

CHAPTER 5

CUMULATIVE IMPACTS

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5.0 CUMULATIVE IMPACTS

CEQA Guidelines §15130 (a) requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in [CEQA Guidelines](#) §15065 (a)(3). The 2012 AQMP is a regional plan that includes broad policy criteria and as such, the 2012 AQMP [Final](#) Program EIR evaluates the environmental impacts associated with implementing the 2012 AQMP stationary and mobile source control measures to determine whether or not the impacts of the project are cumulatively considerable when combined with potential impacts associated with other similar regional projects involving regulatory activities or other projects with similar impacts.

5.1 INTRODUCTION

The cumulative impacts analysis for the 2012 AQMP [Final](#) Program EIR includes the analyses of the SCAQMD's stationary and mobile source control measures and the regulatory activities associated with other measures that could also generate impacts within the Basin. The traffic control measures (TCMs) in the 2012 AQMP (see Appendix IV-C of the [Revised Draft](#) 2012 AQMP and Appendix E of this [Final](#) Program EIR) were developed and adopted by SCAG as part of the 2012-2035 RTP/SCS¹ and the 2011 Federal Transportation Improvement Program (FTIP) (SCAG 2012).

SCAG's Regional Council approved the TCMs and strategies included in the 2012-2035 RTP/SCS Program EIR and the investment commitments contained in the 2008 RTIP and its subsequent amendments. These measures and recommendations have accordingly been moved forward for inclusion in the region's air quality plans and are included as part of the 2012 AQMP. The impacts of implementation of these TCMs were evaluated in the 2012-2035 RTP/SCS Program EIR (SCAG, 2012). The cumulative analysis in this section of the Final Program EIR for the 2012 AQMP relies primarily on the environmental analyses in the SCAG 2012-2035 RTP/SCS Program EIR for the evaluation of the environmental impacts of implementing the TCMs.

Because the TCMs, their associated mitigation measures², and their emissions reductions are included along with the 2012 AQMP in the PM_{2.5} SIP submittal for the Basin and because the TCMs and other projects in the 2012-2035 RTP/SCS have the potential to generate similar impacts, the 2012-2035 RTP/SCS is considered to be a cumulatively related project. In general, the long-term transportation planning requirements for emission reductions from on-road mobile sources within the district are met by SCAG's RTP/SCS, whereas the short-term implementation requirements of the Transportation Conformity Rule are met by SCAG's biennial Regional Transportation Improvement Program (RTIP) (SCAG 2010).

¹ Under SB 375, SCAG addresses GHG reduction in a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan. SB 375 was established to implement the state's GHG emissions reduction goals, as set forth by AB 32, in the sector of cars and light trucks. SCS is intended to provide a vision for future growth in Southern California that would decrease per capita GHG emissions from passenger vehicles.

² [In addition to summarizing impacts from the 2012-2035 RTP/SCS, this document includes a list of all measures identified in the 2012-2035 RTP/SCS Program EIR to mitigate environmental impacts from that project for informational purposes only. The PEIR for the 2012-2035 RTP/SCS, which includes all of the mitigation measures in Appendix F, was previously certified in April 2012.](#)

In general, TCMs are those control measures that provide emission reductions from on-road mobile sources, based on changes in the patterns and modes by which the regional transportation system is used. Strategies that have a particular bearing on the environment can be grouped into the following components:

- **Active Transportation:** This strategy integrates land use and transportation by working with sub-regions and local communities to increase development densities and improve the jobs/housing balance. Implementing this strategy encourages walking, biking, and transit use, thereby reducing vehicular demand and environmental impacts.
- **Transportation Demand Management (TDM):** This strategy reduces vehicular demand and thereby congestion, particularly during peak periods. TDM measures are designed to influence travel behavior and include use of transit, bicycling, and walking, carpools and telecommuting, strategies that allow travelers to easily connect to and from transit service at their origin and destination, vanpool services for larger employers, and rideshare matching services.
- **Transportation Systems Management (TSM):** This strategy increases the productivity of the existing multi-modal transportation system and relies in part on intelligent transportation system (ITS) technologies such as automated vehicle location (AVL) and advanced monitoring systems, which assist in achieving system efficiencies in ports and intermodal operations, reduce delays and wait times at gates and destinations, and allow for more flexible dispatching, thereby reducing emissions.
- **Congestion Management Process (CMP):** This strategy manages congestion by requiring that highway capacity projects that significantly increase the capacity for single occupancy vehicles be developed in a comprehensive context that considers all possible alternatives, including transit, TDM and TSM strategies.
- **High Occupancy Vehicle (HOV) Gap Closures and Connectors:** This strategy builds upon the previous HOV strategy by including additional investments to extend the HOV network, strategically close gaps in the HOV network, convert certain limited access HOV lanes to allow for continuous access, and construct additional direct freeway-to-freeway HOV connectors to maximize the overall system performance by minimizing weaving conflicts and maintaining travel speeds.

The following sections summarize the project-specific and cumulative impacts analyses from the Final Program EIR for the 2012-2035 RTP/SCS. The discussions also summarize project-specific impacts from the 2012 AQMP. The discussions also include an evaluation regarding whether or not impacts from the 2012 AQMP contribute to cumulative impacts from the 2012-2035 RTP/SCS, which have already been evaluated in a Program EIR certified by SCAG.

5.2 AESTHETICS

5.2.1 Cumulative Aesthetic Impacts

Implementation of the 2012 AQMP is not expected to result in potentially significant adverse aesthetic impacts because [the 2012 AQMP](#) control measures relate primarily to emission reductions through the incorporation of electrically powered trucks and locomotives. Although, to power this equipment, catenary lines (overhead power lines) could be needed, areas where catenary lines may be constructed would be limited to commercial, industrial areas, along existing transportation corridors, and at existing railyards. The 2012 AQMP [Final Program EIR](#) determined that construction and operation of such lines would not substantially degrade the existing visual character of a site or its surroundings, impact existing scenic vistas, or impact any scenic resources, including scenic highways.

According to the 2012-2035 RTP/SCS Program EIR, implementation of the 2012-2035 RTP/SCS would adversely affect aesthetics and views. Expected significant impacts would include the obstruction of scenic views and vista points due to the construction of highways, flyovers, interchanges, goods movement roadway facilities, and sound walls for anticipated RTP/SCS transportation projects, which would potentially block or impede views of mountains, oceans, or rivers. In addition, implementation of the 2012-2035 RTP/SCS would alter areas along state designated scenic highways and vista points, in particular along SR-91 through Riverside and Orange Counties and along SR-14 as part of the High Desert Corridor, connecting Palmdale and the Antelope Valley to Santa Clarita.

Implementing the 2012-2035 RTP/SCS is expected to create significant contrasts with the overall visual character of the existing landscape setting and possibly add urban visual elements to an existing natural, rural, and open space area. In particular, the Gold and Crenshaw Light Rail Lines would travel through urban neighborhoods with distinct character and may be located adjacent to historic resources depending on the final alignments. The wires, structures and other elements associated with light rail would change the character of these areas. Increased urbanization through taller buildings or more compact development could have a similar effect by changing the low-scale nature of a particular neighborhood. Transit centers and park-n-ride lots, constructed primarily within the heavily urbanized portions of the SCAG region, could also affect a large number of viewers.

Implementing the 2012-2035 RTP/SCS would create shade and shadow or light and glare impacts when tall newly constructed elevated transportation infrastructure projects cast a shadow on nearby shadow sensitive areas, such as eating or playing areas. Population growth in the region would also potentially create contrasts with the overall visual character of the existing landscape because some urban land would have increased intensity of use and because currently vacant and undeveloped land would be developed into urban uses.

Because implementation of the 2012-2035 RTP/SCS would include the extension of transportation and related infrastructure to areas outside the region and, as such, would indirectly result in changes to the visual character or to scenic areas outside of the SCAG

region, the 2012-2035 RTP/SCS would contribute to a cumulatively considerable loss of scenic resources.

The analysis of potential aesthetics impacts from implementing the 2012 AQMP in Subchapter 4.1 of this Program EIR concluded that the 2012 AQMP would not in itself generate significant adverse aesthetic impacts. Further, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2012-2035 RTP/SCS, would not contribute to cumulatively considerable impacts to aesthetic resources identified in the 2012-2035 RTP/SCS because potential aesthetic resources impacts identified in the 2012-2035 RTP/SCS Program EIR are different than the potential aesthetics impacts that could be generated by the 2012 AQMP and, geographically, there is no overlap between the 2012 AQMP projects that may affect aesthetics resources and aesthetic resources impacts created by the 2012-2035 RTP/SCS.

5.2.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse aesthetic impacts. However, because implementation of the 2012-2035 RTP/SCS is expected to generate significant adverse impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.2.3 Level of Impact After Mitigation Measures

Potential aesthetics resources impacts from the 2012-2035 RTP/SCS would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation as the population growth projected by 2035 in combination with projects identified in the 2012-2035 RTP/SCS would consume currently vacant land that would create significant contrasts with the overall visual character of the existing landscape setting. Moreover, the 2012 AQMP would not contribute to that impact as noted in Subsection 5.2.1, so adverse cumulative operational aesthetics resources impacts are concluded to be less than significant.

