Executive Summary

Southern California Association of Governments (SCAG) has prepared an Executive Summary to the Connect SoCal 2024 Program Environmental Impact Report (2024 PEIR), in accordance with Section 15123 of the California Environmental Quality Act (CEQA) Guidelines.[1] The Executive Summary provides an overview of the proposed 2024–2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), referred to as "Connect SoCal 2024", "Plan" or "Project", its potential environmental impacts and mitigation measures, and a summary of the alternatives to the Plan evaluated in this 2024 PEIR. The summary is also required to identify areas of controversy known to the lead agency, including issues raised by agencies and the public, and issues to be resolved.

ES.1 INTRODUCTION

Connect SoCal 2024 is a long-range comprehensive plan for the region's multi-modal transportation system. Preparing the Plan is one of SCAG's primary statutory responsibilities under federal and state law. A regional transportation plan (RTP) is the mechanism used in California by both metropolitan planning organizations (MPO) and regional transportation planning agencies (RTPA) to conduct long-range planning (at least a 20-year forecast period) in their regions. SCAG must adopt an RTP and update it every four years, or more frequently, if the region is to receive federal and state transportation dollars for public transit, streets/roads, and bicycle and pedestrian improvements.

In 2008, California enacted the Sustainable Communities and Climate Protection Act, also known as Senate Bill 375 (SB 375) (Statutes 2012, Chapter 728), which requires MPOs to include a Sustainable Communities Strategy (SCS) element as part of their RTP updates, with the purpose of identifying policies and strategies to reduce per capita automobile and light-duty truck GHG emissions. The SCS is required to identify the general location of land uses, residential densities, and building intensities within the region; identify areas within the region sufficient to house all the population of the region; identify areas within the region sufficient to house an eight-year projection of the regional housing need (Government Code Section 65584.01(et seq.); identify a transportation network to service the regional transportation needs; gather and consider the best practically available scientific information regarding resources areas and farmland in the region; consider the state housing goals; set forth a forecasted development pattern for the region; and allow the regional transportation plan to comply with the federal Clean Air Act (CAA) of 1970 (42 USC 7401 et seq.) (Government Code Section 65080(b)(F)(2)(B)), of which, when integrated with the transportation network, and other transportation measures and policies will reduce the GHG from automobiles and light duty trucks to achieve, if there is a reasonable way to do so, the GHG emission reduction targets approved by the California Air Resources Board (CARB). If the SCS does not achieve the GHG emission targets set by CARB, an Alternative Planning Strategy (APS) must be developed to demonstrate how the targets could be achieved.

In 2012, SCAG adopted its first combined RTP/SCS, a long-range plan for transportation in the region that links air quality, land use, and transportation needs. The RTP/SCS was last updated in 2020. The Plan updates the growth forecast, land use assumptions, and transportation investments that served as the foundation of the 2012, 2016, and 2020 plans.

Connect SoCal 2024 represents the vision for the region and reflects the planned transportation investments, policies and strategies that will integrate with the forecasted development pattern to achieve the Plan's goals. Key components include a growth forecast and regional development pattern based on population, household and

[1] The CEQA Guidelines are codified at Title 14, California Code of Regulation 15000 et seq.

employment growth projections for the SCAG region by 2050; a transportation network including a list of transportation projects and investments; and a set of Regional Planning Policies and Implementation Strategies to meet the Plan's goals and performance requirements. The Plan was developed to achieve targets for greenhouse gas (GHG) emissions reductions, consistent with SB 375 and other regional goals.

The Plan further identifies the purpose and goals, tracks trends and evaluates project performance, details financial assumptions and expenditures, and profiles key transportation investments. See the Draft Connect SoCal 2024 and supplementary technical reports for full details at SCAG's Connect SoCal 2024 website located at https://www.connectsocal.org/Pages/default.aspx.

ES.2 PROJECT BACKGROUND

Founded in 1965, SCAG is a federally designated Metropolitan Planning Organization (MPO) under 23 USC 134(d)(1), for the six-county region. SCAG is designated under California state law as a Council of Governments (COG) and a Regional Transportation Planning Agency (RTPA) for the six-county region. SCAG is a Joint Powers Authority, established as a voluntary association of local governments and agencies.

As stated previously, SCAG develops the long-range RTP including sustainable communities strategy and growth forecast component, regional transportation improvement program, regional housing needs allocation (RHNA) and assists in the development of the South Coast Air Quality Management Plans. In 1992, SCAG expanded its governing body, the Executive Committee, to a 70-member Regional Council to help accommodate new responsibilities mandated by the federal and state governments, as well as to provide more broad-based representation of Southern California's cities and counties. With its expanded membership structure, SCAG created regional districts to provide for more diverse representation. The districts were formed with the intent to serve equal populations and communities of interest. Currently, the Regional Council consists of 86 elected officials, representing 67 Districts that include an elected representative of one or more cities of approximately equal population levels. Membership in SCAG's Regional Council also includes representation from each county Board of Supervisors and one representative from the Southern California Native American Tribal Governments. Additionally, SCAG Bylaws provide for representation of transit interests of all of the operators, and Air Districts in the region on the Regional Council and Policy Committees.

The Regional Council has general authority to conduct the affairs of SCAG and directs the actions of the agency throughout the year. Additionally, the Regional Council implements the policy direction provided at the annual General Assembly of the membership, acts upon policy recommendations from SCAG's standing policy committees and external agencies, and appoints standing or ad-hoc subcommittees to study specific programs or issues.

In addition to the six counties and 191 cities that make up SCAG's region, there are six County Transportation Commissions that hold the primary responsibility for programming and implementing transportation projects, programs, and services in their respective counties.

ES.3 REGIONAL LOCATION AND GENERAL SETTING

REGIONAL LOCATION

The SCAG region consists of six counties that includes Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, and 191 cities (see **Map ES-1, SCAG Region**, below). The total area of the SCAG region is approximately 38,000 square miles. Additionally, the SCAG region consists of 15 sub-regional entities that have been recognized by the Regional Council, as partners in the regional policy planning process (see **Map ES-2, SCAG Subregions**, below). The SCAG region is home to approximately 19 million people. This represents 5.8 percent of the 328 million people in the United States and 48 percent of California's population (SCAG 2023). To the north of the SCAG region are the counties of Kern and Inyo; to the east is State of Nevada and State of Arizona; to the south is the U.S.-Mexico border; to the west is the county of San Diego; and to the northwest is the Pacific Ocean. The region includes the county with the largest land area in the nation, San Bernardino County; as well as the county with the highest population in the nation, Los Angeles County.

The following provides a brief summary of the size and population of each of the six counties in the SCAG region in 2019 (SCAG 2023).

- **Imperial County.** Imperial County covers an area of 4,482 square miles. El Centro is the city with the highest population level in the county, with a 2019 population of approximately 44,600 people. Overall, the county had 181,000 residents in 2019.
- **Los Angeles County.** Los Angeles County covers an area of 4,751 square miles. Los Angeles is the city with the highest population level in the county, with approximately 3,907,300 people in 2019. Overall, the county had 10,046,000 residents in 2019.
- **Orange County.** Orange County covers an area of 948 square miles. Anaheim is the city with the highest population level in the county, with approximately 347,000 people in 2019. Overall, the county had 3,191,000 residents that year.
- **Riverside County.** Riverside County covers an area of 7,303 square miles. Riverside is the city with the highest population level in the county, with a 2019 population of approximately 311,100 people. Overall, the county had 2,386,000 residents in 2019.
- **San Bernardino County.** San Bernardino County covers an area of 20,105 square miles. San Bernardino is the city with the highest population level in the county, with a 2019 population of approximately 221,200 people. Overall, the county had 2,175,000 residents in 2019.
- **Ventura County.** Ventura County covers an area of 2,208 square miles. Oxnard is the city with the highest population level in the county, with approximately 202,700 people as of 2019. Overall, the county had 849,000 residents in 2019.

GENERAL SETTING

TRANSPORTATION NETWORK

The region's transportation network comprises more than 33,485 miles of bus routes, including local bus, express and bus rapid transit (BRT), over 5,000 miles of bikeways, over 73,000 lane miles of roadways, and 135 miles of express lanes (see **Map ES-3, Existing Arterial System, 2019**, below). The Ports of Los Angeles and Port of Long

Beach are the largest container importers in the Western Hemisphere that contribute to our expansive goods movement system. The region's aviation system is one of the busiest in the world in terms of air passenger and cargo demand, with more than 116.5 million annual passengers and 3.53 million tons of cargo in 2019. Southern California features:

- 115 miles of heavy and light rail
- 885 miles of commuter rail (including 538 miles of Metrolink rail)
- 33,485 miles of bus routes (including local bus, rapid bus, and bus rapid transit routes)
- Over 5,000 miles of bikeways
- Over 73,000 total lane miles of roadways
- 2,302 miles of express bus lanes
- 161 miles of high-occupancy toll (HOT) roads

LAND USES

The SCAG region is comprised of complex patterns of land uses including residential, commercial/office, industrial, institutional, agricultural, and open space land uses. The region has incredible diversity in its built environment and land use patterns (see **Map ES-4, Existing Land Use**, below). As of 2019, the SCAG region has a total of approximately 6.2 million households in its housing stock, with over half of the households having been built before 1980. While 54 percent are single-family homes, 46 percent are multifamily homes such as condominiums, townhouses, and apartments. The total amount of housing production has historically lagged behind the region's growing population. There are many contributors to the overall housing shortfall, such as zoning, costs and fees that prevent projects from being feasible, time delays, environmental litigation, community resistance to medium and high-density projects, and lack of local funding mechanisms. The impacts of the housing crisis are disproportionately burdensome on underserved communities, such as low-income households and communities of color.

The six counties within the SCAG region contain nearly 22 million acres of "open space" combined. These lands include the region's national forests, state parks, military installations, other public lands, and various private holdings. These areas provide important environmental services, including storing and providing clean drinking water, reducing pollution, and mitigating urban heat-island effects. Much of the open space in the region has been left in its natural state, however many non-native species have transformed what was once native habitat. As of 2018, about half of California has been mapped and classified according to this standard; much of southern California has not yet been classified (CDFW 2023). Barriers to wildlife movement exist throughout the SCAG region, including large areas of urban development and multilane freeways that cut off regional movement for migratory and resident species alike. These barriers can affect all species from large mammals to small insects and can lead to significant degradation of ecosystem function and plant community composition.

More than 20 million acres of open space within the SCAG region is currently protected under a Habitat Conservation Plan or Natural Community Conservation Plan or will be protected by a future conservation plan that is currently in its planning stages. Data from CDFW and USFWS show 31 plans with durations of 16–80 years providing conservation efforts nearly 3 million acres in the SCAG region. As a group, these plans provide protection for multiple species by conserving habitats, identifying locations for future mitigation efforts, providing conservation guidance and practices, and preserving important wildlife linkages.

ES.4 PROJECT DESCRIPTION

The Plan is an update to SCAG's 2020 RTP/SCS, which was adopted by SCAG's Regional Council for all purposes on September 3, 2020. Building upon the progress made since the 2020 RTP/SCS, Connect SoCal 2024 is a long-range visioning plan for the six-county SCAG region, reflecting a continuation of the shift towards more efficient resource management including transportation infrastructure resources, land resources and environmental resources. The Plan highlights the existing land use and transportation conditions throughout the SCAG region and forecasts the region's evolving transportation needs between 2024 and 2050. The Plan identifies and prioritizes expenditures of the anticipated funding for transportation projects of all transportation modes: highways, streets and roads, transit, rail, bicycle, and pedestrian, as well as aviation ground access.

The Plan was also developed to achieve targets for greenhouse gas (GHG) emissions reductions, consistent with SB 375 and other regional goals. In accordance with federal fiscal constraint requirements, Connect SoCal 2024 is a financially constrained Plan in terms of transportation revenues and expenditures.

Connect SoCal 2024 represents the vision for the region and reflects the planned transportation investments, policies and strategies that will integrate with the Forecasted Regional Development Pattern to achieve the Plan's goals. Key components include a growth forecast and regional development pattern based on population, household and employment growth projections for the SCAG region by 2050; a transportation network including a list of transportation projects and investments; and a set of Regional Planning Policies and Implementation Strategies to meet the Plan's goals and performance requirements.

The Plan further identifies the purpose and goals, tracks trends and evaluates project performance, details financial assumptions and expenditures, and profiles key transportation investments. See the Draft Connect SoCal 2024 and supplementary technical reports for full details at SCAG's Connect SoCal 2024 website located at: https://scag.ca.gov/connect-socal.

ES.4.3 PLAN VISION AND GOALS

Connect SoCal 2024 represents the vision for the region and reflects the planned transportation investments, policies and strategies that will integrate with the Forecasted Regional Development Pattern to achieve the Plan's goals. The vision and goals for Connect SoCal 2024 are rooted in the direction set forth by Connect SoCal 2020, reflecting both SCAG's statutory requirements and the emerging trends and persistent challenges facing the region.

SCAG's vision for Southern California in the year 2050 is:

"A healthy, prosperous, accessible and connected region for a more resilient and equitable future."

The following are the goals and subgoals of Connect SoCal 2024 designed to help SCAG achieve this vision:

Mobility: *Build and maintain a robust transportation network*

- Support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality and minimized greenhouse gas emissions
- Ensure that reliable, accessible, affordable and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities
- Support planning for people of all ages, abilities and backgrounds

Communities: ***Develop, connect and sustain communities that are livable and thriving***

- Create human-centered communities in urban, suburban and rural settings to increase mobility options and reduce travel distances
- Produce and preserve diverse housing types in an effort to improve affordability, accessibility and opportunities for all households

Environment: ***Create a healthy region for the people of today and tomorrow***

- Develop communities that are resilient and can mitigate, adapt to and respond to chronic and acute stresses and disruptions, such as climate change
- Integrate the region's development pattern and transportation network to improve air quality, reduce greenhouse gas emissions and enable more sustainable use of energy and water
- Conserve the region's resources

Economy: ***Support a sustainable, efficient and productive regional economic environment that provides opportunities for all residents***

- Improve access to jobs and educational resources
- Advance a resilient and efficient goods movement system that supports the economic vitality of the region, attainment of clean air and quality of life for our communities

ES.4.4 REGIONAL GROWTH FORECAST AND FORECASTED REGIONAL DEVELOPMENT PATTERN

As part of developing a Sustainable Communities Strategy per SB 375, SCAG must include a "forecasted development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies…" will enable SCAG to reach its GHG emission reduction target of 19 percent below 2005 levels by 2035.

SCAG prepared a Forecasted Regional Development Pattern for Connect SoCal 2024 which details where people, households and employment will be located through 2050, the horizon year of the Plan (see **Map ES-5, Forecasted Regional Development Pattern**, below). The regional growth forecast determines the projected increase in population, households, and jobs based on local general plans and known development entitlement agreements, including available data from 6th cycle housing element updates.[2] In addition, regional sustainability strategies, including priority growth and environmentally constrained areas were included based on Connect SoCal 2020. The forecast reflects changes to state- and local-housing-supportive policy as well as stronger housing production numbers in recent years, including ADUs which are historically undercounted. In addition to far more

[2] The Connect SoCal Regional Growth Forecast begins with an expert assessment of regional demographic and economic trends and uses a variety of data sources—including local land use plans—to assess where growth is most likely to occur within the region, emphasizing a balance between future employment, population, and households. SCAG's RTP/SCS growth forecasting process is also informed by the Regional Growth Vision and integrates input from local jurisdictions. As discussed above, SCAG's preliminary growth forecast at the jurisdiction and neighborhood levels, released on May 23rd, 2022, sought to reflect capacity changes from the 6th cycle of RHNA based on available housing elements and information from jurisdictions. SCAG used its best efforts to incorporate the RHNA, but the data is inherently incomplete because only 12 of 197 jurisdictions had certified housing elements, and some local jurisdictions may not be required to complete rezoning associated with housing elements until October 2024. However, it is expected that household growth over the Connect SoCal 2024 horizon will exceed the 6th cycle RHNA housing unit need.

near-term household growth, the Forecasted Regional Development Pattern also demonstrates housing growth in generally more sustainable locations within the region than Connect SoCal 2020.

The regional and county growth forecasts reflect recent and past trends and expert-derived demographic and economic assumptions. In contrast to short-range forecasts, which focus on business cycles and market trends, a 30-year time horizon relies more heavily on births, deaths, migration, and the strength of a region's economic base compared to the nation as a whole. Due to changes in these trends and assumptions, SCAG is projecting just over half the level of population growth over this Plan's horizon as compared to what was anticipated in Connect SoCal 2020 (**Table ES-1, 2019–2050 Population, Households and Employment Projects in the SCAG Region**).

TABLE ES-1 **2019–2050 Population, Households, and Employment Projections in the SCAG Region**

COUNTY NAME	POPULATION 2019	POPULATION 2050	PERCENTAGE INCREASE	HOUSEHOLDS 2019	HOUSEHOLDS 2050	PERCENTAGE INCREASE	EMPLOYMENT 2019	EMPLOYMENT 2050	PERCENTAGE INCREASE
Imperial	181,000	210,000	16%	52,000	72,000	39%	69,000	91,000	32%
Los Angeles	10,046,000	10,767,000	7%	3,393,000	4,139,000	22%	5,031,000	5,433,000	8%
Orange	3,191,000	3,439,000	8%	1,069,000	1,253,000	17%	1,805,000	2,019,000	12%
Riverside	2,386,000	2,992,000	25%	744,000	1,062,000	43%	847,000	1,185,000	40%
San Bernardino	2,175,000	2,623,000	21%	657,000	953,000	45%	860,000	1,145,000	33%
Ventura	849,000	852,000	<1%	278,000	318,000	14%	363,000	476,000	31%
SCAG Region	***18,827,000***	***20,882,000***	***11%***	***6,193,000***	***7,798,000***	***26%***	***8,976,000***	***10,248,000***	***14%***

Source: SCAG 2023

Consistent with global trends, the older-age population of the SCAG region is steadily growing. Older people tend to live alone or in smaller households, have different transportation and spending patterns, and lower labor force participation.

