>MM-NO14: Project sponsors can and should, to the extent feasible and practicable, improve the acoustical insulation of dwelling units where setbacks and sound barriers do not sufficiently reduce noise.</p> <p>MM-NO15: The project sponsors can and should implement, to the extent feasible and practicable, speed limits and limits on hours of operation of rail and transit systems, where such limits may reduce noise impacts.</p> <p>MM-NO16: To reduce noise impacts, maximize distance of new route alignments from sensitive receptors. For example, if a transit project were constructed along the center of a freeway (as opposed to a new route or along the side of the freeway), operational noise impacts would be reduced by the increase in distance to the noise sensitive sites and the masking effects of the freeway traffic noise.</p> <p>MM-NO17: Transit-related passenger stations, central maintenance facilities, decentralized maintenance facilities, and electric substations can and should be located away from sensitive receptors to the maximum extent feasible.</p>	
Vibration-sensitive land uses could be exposed to vibration in excess of normally acceptable levels and/or could experience substantial increases in vibration as a result of the operation of expanded or new transportation facilities. Without mitigation, the Plan would result in a significant impact related to vibration.	MM-NO18: Local jurisdictions or agencies can and should, as practical and feasible, adhere to published local, state and federal guidelines concerning groundborne vibration impacts.	Significant and Unavoidable
The Plan would contribute to cumulative ambient noise and vibration	See Mitigation Measures MM-NO1 through MM-NO18 .	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
<p>levels in areas outside the region as a result of the operation of expanded or new transportation facilities (i.e., increased traffic resulting from new highways, addition of highway lanes, roadways, ramps, and new use of new transit and rail facilities as well as increased use of existing transit and rail facilities, etc.). Therefore, the Plan would contribute to a cumulatively considerable noise impact in these areas.</p>		
POPULATION, HOUSING, AND EMPLOYMENT		
<p>Potential to facilitate substantial population growth to some areas of the SCAG region.</p>	<p>MM-POP1: SCAG shall work with its member agencies to implement growth strategies to create an urban form designed to focus development in HQTAs in accordance with the policies, strategies and investments contained in the 2012-2035 RTP/SCS, enhancing mobility and reducing land consumption.</p>	<p>Significant and Unavoidable</p>
<p>Potential to require the acquisition of rights-of-way (ROW) that could displace a substantial number of existing homes and businesses.</p>	<p>MM-POP2: For projects with the potential to displace homes and/or businesses, project sponsors can and should evaluate alternate route alignments and transportation facilities that minimize the displacement of homes and businesses. An iterative design and impact analysis would help where impacts to homes or businesses are involved. Potential impacts should be minimized to the extent feasible. If possible, existing rights-of-way should be used.</p> <p>MM-POP3: Project sponsors can and should develop a construction schedule that minimizes potential neighborhood deterioration from protracted waiting periods between right-of-way acquisition and construction.</p> <p>MM-POP4: Project sponsors shall mitigate impacts to affordable housing as feasible through construction of affordable units (deed restricted to remain affordable for an appropriate period of time) or payment of any fee established to address loss of affordable housing.</p>	<p>Significant and Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
<p>The 2012-2035 RTP/SCS will influence the pattern of growth in the region through transportation investments and land use strategies. These investments and land use strategies could contribute to a cumulatively considerable increase in population outside the region.</p>	<p>MM-POP5: SCAG’s Compass Blueprint strategy will be used to build consensus in the region relating to changes in land use to accommodate future population growth while maintaining the quality of life in the region.</p> <p>MM-POP6: SCAG shall work with neighboring planning agencies and MPOs to ensure plans and strategies can accommodate future population growth beyond SCAG’s borders.</p>	<p>Significant and Unavoidable</p>
PUBLIC SERVICES AND UTILITIES		
Police, Fire and Emergency Services		
<p>Potential to affect the level of transportation-related public services, such as police and fire/emergency personnel in the SCAG region.</p>	<p>MM-PS1: Project implementation agencies can and should ensure that prior to construction all necessary local and state road and railroad encroachment permits are obtained. The project implementation agency can and should also comply with all applicable conditions of approval. As deemed necessary by the governing jurisdiction, the road encroachment permits may require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. Traffic control plans can and should include the following requirements:</p> <ul style="list-style-type: none"> • Identification of all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow. • Development of circulation and detour plans to minimize impacts to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone. • Scheduling of truck trips outside of peak morning and evening commute hours. • Limiting of lane closures during peak hours to the extent possible. • Usage of haul routes minimizing truck traffic on local roadways to the extent possible. • Inclusion of detours for bicycles and pedestrians in all areas potentially affected by project construction. • Installation of traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. • Development and implementation of access plans for highly sensitive land uses such as police and fire stations, transit stations, hospitals, and schools. The access plans would be developed with the facility owner or administrator. To minimize disruption of emergency vehicle access, affected jurisdictions can and should be asked to identify detours for emergency vehicles, which will then be posted by the contractor. Notify in advance the facility owner or operator of the timing, location, and duration of construction activities and the locations of detours and lane closures. • Storage of construction materials only in designated areas. 	<p>Less Than Significant</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	<ul style="list-style-type: none"> Coordination with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary. <p>MM-PS2: Project sponsors can and should identify projects in the 2012-2035 RTP/SCS that require police protection, fire service, and emergency medical service and can and should coordinate with local fire and police departments to ensure that the existing public services would be able to handle the increase in demand for their services. If the current levels of services at the project site are found to be inadequate, infrastructure improvements and/or personnel requirements for the appropriate public service can and should be identified in each project's CEQA documentation.</p>	
Potential to result in exposure to wildfires and hazards as new or expanded infrastructure is constructed within areas susceptible to these threats, resulting in an increased need for police, fire and emergency personnel.	<p>MM-PS3: Project sponsors can and should ensure that during project construction, all construction vehicles and equipment will be fitted with spark arrestors to minimize accidental ignition of dry construction debris and surrounding dry vegetation.</p> <p>MM-PS4: Project sponsors can and should encourage the use of fire-resistant vegetation native to Southern California and/or to the local microclimate (e.g., vegetation that has high moisture content, low growth habits, ignition-resistant foliage, or evergreen growth), eliminate brush and chaparral, and discourage the use of fire-promoting species especially non-native, invasive species (e.g., pampas grass, fennel, mustard, or the giant reed) in the immediate vicinity of development in areas with high fire threat.</p> <p>MM-PS5: Project sponsors can and should encourage natural re-vegetation or seeding with local, native species after a fire and discourage re-seeding of non-native, invasive species to promote healthy, natural ecosystem re-growth. Native vegetation is more likely to have deep root systems that prevent slope failure and erosion of burned areas than shallow-rooted non-natives.</p> <p>MM-PS6: Project sponsors can and should submit a fire safety plan (including phasing) to the Lead Agency and local fire agency for their review and approval. The fire safety plan can and should include all of the fire safety features incorporated into the project and the schedule for implementation of the features. The local fire protection agency may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase.</p> <p>MM-PS7: SCAG shall and local jurisdictions can and should discourage development on potentially hazardous developments in hillsides, canyons, areas with steep slopes or that are susceptible to flooding, earthquakes, wildfire and other known hazards, and areas with limited access for emergency equipment.</p> <p>MM-PS8: SCAG shall and local jurisdictions can and should promote Fire-wise Land Management: by encouraging the use of fire-resistant vegetation and the elimination of brush and chaparral in the immediate vicinity of development in areas with high fire threat.</p> <p>MM-PS9: SCAG shall and local jurisdictions can and should shall promote Fire Management Planning that help reduce fire threats in the region as part of the Compass Blueprint process and other ongoing regional planning efforts</p> <p>MM-PS10: SCAG shall and local jurisdictions can and should encourage the use of fire-resistant materials when constructing projects in areas with high fire threat.</p>	Significant and Unavoidable
Potential to contribute to regional	<p>MM-PS11: The growth inducing potential of individual RTP projects shall be carefully evaluated so that the full implications of the projects are understood. Individual environmental documents shall quantify indirect impacts (growth that could be</p>	Significant and