5.3 AGRICULTURAL RESOURCES

5.3.1 Cumulative Agricultural Resources Impacts

Impacts to agricultural resources were considered and fully evaluated in the August 2, 2012 Notice of Preparation/Initial Study (8/2/12 NOP/IS) prepared for the 2012 AQMP. As concluded in the 8/2/12 NOP/IS, implementation of the 2012 AQMP is not expected to result in significant adverse impacts to the agriculture resource because [the 2012](#) AQMP control measures typically affect existing commercial or industrial facilities or establish specifications for fuels or mobile source exhaust emissions and as such are not expected to generate new construction of buildings or other structures that would require conversion of farmland to non-agricultural use or conflict with zoning for agricultural uses. No comment

letters were received by the SCAQMD during the 8/2/12 NOP/IS comment period disputing this conclusion.

Agricultural resources were considered under the combined category of Land Use and Agricultural Resources section in the 2012-2035 RTP/SCS Program EIR³. According to the 2012-2035 RTP/SCS Program EIR, implementing the proposed 2012-2035 RTP/SCS transportation projects would result in substantial disturbance and/or loss of prime farmlands or grazing lands throughout southern California. Furthermore, development of highway, arterial, and transit projects proposed under the 2012-2035 RTP/SCS would result in the disturbance and/or loss of a substantial portion of these designated agricultural areas. The 2012-2035 RTP/SCS specifically calls out highway expansion and potential connector projects such as the High Desert Corridor project, the mixed flow Express/High Occupancy Toll (HOT) lane project along SR-395, as well as roadway improvements, toll road improvements and connections, grade separated facilities for bus ways, goods movement roadway facilities, and HOV/HOT connectors as projects which could result in significant impacts to agricultural lands.

In total, the 2012 RTP/SCS would result in approximately 74,300 total new lane miles by 2035, some of which would potentially disturb or consume agricultural lands in the region. The loss and disturbance of agricultural land was concluded to be a significant impact of the 2012-2035 RTP/SCS Program EIR.

Impacts to agricultural resources were determined to be below the level of significance in the 8/2/12 NOP/IS. Furthermore, when combined with past, present, and reasonably foreseeable activities, and in particular with projects identified as part of the 2012-2035 RTP/SCS, the 2012-2035 RTP/SCS would not contribute to a cumulatively considerable impact to agricultural resources requiring mitigation.

5.3.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse agricultural impacts and does not contribute to the impacts identified in the 2012-2035 RTP/SCS Final Program EIR. However, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.3.3 Level of Impact After Mitigation Measures

Potential agricultural resources impacts associated with the 2012-2035 RTP/SCS would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation because implementation of the 2012-2035 RTP/SCS would contribute to significant loss and disturbance of agricultural lands. Moreover, the 2012 AQMP would not

³ The topic of forestry resources was not evaluated in the Final Program EIR for the 2012-2035 RTP/SCS.

contribute to these impacts as noted in Subsection 5.3.1, so adverse cumulative operational agricultural resources impacts are concluded to be less than significant.

5.4 AIR QUALITY

5.4.1 Cumulative Air Quality Impacts

Construction Impacts: Implementation of the 2012 AQMP is expected to result in potentially significant adverse air quality impacts associated with: 1) additional infrastructure to support electric and alternative fuel vehicles; 2) additional infrastructure for stationary source controls; and, 3) additional infrastructure to support electrification of new sources.

According to the 2012-2035 RTP/SCS Program EIR, implementation of the 2012-2035 RTP/SCS transportation projects would result in substantial construction activities. The construction activities would create short-term temporary emissions from the following activities: 1) demolition; 2) site preparation operations (e.g., grading/excavation); 3) fuel combustion from the operation of construction equipment; 4) delivery and hauling of construction materials and supplies to and from sites; 5) the use of asphalt or other oil based substances during the final construction phases of projects; and, 6) travel by construction workers to and from sites.

Construction activities associated with the 2012 AQMP would result in significant impacts to the air quality resource and any concurrent emissions-generating activities from reasonably foreseeable construction activities would add an additional air emission burden to these significant levels. Therefore, construction air quality impacts from the 2012 AQMP are considered to be cumulatively considerable prior to mitigation and would contribute to significant adverse cumulative impacts from the 2012-2035 RTP/SCS.

Operational Impacts - Criteria Pollutants: The 2012 AQMP is expected to result in an emission reduction in NO_x, VOC, SO_x, and PM emissions, providing an air quality benefit. As shown in Figure 4.2-3, the 2012 AQMP is expected to attain the 24-hour federal PM_{2.5} standard by 2014. The 2012 AQMP also is expected to: 1) implement specific measures to implement Clean Air Action Section 182 (e)(5) to assist in attaining the eight-hour ozone standard by 2023; 2) maintain compliance with state and federal NO₂ standards (even considering the increase in population growth); 3) maintain compliance with state and federal SO₂ standards (even considering the increase in population growth); and, 4) maintain compliance with the federal 24-hour average PM₁₀ standard.

Control measures from the 2012 AQMP are expected to increase the demand for electrical energy associated with operation of add-on control equipment, electrical support facilities for on-road vehicles and off-road vehicles, and shore-side electricity associated with “cold ironing” of marine vessels. While these control measures may cause an increase in emissions from power plants used in electricity production, overall emissions in the Basin would be reduced because combustion emissions from natural gas, used to produce electricity, are lower than combustion emissions from gasoline or diesel engines. The 2012 AQMP [Final](#) Program EIR concluded that overall the net emissions effects from

implementing 2012 AQMP control measures would be a reduction and that no significant adverse impacts to air quality are expected from 2012 AQMP control measures requiring increased demand for electricity or natural gas.

The 2012 AQMP control measures associated with control of stationary sources are expected to result in a small increase in CO and NO_x emissions. However, the 2012 AQMP would achieve enough NO_x reductions overall to maintain ambient air quality standards. Also, although a potential exists for secondary particulate formation from ammonia slip, in selective catalytic reduction (SCR) applications used to control NO_x emissions from stationary sources, the 2012 AQMP [Final](#) Program EIR concluded that no new or substantially more severe significant air quality impacts related to ammonia emissions and secondary particulate formation from the increased use of SCR systems is expected.

Several 2012 AQMP control measures would reduce VOC emissions by reformulating or specifying utilization of certain VOC-containing products. The 2012 AQMP [Final](#) Program EIR concluded that air quality impacts from implementing future coatings rules would result in an overall reduction of VOC emissions and would be beneficial to air quality.

Control measures in the 2012 AQMP would also reduce emissions from mobile sources by accelerating the penetration of partial zero-emission and zero emission vehicles and off-road equipment, accelerating the replacement of old locomotive engines, increasing the amount of shore-side marine power, accelerating the replacement of aircraft engines with cleaner burning engines, increasing the use of alternative fuels, and increasing the use of add-on control devices. The 2012 AQMP [Final](#) Program EIR concluded that estimated VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5} emissions associated with on-road mobile sources in the district are expected to be reduced and that the overall impact of mobile source control measures is expected to be a beneficial impact on air quality. Finally, several 2012 AQMP control measures would regulate a variety of different types of emissions sources including both area and point sources. These control measures are expected to reduce VOC, criteria pollutant, and precursor emissions.

Under the 2012-2035 RTP/SCS, mobile source criteria pollutant emissions would stay approximately the same or decrease, providing an air quality benefit. However, the increase of re-entrained roadway dust would increase proportionately to vehicle miles traveled (VMT) and as such was considered a significant impact in the 2012-2035 RTP/SCS Program EIR.

Implementation of the 2012 AQMP would not in itself result in significant air quality impacts associated with operational activities. For this reason, the 2012 AQMP would not be expected to contribute to significant adverse cumulative impacts from transportation projects projected in the 2012-2035 RTP/SCS.

Operational Impacts - Non-Criteria Pollutants: Several 2012 AQMP control measures may result in the increased use of ammonia in SCRs. However, because ammonia slip from SCR units is restricted to 5.0 ppm or less, which has been shown through source-specific permit modeling to have no significant impact on surrounding communities, the impact from the use of ammonia as proposed in the 2012 AQMP is expected to be less than significant.

The 2012 AQMP is expected to result in a reduction of toxic air contaminant (TAC) emissions. The basis for this conclusion is that many TACs are also classified as criteria pollutants (e.g., PM and VOCs). To the extent that [the 2012 AQMP](#) control measures reduce PM and VOC emissions, associated TAC emission reductions could occur as well. The overall impacts associated with implementation of the 2012 AQMP are an overall reduction in non-criteria pollutants (e.g., toxic air contaminants). Therefore, no significant impacts on non-criteria pollutants have been identified.

Under the 2012-2035 RTP/SCS, as a result of on-going emission controls, cancer and other health risks within any given distance of mobile sources in the region would decline, although the health risks adjacent to transportation facilities would remain higher than regional averages and above desirable levels. As a result of 2012-2035 RTP/SCS policies anticipated growth patterns would concentrate population adjacent to transit and other transportation facilities in High Quality Transit Areas (HQTAs) that could result in more people being exposed to elevated cancer risk as compared to areas of the region more distant from such facilities. Therefore under the 2012-2035 RTP/SCS more sensitive receptors would be located adjacent to transportation facilities and would therefore be exposed to transportation-related air toxics. In addition, although non-carcinogenic health impacts due to VMT-related re-entrained dust would increase, these health impacts would be at least partially offset by the decrease in health impacts related to the decrease of air toxics and criteria pollutants from vehicle exhaust.