From 2000 to 2019, population in the SCAG region increased by nearly 2.3 million people. Riverside County had the largest share of population growth among the six counties in the SCAG region during this period, adding approximately 829,000 new residents (approximately 37 percent of the region's increase in population during that time period). Los Angeles County followed with the next largest share and experienced an increase of approximately 502,000 new residents (nearly 22 percent of the region's increase in population).

SCAG has the opportunity to analyze and address the inequities that the government, planning profession, and others have created by systemically driving and perpetuating societal differences along racial lines. These inequities have resulted in vastly different living and social conditions, as well as less access to opportunities. SCAG considers potential impacts on people of color and low-income households in the regional growth, transportation and economic development planning and analysis, and recognizes that more affirmative approaches that seek to counter the effects of historic practices are needed to advance equity and social justice across the region. The Regional Planning Polices and Implementation Strategies start to address these issues.

PRIORITY DEVELOPMENT AREAS

Priority Development Areas (PDAs) are areas within the SCAG Region where future growth can be located in order to help the region reach mobility and environmental goals (see **Map ES-6, Priority Development Areas**, below). Generally, this means that people in these areas have access to multiple modes of transportation or trip origins and destinations are closer together, thereby allowing for shorter trips. These areas would accommodate 69 percent of forecasted population growth, 67 percent of forecasted household growth, and 55 percent of forecasted employment growth between 2019 and 2050. PDAs account for 4.8 percent of the region's total land area and include Transit Priority Areas (TPAs), Neighborhood Mobility Areas (NMAs), Livable Corridors and Spheres of Influence (SOIs) (in unincorporated areas only). This more compact form of regional development, if fully realized, can reduce travel distances, increase mobility options, improve access to workplaces and conserve the region's resource areas.

GREEN REGION RESOURCE AREAS

Green Region Resource Areas (GRRAs), which derive from SB 375 statute and SCAG's role in the protection of resource areas and farmland, are considered alongside the PDAs in the preparation of SCAG's Forecasted Regional Development Pattern. The GRRAs are a set of place-specific indicators of hazard and sensitivity in which growth would normally not advance SB 375 objectives. Generally – but not exclusively – these areas reflect the urban-rural fringe away from existing developed areas (see **Map ES-7, Green Region Resource Areas**, below). Thus, reducing growth there has the co-benefit of reducing growth far from jobs and destinations. As the region faces unprecedented challenges in balancing housing and employment growth with resource conservation, the preservation and restoration of GRRAs can reduce risks from climate change and promote future resilience in the region. GRRAs consist of the following ten topic areas: Flood Areas; Coastal Inundation (Sea Level Rise); Wildfire Risk; Open Space and Parks; Endangered Species and Plants; Sensitive Habitat Areas; Natural Community and Habitat Conservation Plans; Tribal lands; Military Installations; and Farmlands.

ES.4.5 PROJECT LIST

Connect SoCal 2024 includes approximately $750 billion of investment in our regional transportation system. SCAG collects projects submitted by County Transportation Commissions (CTCs), based on their county or district level needs and goals. These submissions generally align with the Regional Goals and do not undergo an additional selection process. SCAG assesses transportation performance at the system level. The Connect SoCal 2024 Project List Technical Report (included in the Plan) includes approximately 2,000 projects with both near-term and long-term investments: the Federal Transportation Improvement Program (FTIP) reflects near-term investments which form the foundation of the RTP project investment strategy and represents the first six years of already-committed funding for projects requiring federal approval or those that are regionally significant. The RTP reflects long-term investments and contains a financially constrained set of transportation projects above and beyond the FTIP, including projects submitted from the CTCs and additional Regional Strategic Investments needed to achieve the Plan's goals and performance targets.

ES.4.6 REGIONAL STRATEGIC INVESTMENTS

There is a gap between what can be achieved beginning at the local level and what must be achieved to meet performance requirements. The gap is addressed through a set of Regional Strategic Investments, supported by Regional Planning Policies and Implementation Strategies. Connect SoCal 2024 includes proposed strategies for

transportation investments. Regional Strategic Investments reflect what is necessary to maintain a state of good repair of our existing network, support a multimodal network, and fund system improvements and maintenance. For a full list of Regional Strategic investments , see Chapter 3 of the Plan.

ES.4.7 REGIONAL PLANNING POLICIES AND IMPLEMENTATION STRATEGIES

The Plan includes project lists from County Transportation Commissions and future land use and growth information from local jurisdictions. These provide the foundation for the Plan elements and the shape where the region is headed. As noted above, there is a gap between what can be achieved from a bottom-up process and what must be achieved to meet the performance requirements. This gap is addressed through the Regional Strategic Investments and supported by Regional Planning Policies and Implementation Strategies, which are discussed below.

REGIONAL PLANNING POLICIES

SCAG developed a set of Regional Planning Policies to guide decision-making in the region that aligns with the Plan's vision and achievement of the goals. The Regional Planning Policies establish broad regional policies for integrated land use and transportation planning and identify the path towards realizing the vision of Connect SoCal 2024. The policies carry forward priorities that have been refined over several planning cycles to promote a multimodal transportation system and sustainable land use and development. Implementation of the policies at the regional and local level will address emerging issues facing the region and achieve the vision represented by Connect SoCal 2024.

The policies are meant to guide decision making for both SCAG and partner agencies to achieve a sustainable, equitable, and resilient future for the region. The policies are also intended to be used as a resource by CTCs or local jurisdictions to demonstrate alignment with the RTP/SCS in seeking resources from state or federal programs.

Per Government Code Section 65080(b)(2)(K), SCAG's SCS does not regulate the use of land, nor shall it be interpreted as superseding the exercise of the land use authority of cities and counties in the region. The guidance provided in the Plan's Regional Planning Policies is meant to support local jurisdictions in future General Plan updates to help in implementing the regional vision of Connect SoCal 2024.

Table 2-2, Connect SoCal 2024 Regional Planning Policies, in Chapter 2, *Project Description*, provides the Regional Planning Policies that will guide the integration of land use and transportation planning to realize the vision of the Plan. The table also indicates the PEIR section that is relevant to each Regional Planning Policy.

IMPLEMENTATION STRATEGIES

The Implementation Strategies provided in Table 2-3, Connect SoCal 2024 Implementation Strategies, in Chapter 2 of this 2024 PEIR articulate priorities for SCAG to implement Connect SoCal 2024 by fulfilling or going beyond the related Regional Planning Policies. The SCAG related strategies represent near term efforts for the successful implementation of the Plan. These Implementation Strategies rely on partnership and support with agencies and decisions makers in the region. The table also indicates the PEIR section that is relevant to each Implementation Strategy.

ES.2.8 FINANCIAL PLAN

In accordance with federal fiscal constraint requirements, Connect SoCal 2024 is a financially constrained Plan in terms of transportation revenues and expenditures. Connect SoCal 2024 identifies the amount of funding that is reasonably expected to be available to build, operate, and maintain the region's surface transportation system through the forecast horizon year of 2050.

The financially constrained Connect SoCal 2024 includes both a "traditional" core revenue forecast comprised of existing local, state, and federal sources, and more innovative but reasonably available sources of revenue. The core revenues identified are existing transportation funding sources projected to Fiscal Year (FY) 2049-50. The core revenue forecast does not include assumptions about any future increases in state or federal gas excise tax rates or adoptions of regional gasoline taxes, mileage-based user fees and/or new tax measures. These core revenues provide a benchmark from which additional funding can be identified. Federal guidelines permit the inclusion of new revenues that are reasonably likely to materialize within the Connect SoCal 2024 timeframe. Further, the financial plan includes strategies for ensuring the availability of these sources. These sources include adjustments to existing federal gas tax rates to compensate for loss of purchasing power; the eventual replacement of existing state and federal gas excise taxes with a more direct mileage-based user fee; federal credit assistance and bond proceeds; private investment participation; a localized road charge option; and value capture strategies. Key among these strategies is a transition away from fuel tax-based revenues and an increased reliance on user fees for various transportation facilities in the region.

The Plan's core revenues through year 2050 total approximately $588 billion, or approximately 78 percent of total projected revenue sources. New and innovative revenues total approximately $162 billion, or 22 percent of the projected revenues through 2050. The financial plan's forecast of core revenue totals approximately $750 billion from both core and new reasonably available resources. Local sources comprise approximately half of the funding and the largest share of core revenues, followed by state sources which comprise roughly a quarter of revenue, while federal sources total less than ten percent of revenue. Capital projects and other programs total $280.2 billion in nominal dollars. Operations and maintenance (O&M) costs total $450.1 billion, while debt service obligations total $19.7 billion. Transit-related costs comprise the largest share of O&M costs for the region, totaling approximately $250 billion.

ES.2.9 PERFORMANCE MEASURES

Federal policy requires that SCAG set performance measures and targets in Connect SoCal 2024. As required under MAP-21, in 2016 and 2017 the Federal Highway Administration (FHWA) issued national performance measures and guidelines for use in the setting of statewide and regional performance targets. The FHWA rule-making process established a four-year performance target setting and reporting cycle, with a two-year mid-term progress evaluation point. SCAG coordinated closely with Caltrans in the establishment of specific performance targets for the state and for our region in the various transportation performance areas established under MAP-21. These targets provide quantifiable objectives to achieve each measure during the performance period.

The Plan has several performance measures that are closely tied to its vision, goals and guiding policies. These ensure that the implementation of the Plan moves the SCAG region closer to achieving these vision, goals and policies. Plan performance is measured under 25 categories. These performance measures are built upon but updated from those developed for the 2020 RTP/SCS to ensure that there is consistency when tracking and assessing the region's performance and whether this is meeting and exceeding federal and state requirements. It

is also intended to help quantify regional goals, estimate potential impacts of proposed investments, and evaluate progress over time. Recognizing that the proposed land use and transportation strategies are expected to have impacts beyond those that are exclusively transportation-related, the health outcome was first introduced in the 2012 RTP/SCS and was also addressed in the 2016 and 2020 RTP/SCSs. These health-related measures are tied with the proposed transportation investments in transit, and transportation, more walkable communities, and land use strategies, which focus new housing and employment in the region's PDAs, including TPAs, livable corridors neighborhood mobility areas, and SOIs.

ES.5 PLAN ALTERNATIVES

CEQA requires an environmental impact report (EIR) to describe a range of reasonable alternatives to the project or project location that could feasibly avoid or substantially lessen significant environmental impacts of the project while attaining most of the basic project objectives (CEQA Guidelines; California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15126.6, 2005). Plan alternatives are evaluated as to how well they feasibly achieve most of the goals, policies, and objectives, the extent of their environmental impacts compared to the Plan, and whether or not they reduce or eliminate significant impacts caused by the Plan. These alternatives include:

ALTERNATIVE 1: NO PROJECT ALTERNATIVE

The No Project Alternative is required by CEQA Guidelines Section 15126.6I(2) and assumes that the Plan would not be implemented. The No Project Alternative allows decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The No Project Alternative evaluates "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (CEQA Guidelines Section 15126.6(e)(2)). The projected impacts of the Plan are compared to the impacts from the continuation of the existing plan (CEQA Guidelines Section 15126.6(e)). The No Project Alternative is aligned with the baseline discussion in the Plan and includes transportation projects that are in place at the time of preparation of Connect SoCal 2024 and that are included in the first two years of the previously conforming transportation plan and/or FTIP. "Exempt projects" include safety projects and certain mass transit projects, transportation control measures (TCM) that are approved by the State Implementation Plan (SIP), and project phases that were authorized by the Federal Highway Administration (FHWA)/Federal Transportation Agency (FTA) prior to expiration of SCAG's conformity finding for the adopted Connect SoCal 2024. These exempt projects would also be included in the No Project Alternative since they could move forward in the absence of an adopted Connect SoCal 2024 (FHWA 2010).

The land use strategies included in the No Project Alternative are based on the existing land use plans and trending socioeconomic growth projection to the future (2050) updated with the same jurisdictional local input population, household, and employment data as those in Connect SoCal 2024 to reflect the most recent local input growth estimates in the region.

ALTERNATIVE 2: INTENSIFIED LAND USE ALTERNATIVE

The Intensified Land Use Alternative (also referred to as "Alternative 2") is based on more aggressive land use development patterns than the Plan. The land use pattern in this alternative would be denser and build on land use strategies described in the Plan by increase growth around PDAs and beyond to maximize transit opportunities. The focus of this alternative is on increased densities adjacent to existing employment and transportation infrastructure, which would lead to fewer and shorter trips and therefore a reduction in VMT as

compared to the Plan. Specifically, the growth pattern associated with this alternative optimizes growth in PDAs, including in urban areas and suburban town centers, transit-oriented developments (TODs), transit priority areas (TPAs), livable corridors, and neighborhood mobility areas (NMAs). It includes a greater progressive job-housing distribution optimized for TODs and infill in PDAs. It includes the same transportation investments as the Plan. This alternative considers the basis of the Plan with enhancements to accelerate the SB 375 GHG emissions reduction trend into 2050 and beyond, and includes related improvements for air quality, livability, public health, active transportation opportunities, and affordability.

SUMMARY OF ALTERNATIVES COMPARISON

As discussed in Chapter 4, *Alternatives*, the summary comparison for the No Project Alternative, Intensified Land Use Alternative, and the Plan is presented in Error! Reference source not found.**7, Comparison of Significant Adverse Environmental Impacts for Connect SoCal 2024 and Alternatives** which summarizes the relative level of environmental impacts associated with each alternative as compared to the Plan based on the CEQA Guidelines Appendix G significance threshold questions used to analyze Plan's environmental impacts in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures* of this 2024 PEIR. For each resource area evaluated, Table 4-7 summarizes whether the impacts of the alternative would generally result in greater or lesser impacts than those of the Plan.

Chapter 4, *Alternatives*, also presents an evaluation of the environmentally superior alternative. Of the two alternatives, the Intensified Land Use Alternative would be considered the environmentally superior alternative due to fewer impacts resulting from the more compact land use development pattern, including reduced VMT and GHG emissions. However, this alternative requires implementation of the same mitigation measures required for the Plan and would not resolve any of the significant and unavoidable impacts of the Plan.

Ultimately, the Plan is the preferred alternative because it balances local input with the need to increase densities, complies with federal transportation conformity requirements for the RTP, and reduces GHG emissions consistent with SB 375 targets for the SCS, thereby achieving the Plan goals and objectives. While additional densities in urban areas could further reduce GHG emissions, such increased densities may not be consistent with existing General Plans and local planning policies.

ES.6 AREAS OF KNOWN CONTROVERSY

A Notice of Preparation (NOP) for this 2024 PEIR was issued on October 17, 2022, by SCAG for a 30-day public review period. A total of 16 comment letters were received. The NOP and copies of each comment letter received are included in **Appendix A** of the 2024 PEIR. Two scoping meetings were held on November 9, 2022, at 6:00 p.m. to 8:00 p.m., and on November 10, 2022, at 10:00 am to 12:00 pm. The purpose of these meetings was to provide early consultation for the public to express their concerns about the project and acquire information and make recommendations on issues to be addressed in the 2024 PEIR. In accordance with Sections 15087 and 15105 of the CEQA Guidelines, the public review period cannot be less than 45 days. This Connect SoCal 2024 Draft PEIR will be circulated for a 65-day public review period from November 9, 2023, to January 12, 2024. Responsible and trustee agencies and the public are invited to comment in writing on the information contained in this document. Persons and agencies commenting are encouraged to provide information that they believe is missing from the Draft 2024 PEIR and to identify where the information can be obtained. All comment letters received concerning the 2024 PEIR will be responded to in writing, and the comment letters, together with the responses to those comments, will be included in the Final 2024 PEIR.

Comments received in response to the published NOP (provided in Appendix A) identified environmental topics that local and regional agencies and City residents recommended for analysis in the Draft EIR.

Both PEIR and Plan topics were raised by the commenters on the NOP. SCAG received 50 individual comments related to the PEIR and 30 individual comments on the Plan. A breakdown of the NOP comments by PEIR and Plan topic areas is presented below in **Table ES-2, Summary of NOP Comments by Topic Areas**. The NOP and comments received on the NOP will be included in an appendix to the Draft PEIR document.

TABLE ES-2 **Summary of NOP Comments by Topic Areas***

DOCUMENT	TOPIC AREAS	NUMBER
PEIR	Project Description	7
	Air Quality	2
	Biological Resources	1
	Cultural Resources	2
	Greenhouse Gas Emissions	4
	Hydrology and Water Quality	1
	Population and Housing	3
	Recreation	3
	Transportation	4
	Tribal Cultural Resources	2
	Utilities and Service Systems	2
	Wildfire	1
	Mitigation Measures	7
	Alternatives	5
	PEIR Development Process	4
	Findings of Fact/Statement of Overriding Considerations	1
Plan (Connect SoCal 2024)	Plan Requirements	2
	Plan Development Process	3
	Plan Goals and Performance Measures	4
	Transportation Planning	5
	Transportation Conformity	2
	Forecasted Regional Development Pattern	8
	Climate and Resilience	4
	Data	2

Table Note:

* Table does not include comments from the California Coastal Commission in the breakdown because their comments, which were submitted to SCAG on November 16, 2022, were dated February 21, 2019, in response to the NOP of Connect SoCal 2020 (2020 RTP/SCS) PEIR (State Clearinghouse No.: 2019011061).