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
cumulatively considerable impacts to the staffing level and response times of police, fire and emergency services in southern California.	facilitated or induced) on public services and utilities to the extent feasible. Lead and responsible agencies can and should then make any necessary adjustments to the applicable General Plan. Any such identified adjustment shall be communicated to SCAG.	Unavoidable
Educational Facilities		
Potential to increase demand for school facilities	MM-PS12: Project sponsors can and should undertake project-specific review of the impacts to educational facilities as part of project specific environmental review. For any identified impacts, project sponsors can and should ensure that the appropriate school district fees are paid in accordance with State law. The project sponsors or local jurisdiction can and should be responsible for ensuring adherence to required mitigation. SCAG should be provided with documentation of compliance with any necessary mitigation measures.	Significant and Unavoidable
Potential to contribute to a cumulatively considerable demand for schools that exceeds capacity.	See Mitigation Measures MM-PS12 .	Significant and Unavoidable
Recreational Facilities		
Potential to result in a substantial loss or disturbance of existing open space and recreational lands.	<p>MM-PS13: Project sponsors can and should ensure that projects are consistent with federal, state, and local plans that preserve open space.</p> <p>MM-PS14: Project sponsors can and should consider corridor realignment, buffer zones and setbacks, and berms and fencing where feasible, to avoid open space and recreation land and to reduce conflicts between transportation uses and open space and recreation lands.</p> <p>MM-PS15: Project sponsors can and should identify open space areas that could be preserved and shall include mitigation measures (such as dedication or payment of in-lieu fees) for the loss of open space.</p> <p>MM-PS16: Prior to final approval of each project, the project sponsor can and should conduct the appropriate project-specific environmental review, including consideration of loss of open space. Potential significant impacts to open space shall be mitigated, as feasible. The project sponsors or local jurisdiction can and should be responsible for ensuring adherence to the mitigation measures prior to construction.</p> <p>MM-PS19: Local jurisdictions can and should prepare a Needs Assessment to determine the level of adequate community open space level for their areas.</p> <p>MM-PS20: Local jurisdictions can and should work with SCAG to identify regionally significant open space resources within their</p>	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	jurisdictions as feasible and appropriate.	
Potential to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facilities would occur.	<p>MM-PS21: Where practical and feasible, project sponsors and local jurisdictions can and should consider increasing the accessibility to natural areas and lands for outdoor recreation. Such measures can and should be coordinated with local and regional open space planning or management agencies.</p> <p>MM-PS22: Local jurisdictions can and should encourage multiple use spaces and encourage redevelopment in areas where it will provide more opportunities for recreational uses and access to natural areas close to the urban core.</p> <p>MM-PS23: Project level mitigation for significant cumulative and growth-inducing impacts on open space resources can and should include the conservation of natural lands, community open space and important farmland through existing projects in the region.</p> <p>MM-PS24: Local governments can and should consider the most recent annual report on open space conservation in planning and evaluating projects and programs in areas with regionally significant open space resources.</p> <p>MM-PS25: Local governments can and should encourage patterns of urban development and land use, which reduce costs on infrastructure and make better use of existing facilities. Strategies local governments can and should pursue include:</p> <ul style="list-style-type: none"> • Increase the accessibility to natural areas lands for outdoor recreation. • Promote infill development and redevelopment to revitalize existing communities • Utilize "green" development techniques • Promote water-efficient land use and development. <p>MM-PS26: Project sponsors and local governments can and should encourage multiple use spaces and encourage redevelopment in areas where it will provide more opportunities for recreational uses and access to natural areas close to the urban core.</p> <p>MM-PS27: Future impacts to open space and recreation lands shall be avoided through cooperation, information sharing, and program development as part of SCAG's ongoing regional planning efforts.</p> <p>MM-PS28: SCAG shall support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.</p> <p>MM-PS29: SCAG shall encourage member jurisdictions to work as partners to address regional outdoor recreation needs and to acquire the necessary funding for the implementation of their plans and programs. This should be done, in part, by consulting with agencies and organizations that have active open space work plans.</p> <p>MM-PS30: SCAG shall support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.</p> <p>MM-PS31: SCAG shall coordinate with local agencies facilitate planning and funding opportunities for regional open space.</p>	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-PS32: SCAG shall continue to work with the state to develop approaches for evaluating environmental impacts within the Compass Blueprint program, particularly energy, air quality, water, and open space and habitat.</p> <p>MM-PS33: SCAG shall encourage member jurisdictions that have trails and trail segments determined to be regionally significant to work together to support regional trail networks. SCAG should encourage joint use of utility, transportation and other rights-of-way, greenbelts, and biodiversity areas</p> <p>MM-PS34: SCAG shall consider consistency with ongoing regional open space planning in funding opportunities and programs administered by SCAG.</p>	
Solid Waste Disposal and Transfer Facilities		
<p>Construction necessary to implement the 2012-2035 RTP/SCS would affect the demand for solid waste services in the SCAG region.</p>	<p>MM-PS35: Project sponsors for projects identified in the 2012-2035 RTP/SCS can and should comply with applicable regulations related to solid waste disposal.</p> <p>MM-PS36: Projects sponsors can and should work with the respective local jurisdiction's Recycling Coordinator to ensure that source reduction techniques and recycling measures are incorporated into project construction.</p> <p>MM-PS37: The amount of solid waste generated during construction will be estimated prior to construction, and appropriate disposal sites will be identified and utilized.</p> <p>MM-PS36: Project sponsors can and should integrate green building measures into project design such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. These measures could include the following:</p> <ul style="list-style-type: none"> • Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities. • The inclusion of a waste management plan that promotes maximum C&D diversion. • Source reduction through (1) use of materials that are more durable and easier to repair and maintain, (2) design to generate less scrap material through dimensional planning, (3) increased recycled content, (4) use of reclaimed materials, and (5) use of structural materials in a dual role as finish material (e.g. stained concrete flooring, unfinished ceilings, etc.). • Reuse of existing structure and shell in renovation projects. • Design for deconstruction without compromising safety. • Design for flexibility through the use of moveable walls, raised floors, modular furniture, moveable task lighting and other reusable building components. • Development of indoor recycling program and space. <p>MM-PS37: Local jurisdictions and waste management agencies can and should discourage the siting of new landfills unless all other waste reduction and prevention actions have been fully explored. If landfill siting or expansion is necessary, landfills can and should be sited with an adequate landfill-owned, undeveloped land buffer to minimize the potential adverse impacts of the landfill in neighboring communities.</p> <p>MM-PS38: Project sponsors can and should discourage exporting of locally generated waste outside of the SCAG region during</p>	<p>Significant and Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>the construction and implementation of a project. Disposal within the county where the waste originates can and should be encouraged as much as possible. Green technologies for long-distance transport of waste (e.g., clean engines and clean locomotives or electric rail for waste-by-rail disposal systems) and consistency with SCAQMD and 2012-2035 RTP/SCS policies can and should be required.</p> <p>MM-PS39: Project sponsors can and should encourage waste reduction goals and practices and look for opportunities for voluntary actions to exceed the 50 percent waste diversion target.</p> <p>MM-PS40: Project sponsors and local jurisdictions can and should encourage the development of local markets for waste prevention, reduction, and recycling practices by supporting recycled content and green procurement policies, as well as other waste prevention, reduction and recycling practices.</p> <p>MM-PS41: Local jurisdictions can and should develop ordinances that promote waste prevention and recycling activities such as: requiring waste prevention and recycling efforts at all large events and venues; implementing recycled content procurement programs; and developing opportunities to divert food waste away from landfills and toward food banks and composting facilities.</p> <p>MM-PS42: Local jurisdictions and waste management agencies can and should develop alternative waste management strategies such as composting, recycling, and conversion technologies.</p> <p>MM-PS43: Project sponsors, local jurisdictions and waste management agencies, where practical and feasible, can and should develop and site composting, recycling, and conversion technology facilities that have minimum environmental and health impacts.</p> <p>MM-PS44: Local jurisdictions can and should require the reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).</p> <p>MM-PS45: Project sponsors can and should integrate reuse and recycling into residential industrial, institutional and commercial projects.</p> <p>MM-PS46: Local jurisdictions can and should provide easy and convenient recycling opportunities for residents, the public, and tenant businesses.</p> <p>MM-PS47: Local jurisdictions can and should provide education and publicity about reducing waste and available recycling services.</p>	
<p>Potential to result in a cumulatively considerable demand on solid waste facilities that exceeds regional capacity.</p>	<p>MM-PS48: The California Integrated Waste Management Board can and should continue to enforce solid waste diversion mandates that are enacted by the Legislature.</p> <p>MM-PS49: Local jurisdictions can and should continue to adopt programs to comply with state solid waste diversion rate mandates and, where possible, can and should encourage further recycling to exceed these rates.</p> <p>MM-PS50: Local jurisdictions can and should implement or expand city or county-wide recycling and composting programs for residents and businesses. This could include extending the types of recycling services offered (e.g., to include food and green waste recycling) and providing public education and publicity about recycling services.</p>	<p>Significant and Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-PS51: Local jurisdictions, waste management agencies and SCAG can and should coordinate regional approaches and strategic siting of waste management facilities.</p> <p>MM-PS52: Local jurisdictions and waste management agencies can and should encourage and, where practical and feasible, facilitate the creation of synergistic linkages between community businesses and the development of eco-industrial parks and materials exchange centers where one entity's waste stream becomes another entity's raw material.</p> <p>MM-PS53: Local jurisdictions and waste management agencies can and should prioritize siting of new solid waste management facilities including recycling, composting, and conversion technology facilities in conjunction with existing waste management or material recovery facilities.</p> <p>MM-PS54: Local jurisdictions and waste management agencies can and should increase programs to educate the public and increase awareness of reuse, recycling, composting, and green building benefits and raise consumer education issues at the county and city level, as well as at local school districts and education facilities.</p> <p>MM-PS55: For projects identified in the 2012-2035 RTP/SCS that require solid waste collection, project sponsors will coordinate with the local public works department to ensure that the existing public services and utilities would be able to handle the increase. If the current infrastructure servicing the project site is found to be inadequate, infrastructure improvements for the appropriate public service or utility can and should be identified in each project's CEQA documentation.</p> <p>MM-PS56: The growth inducing potential of individual projects can and should be carefully evaluated so that the full implications of the projects are understood. Individual environmental documents should quantify indirect impacts (growth that could be facilitated or induced) on public services and utilities to the extent feasible. Lead and responsible agencies then will make any necessary adjustments to the applicable General Plan. Any such identified adjustment should be communicated to SCAG.</p>	
Energy		
Construction necessary to implement the 2012-2035 RTP/SCS may uncover and potentially sever underground utility lines (electric and natural gas).	<p>MM-PS57: Prior to construction, the project implementation agency can and should identify the locations of existing utility lines. The contractor shall avoid all known utility lines during construction.</p>	Significant and Unavoidable
Potential to use electricity, natural gas, gasoline, diesel, and other non-renewable energy types in the construction and	<p>MM-PS58: In reviewing projects Lead Agencies and project sponsors can and should consider energy implications of construction processes. In general the most energy efficient construction process and long-term operational design can and should be selected unless there is an overriding reason why not.</p> <p>MM-PS59: Local jurisdictions can and should include energy analyses in environmental documentation and general plans with the goal of conserving energy through the wise and efficient use of energy. For any identified energy impacts, appropriate mitigation measures can and should be developed and monitored. SCAG recommends the use of Appendix F, Energy</p>	Significant and Unavoidable