Implementation of the 2012 AQMP would not in itself result in significant air quality impacts associated with non-criteria pollutants. Moreover, the 2012 AQMP would not contribute to impacts associated with transportation projects projected in the 2012-2035 RTP/SCS and, therefore, would not be expected to contribute to a cumulatively considerable impact requiring mitigation.

Greenhouse Gas Impacts: The 2012 AQMP is expected to result in a reduction of GHGs. This conclusion is based on the fact that mobile source control measures would reduce GHG emissions through accelerated penetration of partial zero-emission and zero emission vehicles, the use of alternative fuels such as natural gas, the combustion of which generates less GHG emissions than diesel fuel.

The proposed 2012 AQMP control measures and the recommended state and federal control measures that promote fuel and energy efficiency and pollution prevention would also reduce GHG emissions. Measures that stimulate the development and use of new technologies would also be beneficial. In general, strategies that conserve energy, promote clean technologies, and result in a reduction in vehicle miles traveled would reduce GHG emissions. Therefore, the cumulative impacts are expected to result in an overall reduction in GHGs.

According to the 2012-2035 RTP/SCS Program EIR, implementation of the 2012-2035 RTP/SCS projects would result in a significant increase of greenhouse gas emissions from residential and commercial building construction, operational energy demand, and total mobile source emissions. The 2012-2035 RTP/SCS Program EIR concludes that implementation of 2012-2035 RTP/SCS projects 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 would comply with AB 32, growth anticipated to occur under the 2012-2035 RTP/SCS could result in a significant impact related to AB 32 and the Scoping Plan.

The 2012-2035 RTP/SCS Program EIR concluded that because per capita carbon dioxide emissions from light duty trucks and autos would meet ARB targets by 2020 and would achieve even greater emission reductions in 2035, the 2012-2035 RTP/SCS would result in a less-than-significant impact related to per capita emissions and SB 375.

5.4.2 Mitigation Measures

The 2012 AQMP is expected to result in significant adverse air quality impacts associated with construction activities. Mitigation measures AQ-1 through AQ-8 would serve to reduce those impacts, but significant impacts would remain for CO and PM10.

The 2012 AQMP [Final](#) Program EIR concluded that implementation of 2012 AQMP control measures would not generate significant adverse secondary operational air quality impacts from increased electricity and natural gas demand or from control of stationary sources. The 2012 AQMP [Final](#) Program EIR also concluded that the implementation of 2012 AQMP control measures would result in beneficial air quality impacts associated with coating or consumer product regulations, with mobile sources, and with miscellaneous source control measures, by providing emission reductions. Therefore, no significant adverse air quality impacts associated with operational control measures are expected and no mitigation measures are required.

It was also concluded that the 2012 AQMP would not generate significant adverse secondary air quality impacts from non-criteria pollutants. The 2012 AQMP also concluded that implementation of 2012 AQMP control measures would not result in significant air quality impacts from GHG emissions. Therefore, no mitigation is required.

Because implementation of the 2012-2035 RTP/SCS would result in significant air quality impacts associated with construction, health impacts associated with re-entrained roadway dust due to VMT increase, health impacts associated with the location of a potentially greater number of people adjacent to transportation facilities, and an increase in GHG emissions, mitigation measures were imposed in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures would also reduce impacts associated with the 2012 AQMP and are included in Appendix F of the 2012 AQMP [Final](#) Program EIR.

5.4.3 Level of Significance After Mitigation Measures

The air quality impacts associated with 2012 AQMP control measures were determined to be significant for construction activities and less than significant for secondary emissions from increased electricity demand, control of stationary sources, change in use of lower VOC materials, mobile sources, increase use of fuels due to reduction in fuel economy, miscellaneous sources, non-criteria pollutants, and global warming and ozone. Although

mitigation measures identified in the 2012 AQMP [Final](#) Program EIR would reduce construction air quality impacts associated with construction activities, impacts would remain significant and as such would continue to contribute to considerable impacts following mitigation.

Similarly, although mitigation measures identified in the 2012-2035 RTP/SCS Program EIR would reduce air quality and associated health impacts, impacts for construction, operation, TACs, and GHG impacts would continue to contribute to cumulatively considerable impacts following mitigation. Moreover, the 2012 AQMP would not contribute to these impacts as noted in Subsection 5.4.1, so adverse cumulative operational air quality impacts are concluded to be less than significant.

5.5 BIOLOGICAL RESOURCES

5.5.1 Cumulative Biological Resources and Open Space Impacts

Impacts to biological resources were considered and fully evaluated in the 8/2/12 NOP/IS prepared for the 2012 AQMP. As determined in the 8/2/12 NOP/IS, implementation of the 2012 AQMP would not adversely affect plant and/or animal species in the Basin because [the 2012 AQMP](#) control measures typically affect existing commercial or industrial facilities or establish specifications for fuels or mobile source exhaust emissions. Such existing commercial or industrial facilities are generally located in appropriately zoned commercial or industrial areas, which typically do not support candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. No comment letters were received during the 8/2/12 NOP/IS that disputed this conclusion.

According to the 2012-2035 RTP/SCS Program EIR, implementation of the 2012-2035 RTP/SCS would adversely affect biological resources and open space. Expected significant adverse impacts would include disturbance and removal of natural vegetation that may be utilized by sensitive species, habitat fragmentation and the associated decrease in habitat quality, litter, smoke, light pollution and road noise in previously undisturbed natural areas, trampling of natural vegetation, displacement of riparian and wetland habitat, as well as long-term impacts such as stream siltation of streams and other water bodies during construction and operation.

The amount of new urbanized acreage (consuming previously vacant land) would be on the order of hundreds of thousands of acres. Despite the inability to predict the acreage of each habitat type that may be affected, it is reasonable to expect that this future urban development would contribute to the same types of impacts detailed previously above. These indirect impacts on biological resources are associated with population, employment, and household growth forecasted by SCAG. Transportation projects included in the 2012-2035 RTP/SCS on previously undisturbed land would potentially displace natural vegetation and, thus, habitat, some of which is utilized by sensitive species in the region. In particular, the 2012-2035 RTP/SCS Program EIR states that the Mixed Flow Improvement along Highway 395 and the High Quality Transit Area (HQTA) along the I-15 in Riverside County would be located in sensitive and listed animal species habitat could result in a direct

loss of habitat. In addition, because implementation of 2012-2035 RTP/SCS projects would cause loss of habitat as well as habitat fragmentation in habitat corridors that cross the SCAG region's boundaries, thereby limiting the movement of wildlife species beyond the SCAG region, the 2012-2035 RTP/SCS Program EIR determined that implementation of the 2012-2035 RTP/SCS would contribute to a cumulative biological resources impact.

Implementation of the 2012 AQMP would not in itself result in significant biological impacts. Moreover, the 2012 AQMP would not contribute to impacts associated with transportation projects projected in the 2012-2035 RTP/SCS and, therefore, would not be expected to contribute to a cumulatively considerable impact requiring mitigation.

5.5.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse biological impacts. However, because implementation of the 2012-2035 RTP/SCS would result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.5.3 Level of Impact After Mitigation Measures

2012-2035 RTP/SCS impacts associated with biological and open space resources would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation due to significant disturbance and removal of natural vegetation that may be utilized by sensitive species, habitat fragmentation and the associated decrease in habitat quality, litter, trampling, light pollution and road noise in previously undisturbed natural areas, displacement of riparian and wetland habitat, siltation of streams and other water bodies during construction, and the loss of prime farmlands, grazing lands, open space and recreation lands. The increased urban development anticipated by the 2012-2035 RTP/SCS would also result in similar impacts. However, since the 2012 AQMP was not identified as creating any adverse biological resources impacts, it would not create cumulatively considerable impacts, so adverse cumulative biological resources impacts from the 2012 AQMP are concluded to be less than significant.

5.6 CULTURAL RESOURCES

5.6.1 Cumulative Cultural Resources Impacts

Impacts to cultural resources were considered and fully evaluated in the 8/2/12 NOP/IS prepared for the 2012 AQMP. As determined in the 8/2/12 NOP/IS, implementation of the 2012 AQMP would not adversely affect cultural resources because [the 2012](#) AQMP control measures typically affect existing commercial or industrial facilities or establish specifications for fuels or mobile source exhaust emissions. Potentially affected facilities would not require extensive cut-and-fill activities or excavation at undeveloped sites, and implementation of the 2012 AQMP would therefore not adversely affect historical or archaeological resources as defined in CEQA Guidelines §15064.5, destroy unique

paleontological resources or unique geologic features, or disturb human remains interred outside formal cemeteries. No comment letters were received by the SCAQMD during the 8/2/12 NOP/IS comment period disputing this conclusion.