ES.7 ISSUES TO BE RESOLVED

The CEQA Guidelines require an EIR to present issues to be resolved by the lead agency. These issues include the choice between alternatives and whether or how to mitigate potentially significant impacts. The major issues to be resolved by SCAG, as the lead agency for the project include the following:

- Whether the recommended mitigation measures should be adopted or modified;
- Whether additional mitigation measures need to be applied to the project; and
- Whether the project or an alternative should be approved.

ES.8 SUMMARY OF PROJECT IMPACTS

A summary of the environmental impacts associated with implementation of the proposed project, mitigation measures included to avoid or lessen the severity of potentially significant impacts, and residual impacts, is provided in **Table Es-3, Summary of Project Impacts, Mitigation Measures, and Residual Impacts**, below.

SCAG has no concurrent land use authority or jurisdiction to implement mitigation related to land use plans and projects that implement the Plan. With respect to the transportation projects included in the Plan, these projects are to be implemented by Caltrans, county transportation commissions, local transit agencies, and local governments (i.e., cities and counties), and not SCAG. SCAG also has no authority or jurisdiction to require these agencies to implement project-specific mitigation measures.

As discussed in detail in Chapter 1, *Introduction*, CEQA case law has held that deferral of the specifics of mitigation is permissible where the lead agency commits itself to mitigation and, in the mitigation measure, either describes performance standards to be met in future mitigation or provides a menu of alternative mitigation measures to be selected from in the future.

Furthermore, CEQA Guidelines Section 15126.4(a)(1)(B) provides:

> *"Formulation of mitigation should not be deferred until some future time. The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will considered, analyzed, and potentially incorporated in the mitigation measure."*

Moreover, with respect to greenhouse gas emissions in the case of adoption of a plan to reduce greenhouse gas emission (i.e., the RTP/SCS):

> *"mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions."*

Mitigation measures should reflect the level of detail appropriate to the EIR being prepared. (See, e.g., *Koster v. County of San Joaquin* [1996] 47 Cal.App.4th 29; provides that a first-tier EIR may contain generalized mitigation criteria.) In this case, the 2024 PEIR addresses a large-scale region with a variety of projects spread over more than 20 years. As such, this 2024 PEIR identifies program-wide measures for implementation by SCAG.

In addition, the 2024 PEIR identifies project-level mitigation measures for lead agencies to consider which they "can and should" adopt, as applicable and feasible, in subsequent project-specific design, CEQA review, and decision-making processes. (See CEQA Guidelines Section 15091(a)(2)). Lead agencies may also identify other comparable measures capable of reducing impacts below the specified threshold. It is ultimately up to the lead agency to determine the appropriateness of the mitigation measure based on project-specific circumstances. As appropriate and authorized by the CEQA Guidelines and case law, the program-wide mitigation measures included in this PEIR are less detailed than those that would be part of a project EIR and the selection of detailed mitigation measures is properly deferred to future project-specific CEQA reviews. For the purposes of this PEIR, it is assumed that each lead agency for specific projects would have the ability to impose and enforce these measures (i.e., that the measures will be implemented). However, given the size and diversity of conditions and projects in the region, it is reasonably foreseeable that for some projects impacts would remain significant and unavoidable even after implementation of all feasible mitigation measures.

For projects proposing to streamline environmental review pursuant to SB 375, SB 743, or SB 226, or for projects otherwise tiering off this 2024 PEIR, the project-level mitigation measures described in this PEIR (or comparable measures) can and should be considered and implemented by lead agencies (and project sponsors) during the subsequent, project- or site-specific environmental reviews for transportation and development projects as applicable and feasible. However, SCAG cannot require lead agencies to adopt mitigation, and it is ultimately the responsibility of the lead agency to determine and adopt project-specific mitigation as appropriate and feasible for each project.

The SCAG level and project-level mitigation measures referenced in this 2024 PEIR recognize the limits of SCAG's authority; distinguish between SCAG commitments and project-level responsibilities and authorities; optimize flexibility for project implementation; and facilitate CEQA streamlining and tiering where appropriate on a project-by-project basis determined by each lead agency.[3]

As part of the environmental analysis, this 2024 PEIR considers and discusses the potential of the Plan's Regional Planning Policies and Implementation Strategies to reduce impacts to the environment prior to the application of feasible mitigation measures. While not specifically designed to avoid or reduce environmental impacts, Regional Planning Policies and Implementation Strategies may in effect address some potential environmental impacts of the Plan (see CEQA Guidelines Section 15126.4(a)(2)). Rather than using the Regional Planning Policies and Implementation Strategies as mitigation measures, since these policies and strategies are already incorporated into and part of the Plan, the 2024 PEIR considers these policies and strategies as features of the Plan and discusses them in Chapter 2, *Project Description*, before the Plan undergoes environmental analysis in Chapter 3. See further discussion of Plan Features that May Reduce Impacts, Compliance with Laws and Regulations and Mitigation Measures in Section 3.0, *Introduction to the Analysis*.

At the regional-scale, a cumulative or related project to the Plan is another regional-scale plan (such as Air Quality Management Plans within the region) and similar regional plans for adjacent regions. In most resource areas, the

[3] Note that compliance with existing regulations, such as the Uniform Building Code and California Building Code, is not necessarily considered mitigation because compliance is already required. However, such regulations do reduce environmental impacts and are identified in the Regulatory Framework and discussed in impact analyses where appropriate, to provide additional information on how potential impacts are reduced. In some cases, regulatory compliance may be sufficient to reduce impacts to a level of less than significance, however, given the size and scale of the region and diversity of projects many impacts are conservatively identified as significant and mitigation measures are identified to provide options for lead agencies such that impacts may be reduced to a level of less than significant level where feasible or reduced to the maximum extent feasible where impacts have the potential to be significant.

Plan, in and of itself, would result in adverse environmental impacts and would only add to impacts of other cumulative or related projects. The Plan would result in significant impacts in the majority of issue areas. While the land use policies and strategies included in the Plan would result in a more compact development pattern which in turn would reduce impacts, the Plan could also facilitate access to other areas of the state by increasing infrastructure which could ultimately influence growth in areas outside SCAG boundaries. Mitigation measures would reduce impacts, but many impacts would remain significant and could contribute to cumulative impacts outside the SCAG region.

TABLE ES-3 **Summary of Project Impacts, Mitigation Measures, and Residual Impacts**

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
Aesthetics		
IMPACT AES-1 Potential for the Plan to have a substantial adverse effect on a scenic vista.	*SCAG Mitigation Measures* **SMM-GEN-1** SCAG shall continue to facilitate interagency cooperation, information sharing, and regional program development, such as through existing planning tools to support local jurisdictions including various applications offered through the SCAG Regional Data Platform (RDP), SoCal Atlas, HELPR, and other GIS resources and data services. For more information or assistance, please contact SCAG's Local Information Services Team (LIST) at list@scag.ca.gov. *Project-Level Mitigation Measures* **PMM-AES-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to address potential aesthetic impacts to scenic vistas, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Use a palette of colors, textures, building materials that are graffiti-resistant, and/or plant materials that complement the surrounding landscape and development. b) Use contour grading to better match surrounding terrain. Contour edges of major cut-and-fill to provide a more natural looking finished profile. c) Design new corridor landscaping to respect existing natural and man-made features and to complement the dominant landscaping of the surrounding areas. d) Replace and renew landscaping along corridors with road widenings, interchange projects, and related improvements. e) Retain or replace trees bordering highways, so that clear-cutting is not evident. f) Provide new corridor landscaping that respects and provides appropriate transition to existing natural and man-made features and is complementary to the dominant landscaping or native habitats of surrounding areas. g) Reduce the visibility of construction staging areas by fencing and screening these areas with low contrast materials consistent with the surrounding environment, and by revegetating graded slopes and exposed earth surfaces at the earliest opportunity; h) Use see-through safety barrier designs (e.g., railings rather than walls)	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT AES-2 Potential to substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	*SCAG Mitigation Measures* See **SMM-GEN-1**. *Project-Level Mitigation Measures* See **PMM-AES-1**.	Significant and unavoidable
IMPACT AES-3 Potential to substantially degrade the existing visual character or quality of public views (public views are those that are experienced from publicly accessible vantage points). In an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.	*SCAG Mitigation Measures* See **SMM-GEN-1**. *Project-Level Mitigation Measures* **PMM-AES-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to address potential aesthetic impacts that substantially degrade visual character, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Minimize contrasts in scale and massing between the projects and surrounding natural forms and development, minimize their intrusion into important viewsheds, and use contour grading to better match surrounding terrain in accordance with county and city hillside ordinances, where applicable. b) Design landscaping along highway corridors to add significant natural elements and visual interest to soften the hard-edged, linear transportation corridors. c) Develop design guidelines for projects that make elements of proposed buildings/facilities visually compatible or minimize visibility of changes in visual quality or character through use of hardscape and softscape solutions. Specific measures to be addressed include setback buffers, landscaping, color, texture, signage, and lighting criteria. d) Design projects consistent with design guidelines of applicable general plans. e) Keep sites in a blight/nuisance-free condition. Remove blight or nuisances that compromise visual character or visual quality of project areas including graffiti abatement, trash removal, landscape management, maintenance of signage and billboards in good condition, and replace compromised native vegetation and landscape. f) Where sound walls are proposed, account for visual impacts during sound wall construction and design methods as follows: – Use transparent panels to preserve views where sound walls would block views from residences; – Use landscaped earth berm or a combination wall and berm to minimize the apparent sound wall height; – Construct sound walls of materials whose color and texture complements the surrounding landscape and development;	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	g) Design sound walls to increase visual interest, reduce apparent height, and be visually compatible with the surrounding area; and landscape the sound walls with plants that screen the sound wall, preferably with either native vegetation or landscaping that complements the dominant landscaping of surrounding areas.	
IMPACT AES-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	*SCAG Mitigation Measures* See **SMM-GEN-1**. *Project-Level Mitigation Measures* **PMM-AES-3** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to address potential aesthetic impacts that substantially degrade visual character, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Use lighting fixtures that are adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. b) Restrict the operation of outdoor lighting for construction and operation activities to the hours of 7:00 a.m. to 10:00 p.m. c) Use high-pressure sodium and/or cut-off fixtures instead of typical mercury-vapor fixtures for outdoor lighting. d) Use unidirectional lighting to avoid light trespass onto adjacent properties. e) Design exterior lighting to confine illumination to the project site, and/or to areas which do not include light-sensitive uses. f) Provide structural and/or vegetative screening from light-sensitive uses. g) Shield and direct all new street and pedestrian lighting away from light-sensitive off-site uses. h) Use non-reflective glass or glass treated with a non-reflective coating for all exterior windows and glass used on building surfaces. i) Direct all architectural lighting onto the building surfaces and have low reflectivity to minimize glare and limit light onto adjacent properties.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
Agricultural Resources		
IMPACT AG-1 Potential for the Plan to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.	*SCAG Mitigation Measures* **SMM-AG-1** SCAG shall provide support for local jurisdictions looking to pursue farmland conservation planning, including through information sharing and advice on grant opportunities pertinent to supporting local agency's workplans and/or actions in natural and agricultural land conservation, such as the Sustainable Agricultural Lands Conservation program. **SMM-AG-2** SCAG shall continue to facilitate regional collaboration forums, such as the Natural & Farm Lands Conservation Working Group, for stakeholders to share best practices and develop recommendations for natural and agricultural land conservation throughout the region. The collaboration forums with help identify opportunities to leverage resources that protect and restore natural habitat corridors, especially, where corridors cross county boundaries. **SMM-AG-3** SCAG shall develop and support a Regional Greenprint, which is a web-based tool that provides the best available scientific data and scenario visualizations to support local jurisdictions and transportation agencies make better land use and transportation infrastructure decisions and conserve natural and farm lands. SCAG shall provide the Greenprint as a publicly available tool to assist local jurisdictions, transportation agencies, and stakeholders identify priority conservation areas and work with CTCs to develop advanced mitigation programs for their future plans and projects. SCAG shall support by (1) leveraging funding to encourage advance mitigation, (2) participating in state-level efforts that would support regional advanced mitigation planning in the SCAG region, and (3) supporting the inclusion of advance mitigation programs at county level transportation measures. *Project-Level Mitigation Measures* **PMM-AG-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to address potential adverse effects on agricultural resources, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Provide permanent protection of in-kind farmland in the form of easements, fees, or elimination of development rights/potential to mitigate for loss of farmland. b) Project relocation or corridor realignment to avoid Prime Farmland, Unique Farmland, or Farmland of Local or Statewide Importance. c) Maintain and expand agricultural land protections such as urban growth boundaries. d) Provide for mitigation fees to support a mitigation bank[4] that invests in farmer education, agricultural infrastructure, water supply, marketing, etc. that enhance the commercial viability of retained agricultural lands. e) Minimize severance and fragmentation of agricultural land by constructing underpasses and overpasses at reasonable intervals to provide property access. f) Use berms, buffer zones, setbacks, and fencing to reduce conflicts between new development and farming uses and protect the functions of farmland.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT AG-2 Potential for the Plan to conflict with existing zoning for agricultural use, or a Williamson Act contract.	*SCAG Mitigation Measures* See **SMM-AG-1** through **SMM-AG-3**. *Project-Level Mitigation Measures* See **PMM-AG-1**. **PMM-AG-2** **P**roject-level mitigation measures can and should be considered by lead agencies as applicable and feasible. Measures to reduce substantial adverse effects on Williamson Act contracts to the maximum extent practicable, as determined appropriate by each lead agency, may include the following, or other comparable measures: a) Project relocation or corridor realignment to avoid lands in Williamson Act contracts. b) Establish conservation easements consistent with the recommendations of the Department of Conservation, or 20-year Farmland Security Zone contracts (Government Code Section 51296 et seq.), 10-year Williamson Act contracts (Government Code Section 51200 et seq.), or use of other conservation tools available from the California Department of Conservation Division of Land Resource Protection.	Significant and unavoidable
IMPACT AG-3 Potential for the Plan to conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).	*SCAG Mitigation Measures* See **SMM-AG-1** and **SMM-AG-2**. *Project-Level Mitigation Measures* **PMM-AG-3** Project-level mitigation measures can and should be considered by lead agencies as applicable and feasible. Measures to reduce substantial adverse effects, through the conversion of Farmland to maximum extent practicable, as determined appropriate by each lead agency, may include the following, or other comparable measures: a) Minimize construction related impacts to agricultural and forestry resources by locating materials and stationary equipment in such a way as to prevent conflict with forestry resources. b) Acquire conservation easements for the loss of forestland or timberland.	Significant and unavoidable (forest land); no impact (timberland)

[4] The California Department of Fish and Wildlife provides a definition for conservation or mitigation banks on their website (please see https://www.wildlife.ca.gov/Conservation/Planning/Banking).