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
<p>expansion of the regional transportation system and anticipated development.</p>	<p>Conservation, of the <i>CEQA Guidelines</i>.</p> <p>MM-PS60: Project sponsors can and should consider the most cost-effective alternative and renewable energy generation facilities.</p> <p>MM-PS61: Project sponsors can and should require that projects use efficient lighting. (Fluorescent lighting uses approximately 75% less energy than incandescent lighting to deliver the same amount of light.)</p> <p>MM-PS62: Project sponsors can and should require measures that reduce the amount of water sent to the sewer system. (Reduction in water volume sent to the sewer system means less water has to be treated and pumped to the end user, thereby saving energy.)</p> <p>MM-PS63: Project sponsors can and should pursue incentives to encourage the use of energy efficient equipment and vehicles.</p> <p>MM-PS64: State and federal lawmakers and regulatory agencies can and should pursue the design of programs to either require or incentivize the expanded availability including the expansion of alternative fuel filling stations and use of alternative-fuel vehicles to reduce the impact of shifts in petroleum fuel supply and price.</p> <p>MM-PS65: Local jurisdictions can and should consider various best practices and technological improvements that can reduce the consumption of fossil fuels, such as:</p> <ul style="list-style-type: none"> • Expanding light-duty vehicle retirement programs • Increasing commercial vehicle fleet modernization • Implementing driver training module on fuel consumption • Replacing gasoline powered mowers with electric mowers • Reducing idling from construction equipment • Incentivizing alternative fuel vehicles and equipment • Developing infrastructure for alternative fueled vehicles • Increasing use and mileage of High Occupancy Vehicle (HOV), High Occupancy Toll (HOT) and dedicated Bus Rapid Transit (BRT) lanes • Implementing truck idling rule, devices, and truck-stop electrification • Requiring electric truck refrigerator units • Reducing locomotives fuel use • Modernizing older off-road engines and equipment • Implementing cold ironing at ports • Encouraging freight mode shift • Limit use and develop fleet rules for construction equipment • Requiring zero-emission forklifts • Developing landside port strategy with alternative fuels, clean engines, and electrification <p>MM-PS66: Local jurisdictions or agencies with purview over utilities can and should, as practical and feasible, streamline permitting and provide public information to facilitate accelerated construction of geothermal, solar and wind power generation</p>	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>facilities and transmission line improvements.</p> <p>MM-PS67: Utilities can and should increase capacity of existing transmission lines to meet forecast demand that supports sustainable growth, where feasible and appropriate in coordination with local planning agencies.</p> <p>MM-PS68: Project sponsors can and should support programs to reduce single occupancy vehicle trips such as telecommuting, ridesharing, alternative work schedules, and parking cash-outs.</p> <p>MM-PS69: Project sponsors can and should submit projected electricity and natural gas demand calculations to the local electricity or natural gas provider, for any project anticipated to require substantial utility consumption. Any infrastructure improvements necessary for project construction can and should be completed according to the specifications of the energy provider.</p> <p>MM-PS70: Project sponsors can and should encourage, to the extent practical and feasible, ensure that new buildings incorporate solar panels in roofing and tap other renewable energy sources to offset new demand on conventional power sources. For example, transit providers can and should, as feasible, assure that designers of new transit stations incorporate solar panels in roofing.</p> <p>MM-PS71: Project sponsors can and should encourage energy efficient design for buildings, potentially including strengthening local building codes for new construction and renovation to achieve a higher level of energy efficiency. This may include strengthening local building codes for new construction and renovation to require a higher level of energy efficiency.</p> <p>MM-PS72: Local jurisdictions can and should seek funding through utility-sponsored programs to conduct energy efficiency “tune-ups” of existing buildings, as practical and feasible, by checking, repairing, and readjusting heating, ventilation, air conditioning, lighting, hot water equipment, insulation and weatherization.</p> <p>MM-PS73: Project sponsors can and should provide individualized energy management services for large energy users.</p> <p>MM-PS74: Local jurisdictions and project sponsors can and should encourage the use of energy efficient appliances and office equipment.</p> <p>MM-PS75: Project sponsors can and should pursue incentives and technical assistance for lighting efficiency.</p> <p>MM-PS76: Local jurisdictions can and should provide public education and publicity about energy efficiency programs and incentives in cooperation with local utility providers.</p> <p>MM-PS77: If a carbon trading system is established, a lead agency may consider whether carbon offsets would be an appropriate means of project mitigation. The project sponsor could, for example, fund off-site projects (e.g., alternative energy projects) that will reduce carbon emissions, or could purchase “credits” from another entity that will fund such projects. The lead agency can and should ensure that any mitigation taking the form of carbon offsets is specifically identified and that such mitigation will in fact occur</p> <p>MM-PS78: Local jurisdictions can and should encourage the integration of green building measures into project design and zoning such as those identified in the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED), Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Energy saving measures for new and remodeled buildings include:</p>	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<ul style="list-style-type: none"> • Using energy efficient materials in building design, construction, rehabilitation, and retrofit • Encouraging new development to exceed Title 24 energy efficiency requirements • Developing Cool Communities measures including tree planting and light-colored roofs. These measures focus on reducing ambient heat, which reduces energy consumption related to air conditioning and other cooling equipment. • Utilizing efficient commercial/residential space and water heaters: This could include the advertisement of existing and/or development of additional incentives for energy efficient appliance purchases to reduce excess energy use and save money. Federal tax incentives are provided online at http://www.energystar.gov/index.cfm?c=Productspr_tax_credits • Encouraging landscaping that requires no additional irrigation: utilizing native, drought tolerant plants can reduce water usage up to 60 percent compared to traditional lawns. • Encouraging combined heating and cooling (CHP), also known as cogeneration, in all buildings. • Encouraging neighborhood energy systems, which allow communities to generate their own electricity • Orienting streets and buildings for best solar access • Encouraging buildings to obtain at least 20% of their electric load from renewable energy <p>MM-PS79: Project sponsors can and should install energy efficient lighting (e.g., light emitting diodes (LEDs)), heating and cooling systems, appliances, equipment, and control systems.</p> <p>MM-PS80: Project sponsors can and should use passive solar design, e.g., orient buildings and incorporate landscaping to maximize passive solar heating during cool seasons, minimize solar heat gain during hot seasons, and enhance natural ventilation.</p> <p>MM-PS81: Project sponsors can and should design buildings to take advantage of sunlight.</p> <p>MM-PS82: Project sponsors can and should install light colored “cool” roofs and cool pavements.</p> <p>MM-PS83: Install efficient lighting, (including LEDs) for traffic, street and other outdoor lighting.</p> <p>MM-PS84: Project sponsors can and should reduce unnecessary outdoor lighting.</p> <p>MM-PS85: Project sponsors can and should use automatic covers, efficient pumps and motors, and solar heating for pools and spas.</p> <p>MM-PS86: Project sponsors can and should provide education on energy efficiency to residents, customers and/or tenants.</p> <p>MM-PS87: Project sponsors can and should use paving materials with a Solar Reflective Index (SRI) of at least 29, or open grid paving systems.</p> <p>MM-PS88: Project sponsors can and should use roofing material with SRI of at least 29 on covered parking (underground, beneath decking or roofs, or beneath a building).</p> <p>MM-PS89: Local jurisdictions can and should adopt a Heat Island Mitigation Plan that requires cool roofs, cool pavements, and strategically placed shade trees, and actively inspect and enforce state requirements for cool roofs on non-residential re-roofing projects.</p>	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-PS90: Local jurisdictions can and should pursue policies and programs to improve energy efficiency of existing buildings.</p> <p>MM-PS91: Local jurisdictions can and should require the performance of energy audits for residential and commercial buildings prior to completion of sale, and that audit results and information about opportunities for energy efficiency improvements be presented to the buyer.</p> <p>MM-PS92: Local jurisdictions can and should create an outreach and incentive program to promote energy efficiency and conservation in the community, including:</p> <ul style="list-style-type: none"> • Launch an “energy efficiency challenge” campaign for community residents; • Implement a low-income weatherization assistance program; • Implement conservation campaigns specifically targeted to residents, and separately to businesses; • Promote the purchase of Energy Star® appliances, including, where feasible, incentive grants and vouchers; • Promote participation in the local “Green Business” program; • Distribute free CFL bulbs or other efficiency fixtures to community members; • Offer exchange programs for high-energy-use items, such as halogen torchiere lamps; • Adopt an ordinance requiring energy upgrades at time of property sale. <p>MM-PS93: Project sponsors can and should install solar, wind, and geothermal power systems and solar hot water heaters.</p> <p>MM-PS94: Project sponsors can and should install solar panels on unused roof and ground space and over carports and parking areas.</p> <p>MM-PS95: Project sponsors can and should include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.</p> <p>MM-PS96: Project sponsors can and should use combined heat and power (CHP) in appropriate applications.</p> <p>MM-PS97: Local jurisdictions can and should identify possible sites for production of renewable energy (such as solar, wind, small hydro, and biogas), as compatible with surrounding uses, and protect and promote that use, including:</p> <ul style="list-style-type: none"> • Designate suitable sites to prioritize their development for renewable energy generation; • Evaluate potential land use, environmental, economic, and other constraints on that use, and mitigate such constraints, as feasible; • Adopt measures to protect the renewable energy use of the sites and their resources, such as utility easements, rights-of-way, and land set-a-sides. <p>MM-PS98: Local jurisdictions can and should allow renewable energy projects in areas zoned for open space, where consistent with the Open Space element, and other uses and values.</p> <p>MM-PS99: Local jurisdictions can and should promote and require renewable energy generation, and co-generation projects where feasible and appropriate.</p> <p>MM-PS100: Local jurisdictions can and should require that new office/retail/commercial or industrial development, or major rehabilitation (e.g., additions of 25,000 square feet commercial, or 100,000 square feet industrial) incorporate renewable energy generation either on- or off-site to provide 15 percent or more of the project’s energy needs.</p>	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-PS101: Local jurisdictions can and should promote and encourage cogeneration projects for commercial and industrial facilities, provided they meet all applicable air quality standards and provide a net reduction in GHG emissions associated with energy production.</p> <p>MM-PS102: Local jurisdictions can and should require that, where feasible, all new buildings be constructed to allow for easy, cost-effective installation of solar energy systems in the future, using such "solar-ready" features as:</p> <ul style="list-style-type: none"> • Designing the building to include optimal roof orientation (between 20 to 55 degrees from the horizontal), with sufficient south-sloped roof surface; • Clear access without obstructions (chimneys, heating and plumbing vents, etc.) on the south sloped roof; • Designing the roof framing to support the addition of solar panels; • Installation of electrical conduit to accept solar electric system wiring; • Installation of plumbing to support a solar hot water system and provision of space for a solar hot water storage tank. <p>MM-PS103: Local jurisdictions can and should require that residential projects of 6 units or more participate in the California Energy Commission's New Solar Homes Partnership, which provides rebates to developers who offer solar power in at least 50 percent of new units, or a program with similar provisions.</p> <p>MM-PS104: Local jurisdictions can and should require that any building constructed in whole or in part with local jurisdiction funds incorporate passive solar design features, such as daylighting and passive solar heating, where feasible.</p> <p>MM-PS105: Local jurisdictions can and should protect active and passive solar design elements and systems from shading by neighboring structures and trees, as consistent with existing tree shading requirements.</p> <p>MM-PS106: Local jurisdictions can and should provide, where feasible, creative financing for renewable energy projects, including subsidized or other low-interest loans, and the option to pay for system installation through long-term assessments on individual property tax bills.</p> <p>MM-PS107: Local jurisdictions can and should pursue partnerships with other governmental entities and with private companies and utilities to establish incentive programs for renewable energy.</p> <p>MM-PS108: Local jurisdictions can and should establish and maintain a clearinghouse of information on available funding alternatives for renewable energy projects, rates of return, and other information to support developers and community members interested in pursuing renewable energy projects.</p> <p>MM-PS109: Local jurisdictions can and should establish targets for the purchase of renewable energy, in excess of the state Renewable Portfolio Standards, using such mechanisms as green tags or renewable energy certificates.</p> <p>MM-PS110: Local jurisdictions can and should evaluate the feasibility and effectiveness of using Community Choice Aggregation as a model for providing renewable energy to meet the community's electricity needs, including potential partnerships with other jurisdictions.</p> <p>MM-PS111: Local jurisdictions can and should prepare and implement a comprehensive plan to improve energy efficiency of municipal facilities, including:</p> <ul style="list-style-type: none"> • Conduct energy audits for all municipal facilities; 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<ul style="list-style-type: none"> • Retrofit facilities for energy efficiency where feasible and when remodeling or replacing components, including increased insulation, installing green or reflective roofs and low-emissive window glass; • Implement an energy tracking and management system; • Install energy-efficient exit signs, street signs, and traffic lighting; • Install energy-efficient lighting retrofits and occupancy sensors, and institute a “lights out at night” policy; • Retrofit heating and cooling systems to optimize efficiency (e.g., replace chillers, boilers, fans, pumps, belts, etc.); • Install Energy Star® appliances and energy-efficient vending machines; • Improve efficiency of water pumping and use at municipal facilities, including a schedule to replace or retrofit system components with high-efficiency units (i.e., ultra-low-flow toilets, fixtures, etc.); • Provide chilled, filtered water at water fountains and taps in lieu of bottled water; • Install a central irrigation control system and time its operation for off-peak use; • Adopt an accelerated replacement schedule for energy inefficient systems and components. <p>MM-PS112: Local jurisdictions can and should require that any newly constructed, purchased, or leased municipal space meet minimum standards as appropriate, such as:</p> <ul style="list-style-type: none"> • Requirements for new commercial buildings to meet LEED criteria established by the U.S. Green Building Council; • Requirements for new residential buildings to meet criteria of the Energy Star® New Homes Program established by U.S. EPA; • Incorporation of passive solar design features in new buildings, including daylighting and passive solar heating; • Retrofitting of existing buildings to meet standards under Title 24 of the California Building Energy Code, or to achieve a higher performance standard as established by the local jurisdiction; • Retrofitting of existing buildings to decrease heat gain from non-roof impervious surfaces with cool paving, landscaping, and other techniques. • Training & Support: Local jurisdictions or agencies can and should ensure that staff receives appropriate training and support to implement objectives and policies to reduce GHG emissions, including: <ul style="list-style-type: none"> • Provide energy efficiency training to design, engineering, building operations, and maintenance staff; • Provide information on energy use and management, including data from the tracking and management system, to managers and others making decisions that influence energy use; • Provide energy design review services to departments undertaking new construction or renovation projects, to facilitate compliance with LEED standards. <p>MM-PS113: Local jurisdictions can and should collaborate with local energy suppliers and distributors to establish energy conservation programs, Energy Star® appliance change-out programs, rebates, vouchers, and other incentives to install energy-efficient technology and products and to cooperate on advertising.</p> <p>MM-PS114: SCAG shall encourage methane recovery in local landfills and wastewater treatment plants to generate electricity.</p> <p>MM-PS115: SCAG shall continue to consider energy uncertainty impacts prior to the development of the next RTP/SCS. Topics that shall be considered include:</p> <ul style="list-style-type: none"> • How the price and availability of transportation fuels affects revenues and demand; • How increases in fuel efficiency could affect revenues and emissions; 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<ul style="list-style-type: none"> • How the cost of commuting and personal travel affects mode choice and growth patterns; • How the cost of goods movement affects international trade and employment; or • How the escalation of fuel prices affects the cost of infrastructure construction, maintenance and operation. <p>MM-PS116: SCAG shall convene key stakeholders to evaluate and where feasible, recommend transportation measures such as congestion pricing, a refined regional goods movement system and technologies that reduce fossil fuel consumption.</p> <p>MM-PS117: SCAG shall encourage clean post-recycle conversion technologies to produce energy or technologies that offset energy use or air emissions.</p> <p>MM-PS118: SCAG shall continue to develop energy efficiency and green building guidance to provide direction on specific approaches and models and to specify levels of performance for regionally significant projects to be consistent with regional plans.</p> <p>MM-PS119: SCAG shall encourage the federal and state government to increase clean, cost-effective, reliable, domestic renewable energy generation, such as solar and wind turbines.</p> <p>MM-PS120: SCAG shall continue to promote electric vehicle penetration throughout the region through on-going electric vehicle readiness efforts.</p> <p>MM-PS121: SCAG shall encourage the federal government to increase the Corporate Average Fuel Economy (CAFE) to a level that will reduce the region's dependence on petroleum and reduce greenhouse gas emissions.</p> <p>MM-PS122: SCAG shall continue to pursue partnerships with Southern California Edison, municipal utilities, and the California Public Utilities Commission to promote energy efficiency and reduce greenhouse gas emissions in the region.</p> <p>MM-PS123: SCAG shall continue to develop, in coordination with the California Air Resources Board, a data and information collection and analysis system that provides an understanding of energy demand and greenhouse gas emissions in the SCAG region.</p> <p>MM-PS124: SCAG shall continue to work with local jurisdictions and energy providers, through its Energy and Environment Committee, and administration of the Clean Cities Program as well as by other means, to encourage regional-scale planning for improved energy management. Future impacts to energy shall be minimized through cooperative planning, and information sharing within the SCAG region</p>	
Potential to contribute to a cumulatively considerable increase in non-renewable energy use.	MM-PS57 through MM-PS124 would address cumulative energy impacts.	Significant and Unavoidable
TRANSPORTATION, TRAFFIC, AND SECURITY		
Potential to increase total daily Vehicle	MM-TR1: SCAG shall establish a forum where policy-makers can be educated and can develop consensus on regional transportation safety and security policies	Significant and