In a small number of cases, implementation of the 2012 AQMP may require minor site preparation and grading at an affected facility. Under this circumstance, it is possible that archaeological or paleontological resources could be uncovered. Even if this circumstance were to occur, significant adverse cultural resources impacts are not anticipated because construction activities would occur at previously disturbed industrial or commercial locations and there are existing laws in place that are designed to protect and mitigate potential adverse impacts to cultural resources. As with any construction activity, should archaeological resources be found during construction that result from implementation of the 2012 AQMP, the activity would cease until a thorough archaeological assessment is conducted and the Native American Heritage Commission (NAHC) is contacted, if necessary.

According to the 2012-2035 RTP/SCS Program EIR, as of August 2011, over 68,000 archaeological and over 1,200 historic locations have been identified in the SCAG region. Each of these sites is documented at the Office of Historic Preservation, which holds location information on archaeological sites for each region in California. Paleontological sites are also numerous in southern California. The development of new transportation facilities as part of the 2012-2035 RTP/SCS may affect historical resources because many HQTAs would be located in older urban centers where structures of architectural or historical significance are likely to be located. In addition, 2012-2035 RTP/SCS transportation projects would significantly affect archaeological and paleontological resources because the projects could be located in previously undisturbed areas.

Furthermore, since it is not always possible to predict where human remains may occur outside of formal burials, it is possible that excavation and construction activities associated with 2012-2035 RTP/SCS projects may disturb previously undiscovered human remains not interred in marked, formal burials, resulting in significant impacts.

Finally, the 2012-2035 RTP/SCS's influence on growth would contribute to regional impacts on existing and previously undisturbed and undiscovered cultural resources; impacts would combine with impacts in other areas of Southern California to contribute to a cumulative loss of cultural resources in California.

Implementation of the 2012 AQMP would not in itself result in significant impacts to cultural resources. However, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with increased urbanization, projected in the 2012-2035 RTP/SCS, would not be expected to contribute to cumulatively considerable impacts to existing historic resources and previously undisturbed and undiscovered archeological and paleontological resources requiring mitigation.

5.6.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts to cultural resources. However, because implementation of the 2012-2035 RTP/SCS would result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.6.3 Level of Impact After Mitigation Measures

Potential impacts from the 2012-2035 RTP/SCS associated with cultural resources would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts to cultural resources would remain significant following mitigation because the 2012-2035 RTP/SCS is expected to affect a potentially large number of historic properties, archaeological resources, and paleontological resources. Moreover, the 2012 AQMP would not contribute to impacts associated with transportation projects projected in the 2012-2035 RTP/SCS and, therefore, would not be expected to contribute to a cumulatively considerable impact requiring mitigation. As a result, adverse cumulative cultural resources impacts from the 2012 AQMP are concluded to be less than significant.

5.7 ENERGY

5.7.1 Cumulative Energy Impacts

Implementation of the 2012 AQMP is expected to result in an overall increase in electricity demand. While this increase is expected to be within the electric generating capacity of the region, an increase in electricity of greater than one percent represents a substantial increase in electricity use. Similarly, the increased demand for natural gas for both stationary source and mobile source control measures were concluded to be significant, even though since sufficient natural gas resources are available. Thus, the energy impacts associated with electricity and natural gas demand from the implementation of the 2012 AQMP are considered to be significant.

Implementation of the 2012 AQMP is expected to result in less than significant energy impacts for use of petroleum fuels, use of alternative fuels (e.g., hydrogen), and on renewable energy sources. Furthermore, implementation of the 2012 AQMP control measures would result in a demand reduction of petroleum fuels. Finally, although implementation of the 2012 AQMP control measures would increase hydrogen demand as a transportation fuel, this increase is not expected to be significant since hydrogen is not widely available, its use is currently limited, and future demand is expected to be met through increased production. The energy impacts associated with the future use of hydrogen is expected to be less than the current strategy that uses predominately petroleum based fuels such that no significant hydrogen demand impacts are expected. Further, control measures may have a renewable energy benefit from the use of solar energy.

Energy resources are considered as part of the 2012-2035 RTP/SCS Program EIR Public Services and Utilities section. According to the 2012-2035 RTP/SCS Program EIR, implementation of the 2012-2035 RTP/SCS may uncover and potentially sever underground utility lines during construction activities, prior to mitigation.

The 2012-2035 RTP/SCS Program EIR concluded that implementation of the 2012-2035 RTP/SCS would increase energy demand associated with construction of regional transportation system and anticipated development. The RTP/SCS Program EIR also concluded that the 2012-2035 RTP/SCS would result in less transportation fuel consumption due to RTP/SCS' emphasis on compact land use and growth patterns that facilitate transit and non-motorized transportation. The 2012-2035 RTP/SCS Program EIR also identified that overall population growth, accommodated by the transportation investments, would require an increase in energy resources and as such would result in significant impacts to non-renewable energy resources. Finally, the 2012-2035 RTP/SCS Program EIR concluded that the anticipated demand for energy would contribute to depleting energy reserves and as such would contribute to a cumulatively significant impact.

Implementation of the 2012 AQMP was concluded to generate significant impacts to electricity and natural gas energy supplies. The 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with construction activities and accommodated population growth demands predicted by the 2012-2035 RTP/SCS Program EIR, may contribute to cumulatively considerable impacts electricity and natural gas energy impacts. Moreover, the 2012 AQMP would not contribute to impacts associated with demand for petroleum fuels, alternative fuels or non-renewable energy supplies requiring mitigation.

5.7.2 Mitigation Measures

The 2012 AQMP is expected to result in significant electricity demand impacts associated with electrification of stationary and mobile sources. Mitigation measures E-1 through E-7 would serve to reduce impacts from increased electricity demand and mitigation measures E-8 through E-12 would reduce impacts from increased demand for natural gas. In spite of implementing these mitigation measures, significant adverse energy impacts would remain.

The 2012 AQMP [Final](#) Program EIR also concluded that impacts would be less than significant for use of petroleum fuels, use of alternative fuels (e.g., hydrogen), and use of renewable energy sources.

Implementation of the 2012-2035 RTP/SCS would result in significant impacts from construction projects associated with urban development and growth accommodated by the 2012-2035 RTP/SCS transportation projects, therefore, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. Energy resources were addressed as part of the Public Services and Utilities section of the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.7.3 Level of Impact after Mitigation Measures

Electricity and natural gas demand impacts associated with the 2012 AQMP control measures were concluded to be significant, while energy impacts associated with use of petroleum fuels, use of alternative fuels and renewable energy sources were considered to be less than significant. Although mitigation measures identified in the 2012 AQMP [Final Program EIR](#) would reduce energy impacts associated with electricity demand, impacts would remain significant and as such would continue to contribute to considerable impacts following mitigation.

2012-2035 RTP/SCS impacts associated with energy resources would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation because energy consumed during construction and expansion of the transportation system, as well as growth that would be accommodated by the 2012-2035 RTP/SCS, would contribute to considerable impacts following mitigation. Therefore, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with the 2012-2035 RTP/SCS transportation projects, would contribute to a cumulatively considerable electricity and natural gas demand impacts following mitigation.

5.8 GEOLOGY AND SOILS

5.8.1 Cumulative Geology and Soils Impacts

Impacts to geologic resources were considered and fully evaluated in the 8/2/12 NOP/IS prepared for the 2012 AQMP. As determined in the 8/2/12 NOP/IS, implementation of the 2012 AQMP would not directly or indirectly expose people or structures to earthquake faults, seismic shaking, seismic-related ground failure including liquefaction, landslides, mudslides or substantial soil erosion; no new structures would be constructed as the result of implementing the 2012 AQMP. Although some structural modifications at existing affected facilities may occur as a result of installing control equipment or making process modifications, existing affected facilities or modifications to existing facilities would be required to comply with relevant California Building Code requirements in effect at the time of initial construction or modification of a structure which are expected to mitigate geology and soils impacts to less than significant. No comment letters were received disputing these conclusions.

Geology and soils were considered in the 2012-2035 RTP/SCS Program EIR as part of the Geology, Soils and Mineral Resources section. All of southern California is susceptible to impacts from seismic activity and numerous active faults are known to exist in the region that could potentially generate seismic events capable of significantly affecting transportation facilities proposed in the 2012-2035 RTP/SCS. According to the 2012-2035 RTP/SCS Program EIR, seismic events could damage transportation infrastructure through surface rupture, ground shaking, liquefaction, and landsliding. Specifically, implementation of the new light rail transit (LRT) routes/extension in Los Angeles and San Bernardino Counties, new highways, arterials, bus rapid transit routes, goods movement (freight), heavy and light rail routes, high-speed trains, and other capacity enhancements proposed under the

2012-2035 RTP/SCS would be susceptible to impacts from seismic activity. Although seismic activity could cause damage to existing substandard construction, new designs taking account of current engineering knowledge can significantly reduce potential damage and harm. Earthquake-resistant designs employed on new structures minimize the impact to public safety from seismic events. The 2012-2035 RTP/SCS Program EIR also determined that seismically induced tsunami and seiche waves could damage transportation infrastructure proximate to coastal areas, but that the potential for these impacts would be remote and was not considered significant.