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT AG-4 Potential for the Plan to result in the loss of forest land or conversion of forest land to non-forest use.	*SCAG Mitigation Measures* See **SMM-AG-1** and **SMM-AG-2**. *Project-Level Mitigation Measures* See **PMM-AG-3**.	Significant and unavoidable
IMPACT AG-5 Potential for the Plan to involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.	*SCAG Mitigation Measures* See **SMM-AG-1, SMM-AG-2, SMM-GHG-1,** and **SMM-GHG-2**. *Project-Level Mitigation Measures* See **PMM-AG-2** and **PMM-GHG-2**. **PMM-AG-4** Project-level mitigation measures can and should be considered by lead agencies as applicable and feasible. Measures to reduce substantial adverse effects, through the conversion of Farmland, to the maximum extent practicable, as determined appropriate by each lead agency, may include the following, or other comparable measures: a) Design proposed projects to minimize, to the greatest extent feasible, the loss of the highest valued agricultural land. b) Redesign project features to minimize fragmenting or isolating Farmland. Where a project involves acquiring land or easements, ensure that the remaining non-project area is of a size sufficient to allow economically viable farming operations. The project proponents shall be responsible for acquiring easements, making lot line adjustments, and merging affected land parcels into units suitable for continued commercial agricultural management. c) Reconnect utilities or infrastructure that serve agricultural uses if these are disturbed by project construction. If a project temporarily or permanently cuts off roadway access or removes utility lines, irrigation features, or other infrastructure, the project proponents shall be responsible for restoring access as necessary to ensure that economically viable farming operations are not interrupted. **PMM-AG-5** Project-level mitigation measures can and should be considered by lead agencies as applicable and feasible. Measures to reduce substantial adverse effects, through the conversion of Farmland, to the maximum extent practicable, as determined appropriate by each lead agency, may include the following, or other comparable measures: a) Manage project operations to minimize the introduction of invasive species or weeds that may affect agricultural production on adjacent agricultural land. Where a project has the potential to introduce sensitive species or habitats or have other spill-over effects on nearby agricultural lands, the project proponents shall be responsible for acquiring easements on nearby agricultural land and/or financially compensating for indirect effects on nearby agricultural land. Easements (e.g., flowage easements) shall be required for temporary or intermittent interruption in farming activities (e.g., because of seasonal flooding or groundwater seepage). Acquisition or compensation would be required for permanent or significant loss of economically viable operations.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
Air Quality		
IMPACT AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.	*SCAG Mitigation Measures* See **SMM-GHG-1** and **SMM-GHG-2**. **SMM-AQ-1** SCAG shall continue to support and provide information on regional air quality planning and related issue areas in the region. SCAG staff shall also continue to work with the U.S. Environmental Protection Agency, California Air Resources Board, and the air districts within the SCAG region and provide updates to relevant stakeholders on regional air quality planning and related issue areas through regional collaboration forums such as SCAG's Transportation Conformity Working Group. *Project-Level Mitigation Measures* **PMM-AQ-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the lead agency: a) Minimize land disturbance. b) Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes. c) Cover trucks when hauling dirt. d) Stabilize the surface of dirt piles if not removed immediately. e) Limit vehicular paths on unpaved surfaces and stabilize any temporary roads. f) Minimize unnecessary vehicular and machinery activities. g) Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway. h) Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities. i) On Caltrans projects, Caltrans Standard Specifications 10-Dust Control, 17-Watering, and 18-Dust Palliative shall be incorporated into project specifications. j) Assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of 40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet. k) Ensure that all construction equipment is properly tuned and maintained. l) Minimize idling time to 5 minutes—saves fuel and reduces emissions.	Significant and unavoidable (except for Plan's consistency with federal transportation conformity requirements)

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	m) Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway. n) Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators. o) Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites. p) Obtain CARB Portable Equipment Registration with the state or a local district permit for portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles. Arrange appropriate consultations with the CARB or the local air district to determine registration and permitting requirements prior to equipment operation at the site. q) Use Tier 4 Final equipment or better for all engines above 50 horsepower (hp). In the event that construction equipment cannot meet to Tier 4 Final or better engine certification, the Project representative or contractor must demonstrate through future study with written findings supported by substantial evidence that is approved by the project's lead agency before using other technologies/strategies. Alternative applicable strategies may include, but would not be limited to, construction equipment with Tier 4 Interim or reduction in the number and/or horsepower rating of construction equipment and/or limiting the number of construction equipment operating at the same time. All equipment must be tuned and maintained in compliance with the manufacturer's recommended maintenance schedule and specifications. All maintenance records for each equipment and their contractor(s) should make available for inspection and remain on-site for a period of at least two years from completion of construction, unless the individual project can demonstrate that Tier 4 Final or better engines would not be required to mitigate emissions below significance thresholds. Project sponsors should also consider including ZE/ZNE technologies where appropriate and feasible or higher tier standard diesel equipment as it becomes developed and feasible. r) Projects located within the South Coast Air Basin and the Coachella Valley should consider applying for South Coast AQMD "SOON" funds which provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles. s) Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for identification of additional feasible mitigation that can be applied to individual projects. t) Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.	

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	u) Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors). v) As applicable for airport projects, the following measures should be considered: – Consider operational improvements to reduce taxi time and auxiliary power unit usage, where feasible. Additionally, consider single engine taxing, if feasible as allowed per Federal Aviation Administration guidelines. – Set goals to achieve a reduction in emissions from aircraft operations over the lifetime of the proposed project. – Use ground service equipment (GSE) that can operate on battery-power. If using electric equipment is not feasible, require the use of alternative fuel, the cleanest gasoline equipment, or Tier 4 Final, at a minimum. w) As applicable for port projects, the following measures should be considered: – Develop specific timelines for transitioning to zero emission cargo handling equipment (CHE). – Develop interim performance standards with a minimum amount of CHE replacement each year to ensure adequate progress. – Use short side electric power for ships, which may include tugboats and other ocean-going vessels or develop incentives to gradually ramp up the usage of shore power. – Install the appropriate infrastructure to provide shore power to operate the ships. Electrical hookups should be appropriately sized. – Maximize participation in the Port of Los Angeles' Vessel Speed Reduction Program or the Port of Long Beach's Green Flag Initiation Program in order to reduce the speed of vessel transiting within 40 nautical miles of Point Fermin. – Encourage the participation in the Green Ship Incentives. – Offer incentives to encourage the use of on-dock rail. x) As applicable for rail projects, the following measures should be considered: – Provide the highest incentives for electric locomotives and then locomotives that meet Tier 5 emission standards with a floor on the incentives for locomotives that meet Tier 4 emission standards. y) Projects that will introduce sensitive receptors within 500 feet of freeways and other sources should consider installing high efficiency of enhanced filtration units, such as Minimum Efficiency Reporting Value (MERV) 13 or better. Installation of enhanced filtration units can be verified during occupancy inspection prior to the issuance of an occupancy permit. z) Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters. – Disclose potential health impacts to prospective sensitive receptors from living in close proximity to freeways or other sources of air pollution and the reduced effectiveness of air filtration systems when windows are open or residents are outside.	

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	– Identify the responsible implementing and enforcement agency to ensure that enhanced filtration units are installed on-site before a permit of occupancy is issued. – Disclose the potential increase in energy costs for running the HVAC system to prospective residents. – Provide information to residents on where MERV filters can be purchased. – Provide recommended schedule (e.g., every year or every six months) for replacing the enhanced filtration units. – Identify the responsible entity such as future residents themselves, Homeowner's Association, or property managers for ensuring enhanced filtration units are replaced on time. – Identify, provide, and disclose ongoing cost-sharing strategies, if any, for replacing the enhanced filtration units. – Set criteria for assessing progress in installing and replacing the enhanced filtration units; and – Develop a process for evaluating the effectiveness of the enhanced filtration units. aa) Consult the SCAG Environmental Justice Toolbox available on SCAG's Environmental Justice webpage for potential measures to address impacts to low-income and/or communities of color. bb) The following criteria related to diesel emissions shall be implemented on by individual project sponsors as appropriate and feasible: – Diesel nonroad vehicles on site for more than 10 total days shall have either (1) engines that meet EPA on road emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%. – Diesel generators on site for more than 10 total days shall be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%. – Nonroad diesel engines on site shall be Tier 2 or higher. – Diesel nonroad construction equipment on site for more than 10 total days shall have either (1) engines meeting EPA Tier 4 nonroad emissions standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines for 50 hp and greater and by a minimum of 20% for engines less than 50 hp. – The construction contractor shall maintain a list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following: i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment. ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.	

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	iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date. – Establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities. – Maintain a monthly report that, for each on road diesel vehicle, nonroad construction equipment, or generator onsite, includes: i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date. ii. Any problems with the equipment or emission controls. iii. Certified copies of fuel deliveries for the time period that identify: 1. Source of supply 2. Quantity of fuel 3. Quantity of fuel, including sulfur content (percent by weight) cc) Promote energy efficiency and exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code): – Install programmable thermostat timers – Obtain Third-party HVAC commissioning and verification of energy savings (to be grouped with exceedance of Title 24). – Install energy efficient appliances (Typical reductions for energy-efficient appliances can be found in the Energy Star and Other Climate Protection Partnerships Annual Reports.) – Install higher efficacy public street and area lighting – Limit outdoor lighting requirements – Replace traffic lights with LED traffic lights – Establish onsite renewable or carbon neutral energy systems – generic, solar power and wind power – Utilize a combined heat and power system dd) Promote transportation efficiency. The following measures can be used to increase transportation efficiency: – Locate project near bike path/bike lane – Provide pedestrian network improvements, such as interconnected street network, narrower roadways and shorter block lengths, sidewalks, accessibility to transit and transit shelters, traffic calming measures, parks and public spaces, minimize pedestrian barriers.	

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	– Provide traffic calming measures, such as: i. Marked crosswalks ii. Count-down signal timers iii. Curb extensions iv. Speed tables v. Raised crosswalks vi. Raised intersections vii. Median islands viii. Tight corner radii ix. Roundabouts or mini-circles x. On-street parking xi. Chicanes/chokers – Create urban non-motorized zones – Provide bike parking in non-residential and multi-unit residential projects – Dedicate land for bike trails – Limit parking supply through: i. Elimination (or reduction) of minimum parking requirements ii. Creation of maximum parking requirements iii. Provision of shared parking – Require residential area parking permit. – Provide ride-sharing programs i. Designate a certain percentage of parking spacing for ride sharing vehicles ii. Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles iii. Providing a web site or messaging board for coordinating rides iv. Permanent transportation management association membership and finding requirement. ee) Lengthen the construction period during smog season (May through October), to minimize the number of vehicles and equipment operating at the same time. ff) Install signage containing the complaint number of the local air district where construction activities are located at the construction sites.	

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IMPACT AQ-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.	*SCAG Mitigation Measures* See **SMM GHG-1, SMM GHG-2**, and **SMM-AQ-1**. *Project-Level Mitigation Measures* See **PMM-AQ-1.**	Significant and unavoidable
IMPACT AQ-3 Expose sensitive receptors to substantial pollutant concentrations.	*SCAG Mitigation Measures* See **SMM-LU-1** through **SMM-LU-3, SMM-POP-1, SMM-POP-2**. *Project-Level Mitigation Measures* See **PMM-AQ-1**. **PMM-AQ-2** Projects subject to California Environmental Quality Act (CEQA) review (i.e., non-exempt projects) and located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and within one-quarter mile (1,320 feet) of a sensitive land use shall prepare an air quality analysis that evaluates potential localized project air quality impacts in conformance with SCAQMD methodology for assessing localized significance thresholds (LST) air quality impacts. If air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the project shall incorporate feasible mitigation measures to reduce air pollutant emissions.	Significant and unavoidable
IMPACT AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	*SCAG Mitigation Measures* See **SMM-AQ-1, SMM-GHG-1, AND SMM-GHG-2**. *Project-Level Mitigation Measures* See **PMM-AQ-1** and **PMM-AQ-2.**	Significant and unavoidable
Biological Resources		
IMPACT BIO-1 Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations,	*SCAG Mitigation Measures* See **SMM-GEN-1**. **SMM-BIO-1** SCAG shall support research, programs, and policies that identify, protect, and restore natural habitat corridors and continue support for preserving wildlife corridors and wildlife crossings through information sharing, such as showcasing best practices and regional collaboration forums like SCAG's Natural and Farm Lands Conservation Working Group. *Project-Level Mitigation Measures* **PMM-BIO-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects	Significant and unavoidable

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or by the California Department of Fish and Game or US Fish and Wildlife Service.	related to threatened and endangered species, and species that meet the definition of "rare" as defined in CEQA Guidelines Section 15380(b)(2). Such measures may include the following or other comparable measures identified by the lead agency: a) Avoid occupied habitat and potentially suitable habitat for threatened, endangered, or rare species, as well as designated critical habitat in project design, wherever practicable and feasible. Where projects are determined to be within suitable habitat and may impact listed or sensitive species that have specific field survey protocols or guidelines outlined by the USFWS, CDFW, or other local agency, prior to construction, conduct focused species surveys that follow applicable protocols and guidelines and are conducted by qualified and/or certified personnel. If sensitive plants or wildlife are present, identify and implement species-specific measures to avoid, minimize, and mitigate for potential impacts in consultation with USFWS or CDFW. b) Where avoidance is determined to be infeasible for species protected under FESA, CESA, or local/regional species habitat conservation plan, provide conservation measures to result in no net loss of sensitive habitats and open space and fulfill the requirements of the applicable authorization for incidental take pursuant to Section 7 or 10(a) of the federal ESA, Section 2081 of the California ESA to support issuance of an incidental take permit, and/or as identified in local or regional plans. Conservation strategies to protect the survival and recovery of federally and state-listed endangered and local special status species may include: i. Impact minimization strategies ii. Contribution of in-lieu fees for in-kind conservation and mitigation efforts iii. Use of in-kind mitigation bank credits iv. Funding of research and recovery efforts v. Habitat restoration vi. Establishment of conservation easements vii. Permanent dedication of in-kind habitat c) Design projects to avoid desert native plants protected under the California Desert Native Plants Act, salvage and relocate desert native plants, and/or pay in lieu fees to support off-site long-term conservation strategies. d) Temporary access roads and staging areas will not be located within areas containing sensitive plants, wildlife species or non-native habitat wherever feasible, so as to avoid or minimize impacts to these species e) Develop and implement a Worker Environmental Awareness Program (environmental education) to inform project workers of their responsibilities to avoid and minimize impacts on sensitive biological resources. f) Retain a qualified botanist to document the presence or absence of special status plants before project implementation.	

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	g) Appoint a qualified biologist to monitor construction activities that may occur in or adjacent to occupied sensitive species' habitat to facilitate avoidance of resources not permitted for impact. h) Appoint a qualified biologist to monitor implementation of mitigation measures. i) Schedule construction activities to avoid sensitive times for biological resources (e.g., steelhead spawning periods during the winter and spring, nesting bird season) and to avoid the rainy season when erosion and sediment transport is increased. j) Develop an invasive species control plan associated with project construction k) If construction occurs during breeding seasons in or adjacent to suitable habitat, include appropriate sound attenuation measures required for sensitive avian species and other best management practices appropriate for potential local sensitive wildlife l) Conduct pre-construction surveys to delineate occupied sensitive species' habitat to facilitate avoidance. m) Project design should address the protection of habitat on both sides of a freeway to improve effectiveness of the crossings and may use alternatives to hydrocarbon-based asphalt paving to mitigate for potential hydrocarbon and heavy metal contamination.	
IMPACT BIO-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.	*SCAG Mitigation Measures* See **SMM-GEN-1** and **SMM-BIO-1**. *Project-Level Mitigation Measures* See **PMM-BIO-1**. **PMM-BIO-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to riparian habitats and other sensitive natural communities. Such measures may include the following or other comparable measures identified by the lead agency: a) Consult with the USFWS and NMFS where such state-designated sensitive or riparian habitats provide potential or occupied habitat for federally listed rare, threatened, and endangered species afforded protection pursuant to the federal ESA. b) Consult with the USFS where such state-designated sensitive or riparian habitats provide potential or occupied habitat for federally listed rare, threatened, and endangered species afforded protection pursuant to the federal ESA and any additional species afforded protection by an adopted Forest Land Management Plan or Resource Management Plan for the four national forests in the six-county area: Angeles, Cleveland, Los Padres, and San Bernardino. c) Consult with the CDFW where such state-designated sensitive or riparian habitats provide potential or occupied habitat for state-listed rare, threatened, and endangered species afforded protection pursuant to the California ESA, or Fully Protected Species afforded protection pursuant to the State Fish and Game Code.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	d) Consult with the CDFW pursuant to the provisions of Section 1600 of the State Fish and Game Code as they relate to Lakes and Streambeds. e) Consult with the USFWS, USFS, CDFW, and counties and cities in the SCAG region, where state-designated sensitive or riparian habitats are occupied by birds afforded protection pursuant to the MBTA during the breeding season. f) Consult with the CDFW for state-designated sensitive or riparian habitats where furbearing mammals, afforded protection pursuant to the provisions of the State Fish and Game Code for fur-beaming mammals, are actively using the areas in conjunction with breeding activities. g) Require project design to avoid sensitive natural communities and riparian habitats, wherever practicable and feasible. Where practicable and feasible, require upland buffers that sufficiently minimize impacts to riparian corridors. h) Where avoidance is determined to be infeasible, develop sufficient conservation measures through coordination with local agencies and the regulatory agency (i.e., USFWS or CDFW) to protect sensitive natural communities and riparian habitats and develop appropriate compensatory mitigation, where required. i) Appoint a qualified biologist to monitor construction activities that may occur in or adjacent to sensitive communities. j) Appoint a qualified biologist to monitor implementation of mitigation measures. k) Schedule construction activities to avoid sensitive times for biological resources and to avoid the rainy season when erosion and sediment transport is increased. l) When construction activities require stream crossings, schedule work during dry conditions and use rubber-wheeled vehicles, when feasible. Have a qualified wetland scientist determine if potential project impacts require a Notification of Lake or Streambed Alteration to CDFW during the planning phase of projects. m) Consult with local agencies, jurisdictions, and landowners where such state-designated sensitive or riparian habitats are afforded protection pursuant to an adopted regional conservation plan. n) Install fencing and/or mark sensitive habitat to be avoided during construction activities. o) Salvage and stockpile topsoil (the surface material from 6 to 12 inches deep) and perennial native plants, when recommended by the qualified ecologist/biologist, for use in restoring native vegetation to areas of temporary disturbance within the project area. Salvage of soils containing invasive species, seeds and/or rhizomes will be avoided as identified by the qualified wetland biologist. p) Revegetate with appropriate native vegetation following the completion of construction activities. as identified by the qualified ecologist/biologist. q) Complete habitat enhancement (e.g., through removal of non-native invasive wetland species and replacement with more ecologically valuable native species).	