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Impact	Mitigation Measures	Significance After Mitigation
<p>Miles of Travel (VMT) in 2035 compared to current daily VMT. The Plan would result in a significant impact related to VMT.</p>	<p>MM-TR2: SCAG shall work with local officials to assist with implementation of regional transportation safety and security policies.</p> <p>MM-TR3: SCAG shall conduct workshops focused on Smart Growth strategies. Project-specific workshops should be held by local agencies.</p> <p>MM-TR4: SCAG shall help ensure the rapid repair of transportation infrastructure in the event of an emergency. This will be accomplished by SCAG, in cooperation with local and State agencies, identifying critical infrastructure needs necessary for: a) emergency responders to enter the region, b) evacuation of affected facilities, and c) restoration of utilities. In addition, SCAG shall establish transportation infrastructure practices that promote and enhance security.</p> <p>MM-TR5: SCAG shall continue to promote the use of intelligent transportation system (ITS) technologies that enhance transportation security. SCAG should work to expand the use of ITS to improve surveillance, monitoring and distress notification systems and to assist in the rapid evacuation of disaster areas. SCAG shall facilitate the incorporation of security into the Regional ITS Architecture. Transit operators should incorporate ITS technologies as part of their security and emergency preparedness and share that information with other operators. Aside from deploying ITS technologies for advanced customer information, transit agencies should work intensely with ethnic, local and disenfranchised communities through public information / outreach sessions ensuring public participation is utilized to its fullest. In case of evacuation, these transit dependent persons may need additional assistance to evacuate to safety.</p> <p>MM-TR6: SCAG shall establish transportation infrastructure practices that promote and enhance security. SCAG shall work with transportation operators to plan and coordinate transportation projects, as appropriate, with DHS grant projects, to enhance the regional transit security strategy (RTSS). SCAG shall establish transportation infrastructure practices that identify and prioritize the design, retrofit, hardening, and stabilization of critical transportation infrastructure to prevent failure, to minimize loss of life and property, injuries, and avoid long term economic disruption. SCAG shall establish a Transportation Security Working Group (TSWG) with goals of 2012-2035 RTP/SCS consistency with RTSS, and to find ways SCAG programs can enhance RTSS.</p> <p>MM-TR7: SCAG shall help to enhance the region's ability to deter and respond to acts of terrorism, human-caused or natural disasters through regionally cooperative and collaborative strategies. SCAG shall work with local officials to develop regional consensus on regional transportation safety, security, and safety security policies.</p> <p>MM-TR8: SCAG shall help to enhance the region's ability to deter and respond to terrorist incidents, human-caused or natural disasters by strengthening relationship and coordination with transportation. This will be accomplished by the following:</p> <ul style="list-style-type: none"> • SCAG shall work with local officials to develop regional consensus on regional transportation safety, security, and safety security policies. • SCAG shall encourage all SCAG elected officials are educated in NIMS. • SCAG shall work with partner agencies, federal, State and local jurisdictions to improve communications and interoperability and to find opportunities to leverage and effectively utilize transportation and public safety/security resources in support of this effort. <p>MM-TR9: SCAG shall work to enhance emergency preparedness awareness among public agencies and with the public at large.</p> <p>MM TR10: SCAG shall work with local officials to develop regional consensus on regional transportation safety, security, and safety security policies.</p>	<p>Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-TR11: SCAG shall work to improve the effectiveness of regional plans by maximizing the sharing and coordination of resources that would allow for proper response by public agencies.</p> <p>MM-TR12: SCAG shall encourage and provide a forum for local jurisdictions to develop mutual aid agreements for essential government services during any incident recovery</p> <p>MM-TR13: SCAG shall help to enhance the capabilities of local and regional organizations, including first responders, through provision and sharing of information. This will be accomplished by:</p> <ul style="list-style-type: none"> • SCAG shall work with local agencies to collect regional GeoData in a common format, and provide access to the GeoData for emergency planning, training and response. • SCAG shall establish a forum for cooperation and coordination of these plans and programs among the regional partners including first responders and operations agencies • SCAG shall develop and establish a regional information sharing strategy, linking SCAG and its member jurisdictions for ongoing sharing and provision of information pertaining to the region's transportation system and other critical infrastructure. <p>MM-TR14: SCAG shall provide the means for collaboration in planning, communication, and information sharing before, during, or after a regional emergency. This will be accomplished by the following:</p> <ul style="list-style-type: none"> • SCAG shall develop and incorporate strategies and actions pertaining to response and prevention of security incidents and events as part of the on-going regional planning activities. • SCAG shall offer a regional repository of GIS data for use by local agencies in emergency planning, and response, in a standardized format. • SCAG shall enter into mutual aid agreements with other MPOs to provide this data, in coordination with the California OES in the event that an event disrupts SCAG's ability to function. <p>MM-TR15: Congestion Pricing: SCAG shall advocate for a regional, market-based system to price or charge for auto trips during peak hours.</p> <p>MM-TR16: Beyond the currently financially and institutionally feasible measures included in the 2012-2035 RTP/SCS, SCAG shall identify further reduction in VMT, and fuel consumption that could be obtained through land-use strategies, additional car-sharing programs, additional vanpools, additional bicycle programs, and implementation of a universal employee transit access pass (TAP) program.</p> <p>MM-TR17: SCAG shall (for its employees) and local jurisdictions can and should institute teleconferencing, telecommute and/or flexible work hour programs to reduce unnecessary employee transportation.</p> <p>MM-TR18: Local jurisdictions can and should create a ride-sharing program. Promote existing ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides.</p> <p>MM-TR19: SCAG shall and local jurisdictions can and should create or accommodate car sharing programs, e.g., provide parking spaces for car share vehicles at convenient locations accessible by public transportation.</p> <p>MM-TR20: SCAG shall and local jurisdictions can and should provide a vanpool for employees.</p>	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-TR21: Transportation Planning: SCAG shall and local jurisdictions can and should ensure that new developments incorporate both local and regional transit measures into the project design that promote the use of alternative modes of transportation.</p> <p>MM-TR22: As may be appropriate, project sponsors can and should submit fair share traffic payments to the local agency for funding capital improvement projects to accommodate future traffic demand in the area.</p> <p>MM-TR23: Local jurisdictions can and should coordinate controlled intersections so that traffic passes more efficiently through congested areas. Where traffic signals or streetlights are installed, require the use of Light Emitting Diode (LED) technology.</p> <p>MM-TR24: Local jurisdictions can and should promote ride sharing programs e.g., by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to accommodate vans used for ride-sharing, and designating adequate passenger loading and unloading and waiting areas.</p> <p>MM-TR25: Local jurisdictions can and should encourage the use of car-sharing programs such as ZipCar. Accommodations for such programs include providing parking spaces for the car-share vehicles at convenient locations accessible by public transportation.</p> <p>MM-TR26: The Plan includes measures intended to reduce vehicle hours of delay. These include: system management, increasing rideshare and work-at-home opportunities to reduce demand on the transportation system, investments in non-motorized transportation, maximizing the benefits of the land use-transportation connection and key transportation investments targeted to reduce delay. SCAG shall encourage local agencies to fully implement these policies and projects.</p> <p>MM-TR27: The Plan includes measures intended to reduce daily heavy-duty truck vehicle hours of delay. These include: goods movement capacity enhancements, system management, increasing rideshare and work-at-home opportunities to reduce demand on the transportation system, investments in non-motorized transportation, maximizing the benefits of the land use-transportation connection and key transportation investments targeted to reduce heavy-duty truck delay. SCAG shall encourage local agencies to fully implement these policies and projects.</p> <p>MM-TR28: Project sponsors of a commercial use can and should submit to the Lead Agency (or other appropriate government agency) a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The sponsor should implement the approved TDM plan. The TDM should include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use. All four modes of travel should be considered. Strategies to consider include the following:</p> <ul style="list-style-type: none"> • Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement • Construction of bike lanes per the prevailing Bicycle Master Plan (or other similar document) • Signage and striping onsite to encourage bike safety • Installation of pedestrian safety elements (such as cross walk striping, curb ramps, countdown signals, bulb outs, etc.) to encourage convenient crossing at arterials • Installation of amenities such as lighting, street trees, trash and any applicable streetscape plan. • Direct transit sales or subsidized transit passes 	

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	<ul style="list-style-type: none"> • Guaranteed ride home program • Pre-tax commuter benefits (checks) • On-site car-sharing program (such as City Car Share, Zip Car, etc.) • On-site carpooling program • Distribution of information concerning alternative transportation options • Parking spaces sold/leased separately • Parking management strategies; including attendant/valet parking and shared parking spaces <p>MM-TR29: Project sponsors and construction contractors can and should meet with the appropriate Lead Agency (or other government agency) to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project sponsor should develop a construction management plan for review and approval by the Lead Agency (or other government agency as appropriate). The plan should include at least the following items and requirements:</p> <ul style="list-style-type: none"> • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. • Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur. • Location of construction staging areas for materials, equipment, and vehicles at an approved location. • A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager should determine the cause of the complaints and should take prompt action to correct the problem. The Lead Agency should be informed who the Manager is prior to the issuance of the first permit. • Provision for accommodation of pedestrian flow. • As necessary, provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on street spaces. • Any damage to the street caused by heavy equipment, or as a result of this construction, should be repaired, at the project sponsor's expense, within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair should occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety should be repaired immediately. The street should be restored to its condition prior to the new construction as established by the Lead Agency (or other appropriate government agency) and/or photo documentation, at the sponsor's expense, before the issuance of a Certificate of Occupancy. • Any heavy equipment brought to the construction site should be transported by truck, where feasible. • No materials or equipment should be stored on the traveled roadway at any time. • Prior to construction, a portable toilet facility and a debris box should be installed on the site, and properly maintained through project completion. • All equipment should be equipped with mufflers. • Prior to the end of each work-day during construction, the contractor or contractors should pick up and properly 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