The 2012-2035 RTP/SCS Program EIR concluded that earthwork associated with implementation of the 2012-2035 RTP/SCS could result in soil erosion and/or loss of topsoil and in some cases could result in slope failure. The 2012-2035 RTP/SCS Program EIR further determined that location of 2012-2035 RTP/SCS projects on expansive soils and unstable geologic units could have potentially significant impacts to property and public safety due to on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse. Finally, the 2012-2035 RTP/SCS Program EIR concluded that implementation of the 2012-2035 RTP/SCS would occur within the SCAG region, would be site-specific in nature and as such would not contribute to a cumulatively considerable increase in risk associated with geologic hazards.

Impacts under geologic and soil resources were determined to be below the level of significance in the 8/2/12 NOP/IS, therefore, when combined with past, present, and reasonably foreseeable activities, and in particular with projects identified as part of the 2012-2035 RTP/SCS, would not be expected to contribute to a cumulatively considerable geologic and soil resources impacts prior to mitigations.

5.8.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts under geologic and soil resources. However, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.8.3 Level of Impact After Mitigation Measures

Potential geologic and soil resources impacts associated with the 2012-2035 RTP/SCS would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation because implementation of the 2012-2035 RTP/SCS is expected to result in potential damage to transportation infrastructure through surface rupture, ground shaking, liquefaction, and landsliding, as well as long term soil erosion and/or loss of top soil, subsidence, and slope failure. Moreover, the 2012 AQMP would not contribute to geologic and soil resources impacts associated with transportation projects projected in the 2012-2035 RTP/SCS and, therefore, would not be expected to contribute to a cumulatively considerable impact requiring mitigation.

5.9 HAZARDS AND HAZARDOUS MATERIALS

5.9.1 Cumulative Hazards and Hazardous Materials Impacts

Implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts from hazards and hazardous materials associated with the use of alternative fuels or the use of fuel additives. Fire hazards associated with reformulated coatings, adhesives, solvents, lubricants, mold release products, and other consumer products are potentially significant. The hazard impacts associated with alternative fuels, except for the transport of LNG are considered less than significant. Hazard impacts associated with the transport of LNG are considered potentially significant. In addition, the hazards associated with a spill of ammonia (used as a catalyst in SCR systems) were determined to be potentially significant. Finally, the hazard impacts associated with facility shutdown and start up operations and associated with the use of catalysts were considered less than significant.

According to the 2012-2035 RTP/SCS Program EIR, proposed freight rail enhancements and other goods movement capacity enhancements could result in increased or new transport of hazardous materials or wastes. In addition, construction and maintenance of such projects would result in use of equipment that contains or uses routine hazardous materials (e.g., diesel-fuel, paint and cleaning solutions), and the transportation of excavated soil and/or groundwater containing contaminants from previously contaminated areas. The 2012-2035 RTP/SCS Program EIR concludes that although individual projects would be required to comply with all existing regulations, due to the volume of projects (transportation and development) contained within the RTP/SCS it is possible that significant impacts could occur.

Because implementing the 2012-2035 RTP/SCS would facilitate the movement of goods, including hazardous materials, through the region, transportation of goods, in general, and hazardous materials in particular, is expected to increase substantially with implementation of the 2012-2035 RTP/SCS. The 2012-2035 RTP/SCS Program EIR estimated that daily regional heavy duty truck VMT within the SCAG region would increase from 41 million in 2011 to 65 million in 2035, a 58 percent increase. The 2012-2035 RTP/SCS Program EIR concluded that there would be a 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. The 2012-2035 RTP/SCS Program EIR also concluded that approximately 541 existing kindergarten through 12th grade schools would be located within a one-quarter mile buffer of the 2012-2035 RTP/SCS projects and as such could be impacted by an accidental release of hazardous materials.

Furthermore, according to the 2012-2035 RTP/SCS Program EIR, implementation of the 2012-2035 RTP/SCS would potentially disturb contaminated property during the construction of new transportation or expansion of existing transportation facilities and disturb contaminated sites as a result of population, housing and employment growth in the region. Finally, the 2012-2035 RTP/SCS Program EIR concluded that the forecasted urban development and growth that would occur under the 2012-2035 RTP/SCS and the increased mobility provided by the 2012-2035 RTP/SCS would result in increased hazardous materials

transport outside of the SCAG region and as such would contribute to cumulatively considerable impacts.

Implementation of the 2012 AQMP would result in significant impacts from fire hazards associated with reformulated products, the possibility of ammonia tank failures, and from transport of LNG. The 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2012-2035 RTP/SCS, would contribute to cumulatively considerable impacts prior to mitigation.

5.9.2 Mitigation Measures

In the 2012 AQMP, mitigation measures HZ1 and HZ2 were developed to minimize fire impacts associated with reformulated products. HZ3 through HZ6 were developed to minimize impacts associated with LNG transport, and HZ7 through HZ10 were developed to minimize impacts associated with ammonia storage. Implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.9.3 Level of Impact After Mitigation Measures

It was concluded in the 2012 Program EIR that potentially significant adverse fire hazard impacts associated with reformulated products and the on-site ammonia storage hazards would be less than significant after mitigation. In spite of implementing mitigation measures, it was concluded that hazards associated with LNG transport would remain significant.

It was concluded in the 2012-2035 RTP/SCS that impacts associated with hazards and hazardous materials would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, impacts from the implementation of the 2012-2035 RTP/SCS, associated with upset and accident conditions, hazardous emissions in vicinity of schools, and disturbance of contaminated property during construction activities would remain significant following mitigation. When combined with past, present, and reasonably foreseeable activities, and in particular with the 2012-2035 RTP/SCS transportation projects, the 2012 AQMP has the potential to contribute to a cumulatively considerable hazards and hazardous materials impacts following mitigation for the risks associated with the transport of LNG.

5.10 HYDROLOGY AND WATER QUALITY

5.10.1 Cumulative Hydrology and Water Quality Impacts

Implementation of 2012 AQMP control measures may result in impacts to water quality and increased wastewater discharge associated with the use of alternative fuels, increased use of batteries, increased water demand, use and application of sodium bisulfate for livestock operations, and use of ammonia in SCR applications.

The 2012 AQMP [Final](#) Program EIR concluded that wastewater treatment facilities would have sufficient capacity to handle the estimated increase in wastewater that could be generated from reformulation of products and use of air pollution control equipment. The 2012 AQMP [Final](#) Program EIR also concluded that the use of alternative fuels would not result in greater adverse water quality impacts than the use of conventional fuels. In addition, the 2012 AQMP [Final](#) Program EIR concluded that the recycling of EV and hybrid batteries would be greater than lead-acid batteries in conventional vehicles, reducing the potential for illegal disposal and potential water quality impacts. Furthermore, the 2012 AQMP [Final](#) Program EIR concluded that the use and application of sodium bisulfate in livestock operations would be controlled and monitored to prevent water quality runoff and related water quality impacts. The 2012 AQMP [Final](#) Program EIR also concluded that potential spills associated with ammonia would be contained on-site via required secondary spill containment devices and berms. Finally, the 2012 AQMP [Final](#) Program EIR concluded that water demand associated with the manufacture and use of waterborne and add-on air pollution control technologies would be potentially significant.

According to the 2012-2035 RTP/SCS Program EIR, project-specific studies would be necessary to determine the actual potential for significant impacts on water resources resulting from implementation of the 2012-2035 RTP/SCS. However, general program-level impacts from new transportation projects proposed in the 2012-2035 RTP/SCS would degrade local surface water quality by increased roadway and urban runoff, potentially violating water quality standards associated with wastewater and stormwater permits. In addition, the 2012-2035 RTP/SCS could alter the existing drainage patterns in ways that would result in substantial erosion or siltation.

Implementation of the 2012-2035 RTP/SCS would also increase impervious surfaces due to additional miles of roadway, in addition to urban development associated with the population distribution by 2035, and as such would increase runoff and potentially affect groundwater recharge rates. Furthermore, the 2012-2035 RTP/SCS would potentially increase flooding hazards by placing structures such as transportation investments on alluvial fans and within 100-year flood hazard areas and increase the rate or amount of surface runoff in a manner that would result in flooding or produce or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

The 2012-2035 RTP/SCS Program EIR concluded that although wastewater rates are expected to increase 21 percent by 2035, population growth would be dispersed throughout the SCAG region and, especially given aggressive water conservation strategies, the SCAG region would not outgrow its wastewater treatment capacity by the year 2035.

The 2012-2035 RTP/SCS Program EIR also concluded that increased mobility and inclusion of land-use-transportation measures would influence the pattern of urbanization in southern California and although most water agencies have plans in place to respond to future growth, the existing water supplies and infrastructure would not be sufficient to meet the expected demand in 2035. Finally, the 2012-2035 RTP/SCS Program EIR concluded that any increase in water demand in the SCAG regions would affect areas outside the region by consuming water that could be used in other areas and that due to uncertainties associated with water

supply management, this would contribute to a cumulatively considerable impact prior to mitigation.

Implementation of the 2012 AQMP would result in significant adverse water demand impacts associated with the manufacture and use of waterborne and add-on air pollution control technologies. Therefore, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and with 2012-2035 RTP/SCS would contribute to cumulatively considerable impacts prior to mitigation.