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	r) Use best management practices (BMPs) at construction sites to minimize erosion and sediment transport from the area. BMPs include encouraging growth of native vegetation in disturbed areas, using straw bales or other silt-catching devices, and using settling basins to minimize soil transport.	
IMPACT BIO-3 Have a substantial adverse effect on State or Federally Protected Wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.	*SCAG Mitigation Measures* See **SMM-GEN-1** and **SMM-BIO-1**. *Project-Level Mitigation Measures* See **PMM-BIO-1** and **PMM-BIO-2**. **PMM-BIO-3** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to wetlands. Such measures may include the following or other comparable measures identified by the lead agency. a) Conduct an aquatic resources delineation by a qualified biologist to identify and map the extent of state and federally protected aquatic resources Avoid state and federally protected aquatic resources in project design, consistent with the provisions of Sections 404 and 401 of the CWA, wherever practicable and feasible. b) Where the lead agency has identified that a project, or other regionally significant project, has the potential to impact other wetlands or waters, such as those considered Waters Of the State of California under the State Wetland Definition and Procedures for Dischargers of Dredged or Fill Material to Waters of the State, not protected under Section 404 or 401 of the CWA, seek comparable coverage for these wetlands and waters in consultation with the SWRCB, applicable RWQCB, and CDFW. c) Where avoidance of wetlands is determined to be infeasible, develop sufficient conservation measures to fulfill the requirements of the applicable authorization for impacts to federal and state protected aquatic resource to support issuance of a permit under Section 404 of the CWA as administered by USACE or SAA by CDFW. The use of an authorized Nationwide Permit or issuance of an individual permit requires the project applicant to demonstrate compliance with USACE's Final Compensatory Mitigation Rule or the CDFW SAA conditions. The USACE reviews projects to ensure environmental impacts to aquatic resources are avoided or minimized as much as feasible. Consistent with the administration's performance standard of "no net loss of wetlands" a USACE permit may require a project proponent to restore, establish, enhance, or preserve other aquatic resources in order to replace those affected by the proposed project. This compensatory mitigation process seeks to replace the loss of existing aquatic resource functions and area. Project proponents required to complete mitigation are encouraged to use a watershed approach and watershed planning information. The new rule establishes performance standards, sets timeframes for decision making, and to the maximum extent feasible, establishes equivalent requirements and standards for the three sources of compensatory mitigation: – Permittee-responsible mitigation – Contribution of in-kind in-lieu fees	Significant and unavoidable

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	– Use of in-kind mitigation bank credits d) Where avoidance is determined to be infeasible and proposed projects' impacts exceed an existing Nationwide Permit (NWP) and/or California SWRCB-certified NWP, the lead agency should provide USACE and SWRCB (where applicable) an alternative analysis consistent with the Least Environmentally Damaging Practicable Alternatives in this order of priorities: – Avoidance – Impact Minimization – On-site alternatives – Off-site alternatives e) Require review of construction drawings by a certified wetland delineator as part of each project-specific environmental analysis to determine whether aquatic resources will be affected and, if necessary, perform formal wetland delineation.	
IMPACT BIO-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	*SCAG Mitigation Measures* See **SMM-GEN-1**, **SMM-AG-1** through **SMM-AG-3**, **SMM-GHG-1**, **SMM-LU-3**, **SMM-WF-1**. *Project-Level Mitigation Measures* See **PMM-BIO-1** through **PMM-BIO-3**. **PMM-BIO-4** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to wildlife movement. Such measures may include the following or other comparable measures identified by the lead agency: a) Consult with the USFS where impacts to migratory wildlife corridors may occur in an area afforded protection by an adopted Forest Land Management Plan or Resource Management Plan for the four national forests in the six-County area: Angeles, Cleveland, Los Padres, and San Bernardino. b) Consult with counties, cities, and other local organizations when impacts may occur to open space areas that have been designated as important for wildlife movement related to local ordinances or conservation plans. c) Prohibit construction activities within 500 feet of occupied breeding areas for wildlife afforded protection pursuant to Title 14 § 460 of the California Code of Regulations protecting fur-bearing mammals, during the breeding season. d) Conduct a survey to identify active raptor and other migratory nongame bird nests by a qualified biologist at least two weeks before the start of construction at project sites from February 1 through August 31. e) Prohibit construction activities with 300 feet of occupied nest of birds afforded protection pursuant to the Migratory Bird Treaty Act, during the breeding season.	Significant and unavoidable

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	f) Ensure that suitable nesting sites for migratory nongame native bird species protected under the Migratory Bird Treaty Act and/or trees with unoccupied raptor nests should only be removed prior to February 1, or following the nesting season. g) When feasible and practicable, minimize impacts to wildlife movement and habitat connectivity and preserve existing and functional wildlife corridors in project design. h) Conduct site-specific analyses of opportunities to preserve or improve habitat linkages with areas on- and off-site. i) Long linear projects with the possibility of impacting wildlife movement should analyze habitat linkages/wildlife movement corridors on a broad scale to avoid critical narrow choke points that could reduce function of recognized movement corridor. j) Review construction drawings and habitat connectivity mapping by a qualified biologist to determine the risk of habitat fragmentation. k) Pursue mitigation banking to preserve habitat linkages and corridors (opportunities to purchase, maintain, and/or restore offsite habitat). l) When practicable and feasible design projects to promote wildlife corridor redundancy by including multiple connections between habitat patches. m) Evaluate the potential for installation of overpasses, underpasses, and culverts to create wildlife crossings in cases where a roadway or other transportation project may interrupt the flow of species through their habitat. Provide wildlife crossings in accordance with proven standards, such as FHWA's Critter Crossings or Ventura County Mitigation Guidelines and in consultation with wildlife corridor authorities. n) Install directional wildlife fencing where appropriate to minimize the probability of wildlife injury due to direct interaction between wildlife and roads or construction. o) Where avoidance is determined to be infeasible, design sufficient conservation measures through coordination with local agencies and the regulatory agency (i.e., USFWS or CDFW) and in accordance with the respective counties and cities general plans to establish plans to mitigate for the temporal or permanent loss of fish and wildlife movement corridors and/or wildlife nursery sites. The consideration of conservation measures may include the following measures, in addition to the measures outlined in PMM-BIO-1(b), where applicable: – Wildlife movement buffer zones – Corridor realignment – Appropriately spaced breaks in center barriers – Stream rerouting – Culverts – Creation of artificial movement corridors such as freeway under- or overpasses	

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	– Acquire contiguous adjacent land parcels to be protected in perpetuity from encroachment and development – Other comparable measures p) Where the lead agency has identified that an RTP/SCS project, or other regionally significant project, has the potential to impact other open space or nursery site areas, seek comparable coverage for these areas in consultation with the USFWS, CDFW, NMFS, or other local jurisdictions. q) Incorporate applicable and appropriate guidance (e.g., FHWA-HEP-16-059), as well as best management practices, to benefit pollinators with a focus on native plants. r) Implement berms and sound/sight barriers at all wildlife crossings to encourage wildlife to utilize crossings. Sound and lighting should also be minimized in developed areas, particularly those that are adjacent to or go through natural habitats. s) Reduce lighting impacts on sensitive species through implementation of mitigation measures such as, but not limited to: – Use high pressure sodium and/or cut-off fixtures instead of typical mercury-vapor fixtures for outdoor lighting. – Design exterior lighting to confine illumination to the project site. – Provide structural and/or vegetative screening from light-sensitive uses. – Use non-reflective glass or glass treated with a non-reflective coating for all exterior windows and glass used on building surfaces. – Direct architectural lighting onto the building surfaces and have low reflectivity to minimize glare and limit light onto adjacent properties. t) Reduce noise impacts to sensitive species through implementation of mitigation measures such as, but not limited to: – Install temporary noise barriers during construction. – Include permanent noise barriers and sound-attenuating features as part of the project design. Barriers could be in the form of outdoor barriers, sound walls, buildings, or earth berms to attenuate noise at adjacent sensitive uses. – Provide structural and/or vegetative screening from light-sensitive uses. – Ensure that construction equipment are properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds silencers, wraps). All intake and exhaust ports on power equipment shall be muffled or shielded. – Use hydraulically or electrically powered tools (e.g., jack hammers, pavement breakers, and rock drills) for project construction to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust should be used; this muffler can lower noise levels from the	

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	exhaust by up to about 10 dBA. External jackets on the tools themselves should be used, if such jackets are commercially available, and this could achieve a further reduction of 5 dBA. Quieter procedures should be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures. – Using rubberized asphalt or "quiet pavement" to reduce road noise for new roadway segments, roadways in which widening or other modifications require re-pavement, or normal reconstruction of roadways where re-pavement is planned. – Use equipment and trucks with the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible) for project construction. – Use techniques such as grade separation, buffer zones, landscaped berms, dense plantings, sound walls, reduced-noise paving materials, and traffic calming measures. u) Include large buffers between sensitive uses and freeways. v) Create corridor redundancy to help retain functional connectivity and resilience. w) To the extent practicable, avoid construction during dawn and dusk, when wildlife activity is highest. y) If protected terrestrial wildlife enter work areas during construction, temporarily halt work to allow wildlife to move through the work area unharmed. A qualified biologist may relocate non-listed wildlife species out of the work area.	
IMPACT BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	*SCAG Mitigation Measures* See **SMM-GEN-1**, **SMM-BIO-1**, and **SMM-LU-3**. *Project-Level Mitigation Measures* See **PMM-BIO-1** through **PMM-BIO-4**. **PMM-BIO-5** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce conflicts with local policies and ordinances protecting biological resources. Such measures may include the following or other comparable measures identified by the lead agency. a) Consult with the appropriate local agency responsible for the administration of the policy or ordinance protecting biological resources. b) Prioritize retention of trees on-site consistent with local regulations. Provide adequate protection during the construction period for any trees that are to remain standing, as recommended by an International Society of Arboriculture (ISA) certified arborist. c) If specific project area trees are designated as "Protected Trees," "Landmark Trees," or "Heritage Trees," obtain approval for encroachment or removals through the appropriate entity, and develop appropriate mitigation measures at that time, to ensure that the trees are replaced. Mitigation trees shall be locally collected native species, as directed by a qualified biologist.	Significant and unavoidable

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	d) Appoint an ISA certified arborist to monitor construction activities that may occur in areas with trees are designated as "Protected Trees," "Landmark Trees," or "Heritage Trees," to facilitate avoidance of resources not permitted for impact. Before the start of any clearing, excavation, construction or other work on the site, securely fence off every protected tree deemed to be potentially endangered by said site work. Keep such fences in place for duration of all such work. Clearly mark all trees to be removed. e) Establish a scheme for the removal and disposal of logs, brush, earth, and other debris that will avoid injury to any protected tree. Where proposed development or other site work could encroach upon the protected perimeter of any protected tree, incorporate special measures to allow the roots to breathe and obtain water and nutrients. Minimize any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter. Require that no change in existing ground level occur from the base of any protected tree at any time. Require that no burning or use of equipment with an open flame occur near or within the protected perimeter of any protected tree. f) No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees occur from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials be operated or stored within a distance from the base of any protected trees. Wires, ropes, or other devices not to be attached to any protected tree, except as needed for support of the tree. Require that no sign, other than a tag showing the botanical classification, be attached to any protected tree. g) Thoroughly spray the leaves of protected trees with water periodically during construction to prevent buildup of dust and other pollution that would inhibit leaf transpiration, as directed by the certified arborist. h) If any damage to a protected tree should occur during or as a result of work on the site, the appropriate local agency will be immediately notified of such damage. If such tree cannot be preserved in a healthy state, as determined by the certified arborist, replace any tree removed with another tree or trees on the same site deemed adequate by the local agency to compensate for the loss of the tree that is removed. Remove all debris created as a result of any tree removal work from the property within two weeks of debris creation, and such debris shall be properly disposed of in accordance with all applicable laws, ordinances, and regulations. Design projects to avoid conflicts with local policies and ordinances protecting biological resources. i) Where avoidance is determined to be infeasible, develop sufficient conservation measures to fulfill the requirements of the applicable policy or ordinance, such as to support issuance of a tree removal permit. The consideration of conservation measures may include: – Avoidance strategies – Contribution of in-lieu fees – Planting of replacement trees – Re-landscaping areas with native vegetation post-construction – Other comparable measures developed in consultation with local agency and certified arborist.	

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT BIO-6 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	*SCAG Mitigation Measures* See **SMM-GEN-1**, **SMM-BIO-1**, and **SMM-LU-3**. *Project-Level Mitigation Measures* See **PMM-BIO-1** through **PMM-BIO-5**. **PMM-BIO-6** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects on HCPs and NCCPs. Such measures may include the following or other comparable measures identified by the lead agency: a) Consult with the appropriate federal, state, and/or local agency responsible for the administration of HCPs or NCCPs. b) Wherever practicable and feasible, the project shall be designed to avoid lands preserved under the conditions of an HCP or NCCP. c) Where avoidance is determined to be infeasible, develop sufficient conservation measures to fulfill the requirements of the HCP and/or NCCP, which would include but not be limited to applicable authorization for incidental take pursuant to Section 7 or 10(a) of the federal Endangered Species Act and/or Sections 2081(b) or 2080.1 of the California Fish and Game Code, to support issuance of an incidental take permit or any other permissions required for development within the HCP/NCCP boundaries. The consideration of additional conservation measures would include the measures outlined in SMM-BIO-2, where applicable.	Significant and unavoidable
Cultural Resources		
IMPACT CUL-1 Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5.	*SCAG Mitigation Measures* See **SMM-GEN-1**. **SMM-CUL-1** SCAG shall encourage local jurisdictions to identify opportunities for early consultation with resource agencies such as the National Park Service, Office of Historic Preservation, and Native American Heritage Commission, as well as Native American tribes, for identification and avoidance of archaeological sites, historical resources, cemeteries, and tribal cultural resources, wherever practicable and feasible and reduce or mitigate for conflicts in compatible land use to the maximum extent practicable. *Project-Level Mitigation Measures* **PMM-CUL-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to historical resources. Such measures may include the following or other comparable measures identified by the lead agency: a) Pursuant to CEQA Guidelines Section 15064.5, conduct a record search during the project planning phase at the appropriate Information Center to determine whether the project area has been previously surveyed and whether historical resources were identified.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	b) During the project planning phase, retain a qualified architectural historian, defined as an individual who meets the Secretary of the Interior's Professional Qualification Standards (PQS) in Architectural History, to conduct historic architectural surveys if a built environment resource greater than 45 years in age may be affected by the project or if recommended by the Information Center. c) Comply with Section 106 of the National Historic Preservation Act (NHPA) including, but not limited to, projects for which federal funding or approval is required for the individual project. This law requires federal agencies to evaluate the impact of their actions on resources included in or eligible for listing in the National Register. Federal agencies must coordinate with the State Historic Preservation Officer in evaluating impacts and developing mitigation. These mitigation measures may include, but are not limited to the following: – Employ design measures to avoid historical resources and undertake adaptive reuse where appropriate and feasible. If resources are to be preserved, as feasible, carry out the maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction in a manner consistent with the Secretary of the Interior's Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. If resources would be impacted, impacts should be minimized to the extent feasible. – Where feasible, noise buffers/walls and/or visual buffers/landscaping should be constructed to preserve the contextual setting of significant built resources. d) If a project requires the relocation, rehabilitation, or alteration of an eligible historical resource, the Secretary of the Interior's Standards for the Treatment of Historic Properties should be used to the maximum extent feasible to ensure the historical significance of the resource is not impaired. The application of the standards should be overseen by an architectural historian or historic architect meeting the Secretary of the Interior's PQS. Prior to any construction activities that may affect the historical resource, a report, meeting industry standards, should identify and specify the treatment of character-defining features and construction activities and be provided to the lead agency for review and approval. e) If a project would result in the demolition or significant alteration of a historical resource eligible for or listed in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or local register, recordation should take the form of Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS) documentation, and should be performed by an architectural historian or historian who meets the Secretary of the Interior's PQS. Recordation should meet the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering, which defines the products acceptable for inclusion in the HABS/HAER/HALS collection at the Library of Congress. The specific scope and details of documentation should be developed at the project level in coordination with the lead agency. f) During the project planning phase, obtain a qualified archaeologist, defined as one who meets the Secretary of the Interior's PQS for archaeology, to conduct a record search at the appropriate Information Center of the California Historical Resources Information System (CHRIS) to determine whether the project area has been previously surveyed and whether resources were identified.	

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	g) Contact the NAHC to request a Sacred Lands File search and a list of relevant Native American contacts who may have additional information. h) During the project planning phase, obtain a qualified archaeologist or architectural historian (depending on applicability) to conduct archaeological and/or historic architectural surveys as recommended by the qualified professional, the lead agency, or the Information Center. In the event the records indicate that no previous survey has been conducted, the qualified professional or Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for archaeological resources. i) If potentially significant archaeological resources are identified through survey, and impacts to these resources cannot be avoided, a Phase II Testing and Evaluation investigation should be performed by a qualified archaeologist prior to any construction-related ground-disturbing activities to determine significance. If resources determined significant or unique through Phase II testing, and avoidance is not feasible, appropriate resource-specific mitigation measures should be established by the lead agency and undertaken by qualified personnel. These might include a Phase III data recovery program implemented by a qualified archaeologist and performed in accordance with the OHP's Archaeological Resource Management Reports (ARMR): Recommended Contents and Format and Guidelines for Archaeological Research Designs. Additional options can include 1) interpretative signage, or 2) educational outreach that helps inform the public of the past activities that occurred in this area. Archaeological materials collected from a significant resource should be curated with a recognized scientific or educational repository. j) If a record search or archaeological assessment indicates that the project is located in an area sensitive for archaeological resources, as determined by the lead agency in consultation with a qualified archaeologist, retain an archaeological monitor to observe ground disturbing operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property. The archaeological monitor should be supervised by an archaeologist meeting the Secretary of the Interior's PQS k) Conduct construction activities and excavation to avoid cultural resources (if identified). If avoidance is not feasible, further work may be needed to determine the importance of a resource. Retain a qualified archaeologist, and/or as appropriate, a qualified architectural historian who should make recommendations regarding the work necessary to assess significance. If the cultural resource is determined to be significant under state or federal guidelines, impacts to the cultural resource will need to be mitigated. l) Stop construction activities and excavation in the area where cultural resources are found until a qualified archaeologist can determine whether these resources are significant. If the archaeologist determines that the discovery is significant, it should be curated with a recognized scientific or educational repository.	