Impact	Mitigation Measures	Significance After Mitigation
	<p>dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors.</p> <p>MM-TR30: Local jurisdictions can and should encourage the use of public transit systems by enhancing safety and cleanliness on vehicles and in and around stations, providing shuttle service to public transit, offering public transit incentives and providing public education and publicity about public transportation services.</p> <p>MM-TR31: Local jurisdictions can and should encourage bicycling and walking by incorporating bicycle lanes into street systems in regional transportation plans, new subdivisions, and large developments, creating bicycle lanes and walking paths directed to the location of schools and other logical points of destination and provide adequate bicycle parking, and encouraging commercial projects to include facilities on-site to encourage employees to bicycle or walk to work.</p> <p>MM-TR32: Transit agencies can and should encourage bicycling to transit facilities by providing additional bicycle parking, locker facilities, and bike lane access to transit facilities when feasible.</p> <p>MM-TR33: Project sponsors can and should ensure that prior to construction all necessary local and State road and railroad encroachment permits are obtained. As deemed necessary by the governing jurisdiction, the road encroachment permits may require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. Traffic control plans should include the following requirements:</p> <ul style="list-style-type: none"> • Identification of all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow. • Development of circulation and detour plans to minimize impacts to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone. • Scheduling of truck trips outside of peak morning and evening commute hours. • Limiting of lane closures during peak hours to the extent possible. • Usage of haul routes minimizing truck traffic on local roadways to the extent possible. • Inclusion of detours for bicycles and pedestrians in all areas potentially affected by project construction. • Installation of traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. • Development and implementation of access plans for highly sensitive land uses such as police and fire stations, transit stations, hospitals, and schools. The access plans would 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. Notify in advance the facility owner or operator of the timing, location, and duration of construction activities and the locations of detours and lane closures. • Storage of construction materials only in designated areas • Coordination with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary. <p>MM-TR34: Local jurisdictions can and should meet an identified transportation-related benchmark.</p> <p>MM-TR35: Local jurisdictions can and should adopt a comprehensive parking policy that discourages private vehicle use and</p>	

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	<p>encourages the use of alternative transportation.</p> <p>MM-TR36: Project sponsors can and should build or fund a major transit stop within or near the development.</p> <p>MM-TR37: Local jurisdictions and transit agencies can and should provide public transit incentives such as free or low-cost monthly transit passes to employees, or free ride areas to residents and customers.</p> <p>MM-TR38: Local jurisdictions and project sponsors can and should promote “least polluting” ways to connect people and goods to their destinations.</p> <p>MM-TR39: Local jurisdictions and project sponsors can and should incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments.</p> <p>MM-TR40: Local jurisdictions can and should require amenities for non-motorized transportation, such as secure and convenient bicycle parking.</p> <p>MM-TR41: Local jurisdictions can and should ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation.</p> <p>MM-TR42: Local jurisdictions can and should connect parks and open space through shared pedestrian/bike paths and trails to encourage walking and bicycling.</p> <p>MM-TR43: Local jurisdictions can and should create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.</p> <p>MM-TR44: Local jurisdictions can and should work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower-emitting vehicles.</p> <p>MM-TR45: Local jurisdictions and transit agencies can and should provide information on alternative transportation options for consumers, residents, tenants and employees to reduce transportation-related emissions.</p> <p>MM-TR46: Local jurisdictions can and should educate consumers, residents, tenants and the public about options for reducing motor vehicle-related greenhouse gas emissions. Include information on trip reduction; trip linking; vehicle performance and efficiency (e.g., keeping tires inflated); and low or zero-emission vehicles.</p> <p>MM-TR47: Local jurisdictions can and should purchase, or create incentives for purchasing, low or zero-emission vehicles.</p> <p>MM-TR48: Local jurisdictions can and should create local “light vehicle” networks, such as neighborhood electric vehicle systems.</p> <p>MM-TR49: Local jurisdictions can and should enforce and follow limits idling time for commercial vehicles, including delivery and construction vehicles.</p> <p>MM-TR50: Local jurisdictions can and should provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles.</p> <p>MM-TR51: Local jurisdictions can and should reduce GHG emissions by reducing vehicle miles traveled and by increasing or</p>	

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	<p>encouraging the use of alternative fuels and transportation technologies.</p> <p>MM-TR52: Local jurisdictions can and should reduce VMT-related emissions by encouraging the use of public transit through adoption of new development standards that would require improvements to the transit system and infrastructure, increase safety and accessibility, and provide other incentives.</p> <p>MM-TR53: Project Selection: Local jurisdictions can and should give priority to transportation projects that would contribute to a reduction in vehicle miles traveled per capita, while maintaining economic vitality and sustainability.</p> <p>MM-TR54: Equal Pedestrian Access Local jurisdictions can and should include separated sidewalks whenever possible, on both sides of all new street improvement projects, except where there are severe topographic or natural resource constraints.</p> <p>MM-TR55: Public Involvement: Local jurisdictions can and should carry out a comprehensive public involvement and input process that provides information about transportation issues, projects, and processes to community members and other stakeholders, especially to those traditionally underserved by transportation services.</p> <p>MM-TR56: System Interconnectivity: Local jurisdictions can and should create an interconnected transportation system that allows a shift in travel from private passenger vehicles to alternative modes, including public transit, ride sharing, car sharing, bicycling and walking, by incorporating the following:</p> <ul style="list-style-type: none"> • Ensure transportation centers are multi-modal to allow transportation modes to intersect; • Provide adequate and affordable public transportation choices, including expanded bus routes and service, as well as other transit choices such as shuttles, light rail, and rail; • To the extent feasible, extend service and hours of operation to underserved arterials and population centers or destinations such as colleges; • Focus transit resources on high-volume corridors and high-boarding destinations such as colleges, employment centers and regional destinations; • Coordinate schedules and routes across service lines with neighboring transit authorities; • Support programs to provide “station cars” for short trips to and from transit nodes (e.g., neighborhood electric vehicles); • Study the feasibility of providing free transit to areas with residential densities of 15 dwelling units per acre or more, including options such as removing service from less dense, underutilized areas to do so; • Employ transit-preferential measures, such as signal priority and bypass lanes. Where compatible with adjacent land use designations, right-of-way acquisition or parking removal may occur to accommodate transit-preferential measures or improve access to transit. The use of access management should be considered where needed to reduce conflicts between transit vehicles and other vehicles; • Provide safe and convenient access for pedestrians and bicyclists to, across, and along major transit priority streets; • Use park-and-ride facilities to access transit stations only at ends of regional transitways or where adequate feeder bus service is not feasible. <p>MM-TR57: Transit System Infrastructure: Local jurisdictions can and should upgrade and maintain transit system infrastructure to enhance public use, including:</p>	

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	<ul style="list-style-type: none"> • Ensure transit stops and bus lanes are safe, convenient, clean and efficient; • Ensure transit stops have clearly marked street-level designation, and are accessible; • Ensure transit stops are safe, sheltered, benches are clean, and lighting is adequate; • Place transit stations along transit corridors within mixed-use or transit-oriented development areas at intervals of three to four blocks, or no less than one-half mile. <p>MM-TR58: Customer Service: Transit agencies can and should enhance customer service and system ease-of-use, including:</p> <ul style="list-style-type: none"> • Develop a Regional Pass system to reduce the number of different passes and tickets required of system users; • Implement “Smart Bus” technology, using GPS and electronic displays at transit stops to provide customers with “real-time” arrival and departure time information (and to allow the system operator to respond more quickly and effectively to disruptions in service); • Investigate the feasibility of an on-line trip-planning program. <p>MM-TR59: Transit Funding: Local jurisdictions can and should prioritize transportation funding to support a shift from private passenger vehicles to transit and other modes of transportation, including:</p> <ul style="list-style-type: none"> • Give funding preference to improvements in public transit over other new infrastructure for private automobile traffic; • Before funding transportation improvements that increase roadway capacity and VMT, evaluate the feasibility and effectiveness of funding projects that support alternative modes of transportation and reduce VMT, including transit, and bicycle and pedestrian access. <p>MM-TR60: Transit and Multimodal Impact Fees: Local jurisdictions can and should assess transit and multimodal impact fees on new developments to fund public transportation infrastructure, bicycle infrastructure, pedestrian infrastructure and other multimodal accommodations.</p> <p>MM-TR61: Local jurisdictions can and should implement traffic and roadway management strategies to improve mobility and efficiency, and reduce associated emissions.</p> <p>MM-TR62: System Monitoring: Local jurisdictions can and should monitor traffic and congestion to determine when and where new transportation facilities are needed in order to increase access and efficiency.</p> <p>MM-TR63: Arterial Traffic Management: Local jurisdictions can and should modify arterial roadways to allow more efficient bus operation, including bus lanes and signal priority/preemption where necessary.</p> <p>MM-TR64: Signal Synchronization: Local jurisdictions can and should expand signal timing programs where emissions reduction benefits can be demonstrated, including maintenance of the synchronization system, and will coordinate with adjoining jurisdictions as needed to optimize transit operation while maintaining a free flow of traffic.</p> <p>MM-TR65: HOV Lanes: Local jurisdictions can and should encourage the construction of high-occupancy vehicle (HOV) lanes or similar mechanisms whenever necessary to relieve congestion and reduce emissions.</p> <p>MM-TR66: Delivery Schedules: Local jurisdictions can and should establish ordinances or land use permit conditions limiting the hours when deliveries can be made to off-peak hours in high traffic areas.</p>	

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	<p>MM-TR67: Local jurisdictions can and should reduce VMT related-emissions by implementing and supporting trip reduction programs.</p> <p>MM-TR68: Ride-Share Programs: Local jurisdictions can and should promote ride sharing programs, including:</p> <ul style="list-style-type: none"> • Designate a certain percentage of parking spaces for ride-sharing vehicles; • Designate adequate passenger loading, unloading, and waiting areas for ride-sharing vehicles; • Provide a web site or message board for coordinating shared rides; • Encourage private, for-profit community car-sharing, including parking spaces for car share vehicles at convenient locations accessible by public transit; • Hire or designate a rideshare coordinator to develop and implement ridesharing programs. <p>MM-TR69: Employer-based Trip Reduction: Local jurisdictions can and should support voluntary, employer-based trip reduction programs, including:</p> <ul style="list-style-type: none"> • Provide assistance to regional and local ridesharing organizations; • Advocate for legislation to maintain and expand incentives for employer ridesharing programs; • Require the development of Transportation Management Associations for large employers and commercial/ industrial complexes; • Provide public recognition of effective programs through awards, top ten lists, and other mechanisms. <p>MM-TR70: Ride Home Programs: Local jurisdictions can and should implement a “guaranteed ride home” program for those who commute by public transit, ride-sharing, or other modes of transportation, and encourage employers to subscribe to or support the program.</p> <p>MM-TR71: Local Area Shuttles: Transit agencies can and should encourage and utilize shuttles to serve neighborhoods, employment centers and major destinations.</p> <p>MM-TR72: Local jurisdictions and transit agencies can and should create a free or low-cost local area shuttle system that includes a fixed route to popular tourist destinations or shopping and business centers.</p> <p>MM-TR73: Local jurisdictions can and should work with existing shuttle service providers to coordinate their services.</p> <p>MM-TR74: Low- and No-Travel Employment Opportunities: Local jurisdictions can and should facilitate employment opportunities that minimize the need for private vehicle trips, including:</p> <ul style="list-style-type: none"> • Amend zoning ordinances and the Development Code to include live/work sites and satellite work centers in appropriate locations; • Encourage telecommuting options with new and existing employers, through project review and incentives, as appropriate. <p>MM-TR75: Local jurisdictions can and should support bicycle use as a mode of transportation by enhancing infrastructure to accommodate bicycles and riders, and providing incentives.</p> <p>MM-TR76: Development Standards for Bicycles: Local jurisdictions can and should establish standards for new development and</p>	