5.10.2 Mitigation Measures

The 2012 AQMP [Final](#) Program EIR identifies possible mitigation measures to reduce water demand associated with the manufacture and use of waterborne and add-on air pollution control technologies. The 2012 AQMP [Final](#) Program EIR concludes that while mitigation measures are available, they can vary from jurisdiction to jurisdiction, and impacts may remain significant. In addition, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.10.3 Level of Impact After Mitigation Measures

Although 2012 AQMP impacts associated with water demand would be reduced following the implementation measures, the effectiveness of mitigation measures can vary between jurisdictions, therefore, water demand impacts may remain significant.

2012-2035 RTP/SCS impacts associated with hydrology and water quality would be reduced following the implementation of the 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation for water quality, wastewater, riparian habitats and waters of the U.S. runoff/drainage, groundwater, flooding, and water supply. Therefore, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with the 2012-2035 RTP/SCS transportation projects, would contribute to cumulatively considerable impacts following mitigation to water demand impacts. The cumulative impacts of other hydrology and water quality impacts associated with the 2012 AQMP are less than significant.

5.11 LAND USE AND PLANNING

5.11.1 Cumulative Land Use and Planning Impacts

Implementation of the 2012 AQMP is not expected to result in potentially significant adverse land use impacts because the 2012 AQMP would for the most part impose control requirements on stationary sources at existing commercial or institutional facilities, establish emission exhaust specifications for mobile sources, and control emissions from mobile sources. Although some 2012 AQMP control measures may require the construction of battery charging or fueling infrastructure as well as construction of catenary lines, the 2012

AQMP [Final](#) Program EIR concluded that impacts associated with these activities would not generate significant adverse land use impacts because they would be developed within or adjacent to existing roadways and transportation corridors.

It should be noted that there are no provisions of the 2012 AQMP that would directly affect land use plans, policies, or regulations. The SCAQMD is specifically precluded from infringing on existing city or county land use authority (California Health & Safety Code §40414). Land use and other planning considerations are determined by local governments and no present or planned land uses in the region or planning requirements would be altered by the 2012 AQMP.

Land use and planning were considered under the combined category of Land Use and Agricultural Resources section in the 2012-2035 RTP/SCS Program EIR. According to the 2012-2035 RTP/SCS Program EIR, implementation of the 2012-2035 RTP/SCS would result in inconsistencies with general plans, disruption or division of established communities, changes to land uses by changing concentrations of development throughout SCAG, change patterns of growth and urbanization beyond the SCAG region, and cumulatively considerable changes to land use and the intensity of land use. Short-term construction related impacts and long-term or permanent displacement or offsite impacts from new facilities would potentially occur as a result of implementation of the 2012-2035 RTP/SCS.

Implementation of the 2012 AQMP control measures would not conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project, or physically divide an established community. Therefore, when combined with past, present, and reasonably foreseeable activities, and in particular with projects identified as part of the 2012-2035 RTP/SCS, it would not contribute to cumulatively considerable impacts requiring mitigation.

5.11.2 Mitigation Measures

Land use and planning mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts to land use and planning. However, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. Land use and planning resources were combined with agricultural resources in the 2012-2035 RTP/SCS. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.11.3 Level of Impact After Mitigation Measures

Potential land use and planning impacts associated with the 2012-2035 RTP/SCS would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation because implementation of the 2012-2035 RTP/SCS would contribute to inconsistencies with general plans, disruption or division of established communities,

changes to land uses by changing concentrations of development throughout SCAG, change patterns of growth and urbanization beyond the SCAG region, and cumulatively considerable changes to land use and the intensity of land use. Short-term construction related impacts and long-term or permanent displacement or offsite impacts from new facilities would also potentially occur as a result of implementation of the 2012-2035 RTP/SCS. Moreover, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with the 2012-2035 RTP/SCS transportation projects, would not be expected to contribute to cumulatively considerable land use and planning impacts requiring mitigation.

5.12 MINERAL RESOURCES

5.12.1 Cumulative Mineral Resources Impacts

Impacts to mineral resources were considered and fully evaluated in the 8/2/12 NOP/IS, prepared for the 2012 AQMP. As determined in the 8/2/12 NOP/IS, implementation of the 2012 AQMP would not directly or indirectly impact mineral resources. No comment letters were received by the SCAQMD during the 8/2/12 NOP/IS disputed this conclusion.

Mineral resources were considered under the combined category of Geology, Soils and Mineral Resources in the 2012-2035 RTP/SCS Program EIR. According to the 2012-2035 RTP/SCS Program EIR, implementing the proposed 2012-2035 RTP/SCS transportation projects would result in the loss of availability of known aggregate and mineral resources that would be of value to the region.

Since potential impacts to mineral resources were determined to be below the level of significance in the 8/2/12 NOP/IS, when combined with past, present, and reasonably foreseeable activities, and in particular with projects identified as part of the 2012-2035 RTP/SCS, the 2012 AQMP is not expected to contribute to cumulatively considerable impacts to mineral resources prior to mitigation.

5.12.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts to mineral resources. However, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. Mineral resources were combined in the 2012-2035 RTP/SCS with geology and soil resources. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.12.3 Level of Impact After Mitigation Measures

Potential impacts from the 2012-2035 RTP/SCS associated with mineral resources would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation because implementation of 2012-2035 RTP/SCS would result in increased

demand driven by growth and the large number of projects anticipated in the 2012-2035 RTP/SCS. Moreover, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities and in particular with the 2012-2035 RTP/SCS transportation projects, would not be expected to contribute to cumulatively considerable mineral resources impacts requiring mitigation.

5.13 NOISE

5.13.1 Cumulative Noise Impacts

Construction Impacts: Implementation of the 2012 AQMP control measures associated with air pollution control technologies and exhaust standards would not result in noise and vibration impacts because construction activities would occur within appropriately zoned industrial and commercial areas, impacts would be temporary and limited to construction activities, and construction noise/vibration impacts to sensitive receptors would not be expected. However, implementation of the 2012 AQMP control measures associated with construction of overhead catenary lines could result in significant noise and vibration impacts due to the geographic proximity of sensitive receptors.

According to the 2012-2035 RTP/SCS Program EIR, grading and construction activities associated with the proposed freeway, arterial, transit, and rail projects, as well as anticipated development 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, resulting in temporary noise increases at nearby sensitive receptors, creating potentially significant adverse noise impacts.

Operational Impacts: Implementation of the 2012 AQMP control measures is not expected to result in significant adverse operational noise impacts because [the 2012 AQMP](#) control measures typically affect existing commercial or industrial facilities typically located in appropriately zoned industrial or commercial areas. It is not expected that modifications to install air pollution control equipment would substantially increase ambient noise levels in the area, either permanently or intermittently, or expose people to excessive noise levels that would be noticeable above and beyond existing ambient levels. Although overhead catenary lines could be installed to comply with certain control measures, these lines would be installed along existing roadways and transportation corridors and as such would not result in the construction of new roadways or corridors.

According to the 2012-2035 RTP/SCS Program EIR, noise-sensitive land uses could be exposed to operational noise in excess of normally acceptable noise levels and could experience substantial increases in noise as a result of:

- The operation of expanded or new transportation facilities (e.g., increased traffic resulting from new highways, addition of highway lanes, roadways, ramps, and use of new transit facilities as well as increased use of existing transit facilities, etc.).
- Increased vehicle activity (e.g., autos, trucks, buses, planes, trains, etc.) associated with development and resulting in increased ambient noise next to transportation facilities.

Implementation of 2012 AQMP control measures could result in significance noise and vibration impacts during construction activities. Therefore, when combined with past, present, and reasonably foreseeable activities, and in particular with the increased development projected in the 2012-2035 RTP/SCS, the 2012 AQMP would contribute to cumulatively considerable noise impacts prior to mitigation.

5.13.2 Mitigation Measures

Mitigation measures NO-1 through NO-9 [in the 2012 AQMP Final Program EIR](#) would reduce noise impacts associated with construction of overhead catenary lines. Furthermore, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final Program EIR](#).

5.13.3 Level of Impact After Mitigation Measures

Although impacts would be reduced following implementation of noise mitigation measures identified in the 2012 AQMP [Final Program EIR](#), noise and vibration impacts associated with the construction of catenary lines would remain significant in areas where sensitive receptors are located near transportation corridors.

2012-2035 RTP/SCS impacts associated with noise would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation for noise and vibration during construction activities and operational activities. Therefore, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with the 2012-2035 RTP/SCS transportation projects, would contribute to cumulatively considerable noise and vibration impacts following mitigation.

5.14 POPULATION AND HOUSING

5.14.1 Cumulative Population, Housing and Employment Impacts

Impacts to population and housing were considered and fully evaluated in the 8/2/12 NOP/IS prepared for the 2012 AQMP. As determined in the 8/2/12 NOP/IS, implementation of the 2012 AQMP is not expected to result in significant adverse population and housing impacts because [the 2012 AQMP](#) control measures typically affect existing commercial or industrial facilities located in predominantly industrial or commercial urbanized areas. It is expected that the existing labor pool within the areas surrounding any affected facilities would accommodate the labor requirements for any facility or equipment modifications. In addition, it is not expected that affected facilities would be required to hire additional personnel to operate and maintain new control equipment on site because air pollution control equipment is typically not labor intensive equipment. In the event that new employees are hired, it is expected that the existing local labor pool in the district can accommodate any increase in demand for workers that might occur as a result of adopting the proposed 2012 AQMP. Therefore, implementing 2012

AQMP control measures is not expected to result in changes in population densities or induce significant growth in population. No comment letters were received by the SCAQMD during the 8/2/12 NOP/IS comment period disputing this conclusion.