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT CUL-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	*SCAG Mitigation Measures* See **SMM-GEN** and **SMM-CUL-1**. *Project-Level Mitigation Measures* See **PMM-CUL-1**.	Significant and unavoidable
IMPACT CUL-3 Disturb human remains, including those interred outside of dedicated cemeteries.	*SCAG Mitigation Measures* See **SMM-GEN** and **SMM-CUL-1**. *Project-Level Mitigation Measures* **PMM-CUL-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to human remains. Such measures may include the following or other comparable measures identified by the lead agency: a) In the event of discovery or recognition of any human remains during construction or excavation activities associated with the project, in any location other than a dedicated cemetery, cease further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner of the county in which the remains are discovered has been informed and has determined that no investigation of the cause of death is required. b) If any discovered remains are of Native American origin: – Contact the County Coroner to contact the NAHC to designate a Native American Most Likely Descendant (MLD). The MLD should make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods. This may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains. – If the NAHC is unable to identify a MLD, or the MLD fails to make a recommendation within 48 hours after being notified by the commission, or the landowner or his representative rejects the recommendation of the MLD and the mediation by the NAHC fails to provide measures acceptable to the landowner, obtain a culturally affiliated Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	Energy	
IMPACT ENR-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	*SCAG Mitigation Measures* See **SMM-AQ-1, SMM-GHG-1**, and **SMM-GHG-2.** *Project-Level Mitigation Measures* See PMM-AQ-1, PMM-GHG-1, PMM-TRA-1, and PMM-USWS-1.	Significant and unavoidable
IMPACT ENR-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	*SCAG Mitigation Measures* See SMM AQ-1, SMM GHG-1, SMM GHG-2, and SMM LU-1. *Project-Level Mitigation Measures* See PMM-AQ-1, PMM-GHG-1, PMM-TRA-1, and PMM-USWS-1.	Significant and unavoidable
	Geology and Soils	
IMPACT GEO-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; (ii) strong seismic ground shaking; (iii) seismic-related ground failure,	*SCAG Mitigation Measures* See **SMM-GEN-1**. *Project-Level Mitigation Measures* **PMM-GEO-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to minimize the potential for adverse effects associated with surface fault rupture, seismic ground shaking, seismic-related ground failure, liquefaction, and landslides for projects located on sites with unusual geologic conditions, the following measures shall be considered: • Use interim precautionary steps during construction to maintain ground surface and slope stability; • Incorporate design and structural features that exceed the requirements of the applicable building code(s); and • Utilize innovative design techniques for buildings and other structural elements located on sites with unique geologic conditions.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
including liquefaction; (iv) landslides.		
IMPACT GEO-2 Result in substantial soil erosion or the loss of topsoil	*SCAG Mitigation Measures* See **SMM-GEN-1.** *Project-Level Mitigation Measures* **PMM-GEO-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to geological impacts. Such measures may include the following or other comparable measures identified by the lead agency: a) While compliance with the various municipal regional stormwater permits (MS4s) is required by law, not all areas are necessarily covered under one. For those areas that are not covered under a municipal stormwater permit (MS4), consistent with the requirements of the SWRCB and local regulatory agencies with oversight of development associated with the Plan, ensure that project designs provide adequate slope drainage and appropriate landscaping to minimize the occurrence of slope instability and erosion. Design features should include measures to reduce erosion caused by storm water. Road cuts should be designed to maximize the potential for revegetation.	Significant and unavoidable
IMPACT GEO-3 Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	*SCAG Mitigation Measures* See **SMM-GEN-1.** *Project-Level Mitigation Measures* See **PMM-GEO-1.**	Significant and unavoidable
IMPACT GEO-4 Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	*SCAG Mitigation Measures* See **SMM-GEN-1.** *Project-Level Mitigation Measures* See **PMM-GEO-1.**	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT GEO-5 Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	*SCAG Mitigation Measures* See **SMM-GEN-1.**	Significant and unavoidable
IMPACT GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	*Project-Level Mitigation Measures* **PMM-GEO-3** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to paleontological resources. Such measures may include the following or other comparable measures identified by the lead agency: a) For sites where the presence of paleontological resources is considered possible, as appropriate obtain review by a qualified paleontologist (meets the SVP standards for a Principal Investigator or Project Paleontologist or the Bureau of Land Management (BLM) standards for a Principal Investigator), to determine if the project has the potential to require ground disturbance of parent material with potential to contain unique paleontological or resources, or to require the substantial alteration of a unique geologic feature. The assessment should include museum records searches, a review of geologic mapping and the scientific literature, geotechnical studies (if available), and potentially a pedestrian survey, if units with paleontological potential are present at the surface. b) Avoid exposure or displacement of parent material with potential to yield unique paleontological resources. c) Where avoidance of parent material with the potential to yield unique paleontological resources is not feasible: 1) All on-site construction personnel receive Worker Education and Awareness Program (WEAP) training prior to the commencement of excavation work to understand the regulatory framework that provides for protection of paleontological resources and become familiar with diagnostic characteristics of the materials with the potential to be encountered. 2) A qualified paleontologist prepares a paleontological resources management plan (PRMP) to guide the salvage, documentation and repository of unique paleontological resources encountered during construction. The PRMP should adhere to and incorporate the performance standards and practices from the 2010 SVP Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources. If unique paleontological resources are encountered during construction, use a qualified paleontologist to oversee the implementation of the PRMP. 3) Monitor ground disturbing activities in parent material, with a moderate to high potential to yield unique paleontological resources using a qualified paleontological monitor meeting the standards	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	of the SVP or the BLM to determine if unique paleontological resources are encountered during such activities, consistent with the specified or comparable protocols. 4) Identify where ground disturbance is proposed in a geologic unit having the potential for containing fossils and specify the need for a paleontological monitor to be present during ground disturbance in these areas. d) Avoid routes and project designs that would permanently alter unique geological features. e) Salvage and document adversely affected resources sufficient to support ongoing scientific research and education. f) Significant recovered fossils should be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility. g) Following the conclusion of the paleontological monitoring, the qualified paleontologist should prepare a report stating that the paleontological monitoring requirement has been fulfilled and summarize the results of any paleontological finds. The report should be submitted to the lead CEQA and the repository curating the collected artifacts and should document the methods and results of all work completed under the PRMP, including treatment of paleontological materials, results of specimen processing, analysis, and research, and final curation arrangements.	
Greenhouse Gas Emissions		
IMPACT GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. **IMPACT GHG-2** Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	*SCAG Mitigation Measures* See **SMM-AQ-1.** **SMM-GHG-1** SCAG, in partnership with local air districts, shall continue to work with local jurisdictions to adopt qualified GHG reduction plans (e.g., climate action plans [CAPs]), develop GHG-reducing planning policies, and support local implementation of climate initiatives. **SMM-GHG-2** SCAG shall measure and track sustainability progress in the region and foster collaboration through the sharing of best practices across the 191 cities and six counties in the SCAG region (including across SB 535 Disadvantaged Communities) and identifies opportunities for improving sustainability practices. *Project-Level Mitigation Measures:* **PMM-GHG-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to greenhouse gas emissions. Such measures may include the following or other comparable measures identified by the lead agency: a) Integrate green building measures consistent with CALGreen (California Building Code Title 24), local building codes and other applicable laws, into project design including: i. Use energy efficient materials in building design, construction, rehabilitation, and retrofit. ii. Install energy-efficient lighting, heating, and cooling systems (cogeneration); water heaters; appliances; equipment; and control systems.	Significant and unavoidable (except for Plan's consistency with SB 375)

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	iii. Reduce lighting, heating, and cooling needs by taking advantage of light-colored roofs, trees for shade, and sunlight. iv. Incorporate passive environmental control systems that account for the characteristics of the natural environment. v. Use high-efficiency lighting and cooking devices. vi. Incorporate passive solar design. vii. Use high-reflectivity building materials and multiple glazing. viii. Use no-gas-powered landscape maintenance equipment. ix. Install electric vehicle charging stations. x. Reduce wood burning stoves or fireplaces. xi. Provide bike lanes accessibility and parking at residential developments. xii. Encourage projects to reduce natural gas infrastructure in buildings and/or reduce the use of natural gas appliances, with exceptions for limited uses. b) Reduce emissions resulting from projects through implementation of project features, project design, or other measures, such as those described in Appendix F of the CEQA Guidelines. c) Include off-site measures to mitigate a project's emissions. d) Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction, and operation of projects to minimize GHG emissions, including but not limited to: i. Use energy and fuel-efficient vehicles and equipment; ii. Deployment of zero- and/or near zero emission technologies; iii. Use lighting systems that are energy efficient, such as LED technology; iv. Use the minimum feasible amount of GHG-emitting construction materials; v. Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production; vi. Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse; vii. Incorporate design measures to reduce energy consumption and increase use of renewable energy; viii. Incorporate design measures to reduce water consumption; ix. Use lighter-colored pavement where feasible; x. Recycle construction debris to maximum extent feasible; xi. Plant shade trees in or near construction projects where feasible; and xii. Solicit bids that include concepts listed above. e) Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to the following:	

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	i. Promote transit-active transportation coordinated strategies; ii. Increase bicycle carrying capacity on transit and rail vehicles; iii. Improve or increase access to transit; iv. Increase access to common goods and services, such as groceries, schools, and day care; v. Incorporate affordable housing into the project; vi. Incorporate the neighborhood electric vehicle network; vii. Orient the project toward transit, bicycle and pedestrian facilities; viii. Improve pedestrian or bicycle networks, or transit service; ix. Provide traffic calming measures; x. Provide bicycle parking; xi. Limit or eliminate park supply; xii. Unbundle parking costs; xiii. Provide parking cash-out programs; xiv. Implement or provide access to commute reduction program; f) Incorporate bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; and planning for and building local bicycle projects that connect with the regional network; g) Improving transit access to rail and bus routes by incentives for construction of transit facilities within developments, and/or providing dedicated shuttle service to transit stations; and h) Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs including but not limited to measures that: i. Provide car-sharing, bike sharing, and ride-sharing programs; ii. Provide transit passes; iii. Shift single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services; iv. Provide incentives or subsidies that increase that use of modes other than single-occupancy vehicle; v. Provide on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms; vi. Provide employee transportation coordinators at employment sites; vii. Provide a guaranteed ride home service to users of non-auto modes. i) Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles;	

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	j) Land use siting and design measures that reduce GHG emissions, including: i. Developing on infill and brownfields sites; ii. Building compact and mixed-use developments near transit; iii. Retaining on-site mature trees and vegetation, and planting new canopy trees; iv. Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and v. Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse. vi) Establish methane recovery in Landfills and Wastewater Treatment Plants, where applicable. k) Consult the SCAG Environmental Justice Toolbox available on SCAG's Environmental Justice webpage for potential measures to address impacts to low-income and/or communities of color. l) Require at least five percent of all new vehicle parking spaces include electric vehicle charging stations, or at a minimum, install the appropriate infrastructure to facilitate sufficient electric charging for passenger vehicles and trucks to plug-in. Encourage electric vehicle capable (branch circuit and raceway) or ready (charging outlet) spaces to accommodate future growth in electric vehicles. m) Encourage telecommuting and alternative work schedules, such as: i) Staggered starting times ii) Flexible schedules iii) Compressed work weeks n) Implement commute trip reduction marketing, such as: i) New employee orientation of trip reduction and alternative mode options ii) Event promotions iii) Publications o) Implement preferential parking permit program p) Implement school pool and bus programs q) Price workplace parking, such as: i) Explicitly charging for parking for its employees ii) Implementing above market rate pricing iii) Validating parking only for invited guests iv) Not providing employee parking and transportation allowances v) Educating employees about available alternatives	

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
Hazards and Hazardous Materials		
IMPACT HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	*SCAG Mitigation Measures* See **SMM-GEN-1**. **SMM-HAZ-1** SCAG shall work with the Caltrans and the California Highway Patrol to continue to reduce risks associated with the transport of hazardous materials in the SCAG region, through its Consultation role assisting in the development of routes designated for hazardous materials, specifically related to radioactive materials. *Project-Level Mitigation Measures* **PMM-HAZ-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to the routine transport, use, or disposal of hazardous materials and hazardous materials releases, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Reduce train speeds when train cars contain hazardous material to 40 miles per hour when passing through urbanized areas of any size. b) Limit storage of crude oil tank cars in urbanized areas of any size and provide appropriate security in storage yards for all shipments. c) Notify in advance county and city emergency operations offices of all crude oil shipments, including a contact number that can provide real-time information in the event of an oil train derailment or accident. d) Report quarterly hazardous commodity flow information, including classification and characterization of materials being transported, to all first response agencies (49 Code Fed. Regs. 15.5) along the mainline rail routes used by trains carrying crude oil identified. e) Fund training and outfitting emergency response crews that includes the cost of backfilling personnel while in training. f) Undertake annual emergency responses scenario/field based training including Emergency Operations Center Training activations with local emergency response agencies.	Significant and unavoidable
IMPACT HAZ-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	*SCAG Mitigation Measures* See SMM-GEN-1 and **SMM-HAZ-1**. *Project-Level Mitigation Measures* See **PMM-HAZ-1**.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT HAZ-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school	*SCAG Mitigation Measures* See **SMM-HAZ-1**. *Project-Level Mitigation Measures* See **PMM-HAZ-1**. **PMM-HAZ-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to the release of hazardous materials within 0.25 miles of schools, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Where the construction and operation of projects involves the transport of hazardous materials, avoid transport of such materials within 0.25 miles of schools, when school is in session, wherever feasible. b) Where it is not feasible to avoid transport of hazardous materials, within 0.25 miles of schools on local streets, provide notifications of the anticipated schedule of transport of such materials.	Significant and unavoidable
IMPACT HAZ-4 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.	*SCAG Mitigation Measures* See **SMM-HAZ-1**. *Project-Level Mitigation Measures* **PMM-HAZ-3** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to projects that are located on a site which is included on the Cortese List, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) For any listed sites or sites that have the potential for residual hazardous materials as a result of historic land uses, complete a Phase I Environmental Site Assessment, including a review and consideration of data from all known databases of contaminated sites, during the process of planning, environmental clearance, and construction for projects. b) If warranted by the Phase I report, submit to the appropriate agency responsible for hazardous materials/wastes oversight a Phase II Environmental Site Assessment report if warranted by a for the project site. The reports should make recommendations for remedial action, if appropriate, and be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. c) Implement the recommendations provided in the Phase II Environmental Site Assessment report, where such a report was determined to be necessary for the construction or operation of the project, for remedial action. d) Submit a copy of all applicable documentation required by local, state, and federal environmental regulatory agencies, including but not limited to permit applications, Phase I and II Environmental Site Assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	e) Conduct soil sampling and chemical analyses of samples, consistent with the protocols established by the U.S. EPA to determine the extent of potential contamination beneath all underground storage tanks (USTs), elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition or construction activities would potentially affect a particular development or building. f) Consult with the appropriate local, state, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps. g) Obtain and submit written evidence of approval for any remedial action if required by a local, state, or federal environmental regulatory agency. h) Cease work if soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums, or other hazardous materials or wastes are encountered), in the vicinity of the suspect material. Secure the area as necessary and take all appropriate measures to protect human health and the environment, including but not limited to, notification of regulatory agencies and identification of the nature and extent of contamination. Stop work in the areas affected until the measures have been implemented consistent with the guidance of the appropriate regulatory oversight authority. i) Soil generated by construction activities should be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Complete sampling and handling and transport procedures for reuse or disposal, in accordance with applicable local, state and federal laws and policies. j) Groundwater (including dewatering effluent) pumped from the subsurface should be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Utilize engineering controls, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building. k) As needed and appropriate, prior to issuance of any demolition, grading, or building permit, submit for review and approval by the lead agency (or other appropriate government agency) written verification that the appropriate federal, state and/or local oversight authorities, including but not limited to the Regional Water Quality Control Board (RWQCB), have granted all required clearances and confirmed that the all applicable standards, regulations, and conditions have been met for previous contamination at the site. l) Develop, train, and implement appropriate worker awareness and protective measures to assure that worker and public exposure is minimized to an acceptable level and to prevent any further environmental contamination as a result of construction. m) If asbestos-containing materials (ACM) are found to be present in building materials to be removed, submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but	

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	not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health and Safety Code Section 25915-25919.7; and other local regulations. n) Where projects include the demolitions or modification of buildings constructed prior to 1978, complete an assessment for the potential presence or lack thereof of ACM, lead based paint, and any other building materials or stored materials classified as hazardous waste by state or federal law. o) Where the remediation of lead-based paint has been determined to be required, provide specifications to the appropriate agency, signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: California Occupational Safety and Health Administration's (Cal OSHA's) Construction Lead Standard, Title 8 California Code of Regulations Section 1532.1 and Department of Health Services (DHS) Regulation 17 CCR Sections 35001–36100, as may be amended. If other materials classified as hazardous waste by state or federal law are present, the project sponsor should submit written confirmation to the appropriate local agency that all state and federal laws and regulations should be followed when profiling, handling, treating, transporting, and/or disposing of such materials.	
IMPACT HAZ-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area	*SCAG Mitigation Measures* See **SMM-NOI-1**. **SMM-HAZ-2** SCAG shall continue to collaborate with key stakeholders on regional aviation planning issues through the Aviation Technical Advisory Committee (ATAC). The ATAC is a partnership between the airports, transportation agencies and commissions, experts, and other community members within the SCAG region. *Project-Level Mitigation Measures* See **PMM-NOI-1**.	Significant and unavoidable
IMPACT HAZ-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan **IMPACT TR-4** Result in inadequate emergency access.	*SCAG Mitigation Measures* See **SMM-HAZ-1, SMM-HAZ-2**, **SMM-WF-1**, and **SMM-TRA-1**. *Project-Level Mitigation Measures* See **PMM-HAZ-1** through **PMM-HAZ-3**. **PMM-HAZ-4** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects which may substantially impair implementation of an adopted emergency response plan or emergency evacuation plan, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency:	Significant and unavoidable

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IMPACT WF-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.	• Continue to coordinate locally and regionally based on ongoing review and integration of projected transportation and circulation conditions. • Develop new methods of conveying projected and real time information to citizens using emerging electronic communication tools including social media and cellular networks; • Continue to evaluate lifeline routes for movement of emergency supplies and evacuation. • Prior to construction, project implementation agencies can and should ensure that all necessary local and state road and railroad encroachment permits are obtained. The project implementation agency can and should also comply with all applicable conditions of approval. As deemed necessary by the governing jurisdiction, the road encroachment permits may require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. Traffic control plans can and should include the following requirements: – Identification of all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow. – Development of circulation and detour plans to minimize impacts to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone. – Scheduling of truck trips outside of peak morning and evening commute hours. – Limiting of lane closures during peak hours to the maximum extent feasible. – Usage of designated haul routes to minimize truck traffic on local roadways to the maximum extent feasible. – Inclusion of detours for bicycles and pedestrians in all areas potentially affected by project construction. – Installation of traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. – Development and implementation of access plans for highly sensitive land uses such as police and fire stations, transit stations, hospitals, and schools. The access plans would be developed with the facility owner or administrator. To minimize disruption of emergency vehicle access, affected jurisdictions can and should be asked to identify detours for emergency vehicles, which will then be posted by the contractor. Notify in advance the facility owner or operator of the timing, location, and duration of construction activities and the locations of detours and lane closures. – Storage of construction materials only in designated areas. – Coordination with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary. – Ensure the rapid repair of transportation infrastructure in the event of an emergency through cooperation among public agencies and by identifying critical infrastructure needs necessary for: (a) emergency responders to enter the region, (b) evacuation of affected facilities, and (c) restoration of utilities.	