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	<p>redevelopment projects to support bicycle use, including:</p> <ul style="list-style-type: none"> • Amending the Development Code to include standards for safe pedestrian and bicyclist accommodations, by incorporating the following: <ul style="list-style-type: none"> ○ “Complete Streets” policies that foster equal access by all users in the roadway design; ○ Bicycle and pedestrian access internally and in connection to other areas through easements; ○ Safe access to public transportation and other non-motorized uses through construction of dedicated paths; ○ Safe road crossings at major intersections, especially for school children and seniors; ○ Adequate, convenient and secure bike parking at public and private facilities and destinations in all urban areas; ○ Street standards will include provisions for bicycle parking within the public right of way. <p>MM-TR77: Local jurisdictions can and should require new development and redevelopment projects to include bicycle facilities, as appropriate with the new land use, including:</p> <ul style="list-style-type: none"> • Construction of weatherproof bicycle facilities where feasible, and at a minimum, bicycle racks or covered, secure parking near the building entrances; • Provision and maintenance of changing rooms, lockers, and showers at large employers or employment centers. • Prohibit projects that impede bicycle and pedestrian access, such as large parking areas that cannot be safely crossed by non-motorized vehicles, and developments that block through access on existing or potential bicycle and pedestrian routes; • Encourage the development of bicycle stations at intermodal hubs, with attended or “valet” bicycle parking, and other amenities such as bicycle rental and repair, and changing areas with lockers and showers; • Conduct a connectivity analysis of the existing bikeway network to identify gaps, and prioritize bikeway development where gaps exist. <p>MM-TR78: Bicycle and Pedestrian Trails: Local jurisdictions can and should establish a network of multi-use trails to facilitate safe and direct off-street bicycle and pedestrian travel, and will provide bike racks along these trails at secure, lighted locations</p> <p>MM-TR79: Bicycle Safety Program: Local jurisdictions can and should develop and implement a bicycle safety educational program to teach drivers and riders the laws, riding protocols, routes, safety tips, and emergency maneuvers.</p> <p>MM-TR80: Bicycle and Pedestrian Project Funding: Local jurisdictions can and should pursue and provide enhanced funding for bicycle and pedestrian facilities and access projects, including, as appropriate:</p> <ul style="list-style-type: none"> • Apply for regional, State, and federal grants for bicycle and pedestrian infrastructure projects; • Establish development exactions and impact fees to fund bicycle and pedestrian facilities; • Use existing revenues, such as State gas tax subventions, sales tax funds, and general fund monies for projects to enhance bicycle use and walking for transportation. <p>MM-TR81: Bicycle Parking: Local jurisdictions can and should adopt bicycle parking standards that ensure bicycle parking sufficient to accommodate 5 to 10 percent of projected use at all public and commercial facilities, and at a rate of at least one per residential unit in multiple-family developments (suggestion: check language with League of American Bicyclists).</p>	

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	<p>MM-TR82: Local jurisdictions can and should establish parking policies and requirements that capture the true cost of private vehicle use and support alternative modes of transportation.</p> <p>MM-TR83: Parking Policy: Local jurisdictions can and should adopt a comprehensive parking policy to discourage private vehicle use and encourage the use of alternative transportation by incorporating the following:</p> <ul style="list-style-type: none"> • Reduce the available parking spaces for private vehicles while increasing parking spaces for shared vehicles, bicycles, and other alternative modes of transportation; • Eliminate or reduce minimum parking requirements for new buildings; • “Unbundle” parking (require that parking is paid for separately and is not included in the base rent for residential and commercial space); • Use parking pricing to discourage private vehicle use, especially at peak times; • Create parking benefit districts, which invest meter revenues in pedestrian infrastructure and other public amenities; • Establish performance pricing of street parking, so that it is expensive enough to promote frequent turnover and keep 15 percent of spaces empty at all times; • Encourage shared parking programs in mixed-use and transit-oriented development areas. <p>MM-TR84: Event Parking Policies: Local jurisdictions can and should establish policies and programs to reduce onsite parking demand and promote ride-sharing and public transit at large events, including:</p> <ul style="list-style-type: none"> • Promote the use of peripheral parking by increasing on-site parking rates and offering reduced rates for peripheral parking; • Encourage special event center operators to advertise and offer discounted transit passes with event tickets; • Encourage special event center operators to advertise and offer discount parking incentives to carpooling patrons, with four or more persons per vehicle for on-site parking; • Promote the use of bicycles by providing space for the operation of valet bicycle parking service. <p>MM-TR85: Parking “Cash-out” Program: Local jurisdictions can and should require new office developments with more than 50 employees to offer a Parking “Cash-out” Program to discourage private vehicle use.</p> <p>MM-TR86: Electric/Alternative Fuel Vehicle Parking: Local jurisdictions can and should require new commercial and retail developments to provide prioritized parking for electric vehicles and vehicles using alternative fuels.</p> <p>MM-TR87: Local jurisdictions can and should support and promote the use of low- and zero-emission vehicles, and alternative fuels, and other measures to directly reduce emissions from motor vehicles.</p> <p>MM-TR88: Low and Zero Emission Vehicles: Local jurisdictions can and should support and promote the use of low- and zero-emission vehicles, by doing the following:</p> <ul style="list-style-type: none"> • Develop the necessary infrastructure to encourage the use of zero emission vehicles and clean alternative fuels, such as development of electric vehicle charging facilities and conveniently located alternative fueling stations; • Encourage new construction to include vehicle access to properly wired outdoor receptacles to accommodate ZEV and/or plug in electric hybrids (PHEV); 	

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	<ul style="list-style-type: none"> • Encourage transportation fleet standards to achieve the lowest emissions possible, using a mix of alternate fuels, PZEV or better fleet mixes; • Establish incentives, as appropriate, to taxicab owners to use alternative fuel or gas-electric hybrid vehicles. <p>MM-TR89: Vehicle Idling: Local jurisdictions can and should enforce State idling laws for commercial vehicles, including delivery and construction vehicles.</p> <p>MM-TR90: Pedestrian and Bicycle Promotion: Local jurisdictions can and should work with local community groups and downtown business associations to organize and publicize walking tours and bicycle events, and to encourage pedestrian and bicycle modes of transportation.</p> <p>MM-TR91: Local jurisdictions can and should organize events and workshops to promote GHG-reducing activities.</p> <p>MM-TR92: Fleet Replacement: Local jurisdictions and agencies can and should establish a replacement policy and schedule to replace fleet vehicles and equipment with the most fuel efficient vehicles practical, including gasoline hybrid and alternative fuel or electric models.</p> <p>MM-TR93: Local jurisdictions can and should implement measures to reduce employee vehicle trips and to mitigate emissions impacts from municipal travel.</p> <p>MM-TR94: Trip Reduction Program: Local jurisdictions can and should implement a program to reduce vehicle trips by employees, including:</p> <ul style="list-style-type: none"> • Providing incentives and infrastructure for vanpooling and carpooling, such as pool vehicles, preferred parking, and a website or bulletin board to facilitate ride-sharing; • Providing subsidized passes for mass transit; • Offering compressed work hours, off-peak work hours, and telecommuting, where appropriate; • Offer a guaranteed ride home for employees who use alternative modes of transportation to commute. <p>MM-TR95: Bicycle Transportation Support: Local jurisdictions can and should promote and support the use of bicycles as transportation, including:</p> <ul style="list-style-type: none"> • Providing bicycle stations with secure, covered parking, changing areas with storage lockers and showers, as well as a central facility where minor repairs can be made; • Providing bicycles, including electric bikes, for employees to use for short trips during business hours; • Implementing a police-on-bicycles program; • Providing a bicycle safety program, and information about safe routes to work. <p>MM-TR96: Municipal Parking Management: Local jurisdictions can and should implement a Parking Management Program to discourage private vehicle use, including:</p> <ul style="list-style-type: none"> • Encouraging carpools and vanpools with preferential parking and a reduced parking fee; • Institute a parking cash-out program; • Renegotiate employee contracts, where possible, to eliminate parking subsidies; • Install on-street parking meters with fee structures designed to discourage private vehicle use; 	

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	<ul style="list-style-type: none"> Establish a parking fee for all single-occupant vehicles. <p>MM-TR97: Travel Mitigation: Local jurisdictions can and should mitigate business-related travel, especially air travel, through the annual purchase of verified carbon offsets.</p> <p>MM-TR98: Transit Access to Municipal Facilities: Local jurisdiction and agency facilities can and should be located on major transit corridors, unless their use is plainly incompatible with other uses located along major transit corridors.</p>	
The Plan would reduce average Vehicle Hours of Delay (VHD) in 2035 compared to current condition. The Plan would result in less than significant impact related to VHD.	No mitigation measures were necessary as the proposed project would not cause a significant impact.	Less Than Significant
Potential to create substantially greater average daily VHD for heavy-duty truck trips in 2035 compared to current condition. The Plan would result in a significant impact related to truck VHD.	MM-TR1 through MM-TR98 would address this impact.	Significant and Unavoidable
Potential to increase the percent of work opportunities within 45 minutes travel time by personal vehicle or by transit in 2035 relative to the current condition. This result is considered to be a regional benefit. The Plan would result in a less-than-significant impact related to work commute.	No mitigation measures were necessary as the proposed project would not cause a significant impact.	Less Than Significant

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Potential to lower system-wide fatality accident rate for all travel modes in 2035 relative to the current condition. The Plan would result in a less-than-significant impact related to transportation fatality rates.	No mitigation measures were necessary as the proposed project would not cause a significant impact.	Less Than Significant
Potential to lower system-wide injury rate for all travel modes in 2035 relative to the current condition. Therefore, the Plan would result in a less-than-significant impact related to transportation injury rates.	No mitigation measures were necessary as the proposed project would not cause a significant impact.	Less Than Significant
Potential to contribute to a cumulatively considerable amount of transportation impacts, such as VMT and all-vehicle VHD, in areas outside of the SCAG region.	MM-TR1 through MM-TR98 would address this impact.	Significant and Unavoidable
WATER RESOURCES		
Potential to degrade local surface water quality by increased roadway and urban runoff created by 2012-2035 RTP/SCS projects, potentially	<p>MM-W1: SCAG shall continue to work with local jurisdictions and water quality agencies, and other means, to encourage regional-scale planning for improved water quality management and pollution prevention. Future impacts to water quality shall be avoided to the extent practical and feasible through cooperative planning, information sharing, and comprehensive pollution control measure development within the SCAG region. This cooperative planning shall occur as part of current and existing coordination, an integral part of SCAG's ongoing regional planning efforts.</p> <p>MM-W2: Local jurisdictions can and should encourage new development and industry to locate in those service areas with existing wastewater infrastructure and treatment capacity, making greater use of those facilities prior to incurring new</p>	Significant and Unavoidable

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<p>violating water quality standards associated with wastewater and stormwater permits. The 2012-2035 RTP/SCS could alter the existing drainage patterns in ways that would result in substantial erosion or siltation.</p>	<p>infrastructure costs.</p> <p>MM-W3: Local jurisdictions can and should promote reduced wastewater system demand by: designing wastewater systems to minimize inflow and increase upstream treatment and infiltration to the extent feasible, reducing overall source water generation by domestic and industrial users, deferring development approvals for industries that generate high volumes of wastewater until wastewater agencies have expanded capacity.</p> <p>MM-W4: Wastewater treatment agencies are encouraged to have expansion plans, approvals and financing in place once their facilities are operating at 80 percent of capacity. SCAG shall provide opportunities for information sharing and program development.</p> <p>MM-W5: Project sponsors can and should coordinate with the local wastewater provider in order to ensure that existing and/or planned sewer conveyance and treatment facilities are capable of meeting wastewater flow capacity requirements. Each project sponsor can and should identify specific on- and off-site improvements needed to ensure that impacts related to wastewater conveyance capacity are addressed prior to issuance of plans. Sewer capacity clearance from the local wastewater provider will be required at the time that a sewer connection permit application is submitted.</p> <p>MM-W6: As appropriate, confirmation of the capacity of the surrounding stormwater and sanitary sewer system and state of repair can and should be completed by a qualified civil engineer with funding from the project sponsor. The project sponsor can and should be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. In addition, the sponsor can and should be required to pay any fees to improve sanitary sewer infrastructure as may be required by the applicable local agencies. Improvements to the existing sanitary sewer collection system can and should specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project. To the maximum extent practicable, the sponsor will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project sponsor can and should be responsible for payment of any required installation or hook-up fees to the affected service providers.</p> <p>MM-W7: Wastewater treatment agencies can and should maximize efficiency of wastewater treatment and pumping equipment.</p> <p>MM-W8: Project sponsors with projects requiring the discharge of dredged or fill materials into U.S. waters, including wetlands, can and should comply with sections 404 and 401 of the Clean Water Act including the requirement to obtain a permit from the U.S. Army Corps of Engineers and the governing Regional Water Quality Control Board.</p> <p>MM-W9: Project sponsor can and should ensure that natural riparian conditions near projects are maintained, wherever feasible, to minimize the effects of stormwater flows at stream crossings. Where feasible, riparian areas can and should be restored or expanded to mitigate additional impervious surface and associated runoff.</p> <p>MM-W10: Prior to construction within the vicinity of a watercourse, the project sponsor can and should obtain all necessary regulatory permits and authorizations from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game, California Coastal Commission, and local jurisdictions, and should comply with all conditions issued by applicable agencies. Required permit approvals and certifications may include, but not be limited to the following:</p> <ul style="list-style-type: none"> • U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps should be obtained for the placement of dredge or fill material in Waters of the U.S., if any, within the interior of the project site, pursuant to 	