According to the 2012-2035 RTP/SCS Program EIR, implementing the 2012-2035 RTP/SCS would induce population growth in some areas of the SCAG region, displace existing homes and businesses, and influence the pattern of growth in the regions through transportation investments and land use strategies.

Since population, housing and employment impacts were concluded to be below the level of significance in the 8/2/12 NOP/IS, when combined with past, present, and reasonably foreseeable activities, and in particular with the anticipated impacts in the 2012-2035 RTP/SCS, the 2012 AQMP would not be expected to contribute to cumulatively considerable impacts to population and housing prior to mitigation.

5.14.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts to population, housing, and employment. However, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F of the 2012 AQMP [Final](#) Program EIR.

5.14.3 Level of Impact After Mitigation Measures

Potential population, housing, and employment impacts associated with the 2012-2035 RTP/SCS would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, although the policies included in the 2012-2035 RTP/SCS seek to direct growth in a way that is efficient for both mobility and land consumption, 2012-2035 RTP/SCS population, housing, and employment impacts would remain significant following mitigation because implementation of the 2012-2035 RTP/SCS would continue to induce growth to certain areas of the region. In addition, although 2012-2035 RTP/SCS Program EIR mitigation measures would serve to reduce potential impacts related to displacement of residences and businesses, a substantial number of businesses and residences would likely be displaced due to development associated with 2012-2035 RTP/SCS projects. The accessibility afforded by the 2012-2035 RTP/SCS and the expected shifts in population, households, and employment associated with the mobility benefits would change the growth patterns in the region, generating potentially significant adverse cumulative population and housing impacts in spite of implementing mitigation measures. Moreover, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and with 2012-2035 RTP/SCS projects in particular, would not be expected to produce cumulatively considerable impacts requiring mitigation.

5.15 PUBLIC SERVICES

5.15.1 Cumulative Public Services Impacts

Impacts to public services were considered and fully evaluated in the 8/2/12 NOP/IS prepared for the 2012 AQMP. As determined in the 8/2/12 NOP/IS, implementation of the 2012 AQMP would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times or other performance objectives. Most industrial facilities have on-site security that control public access to facilities and therefore, an increase in the need for police services is not expected. Furthermore, most industrial facilities have on-site fire protection personnel and/or have agreements for fire protection services with local fire departments. For these reasons, implementing the 2012 AQMP is not expected to require additional fire or police protection services. In addition, implementation of the 2012 AQMP is not expected to induce population growth and as such would not increase or otherwise alter the demand for schools and parks in the district. Therefore, no significant adverse impacts to schools or parks are foreseen as a result of adopting the proposed 2012 AQMP. No comment letters were received that disputed this conclusion.

According to the 2012-2035 RTP/SCS Program EIR, implementing the 2012-2035 RTP/SCS would adversely affect public services and utilities. Expected significant impacts would include demand for more police, fire, and emergency personnel and facilities, demand for more school facilities and teachers, and increase in the number of houses in areas subject to wildfires. The 2012-2035 RTP/SCS concluded that impacts to fire services would contribute to regionally cumulatively considerable impacts to staffing levels and response times of police, fire and emergency services.

Construction necessary to implement the 2012-2035 RTP/SCS could potentially uncover and sever underground utility lines (electric and natural gas), as could any groundbreaking in the SCAG region. For this reason, the project implementation agency is normally required to incorporate the locations of existing utility lines into the construction schedule prior to construction. Per the 2012-2035 RTP/SCS Program EIR, prior knowledge and avoidance during construction of existing utility lines would reduce this impact.

Because impacts to public services and utilities were determined to be below the level of significance in the 8/2/12 NOP/IS, when combined with past, present, and reasonably foreseeable activities, and in particular with the anticipated impacts in the 2012-2035 RTP/SCS, the 2012 AQMP is not expected to contribute to cumulatively considerable impacts to public services requiring mitigation.

5.15.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts to public services and utilities. However, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-

2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F of the 2012 AQMP [Final](#) Program EIR.

5.15.3 Level of Impact After Mitigation Measures

Potential adverse impacts to public services and utilities from the 2012-2035 RTP/SCS would be reduced following the implementation of the 2012-2035 RTP/SCS Program EIR mitigation measures. However, public service impacts from the 2012-2035 RTP/SCS associated with police, fire, and emergency response were concluded to be significant in spite of implementing mitigation measures. Impacts to wildfire threats would also remain significant because development would occur in areas that have a high threat of fire.

The region's demand to accommodate an additional 453,000 school children would remain a significant impact on public services following implementation of 2012-2035 RTP/SCS mitigation measures. The 2012-2035 RTP/SCS Program EIR also concluded that impacts to underground utility lines would be reduced to below the level of significance following mitigation.

Based on the above information, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and with 2012-2035 RTP/SCS projects in particular, is not expected to produce cumulatively considerable impacts to public services and utilities requiring mitigation.

5.16 RECREATION

5.16.1 Cumulative Recreational Resources Impacts

Impacts to recreational resources were considered and fully evaluated in the 8/2/12 NOP/IS prepared for the 2012 AQMP. As discussed in the 8/2/12 NOP/IS, and similar to the conclusions regarding potential land use and planning impacts, there are no provisions in the proposed 2012 AQMP that would affect land use plans, policies, ordinances, or regulations related to recreation facilities or services. Recreation-related land use and other planning considerations are determined by local governments and no land use or planning requirements, including those related to recreational facilities, would be altered by the proposal. The proposed project would not have the potential to directly or indirectly induce population growth or redistribution that could adversely affect recreational resources. As a result, the proposed project would not increase the use of, or demand for existing neighborhood and/or regional parks or other recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No comment letters were received by the SCAQMD during the 8/2/12 NOP/IS comment period disputing this conclusion.

Impacts to recreational resources were considered under the combined category of Public Services and Utilities section in the 2012-2035 RTP/SCS Program EIR. According to the 2012-2035 RTP/SCS Program EIR, implementing the proposed 2012-2035 RTP/SCS projects would result in a substantial loss or disturbance of existing open space and recreational lands, as well as a potential to increase the use of existing neighborhood and

regional parks or other recreational facilities, such that substantial deterioration of the facilities would occur. The 2012-2035 RTP/SCS Program EIR concluded that implementation of 2012-2035 RTP/SCS projects would result in significant impacts prior to mitigation.

Because potential impacts to recreational resources were determined to be below the level of significance in the 8/2/12 NOP/IS, when combined with past, present, and reasonably foreseeable activities, and in particular with projects identified as part of the 2012-2035 RTP/SCS, the 2012 AQMP would not be expected to contribute to a cumulatively considerable impact to recreational resources requiring mitigation.

5.16.2 Mitigation Measures

Recreation mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts to recreational resources. However, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. Recreational resources were considered as part of the Public Services and Utilities section of the 2012-2035 RTP/SCS. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.16.3 Level of Impact After Mitigation Measures

Potential impacts associated with recreational resources from the 2012-2035 RTP/SCS would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation because implementation of the 2012-2035 RTP/SCS would contribute to loss and disturbance of open space and recreational lands. Based on the information above, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with the 2012-2035 RTP/SCS transportation projects, would not be expected to contribute to cumulatively considerable recreation impacts following mitigation.

5.17 SOLID AND HAZARDOUS WASTE

5.17.1 Cumulative Solid and Hazardous Waste Impacts

Implementation 2012 AQMP control measures would not significantly increase disposal of spent batteries, activated carbon, filters, and catalysts, and the early retirement of older equipment and replacement with newer and lower emission technology equipment, would not generate significant additional waste.

The 2012 AQMP [Final](#) Program EIR concluded that because spent batteries are required to be and are largely recycled, the increased use of EVs and hybrid vehicles would not result in a significant increase in the illegal disposal of batteries. In addition, solid waste impacts due to 2012 AQMP air pollution control technologies would not be significant because spent

carbon and catalysts are usually recycled and reused rather than disposed in landfills and filter waste would be small because the amount of material collected is small. The 2012 AQMP [Final](#) Program EIR concludes that control measures that would require new equipment can require that retirement occurs as the life of the old equipment is exhausted and new equipment is put into service. For equipment that may be retired before the end of its useful life, that equipment may be reused in areas outside the district. Equipment with no remaining useful life is expected to be recycled for metal content. Therefore, no significant solid/hazardous waste impacts were identified due to implementation of the control measures.

Impacts from solid waste were considered under the combined category of Public Services and Utilities section in the 2012-2035 RTP/SCS Program EIR, whereas impacts from hazardous waste were considered under the Hazardous Materials section in the 2012-2035 RTP/SCS Program EIR. According to the 2012-2035 RTP/SCS Program EIR, implementing the proposed 2012-2035 RTP/SCS projects would result in a significant amount of solid waste generated during construction of new transit lines, truck lanes, HOV connectors, and HOT projects through grading and excavation activities, as well as debris resulting from removal of structures. Construction of urban development would be expected to generate similar debris. Construction debris would be recycled or used as fill at other projects or transported to the nearest landfill site and disposed of appropriately. The 2012-2035 RTP/SCS Program EIR concluded that implementation of 2012-2035 RTP/SCS projects would result in significant impacts prior to mitigation. Impacts associated with hazardous waste, as identified by the 2012-2035 RTP/SCS Program EIR, are consistent with and are presented in Section 5.9, Hazards and Hazardous Materials of that document.