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	– Enhance emergency preparedness awareness among public agencies and with the public at large.	
IMPACT HAZ-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	This impact is addressed under **Impact WF-2**. See below.	
	Hydrology and Water Quality	
IMPACT HYD-1 Potential to violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	*SCAG Mitigation Measures* **SMM-HYD-1** SCAG shall continue to facilitate regional forums for collaboration opportunities, such as through the Sustainable & Resilient Communities Working Group, to share best practices and develop recommendations to create resilient communities in the region. SCAG shall continue to work with stakeholders and the public to encourage regional-scale planning that addresses regional shocks and stressors, such as improved water quality, groundwater, stormwater management, pollution prevention, flooding, wildfire prevention, disaster emergency services, emergency evacuation plans, wildfire resiliency, and earthquake preparedness to the extent practical and feasible through cooperative planning, information sharing, and encouragement of comprehensive control measure development within the SCAG region. *Project-Level Mitigation Measures* **PMM-HYD-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects from violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, as applicable and feasible. While compliance with the various municipal regional stormwater permits (MS4s) is required by law, not all areas are necessarily covered under one. For those areas that are not covered under a municipal stormwater permit (MS4), such measures may include the following or other comparable measures identified by the lead agency: a) Implement best management practices to reduce the peak stormwater runoff from the project site to the maximum extent practicable. b) Complete, and have approved, a Standard Urban Stormwater Management Plan, prior to occupancy of residential or commercial structures. c) Ensure adequate capacity of the surrounding stormwater system to support stormwater runoff from new or rehabilitated structures or buildings. d) Where feasible, restore or expand riparian areas such that there is no net loss of impervious surface as a result of the project. e) Install structural water quality control features, such as drainage channels, detention basins, oil and grease traps, filter systems, and vegetated buffers to prevent pollution of adjacent water resources by	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	polluted runoff where required by applicable urban storm water runoff discharge permits, on new facilities. f) Provide operational best management practices for street cleaning, litter control, and catch basin cleaning are implemented to prevent water quality degradation in compliance with applicable storm water runoff discharge permits; and ensure treatment controls are in place as early as possible, such as during the acquisition process for rights-of-way, not just later during the facilities design and construction phase. g) Incorporate as appropriate treatment and control features such as detention basins, infiltration strips, and porous paving, other features to control surface runoff and facilitate groundwater recharge into the design of new transportation projects early on in the process to ensure that adequate acreage and elevation contours are provided during the right-of-way acquisition process. h) Upgrade stormwater drainage facilities to accommodate any increased runoff volumes. These upgrades may include the construction of detention basins or structures that will delay peak flows and reduce flow velocities, including expansion and restoration of wetlands and riparian buffer areas. System designs shall be completed to eliminate increases in peak flow rates from current levels. i) Encourage low-impact development (LID) and incorporation of natural spaces that reduce, treat, infiltrate, and manage stormwater runoff flows in all new developments, where practical and feasible.	
IMPACT HYD-2 Potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	*SCAG Mitigation Measures* See **SMM-HYD-1**. *Project-Level Mitigation Measures* **PMM-HYD-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects from violation of any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Avoid designs that require continual dewatering where feasible. For projects requiring continual dewatering facilities, implement monitoring systems and long-term administrative procedures to ensure proper water management that prevents degrading of surface water and minimizes adverse impacts on groundwater for the life of the project, Construction designs shall comply with appropriate building codes and standard practices including the CBC. b) Maximize, where practical and feasible, permeable surface area to protect water quality and allow for groundwater recharge. Minimize new impervious surfaces, including the use of in-lieu fees and off-site mitigation. c) Avoid construction and siting on groundwater recharge areas, to prevent conversion of those areas to impervious surface.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT HYD-3A Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site.	*SCAG Mitigation Measures* See **SMM-HYD-1**. *Project-Level Mitigation Measures* See **PMM-HYD-1**.	Significant and unavoidable
IMPACT HYD-3B Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.	*SCAG Mitigation Measures* See **SMM-HYD-1**. *Project-Level Mitigation Measures* See **PMM-HYD-1** and **PMM-HYD-2**.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
IMPACT HYD-3C Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	*SCAG Mitigation Measures* See **SMM-HYD-1**. *Project-Level Mitigation Measures* See **PMM-HYD-1** and **PMM-HYD-2**.	Significant and unavoidable
IMPACT HYD-3D Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows	*SCAG Mitigation Measures* See **SMM-HYD-1**. *Project-Level Mitigation Measures* See **PMM-HYD-1** and **PMM-HYD-2**.	Significant and unavoidable
IMPACT HYD-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	*SCAG Mitigation Measures* See **SMM HYD-1**. *Project-Level Mitigation Measures* **PMM-HYD-4** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures capable of avoiding or reducing the potential impacts of locating structures that would impede or redirect flood flows, as applicable and	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Ensure that all roadbeds for new highway and rail facilities be elevated at least one foot above the 100-year base flood elevation. In areas affected by coastal flooding, new projects should be designed for resilience with 3.5 feet of sea-level rise, as per California Ocean Protection Council's strategic guidance. Since alluvial fan flooding is not often identified on FEMA flood maps, the risk of alluvial fan flooding should be evaluated and projects should be sited to avoid alluvial fan flooding. Delineation of floodplains and alluvial fan boundaries should attempt to account for future hydrologic changes caused by global climate change.	
IMPACT HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	*SCAG Mitigation Measures* See **SMM-HYD-1**. *Project-Level Mitigation Measures* See **PMM-HYD-2**.	Significant and unavoidable
Land Use		
IMPACT LU-1 Potential to physically divide an established community	*SCAG Mitigation Measures* **SMM-LU-1** SCAG shall continue to coordinate with local County Transportation Commissions, Caltrans, and other local jurisdictions when siting new facilities in residential areas to facilitate minimizing future impacts on established communities, through cooperation, information sharing, and regional program development as part of SCAG's ongoing regional planning efforts to promote best planning practices. *Project-Level Mitigation Measures* **PMM-LU-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects that physically divide a community, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Facilitate connections in communities that have been physically divided through land use projects that build upon and improve existing circulation patterns b) Encourage implementing agencies to orient transportation projects to minimize impacts on existing communities by: – Selecting alignments within or adjacent to existing public rights of way. – Design sections above or below-grade to maintain viable vehicular, cycling, and pedestrian connections between portions of communities where existing connections are disrupted by the transportation project.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	– Wherever feasible incorporate direct crossings, overcrossings, or under crossings at regular intervals for multiple modes of travel (e.g., pedestrians, bicyclists, vehicles). c) Where it has been determined that it is infeasible to avoid creating a barrier in an established community, consider other measures to reduce impacts, including but not limited to: – Alignment shifts to minimize the area affected. – Reduction of the proposed right-of-way take to minimize the overall area of impact. – Provisions for bicycle, pedestrian, and vehicle access across improved roadways.	
IMPACT LU-2 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect	*SCAG Mitigation Measures* **SMM-LU-2** SCAG shall continue to promote the Intergovernmental Review (IGR) Program as an informational tool by providing information to regionally significant projects as defined in CEQA Guidelines Section 15206 to facilitate consideration of the most currently adopted Connect SoCal 2024. SCAG shall continue to review regionally significant projects submitted to SCAG to include them in the IGR Bi-Monthly Reports that are published on SCAG's IGR Program website at: https://scag.ca.gov/igr-bi-monthly-report. For more information on SCAG's IGR Program, please visit: http://www.scag.ca.gov/programs/Pages/IGR.aspx. **SMM-LU-3** SCAG shall continue to support local jurisdictions when they update their general plans at least every ten years, as recommended by the Governor's Office of Planning and Research through the use of the multiple planning and analytical tools provided by SCAG such as the Regional Data Platform and other GIS software. Additionally, SCAG shall continue to facilitate information sharing, such as through the Toolbox Tuesday program to provide webinars on technical information and tools that may be useful for local jurisdictions to assist with their general plan updates, and funding programs, such as Regional Early Action Planning grants and Call for Projects. *Project-Level Mitigation Measures* **PMM-LU-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects that are due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, as applicable and feasible. When an inconsistency with the adopted general plan policy or land use regulation (adopted for the purpose of avoiding or mitigating an impact) is identified measures may include the following or other comparable measures identified by the lead agency: a) Modify the transportation or land use project to eliminate or reduce the conflict; or determine if the environmental, social, economic, and engineering benefits of the project warrant an amendment to the general plan or land use regulation and process said amendment.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
Mineral Resources		
IMPACT MIN-1 Potential to result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	*SCAG Mitigation Measures* See **SMM-GEN-1.** *Project-Level Mitigation Measures* **PMM-MIN-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce the use of mineral resources that could be of value to the region, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Provide for the efficient use of known aggregate and mineral resources or locally important mineral resource recovery sites, by ensuring that the consumptive use of aggregate resources is minimized and that access to recoverable sources of aggregate is not precluded, as a result of construction, operation and maintenance of projects. b) Where avoidance is infeasible, minimize impacts to the efficient and effective use of recoverable sources of aggregate through measures that have been identified in county and city general plans, or other comparable measures such as: 1) Recycle and reuse building materials resulting from demolition, particularly aggregate resources, to the maximum extent practicable. 2) Identify and use building materials, particularly aggregate materials, resulting from demolition at other construction sites in the SCAG region, or within a reasonable hauling distance of the project site. 3) Design transportation network improvements in a manner (such as buffer zones or the use of screening) that does not preclude adjacent or nearby extraction of known mineral and aggregate resources following completion of the improvement and during long-term operations. 4) Avoid or reduce impacts on known aggregate and mineral resources and mineral resource recovery sites through the evaluation and selection of project sites and design features (e.g., buffers) that minimize impacts on land suitable for aggregate and mineral resource extraction by maintaining portions of MRZ-2 areas in open space or other general plan land use categories and zoning that allow for mining of mineral resources.	Significant and unavoidable
IMPACT MIN-2 Potential to result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	*SCAG Mitigation Measures* See **SMM-GEN-1.** *Project-Level Mitigation Measures* See **PMM-MIN-1**.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
Noise		
IMPACT NOI-1 Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	*SCAG Mitigation Measures* See **SMM-LU-1** through **SMM-LU-3, SMM-POP-1,** and **SMM-POP-2** *Project-Level Mitigation Measures* **PMM-NOI-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce ambient noise levels in the vicinity of the project, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Install temporary noise barriers during construction between noise sources and noise-sensitive land uses and species. b) Include permanent noise barriers and sound-attenuating features as part of the project design between noise sources and noise-sensitive land uses and species. Barriers could be in the form of outdoor barriers, sound walls, buildings, or earth berms to attenuate noise at adjacent sensitive uses. Sound-attenuating features could be in the form of grade separation, buffer zones, reduced-noise paving materials, and traffic calming measures. c) Schedule construction activities consistent with the allowable hours pursuant to applicable general plan noise element or noise ordinance d) Post procedures and phone numbers at the construction site for notifying the lead agency staff, local Police Department, and construction contractor (during regular construction hours and off-hours), along with permitted construction days and hours, complaint procedures, and who to notify in the event of a problem. e) Notify neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of anticipated times when noise levels are expected to exceed limits established in the noise element of the general plan or noise ordinance. f) Designate an on-site construction complaint and enforcement manager for the project. g) Ensure that construction equipment is properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds silencers, wraps). All intake and exhaust ports on power equipment shall be muffled or shielded. h) Use hydraulically or electrically powered tools (e.g., jack hammers, pavement breakers, and rock drills) for project construction to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust should be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves should be used, if such jackets are commercially available, and this could achieve a further reduction of 5 dBA. Quieter procedures should be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.	Significant and unavoidable