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	<p>Section 404 of the federal Clean Water Act.</p> <ul style="list-style-type: none"> • Regional Water Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above. • California Department of Fish and Game (CDFG): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFG. <p>A qualified environmental consultant can and should be retained and paid for by the project sponsor to make site visits as necessary; and as a follow-up, submit to the Lead Agency a letter certifying that all required conditions have been instituted during the grading activities.</p> <p>MM-W11: Prior to issuance of a demolition, grading, or building permit within vicinity of a watercourse project sponsors can and should develop a final detailed landscaping and irrigation plan for review and approval by the appropriate local jurisdiction prepared by a licensed landscape architect or other qualified person. Such a plan should include a planting schedule, detailing plant types and locations, and a system for temporary irrigation of plantings.</p> <ul style="list-style-type: none"> • Plant and maintain only drought-tolerant plants on the site where appropriate, as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants should not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor should be replanted with mature native riparian vegetation and be maintained to ensure survival. • All landscaping indicated on the approved landscape plan should be installed prior to the issuance of a Final inspection of the building permit, otherwise permitted. <p>All landscaping areas shown on the approved plans should be maintained in neat and safe conditions, and all plants should be maintained in good growing condition and, whenever necessary replaced with new plant materials to ensure continued compliance with all applicable landscaping requirements. All paving or impervious surfaces should occur only on approved areas.</p> <p>MM-W12: Project sponsors can and should comply with the State-wide construction storm water discharge permit requirements including preparation of Storm Water Pollution Prevention Plans for transportation improvement construction projects. Roadway construction projects can and should comply with the Caltrans storm water discharge permit. Best Management Practices can and should be identified and implemented to manage site erosion, wash water runoff, and spill control.</p> <p>MM-W13: Project sponsors can and should comply with the requirements of the National Pollutant Discharge Elimination System (NPDES). The project sponsor can and should submit with the application for a building permit (or other construction-related permit) a completed Construction-Permit-Phase Stormwater Supplemental Form. The project drawings submitted for the building permit (or other construction-related permit) should contain a stormwater management plan, for review and approval by the appropriate agency, to manage stormwater run-off and to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable. The post-construction stormwater management plan should include and identify the following:</p> <ul style="list-style-type: none"> • All proposed impervious surface on the site; • Anticipated directional flows of on-site stormwater runoff; and • Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and 	

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS

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	<ul style="list-style-type: none"> • Source control measures to limit the potential for stormwater pollution; • Stormwater treatment measures to remove pollutants from stormwater runoff; and • Hydromodification management measures so that post-project stormwater runoff does not exceed the flow and duration of pre-project runoff, if required under the NPDES permit. <p>The following additional information should be submitted with the post-construction stormwater management plan:</p> <ul style="list-style-type: none"> • Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and • Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e. non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable of removing the range of pollutants typically removed by landscape-based treatment measures and/or the range of pollutants expected to be generated by the project. <p>All proposed stormwater treatment measures can and should incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and should be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures should be included on the landscape and irrigation plan for the project. The sponsor is not required to include on-site stormwater treatment measures in the post-construction stormwater management plan if he or she secures approval from an appropriate agency that an alternate approach is appropriate. The project sponsor can and should implement the approved stormwater management plan.</p> <p>MM-W14: SCAG shall continue to work with local jurisdictions and water agencies, to encourage regional-scale planning for improved stormwater management and groundwater recharge, including consideration of alternative recharge technologies and practices. Future adverse impacts shall be avoided through cooperative planning, information sharing, and comprehensive implementation efforts within the SCAG region.</p> <p>MM-W15: Project sponsors can and should consult with the RWQCB and Storm Water Management Plan permit holders as projects are designed to ensure that projects protect the goals of the Clean Water Act and comply with federal storm water NPDES permits.</p> <p>MM-W16: Project sponsors can and should ensure that new facilities include structural water quality control features such as drainage channels, detention basins, oil and grease traps, filter systems, and vegetated buffers to prevent pollution of adjacent water resources by polluted runoff where required by applicable urban storm water runoff discharge permits.</p> <p>MM-W17: Structural storm water runoff treatment can and should be provided according to the applicable urban storm water runoff permit where facilities will be operated by a permitted municipality or county. Where Caltrans is the operator, the statewide permit applies.</p> <p>MM-W18: Project sponsors can and should ensure that operational best management practices for street cleaning, litter control, and catch basin cleaning are implemented to prevent water quality degradation in compliance with applicable storm water runoff discharge permits. Efforts can and should be made to assure treatment controls are in place as early as possible, such as during the acquisition process for rights-of-way, not just later during the facilities design and construction phase.</p> <p>MM-W19: In compliance with applicable municipal separate storm sewer system discharge permits as well as Caltrans' storm water discharge permit, long-term sediment control can and should be affected through erosion control and revegetation</p>	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>programs designed to allow reestablishment of native vegetation on slopes and undeveloped areas.</p> <p>MM-W20: Drainage of roadway runoff can and should comply with Caltrans' storm water discharge permit. Wherever possible, roadways can and should be designed to convey storm water through vegetated median strips that provide detention capacity and allow for infiltration before reaching culverts.</p> <p>MM-W21: Treatment and control features such as detention basins, infiltration strips, and porous paving, other features to control surface runoff and facilitate groundwater recharge can and should be incorporated into the design of new transportation projects early on in the process to ensure that adequate acreage and elevation contours are provided during the right-of-way acquisition process.</p> <p>MM-W22: Project sponsors can and should assure projects mitigate for changes to the volume of runoff, where any downstream receiving water body has not been designed and maintained to accommodate the increase in flow velocity, rate, and volume without impacting the water's beneficial uses. Pre-project flow velocities, rates, and volumes must not be exceeded. This applies not only to increases in storm water runoff from the project site, but also to hydrologic changes induced by flood plain encroachment. Projects should not cause or contribute to conditions that degrade the physical integrity or ecological function of any downstream receiving waters.</p> <p>MM-W23: Impacts can and should be reduced to the extent possible by providing culverts and facilities that do not increase the flow velocity, rate, or volume and/or acquiring sufficient storm drain easements that accommodate an appropriately vegetated earthen drainage channel.</p> <p>MM-W24: Project sponsors of improvement projects on existing facilities can and should include upgrades to stormwater drainage facilities to accommodate any increased runoff volumes. These upgrades may include the construction of detention basins or structures that will delay peak flows and reduce flow velocities, including expansion and restoration of wetlands and riparian buffer areas. System designs can and should be completed to eliminate increases in peak flow rates from current levels.</p> <p>MM-W25: Local jurisdictions can and should encourage Low Impact Development and incorporation of natural spaces that reduce, treat, infiltrate and manage stormwater runoff flows in all new developments, where practical and feasible.</p> <p>MM-W26: Project sponsor can and should ensure that for sites less than one acre, project drawings submitted for a building permit (or other construction-related permit) contain a final site plan to be reviewed and approved by the appropriate local agency. The final site plan should incorporate appropriate site design measures to manage stormwater runoff and minimize impacts to water quality after the construction of the project. These measures may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Minimize impervious surfaces, especially directly connected impervious surfaces; • Utilize permeable paving in place of impervious paving where appropriate; • Cluster buildings; • Preserve quality open space; and • Establish vegetated buffer areas. <p>The approved plan should be implemented and the site design measures shown on the plan should be permanently maintained.</p> <p>MM-W27: Project sponsors can and should implement BMPs to reduce erosion, sedimentation, and water quality impacts during</p>	

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Impact	Mitigation Measures	Significance After Mitigation
	<p>construction to the maximum extent practicable. Plans demonstrating BMPs should be submitted for review and approval by the Lead Agency. At a minimum, the project sponsor can and should provide filter materials deemed acceptable to the Lead Agency at nearby catch basins to prevent any debris and dirt from flowing into the local storm drain system and creeks.</p> <p>MM-W28: Project sponsors for sites over one acre, must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project sponsor must file a notice of intent (NOI) with the SWRCB. The project sponsor will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Lead Agency. At a minimum, the SWPPP should include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; BMPs, and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project sponsor should submit to the lead agency a copy of the SWPPP and evidence of submittal of the NOI to the SWRCB. Implementation of the SWPPP should start with the commencement of construction and continue through the completion of the project. After construction is completed, the project sponsor can and should submit a notice of termination to the SWRCB.</p> <p>MM-W29: Project sponsors can and should ensure that project drawings submitted for a building permit (or other construction-related permit) contain a drainage plan to be reviewed and approved by the appropriate agency. The drainage plan should include measures to reduce the post-construction volume and velocity of stormwater runoff to the maximum extent practicable. Stormwater runoff should not be augmented to adjacent properties or creeks. The drainage plan should include and identify the following:</p> <ul style="list-style-type: none"> • All proposed impervious surface on the site; • Anticipated directional flows of on-site stormwater runoff; • Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; • Source control measures to limit the potential for stormwater pollution; and • Stormwater treatment measures to remove pollutants from stormwater runoff. <p>MM-W30: Project sponsors can and should submit an erosion and sedimentation control plan for review and approval by the appropriate government agency. All work should incorporate all applicable BMPs for the construction industry, including BMP's for dust, erosion and water quality. The measures should include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the street, gutters, stormdrains. • In accordance with an approved erosion control plan, the project sponsor should implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric should be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas should be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected. 	

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Impact	Mitigation Measures	Significance After Mitigation
	<ul style="list-style-type: none"> • Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible. • Install filter materials acceptable to the appropriate agency at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the storm drain system. Filter materials should be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding. • Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into water courses, street gutters, or storm drains. • Direct and locate tool and equipment cleaning so that wash water does not discharge into the street, gutters, or stormdrains. • Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material should be stored on-site. • Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly (or other interval approved by the Lead Agency) basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. • Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work. • As appropriate, broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt should be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the street, gutter, and/or stormdrains. • All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management should be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the RWQB. <p>All erosion and sedimentation control measures should be monitored regularly by the project sponsor. If measures are insufficient to control sedimentation and erosion then the project sponsor should develop and implement additional and more effective measures immediately</p>	
<p>Potential to reduce groundwater infiltration.</p>	<p>MM-W31: Project sponsors can and should ensure that projects requiring continual dewatering facilities implement monitoring systems and long-term administrative procedures to ensure proper water management that prevents degrading of surface water and minimizes, to the greatest extent possible, adverse impacts on groundwater for the life of the project. Construction designs can and should comply with appropriate building codes and standard practices including the Uniform Building Code.</p> <p>MM-W32: Project sponsors, lead agencies, and local jurisdictions can and should maximize, where practical and feasible, permeable surface area in existing urbanized areas to protect water quality, reduce flooding, allow for groundwater recharge, and preserve wildlife habitat. New impervious surfaces can and should be minimized to the greatest extent possible, including the use of in-lieu fees and off-site mitigation.</p>	<p>Significant and Unavoidable</p>