The 2012-2035 RTP/SCS Program EIR also concluded that because 2012-2035 RTP/SCS projects may require transport of waste to less urban areas of the region or outside of the region, to landfills that are less impacted than local landfills, implementation of 2012-2035 RTP/SCS projects would result in a cumulatively considerable demand on solid waste facilities that exceeds regional capacity.

5.17.2 Mitigation Measures

Mitigation measures are not required for the 2012 AQMP because implementation of the 2012 AQMP is not expected to result in potentially significant adverse impacts due to solid and hazardous wastes. However, because implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.17.3 Level of Impact After Mitigation Measures

Potential impacts associated with solid and hazardous waste from the 2012-2035 RTP/SCS would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, 2012-2035 RTP/SCS impacts would remain significant following mitigation because the demand for solid waste services in the SCAG region and the resulting need to move solid waste large distances, potentially out of the region, would

remain. Based on the above information, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with the 2012-2035 RTP/SCS transportation projects, would not be expected to contribute to cumulatively considerable solid or hazardous waste impacts requiring mitigation.

5.18 TRANSPORTATION AND TRAFFIC

5.18.1 Cumulative Transportation and Traffic Impacts

Implementation of the 2012 AQMP is not expected to result in potentially significant adverse transportation and traffic impacts because [the 2012 AQMP](#) control measures typically affect existing commercial or industrial facilities or establish specifications for fuels or mobile source exhaust emissions and as such are not expected to generate new construction or substantially increase vehicle trips or vehicle miles traveled in the district. However, some 2012 AQMP control measures could necessitate the construction of overhead catenary lines, within or adjacent to existing roadways, streets, freeways, and/or transportation corridors. Such construction activities would generate traffic associated with construction worker vehicles and trucks delivering equipment, materials and supplies to the project site during the duration of the construction activities. Construction activities, including potential lane closures, were considered to be significant.

Similarly, transportation infrastructure improvements pertaining to overhead catenary electrical lines could require the dedication of an existing lane exclusive to vehicles using the overhead catenary electrical lines or fixed guideway systems. The dedication of an existing lane would mean that other vehicles would have reduced access to available driving lanes. Thus, a reduction in the number of available lanes on a roadway to accommodate vehicles using the overhead catenary electrical lines could adversely affect traffic and congestion for all other vehicles on the road, significant adverse operational traffic impacts are anticipated to be generated by the 2012 AQMP because no new streets, roads, freeways, or rail lines would be required and the 2012 AQMP control measures would apply to existing transportation corridors.

The 2012 AQMP relies on transportation and related control measures developed by SCAG in the 2012-2035 RTP/SCS. These transportation control measures include strategies to enhance mobility by reducing congestion through transportation infrastructure improvements, mass transit improvements, increasing telecommunications products and services, enhanced bicycle and pedestrian facilities, etc. Specific strategies that serve to reduce vehicle trips and vehicle miles traveled, such as strategies resulting in greater reliance on mass transit, ridesharing, telecommunications, etc., are expected to result in reducing traffic congestion. Although population in the district would continue to increase, implementing the transportation control measures (in conjunction with the RTP) would ultimately result in greater percentages of the population using transportation modes other than single occupant vehicles. As a result, relative to population growth, existing traffic loads and the level of service designation for intersections district-wide would not be expected to decline at current rates due to implementing the [2012 AQMP](#). Implementing the 2012 AQMP would not hinder population growth in the district, however, could hinder

transportation/traffic improvements and congestion reduction benefits of the 2012-2035 RTP/SCS.

According to the 2012-2035 RTP/SCS Program EIR, implementation of the 2012-2035 RTP/SCS would result in several significant and several less than significant impacts as follows:

- **Vehicle Miles Traveled (VMT)** - Substantial growth and development is anticipated to occur within the region between 2011 and 2035. Based on SCAG's modeling results, average daily VMT are expected to grow from 448 million miles in 2011 to 517 million miles per day in 2035; constituting a 13 percent increase over this period and includes light-, medium- and heavy-duty vehicle VMT in all six counties. While the 2012-2035 RTP/SCS's multimodal strategies aim to reduce per capita VMT over the next 25 years, total demand to move people and goods would continue to grow due to the region's population increase. The 2012-2035 RTP/SCS, therefore, targets transportation systems that have room to grow, including transit, high-speed rail, active transportation, express lanes, and goods movement. Although per capita VMT would decrease, the environment would experience an overall increase in VMT and would be significant prior to mitigation.
- **Vehicle Hours of Delay (VHD)** - Average vehicle hours of delay would be reduced from 3,277,000 vehicle-hours in 2011 to 3,115,000 vehicle-hours in 2035, and as such would constitute a less than significant impact.
- **Vehicle Hours of Delay for Heavy-Duty Trucks** - The transportation system is heavily influenced by goods movement, particularly by heavy-duty trucks. Despite regional planning efforts to improve the efficiency of goods movement, increased demand for goods would lead to an increase from 117,000 to 158,000 average daily heavy-duty truck vehicle hours of delay by 2035 and as such would constitute a significant impact.
- **Peak Period Work Trips** - In 2035, with the implementation of the 2012-2035 RTP/SCS, 82 percent of the evening peak period work trips would take 45 minutes or less by single occupancy vehicle, 77 percent of the evening peak period work trips would take 45 minutes or less by high occupancy vehicle, and 21 percent would occur within 45 minutes by transit. There would be an increase in the percent of work opportunities within 45 minutes travel time by personal vehicle as compared to the current condition. The transit percentage would remain approximately the same. This result is considered to be a regional benefit; the 2012-2035 RTP/SCS would result in a less-than-significant impact related to work commute.
- **System-Wide Fatality and Injury** - Implementation of the 2012-2035 RTP/SCS would contribute to a lower system-wide fatality accident rate and injury rate for all travel modes in 2035 compared to the existing condition. The system-wide daily fatality rate would be 0.17 fatalities per million persons for all travel modes, a decrease of 0.03 daily fatalities per million persons when compared to the existing rate of 0.20. The system-wide daily injury rate would be 12.92 injuries per million persons for all travel modes, a decrease of 5.34 daily injuries per million persons when compared to the existing rate of 18.27. The reductions in fatality and injury rates would be beneficial and would constitute less than significant impacts.

- 2012-2035 RTP/SCS Program EIR Cumulative Impact - Implementation of the 2012-2035 RTP/SCS would contribute to a cumulatively considerable amount of transportation impacts, such as VMT and all-vehicle vehicle hours in delay, to counties outside of the SCAG region. As the population increases through 2035, the number of trips originating and ending in Santa Barbara, San Diego and Kern counties to and from the SCAG region would increase. The transportation demand from growth, in combination with the projects in the 2012-2035 RTP/SCS would contribute to a cumulatively considerable transportation impact in these other counties.

Implementation of the 2012 AQMP would significantly adversely affect traffic and circulation during construction of overhead catenary lines and during operation if the roadways are dedicated to low or zero emission trucks. The 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with projects identified as part of the 2012-2035 RTP/SCS, would contribute to cumulatively considerable impacts prior to mitigation.

5.18.2 Mitigation Measures

Mitigation measure TT-1 in the 2012 AQMP would reduce traffic and circulation impacts associated with construction of catenary lines. No mitigation measures were identified that could reduce potentially significant adverse impacts from operating roadways with catenary lines. Since implementation of the 2012-2035 RTP/SCS is expected to result in significant impacts, mitigation measures were identified in the 2012-2035 RTP/SCS Program EIR. The 2012-2035 RTP/SCS Program EIR mitigation measures are included in Appendix F, as part of the 2012 AQMP [Final](#) Program EIR.

5.18.3 Level of Impact After Mitigation Measures

Potential construction traffic and circulation impacts from the 2012 AQMP would be reduced following the implementation of TT-1, however because it may not be possible to reduce construction traffic impacts to less than significant under all conditions, the 2012 AQMP [Final](#) Program EIR concluded that construction impacts on traffic would remain significant.

Impacts to transportation and traffic would be reduced following the implementation of 2012-2035 RTP/SCS Program EIR mitigation measures. However, the 2035 VMT and 2035 heavy-duty truck VHD would be substantially greater than the existing conditions and as such would result in a significant impact in spite of implementing mitigation measures. In addition, as population increases through 2035, the number of trips originating and ending in Santa Barbara, San Diego and Kern counties to and from the SCAG region would increase. The transportation demand from growth, in combination with the accommodating projects in the 2012-2035 RTP/SCS would contribute to a cumulatively considerable transportation impact in these counties. Therefore, the 2012 AQMP, when combined with past, present, and reasonably foreseeable activities, and with 2012-2035 RTP/SCS projects in particular, would contribute to cumulatively considerable construction impacts following mitigation and, since no mitigation measures were identified that reduce potential operation-related traffic impacts, these remain significant.