

5.0 LONG TERM EFFECTS

Section 15126 of the CEQA Guidelines requires that all phases of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development and operation. As part of this analysis, the EIR must also identify (1) significant environmental effects of the proposed project, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, and (4) growth-inducing impacts of the proposed project. This chapter addresses all four of these impact categories.

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

Table ES-1 Summary of Impacts and Mitigation Measures in the Executive Summary Chapter of this PEIR, and Sections 3.1 through 3.13 of this PEIR provide a comprehensive identification of the proposed project's environmental effects, including the level of significance both before and after mitigation. Many of the impacts that are determined to be significant and unavoidable could be mitigated to less than significant at the project level. However, this PEIR is at the programmatic level project information and detailed plans are not available. Therefore, without the ability to evaluate each project that could occur as a result of the Plan, these impacts were determined to be significant and unavoidable.

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. Implementation of the proposed project would result in the following unavoidable significant and project-related and/or cumulative impacts:

- Aesthetics – Implementation of the 2012-2035 RTP/SCS would obstruct views of or alter the appearance of scenic resources or vistas along designated scenic highways and vista points. In addition, construction and implementation of the projects associated with the Plan would create significant contrasts with the overall visual character of the landscape, as well as light and glare and shade and shadow effects. The effects of each of these impacts would also result in cumulative impacts outside the region.
- Air Quality – Construction in the region that would occur with implementation of the 2012-2035 RTP/SCS would exceed construction emission thresholds for NO_x, CO, PM₁₀, PM_{2.5}, SO₂ and ROG. The Plan would increase regional operational emissions of PM₁₀ in Imperial, Orange, and Riverside Counties.
- Biological Resources and Open Space – Implementation of the 2012-2035 RTP/SCS would displace natural vegetation, some of which is used as habitat for sensitive species in the SCAG region. Projects included in the Plan would contribute to habitat fragmentation of existing habitat, while forming barriers to animal migration or foraging routes. Construction and operation of projects and development anticipated to occur under the Plan would increase near-road disturbances such as litter, trampling, light pollution, and road noise, and would result in damage to previously inaccessible and undisturbed natural areas, or direct fatalities to wildlife. The Plan could result in potentially displacing or disturbing riparian or wetland habitat, prime farmland or grazing lands, or existing open space and recreation lands. In addition, siltation of streams and other water resources may result from construction activities in proximity to erodible soils. The Plan would contribute to a cumulatively considerable loss of biological resources and open space (consumption of 334 square miles of previously undisturbed land).

- Cultural Resources – Implementation of the 2012-2035 RTP/SCS could disturb or cause a substantial adverse change in the significance of a historical, archaeological, paleontological resource or human remains. The Plan would contribute to a cumulatively considerable loss of cultural resources.
- Geology, Soils and Mineral Resources - Implementation of the 2012-2035 RTP/SCS would expose people or structures to seismic hazards such as surface rupture, ground shaking, liquefaction, landslides, seismically induced ground-shaking or seiches or tsunami waves. In addition, projects included in the Plan could be located on expansive or unstable soils, resulting in potential on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Earthwork associated with construction of Plan projects and development could result in substantial soil erosion and/or loss of topsoil. The Plan would also result in a significant loss of aggregate resources in the region. The Plan would also contribute to a cumulatively considerable loss of these resources.
- Greenhouse Gas Emissions – Implementation of the 2012-2035 RTP/SCS would increase greenhouse gas (GHG) emissions by 11 million metric tons as compared to existing conditions. Total GHG emissions from the Plan (including GHG emissions from emissions factors outside of SCAG’s control (e.g., energy, water, etc.) could be greater than the GHG emissions target set by AB 32, which states that 2020 emissions must equal 1990 levels, or be 15 percent below 2005 levels. In other words, the Plan could not by itself meet the AB 32 reduction targets. However, implementation of the 2012-2035 RTP/SCS would meet the GHG emissions reduction targets set by ARB pursuant to SB 375.
- Hazardous Materials - Implementation of the 2012-2035 RTP/SCS would increase the risk of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Projects included in the Plan may increase the risk of emitting hazardous materials within one-quarter mile of a school. In addition, the increased mobility associated with the Plan may significantly increase the risk associated with hazardous materials transport to areas outside of the SCAG region.
- Land Use and Agricultural Resources – Implementation of the projects and land use strategies in the 2012-2035 RTP/SCS would result in inconsistencies with currently applicable adopted local land use plans and policies. Projects associated with the Plan have the potential to disrupt or divide established communities, and may result in a substantial disturbance/loss of prime farmlands and/or grazing lands.
- Noise – Implementation of the 2012-2035 RTP would expose noise- and vibration-sensitive land uses to noise and vibration in excess of normally acceptable levels and/or experience substantial increases in noise and vibration as a result of new or expanded transportation facilities. Such facilities may increase ambient noise levels in urban areas of the region to exceed normally acceptable levels.
- Population, Housing, and Employment - Implementation of the 2012-2035 RTP/SCS would facilitate substantial population growth to some areas of the region, and may require the acquisition of rights-of-way that could displace existing homes and businesses. The Plan would contribute to a cumulatively considerable effect related to population and housing.
- Public Services and Utilities - Implementation of the 2012-2035 RTP/SCS would result in increased need for police, fire, and emergency personnel, and increase the demand for school facilities within the SCAG region. The Plan would result in loss or disturbance to existing open space and recreation lands. Anticipated development would result in the use of electricity, natural gas, gasoline, diesel, and other non-renewable energy types in the construction and expansion of transportation facilities. The Plan would contribute to a cumulatively considerable demand for public services and utilities.
- Transportation, Traffic, and Security - Implementation of projects included in the 2012-2035 RTP/SCS would increase total daily Vehicle Miles of Travel (VMT) in 2035 compared to current daily VMT and