TABLE ES-1: SUMMARY OF THE 2012-2035 RTP/SCS IMPACTS		
Impact	Mitigation Measures	Significance After Mitigation
	<p>MM-W33: Project sponsors can and should avoid designs that require continual dewatering where feasible.</p> <p>MM-W34: Where feasible, transportation facilities can and should not be sited in groundwater recharge areas, to prevent conversion of those areas to impervious surface.</p> <p>MM W35: Project sponsors can and should reduce hardscape to the extent feasible to facilitate groundwater recharge as appropriate.</p>	
Potential to increase flooding hazards, by placing projects on alluvial fans and within 100-year flood hazard areas.	<p>MM-W36: Project sponsor can and should ensure that all roadbeds for new highway and rail facilities be elevated at least one foot above the 100-year base flood elevation. Since alluvial fan flooding is not often identified on FEMA flood maps, the risk of alluvial fan flooding should be evaluated and projects should be sited to avoid alluvial fan flooding. Delineation of floodplains and alluvial fan boundaries should attempt to account for future hydrologic changes caused by global climate change.</p> <p>MM-W37: Project sponsors of transportation improvements can and should comply with local, state, and federal floodplain regulations. Projects requiring federal approval or funding should comply with Executive Order 11988 on Floodplain Management, which requires avoidance of incompatible floodplain development, restoration and preservation of the natural and beneficial floodplain values, and maintenance of consistency with the standards and criteria of the National Flood Insurance Program.</p> <p>MM-W38: Local jurisdictions can and should, to the extent feasible and appropriate, prevent development in flood hazard areas that do not have appropriate protections, especially in alluvial fan areas of the region.</p>	Significant and Unavoidable
Potential to exceed capacity of wastewater treatment services.	See Mitigation Measures MM-W2 through MM-7 .	Significant and Unavoidable
Potential to contribute to an increased demand for water supply and its associated infrastructure.	<p>MM-W39: Local water agencies can and should continue to evaluate future water demands and establish the necessary supply and infrastructure to meet that demand, as documented in their Urban Water Management Plans.</p> <p>MM-W40: Project sponsors, local jurisdictions, and water agencies can and should include conjunctive use as a water management strategy when feasible.</p> <p>MM-W41: SCAG, in coordination with regional water agencies and other stakeholders, shall encourage the kind of regional coordination throughout California and the Colorado River Basin that develops and supports sustainable policies in accommodating growth.</p> <p>MM-W42: SCAG, in coordination with regional water agencies and other stakeholders, shall facilitate information sharing about the management and status of the Sacramento River Delta, the Colorado River Basin, and other water supply source areas of importance to local water supply.</p> <p>MM-W43: Regional water agencies can and should consider, to the greatest extent feasible, potential climate change hydrology and attendant impacts on available water supplies and reliability in the process of creating or modifying systems to manage water resources for both year-round use and ecosystem health. As the methodology and base data for such decisions is still developing, agencies can and should use the best currently available science in decision-making. Local</p>	Significant and Unavoidable

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Impact	Mitigation Measures	Significance After Mitigation
	<p>jurisdictions and water agencies can and should rely on current regional analyses when making local decisions regarding future water supply and reliability.</p> <p>MM-W44: Project sponsors and local jurisdictions can and should reduce exterior uses of water in public areas, and should promote reductions in private homes and businesses, by shifting to drought-tolerant native landscape plantings (xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives. Local jurisdictions can and should also work with local retailers and vendors to promote the availability of drought resistant landscaping options and provide information on where these can be purchased. Use of reclaimed water especially in median landscaping and hillside landscaping can and should be implemented where feasible.</p> <p>MM-W45: Future impacts to water supply shall be minimized through cooperation, information sharing, and program development as part of SCAG's on-going regional planning efforts, in coordination with regional water agencies and other stakeholders.</p> <p>MM-W46: Project sponsors can and should coordinate with the local water provider to ensure that existing and/or planned water supply and water conveyance facilities are capable of meeting water demand/pressure requirements. In accordance with State Law, a Water Supply Assessment can and should be required for projects that meet the size requirements specified in the regulations. In coordination with the local water provider, each project sponsor will identify specific on- and off-site improvements needed to ensure that impacts related to water supply and conveyance demand/pressure requirements are addressed prior to issuance of a certificate of occupancy. Water supply and conveyance demand/pressure clearance from the local water provider will be required at the time that a water connection permit application is submitted.</p> <p>MM-W47: Project sponsors can and should coordinate with the local fire service provider in order to ensure that existing and/or planned fire hydrants are capable of meeting fire flow demand/pressure requirements. The issuance of building permits will be dependent upon submission, review, approval, and testing of fire flow demand and pressure requirements, as established by the local fire service provider prior to occupancy.</p> <p>MM-W48: Project sponsors can and should implement water conservation measures in new development that should include but not be limited to the following:</p> <ul style="list-style-type: none"> • Installation of high-efficiency toilets (1.28 gallons per flush or less, includes dual flush). • High-efficiency urinals (0.125 gallons per flush or less, includes waterless) • Restroom faucet flow rate of 1.5 gallons per minute or less • Public restroom faucet flow rate of 0.5 gallons per minute or less and self-closing • Showerhead flow rate of 2.0 gallons per minute or less • Limit of one showerhead per shower stall • High efficiency clothes washers (water factor of 4.0 or less) • High efficiency dishwashers (Energy Star rated) • Domestic water heating system located in close proximity to point(s) of use, as feasible; use of tankless and on-demand water heaters as feasible • Cooling towers must be operated at a minimum of 5.5 cycles of concentration • Install on-site water recycling as feasible 	

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	<ul style="list-style-type: none"> • Use of recycled water (if available) for appropriate end uses (irrigation, cooling towers, sanitary) • Single pass cooling should be prohibited (e.g. any vacuum pumps or ice machines) • Irrigation should include: <ul style="list-style-type: none"> ▪ Weather-based irrigation controller with rain shutoff ▪ Flow sensor and master valve shutoff (for large landscaped areas) ▪ Matched precipitation (flow) rates for sprinkler heads ▪ Drip/microspray/subsurface irrigation where appropriate ▪ Minimum irrigation system distribution uniformity of 75% ▪ Proper hydro-zoning, turf minimization and use of native/drought tolerant plant materials ▪ Use of landscape contouring to minimize precipitation runoff <p>MM-W49: Project sponsors can and should consult with the local water provider to identify feasible and reasonable measures to reduce water consumption, including, but not limited to, systems to use reclaimed water for landscaping, drip irrigation, re-circulating hot water systems, water conserving landscape techniques (such as mulching, installation of drip irrigation systems, landscape design to group plants of similar water demand, soil moisture sensors, automatic irrigation systems, clustered landscaped areas to maximize the efficiency of the irrigation system), water conserving kitchen and bathroom fixtures and appliances, thermostatically controlled mixing valves for baths and showers, and insulated hot water lines.</p> <p>MM-W50: Project sponsors can and should incorporate compliance with local drought measures as appropriate including prohibiting hose watering of driveways and associated walkways; requiring decorative fountains to use recycled water, and repairing water leaks in a timely manner.</p> <p>MM-W51: Project sponsors can and should incorporate automatic sprinkler systems that irrigate landscaping during morning hours or during the evening to reduce water losses from evaporation. Sprinklers should be required to reset to water less often in cooler months and during the rainfall season, so that water is not wasted in excessive landscape irrigation.</p> <p>MM-W52: Prior to issuance of building permits, project sponsors can and should pay any appropriate fees imposed by local water providers to off-set any fair share project costs as identified by the local water provider.</p> <p>MM-W53: As part of the general plan update process, local jurisdictions can and should coordinate with water providers to identify water budgets for development within their jurisdiction. Local water providers may provide for new water supply through a combination of water conservation (on and potentially off-site) and recycled water, such that the net increase in water demand (not including demand for recycled water) does not exceed the calculated demand anticipated in the most recent Urban Water Management Plan or other similar document.</p> <p>MM-W54: Project sponsors can and should create water-efficient landscapes.</p> <p>MM-W55: Project sponsors can and should install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and use water-efficient irrigation methods.</p> <p>MM-W56: Project sponsors can and should incorporate water-reducing features into building and landscape design.</p> <p>MM-W57: Project sponsors should make effective use of graywater for landscape irrigation. (Graywater is untreated household wastewater from bathtubs, showers, bathroom wash basins, and water from clothes washing machines.)</p>	

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	<p>MM-W58: Project sponsors can and should implement low-impact development practices that maintain the existing hydrology of the site to manage storm water and protect the environment by doing the following:</p> <ul style="list-style-type: none"> • Devise a comprehensive water conservation strategy appropriate for the project and location. • Design buildings to be water-efficient. Install water-efficient fixtures and appliances. • Offset water demand from new projects so that there is no net increase in water use. • Provide education about water conservation and available programs and incentives. <p>MM-W59: Local jurisdictions can and should adopt and implement a comprehensive strategy to increase water conservation and the use of recycled water that includes similar measure to the following:</p> <ul style="list-style-type: none"> • Water Consumption Reduction Target: Regional water agencies should work together to set a target for to reduce per capita water consumption by 2020. • Water Conservation Plan: Regional water agencies should establish a water conservation plan that may include such policies and actions as: <ul style="list-style-type: none"> ▪ Tiered rate structures for water use; ▪ Restrictions on time of use for landscape watering, and other demand management strategies; ▪ Performance standards for irrigation equipment and water fixtures; ▪ Requirements that increased demand from new construction be offset with reductions so that there is no net increase in water use. • Recycled Water Use: Local jurisdictions and regional water agencies should establish programs and policies to increase the use of recycled water, including: <ul style="list-style-type: none"> ▪ Create an inventory of non-potable water uses within the jurisdiction that could be served with recycled water; ▪ Produce and promote the use of recycled water for agricultural, industrial, and irrigation purposes, including grey water systems for residential irrigation; ▪ Produce and promote the use of treated, recycled water for potable uses where GHG emissions from producing such water are lower than from other potable sources. • Water Conservation Outreach: Local jurisdictions and regional water agencies should implement a public education and outreach campaign to promote water conservation, and highlights specific water-wasting activities to discourage, such as the watering of non-vegetated surfaces and using water to clean sidewalks and driveways. <p>MM-W60: Local jurisdictions can and should ensure that building standards and permit approval processes promote and support water conservation.</p> <p>MM-W61: Local jurisdictions can and should establish building design guidelines and criteria to promote water-efficient building design, including minimizing the amount of non-roof impervious surfaces around the building(s).</p> <p>MM-W62: Local jurisdictions can and should establish menus and check-lists for developers and contractors to ensure water-efficient infrastructure and technology are used in new construction, including low-flow toilets and shower heads, moisture-sensing irrigation, and other such advances.</p> <p>MM-W63: SCAG, in coordination with the State Water resources Board, shall encourage cities, counties and water districts to develop local sources of potable water including recycling where feasible.</p> <p>MM-W64: Local jurisdictions can and should establish criteria and standards to permit the safe and effective use of gray water (on-</p>	

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	<p>site water recycling), and review and appropriately revise, without compromising health and safety, other building code requirements that might prevent the use of such systems.</p> <p>MM-W65: Local jurisdictions can and should establish programs and policies to ensure landscaping and forests are installed and managed to optimize their climate benefits.</p> <p>MM-W66: Project sponsors can and should install water efficient landscapes and irrigation, including:</p> <ul style="list-style-type: none"> • Planting drought-tolerant and native species, and covering exposed dirt with moisture-retaining mulch; • Installing water-efficient irrigation systems and devices, including advanced technology such as moisture-sensing irrigation controls; and/or • Installing edible landscapes that provide local food. <p>MM-W67: SCAG, as part of its on-going outreach and technical assistance efforts, shall organize workshops on water conservation activities, such as selecting and planting drought tolerant, native plants in landscaping, and installing advanced irrigation systems.</p> <p>MM-W68: Regional water agencies can and should maximize efficiency at drinking water treatment, pumping, and distribution facilities, including development of off-peak demand schedules for heavy commercial and industrial users.</p>	
<p>Potential to contribute to cumulatively considerable demand on water resources.</p>	<p>MM-W1 through MM-W68 would address cumulative water impacts.</p>	<p>Significant and Unavoidable</p>
<p>SOURCE: TAHA, 2011.</p>		