would create substantially greater average daily VHD for heavy-duty truck trips in 2035 compared to the current condition.

- Water Resources - Implementation of the 2012-2035 RTP/SCS would degrade local surface water quality due to increased roadway runoff from construction of transportation projects. Increased impervious surfaces would reduce groundwater infiltration. The Plan would influence the pattern of urbanization in the SCAG region, and would contribute to the conversion of undeveloped land to urban areas. This would result in impacts to storm water infiltration and groundwater recharge. In addition, this increased urbanization would contribute to an increased demand for water supply and associated infrastructure, as well as an increased need for waste water treatment capacity. The Plan would contribute to a cumulatively considerable impact on water supply and water quality.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Specifically, Section 15126.2(c) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irreversible commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if any of the following would occur:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve a large commitment of nonrenewable resources;
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Resources that would be permanently and continually consumed by the proposed project's implementation include water, electricity, natural gas, fossil fuels, and aggregate resources; however, the amount and rate of consumption of these resources would not result in significant environmental impacts related to the unnecessary, inefficient, or wasteful use of resources. In addition, construction activities related to the proposed project would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobile and construction equipment and aggregate supply used in construction.

With respect to operation activities, compliance with all applicable building codes, as well as project mitigation measures or project requirements, would help ensure that natural resources are conserved or recycled as feasible. It is also possible that new technologies or systems will emerge, or will become more cost-effective or user-friendly, that will further reduce the region's reliance upon nonrenewable natural resources; however, even with implementation of conservation measures consumption of natural resources would generally increase with implementation of the Plan.

A long-term increase in the demand for electrical and natural gas resources would occur. However, the proposed project would not involve wasteful or unjustifiable use of energy or other resources, and energy conservation efforts could also occur with new construction. In addition, new development associated with the proposed project will be constructed and operated in accordance with specifications contained in Title 24 CCR. Therefore, the use of energy onsite would occur in an efficient manner.

5.3 GROWTH INDUCING IMPACTS

Section 15125.2(d) of the CEQA Guidelines requires that growth inducing impacts of a proposed project be considered. Growth inducing impacts are characteristics of a project that could directly or indirectly foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. According to the CEQA Guidelines, such projects include those that would remove obstacles to population growth (e.g., a major expansion of a wastewater treatment plant) and projects that encourage and facilitate other activities that are beyond those proposed as part of the project and could affect the environment are growth inducing. In addition, as set forth in the CEQA Guidelines, increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The CEQA Guidelines also state that it must not be assumed that growth in an area is necessarily beneficial, detrimental or of little significance to the environment. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services or if it can be demonstrated that the potential growth, in some other way, significantly affects the environment, i.e., that it would result in construction that would adversely affect the environment.

Potential inducements to population growth include roads that provide access, the availability of adequate water supplies, the availability of sewage treatment facilities, the availabilities of developable land, the types and availability of employment opportunities, housing costs and availability, commuting distances, cultural amenities, climate, and local government growth policies contained in general plans and zoning ordinances.

Because a number of variables influence growth, it is difficult to determine how Plan alone would affect growth. As described in Sections 3.1 through 3.13 the 2012-2035 RTP/SCS would affect each of the categories described above directly through transportation projects and indirectly through land use strategies that would create a more compact development pattern than if no Plan were in place. The Plan would provide greater access to more of the region than the No Project Alternative due to transportation improvements; however targeting growth in the High Quality Transit Areas (HQTAs) would limit the geographic spread of growth. Nonetheless, the 2012-2035 RTP/SCS could influence and possibly induce growth into specific areas of the region by providing new or expanded access. Overall, the 2012-2035 RTP/SCS would accommodate and facilitate growth in the region.