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	i) Where feasible, design projects so that they are depressed below the grade of the existing noise-sensitive receptor, creating an effective barrier between the roadway and sensitive receptors. j) Where feasible, improve the acoustical insulation of dwelling units where setbacks and sound barriers do not provide sufficient noise reduction. k) Use rubberized asphalt or "quiet pavement" to reduce road noise for new roadway segments, roadways in which widening or other modifications require re-pavement, or normal reconstruction of roadways where re-pavement is planned l) Projects that require pile driving or other construction noise above 90 dBA in proximity to sensitive receptors, should reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90 dBA; a set of site-specific noise attenuation measures should be completed under the supervision of a qualified acoustical consultant. m) Monitor the effectiveness of noise reduction measures by taking noise measurements and installing adaptive mitigation measures to achieve the standards for ambient noise levels established by the noise element of the general plan or noise ordinance. n) Use equipment and trucks with the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible) for project construction. o) Stationary noise sources can and should be located as far from adjacent sensitive receptors and species to the maximum extent feasible, and they should be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the lead agency (or other appropriate government agency) to provide equivalent noise reduction. p) Use of portable barriers in the vicinity of sensitive receptors during construction. q) Implement noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings (for instance by the use of sound blankets) and implement if such measures are feasible and would noticeably reduce noise impacts. r) Monitor the effectiveness of noise attenuation measures by taking noise measurements. s) Maximize the distance between noise-sensitive land uses and new roadway lanes, roadways, rail lines, transit centers, park-and-ride lots, and other new noise-generating facilities.	
IMPACT NOI-2 Generation of excessive groundborne vibration or groundborne noise levels.	*SCAG Mitigation Measures* See **SMM-LU-1** through **SMM-LU-3, SMM-POP-1,** and **SMM-POP-2** *Project-Level Mitigation Measures* See **PMM-NOI-1**. **PMM-NOI-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the lead agency:	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	a) For projects that require pile driving or other construction techniques that result in excessive vibration, such as blasting, determine the potential vibration impacts to the structural integrity of the adjacent buildings within 50 feet of pile driving locations. b) For projects that require pile driving or other construction techniques that result in excessive vibration, such as blasting, determine the threshold levels of vibration and cracking that could damage adjacent historic or other structure, and design means and construction methods to not exceed the thresholds. c) For projects where pile driving would be necessary for construction due to geological conditions, utilize quiet pile driving techniques such as predrilling the piles to the maximum feasible depth, where feasible. Predrilling pile holes will reduce the number of blows required to completely seat the pile and will concentrate the pile driving activity closer to the ground where pile driving noise can be shielded more effectively by a noise barrier/curtain and reduce the vibration occurrences and magnitude. d) Perform construction activities within permitted hours in accordance with local jurisdiction regulation. e) Properly maintain construction equipment and outfit construction equipment with the best available noise suppression devices (e.g., mufflers, silences, wraps).	
IMPACT NOI-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.	*SCAG Mitigation Measures* See **SMM-HAZ-2**. *Project-Level Mitigation Measures* See **PMM-NOI-1**.	Significant and unavoidable
Population and Housing		
IMPACT POP-1 Induce substantial unplanned population growth to areas of the region either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., by	*SCAG Mitigation Measures* See **SMM-GEN-1**, **SMM-LU-3**, **SMM-TRA-1**, and **SMM-TRA-2** **SMM-POP-1** SCAG shall continue to facilitate collaboration forums, such as through SCAG's Housing Group, and host public outreach events in various formats that respond to issues that shape the housing crisis and share information on sustainable housing development and potential funding opportunities. **SMM-POP-2** SCAG shall continue to produce a variety of demographic, economic, education, housing, public health, and transportation information to facilitate data exchange for local jurisdictions across the region, through existing web-based planning tools, such as SCAG Regional Data Platform (RDP). Local jurisdictions may	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
extending roads and other infrastructure)	utilize for a variety of planning and community outreach purposes including project and program planning and grant development.	
IMPACT POP-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	*SCAG Mitigation Measures* See **SMM-GEN-1**, **SMM-POP-1**, and **SMM POP-2**. *Project-Level Mitigation Measures* **PMM-POP-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce the displacement of existing housing, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Evaluate alternate route alignments and transportation facilities that minimize the displacement of homes and businesses. Use an iterative design and impact analysis where impacts to homes or businesses are involved to minimize the potential of impacts on housing and displacement of people. b) Prioritize the use existing ROWs, wherever feasible. c) Develop a construction schedule that minimizes potential neighborhood deterioration from protracted waiting periods between right-of-way acquisition and construction. d) Review capacities of available urban infrastructure and augment capacities as needed to accommodate demand in locations where growth is desirable to the local lead Agency and encouraged by the SCS (primarily TPAs, where applicable). e) When General Plans and other local land use regulations are amended or updated, use the most recent growth projections and RHNA allocation plan.	Significant and unavoidable
Fire Services		
IMPACT PS-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response	*SCAG Mitigation Measures* See **SMM-GEN-1**, **SMM-HYD-1, SMM-WF-1,** and **SMM-WF-2**. *Project-Level Mitigation Measures* See **PMM AES-1, PMM AQ-1, PMM AQ-2, PMM-BIO-1, PMM-BIO-2, PMM-BIO-4, PMM-BIO-5, PMM-CUL-1, PMM-CUL-2, PMM-GEO-1, PMM-GEO-2, PMM-GHG-1, PMM-HAZ-2** through **PMM-HAZ-4, PMM-NOI-1, PMM-NOI-2, PMM-TCR-1, PMM-UTIL-1,** and **PMM-WF-2**. **PMM-PS-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects of constructing new or physically altered fire and police facilities, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Coordinate with fire and police protection services agencies to ensure that there are adequate facilities to maintain acceptable service ratios, response times or other performance objectives for fire and police protection services and that any required additional construction of buildings is incorporated into the project description.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
times, or other performance objectives.	b) Where current levels of services at the project site are found to be inadequate, provide fair share contributions towards infrastructure improvements, as appropriate and applicable, to mitigate identified CEQA impacts.	
	Police Services	
IMPACT PS-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, need for new or physically altered police facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.	*SCAG Mitigation Measures* See **SMM-HYD-1, SMM-LU-1** through **SMM-LU-3**, **SMM-POP-1** and **SMM-POP-2**. *Project-Level Mitigation Measures* See **PMM AES-1, PMM AQ-1, PMM AQ-2, PMM-BIO-1, PMM-BIO-2, PMM-BIO-4, PMM-BIO-5, PMM-CUL-1, PMM-CUL-2, PMM-GEO-1, PMM-GEO-2, PMM-GHG-1, PMM-HAZ-2** through **PMM-HAZ-4, PMM-NOI-1, PMM-NOI-2, PMM-PS-1, PMM-TCR-1, PMM-UTIL-1,** and **PMM-WF-2.**	Significant and unavoidable
	Schools	
IMPACT PS-3 Result in substantial adverse physical impacts associated with the provision of new or physically altered educational facilities, need for new or physically altered educational facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.	*SCAG Mitigation Measures* See **SMM-GEN-1, SMM-LU-1** through **SMM-LU-3**, **SMM-POP-1** and **SMM-POP-2**. *Project-Level Mitigation Measures* See **PMM AES-1, PMM AQ-1, PMM AQ-2, PMM-BIO-1, PMM-BIO-2, PMM-BIO-4, PMM-BIO-5, PMM-CUL-1, PMM-CUL-2, PMM-GEO-1, PMM-GEO-2, PMM-GHG-1, PMM-HAZ-2** through **PMM-HAZ-4, PMM-NOI-1, PMM-NOI-2, PMM-TCR-1, PMM-UTIL-1,** and **PMM-WF-2**. **PMM-PS-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects of constructing new or physically altered school facilities, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Where construction or expansion of school facilities is required to meet public school service ratios, support expansion of such facilities, for example by ensuring safe routes to schools.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	Library Services	
IMPACT PS-4 Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, need for new or physically altered library facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.	*SCAG Mitigation Measures* See **SMM-GEN-1, SMM-LU-1** through **SMM-LU-3**, **SMM-POP-1**, and **SMM-POP-2** *Project-Level Mitigation Measures* See **PMM AES-1, PMM AQ-1, PMM AQ-2, PMM-BIO-1, PMM-BIO-2, PMM-BIO-4, PMM-BIO-5, PMM-CUL-1, PMM-CUL-2, PMM-GEO-1, PMM-GEO-2, PMM-GHG-1, PMM-HAZ-2** through **PMM-HAZ-4, PMM-NOI-1, PMM-NOI-2, PMM-TCR-1, PMM-UTIL-1,** and **PMM-WF-2.**	Significant and unavoidable
	Parks	
IMPACT PS-5 Result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, or other performance objectives.	This impact is addressed under **Impact REC-2**. See below.	—

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
Recreation		
IMPACT REC-1 Potential to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	*SCAG Mitigation Measures* See **SMM-LU-1** through **SMM-LU-3**, **SMM-POP-1** and **SMM-POP-2**. **SMM-REC-1** SCAG shall continue to encourage and recommend approaches to help local jurisdictions improve residential access to, and use of, existing neighborhood and regional parks through information sharing and regional forums for collaboration, such as the Equity Working Group. *Project-Level Mitigation Measures* **PMM-REC-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects on the use of existing neighborhood and regional parks or other recreational facilities, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Prior to the issuance of permits, where projects require the construction or expansion of recreational facilities or the payment of equivalent Quimby fees, consider increasing the accessibility to natural areas and lands for outdoor recreation from the proposed project area, in coordination with local and regional open space planning and/or responsible management agencies. b) Prior to the issuance of permits, where projects require the construction or expansion of recreational facilities or the payment of equivalent Quimby fees, encourage patterns of urban development and land use which reduce costs on infrastructure and make better use of existing facilities, using strategies such as: i. Increasing the accessibility to natural areas for outdoor recreation ii. Utilizing "green" development techniques iii. Promoting water-efficient land use and development iv. Encouraging multiple uses, such as the joint use of schools v. Including trail systems and trail segments in General Plan recreation standards	Significant and unavoidable
IMPACT REC-2 Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. **IMPACT PS-5** Result in substantial	*SCAG Mitigation Measures* See **SMM-LU-1** through **SMM-LU-3, SMM-POP-1, SMM-POP-2**, and **SMM-REC-1.** *Project-Level Mitigation Measures* See **PMM-REC-1**, **PMM-AQ-2**, and **PMM-NOI-1**.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
adverse physical impacts associated with the provision of new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives.		
	Transportation, Traffic, and Safety	
IMPACT TRA-1 Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	*SCAG Mitigation Measures* See **SMM LU-3 AND SMM-POP-2.** *Project-Level Mitigation Measures* **PMM-TRA-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to transportation impacts. Such measures may include the following or other comparable measures identified by the lead agency: • For future land use development projects, lead agencies shall encourage the incorporation of transit, bicycle, pedestrian, and micro-mobility facilities, features, and services in project designs, as well as encourage developers to provide information regarding the availability of these facilities and services to residents, tenants, and owners in order to facilitate increased access to and utilization of transit and active transportation services and facilities.	Significant and unavoidable
IMPACT TRA-2 Conflict or be inconsistent with CEQA Guidelines section 15064.3(b).	*SCAG Mitigation Measures* **SEE SMM-POP-2.** **SMM-TRA-1** SCAG shall facilitate the reduction of vehicle miles traveled (VMT) and impacts to circulation and access through mobility improvements and by encouraging transit/rail and active transportation use via stakeholder forums (e.g., quarterly Safe and Active Streets Working Group meetings, bimonthly Regional Transit Technical Advisory Committee meetings, monthly Active Transportation Program check-ins with County Transportation Commissions). These objectives will also be facilitated through the hosting of regional forums for policy makers, County Transportation Commissions, planning agencies, local jurisdictions, and state partners to promote information sharing. **SMM-TRA-2** SCAG shall continue to support development of local and regional SB 743 implementation programs. **SMM-TRA-3** SCAG shall continue to develop and support its program for reducing average daily number of SCAG employees' commute vehicle trips.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	Project-Level Mitigation Measures **PMM-TRA-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to transportation impacts. Such measures may include the following or other comparable measures identified by the lead agency: • Transportation demand management (TDM) strategies should be incorporated into individual land use and transportation projects and plans, as part of the planning process. Local agencies should incorporate strategies identified in the Federal Highway Administration's publication: Integrating Demand Management into the Transportation Planning Process: A Desk Reference (August 2012) into the planning process (FHWA 2012). For example, the following strategies may be included to encourage use of transit and non-motorized modes of transportation and reduce vehicle miles traveled on the region's roadways: – Include TDM mitigation requirements for new developments; – Incorporate supporting infrastructure for non-motorized modes, such as, bike lanes, secure bike parking, sidewalks, and crosswalks; – Provide incentives to use alternative modes and reduce driving, such as, universal transit passes, road and parking pricing; – Implement parking management programs, such as parking cash-out, priority parking for carpools and vanpools; – Develop TDM-specific performance measures to evaluate project-specific and system-wide performance; – Incorporate TDM performance measures in the decision-making process for identifying transportation investments; – Implement data collection programs for TDM to determine the effectiveness of certain strategies and to measure success over time; and – Set aside funding for TDM initiatives. The increase in per capita VMT on facilities experiencing LOS F represents a significant impact compared to existing conditions. To assess whether implementation of these specific mitigation strategies would result in measurable traffic congestion reductions, implementing actions may need to be further refined within the overall parameters of the proposed Plan and matched to local conditions in any subsequent project-level environmental analysis.	
IMPACT TRA-3 Substantially increase hazards due to geometric design feature (e.g., sharp curves or dangerous intersections)	*SCAG Mitigation Measures* See **SMM-GEN-1.** *Project-Level Mitigation Measures* **PMM-TRA-3** Prepare a sight distance analysis as needed for locations where sight lines could be impeded. The sight distance analysis to be prepared according to the jurisdiction's applicable Municipal Code requirements	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
or incompatible uses (e.g., farm equipment).	and the Caltrans Highway Design Manual (HCM) standards and guidelines, and should recommend safety improvements as appropriate such as limited use areas (e.g., low-height landscaping), and on-street parking restrictions (e.g., red curb), and any turning restrictions (e.g., right-in/right-out).	
IMPACT TRA-4 Result in inadequate emergency access.	This impact is addressed in **Section 3.9, *Hazards and Hazardous Materials*, Impact HAZ-6**. See above.	
Tribal Cultural Resources		
IMPACT TCR-1 Cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of	*SCAG Mitigation Measures* See **SMM-CUL-1.** *Project-Level Mitigation Measures* See **PMM-CUL-1**. **PMM-TCR-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects on tribal cultural resources. Such measures may include the following or other comparable measures identified by the lead agency: a) Avoid and/or preserve of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria b) Treat the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following: protecting the cultural character and integrity of the resource; protecting the traditional use of the resource; and protecting the confidentiality of the resource; c) Provide permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places; and protecting the resource. d) If tribal cultural resources are found, then the lead agency should consider tribal construction monitoring.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		
Utilities and Service Systems		
IMPACT UTIL-1 Require or result in the relocation or construction of new or expanded water wastewater treatment or storm water drainage , electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. **IMPACT UTIL-2** Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	*SCAG Mitigation Measures* See **SMM-HYD-1** *Project-Level Mitigation Measures* See **PMM-HYD-1**. **PMM-UTIL-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce substantial adverse effects on utilities and service systems, particularly for construction of wastewater facilities, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: • During the design and CEQA review of individual future projects, implementing agencies and projects sponsors shall determine whether sufficient wastewater capacity exists for the proposed projects. The proposed development can and should be served by its existing or planned treatment capacity. If adequate capacity does not exist, project sponsors shall coordinate with the relevant service provider to ensure that adequate public services and utilities could accommodate the increased demand, and if not, infrastructure improvements for the appropriate public service or utility shall be identified in each project's CEQA documentation. The relevant public service provider or utility shall be responsible for undertaking project-level review as necessary to provide CEQA clearance for new facilities. **PMM-UTIL-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to ensure sufficient water supplies, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Reduce exterior consumptive uses of water in public areas, and should promote reductions in private homes and businesses, by shifting to drought-tolerant native landscape plantings, using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	b) Promote the availability of drought-resistant landscaping options and provide information on where these can be purchased. Use of reclaimed water especially in median landscaping and hillside landscaping can and should be implemented where feasible. c) Implement water conservation best practices such as low-flow toilets, water-efficient clothes washers, water system audits, and leak detection and repair. d) For projects located in an area with existing reclaimed water conveyance infrastructure and excess reclaimed water capacity, use reclaimed water for non- potable uses, especially landscape irrigation. For projects in a location planned for future reclaimed water service, projects should install dual plumbing systems in anticipation of future use. Large developments could treat wastewater onsite to tertiary standards and use it for non-potable uses onsite.	
IMPACT UTIL-3 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	*SCAG Mitigation Measures* See **SMM-USSWS-1** and **SMM-HYD-1**. *Project-Level Mitigation Measures* See **PMM-UTIL-2**.	Significant and unavoidable
IMPACT UTIL-4 Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals	*SCAG Mitigation Measures* **SMM-USSW-1** SCAG shall continue to provide support for coordinating with waste management agencies, and appropriate local and regional jurisdictions, and sharing information to facilitate and encourage diversion of solid waste where applicable, appropriate, and feasible. *Project-Level Mitigation Measures* **PMM-UTIL-3** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce the generation of solid waste, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: Integrate green building measures consistent with CALGreen (California Building Code Title 24) into project design including, but not limited to the following: a) Reuse and minimize construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities. b) Include of a waste management plan that promotes maximum C&D diversion. c) Source reduction through (1) use of materials that are more durable and easier to repair and maintain, (2) design to generate less scrap material through dimensional planning, (3) increased recycled content, (4) use of reclaimed materials, and (5) use of structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings, etc.). d) Reuse existing structure and shell in renovation projects.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	e) Develop indoor recycling program and space. f) Discourage the siting of new landfills unless all other waste reduction and prevention actions have been fully explored. If landfill siting or expansion is necessary, site landfills with an adequate landfill-owned, undeveloped land buffer to minimize the potential adverse impacts of the landfill in neighboring communities. g) Discourage exporting of locally generated waste outside of the SCAG region during the construction and implementation of a project. Encourage disposal within the county where the waste originates as much as possible. Promote green technologies for long-distance transport of waste (e.g., clean engines and clean locomotives or electric rail for waste-by-rail disposal systems) where appropriate and feasible. h) Encourage waste reduction goals and practices and look for opportunities for voluntary actions to exceed the 80 percent waste diversion target. i) Encourage the development of local markets for waste prevention, reduction, and recycling practices by supporting recycled content and green procurement policies, as well as other waste prevention, reduction and recycling practices. j) Develop ordinances that promote waste prevention and recycling activities such as: requiring waste prevention and recycling efforts at all large events and venues; implementing recycled content procurement programs; and developing opportunities to divert food waste away from landfills and toward food banks and composting facilities. k) Develop and site composting, recycling, and conversion technology facilities that have minimum environmental and health impacts. l) Integrate reuse and recycling into residential industrial, institutional, and commercial projects. m) Provide education and publicity about reducing waste and available recycling services. n) Implement or expand city or county-wide recycling and composting programs for residents and businesses. This could include extending the types of recycling services offered (e.g., to include food and green waste recycling) and providing public education and publicity about recycling services.	
IMPACT UTIL-5 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	*SCAG Mitigation Measures* See **SMM-USSW-1** *Project-Level Mitigation Measures* See **PMM-UTIL-3**.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	Wildfire	
IMPACT WF-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.	This impact is addressed in **Section 3.9, *Hazards and Hazardous Materials*, Impact HAZ-6**. See above.	
IMPACT WF-2 Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. **IMPACT HAZ-7** Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	*SCAG Mitigation Measures* See **SMM-GEN-1**, **SMM-HAZ-1**, **SMM-HAZ-2**, **SMM-HYD-1**, **SMM-LU-1** through **SMM-LU-3**, and **SMM-POP-1** and **SMM-POP-2**. **SMM-WF-1** SCAG shall continue to provide a regional forum for collaboration in planning, communication, and information sharing on best practices around wildfire resilience. *Project-Level Mitigation Measures* See **PMM-HAZ-5** **PMM-WF-1** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to reduce wildfire risk, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) Launch fire prevention education for local cities and counties such that local fire agencies, homeowners, as well as commercial and industrial businesses are aware of potential sources of fire ignition and the related procedures to curb or lessen any activities that might initiate fire ignition. b) Ensure structures in high fire risk areas are built to current state and federal standards which serve to greatly increase the chances the structure will survive a wildfire and also allow for people to shelter-in-place. c) Improve road access for emergency response and evacuation so people can evacuate safely and timely when necessary. d) Improve, and educate regarding, local emergency communications and notifications with residents and businesses. e) Enforce defensible space regulations to keep overgrown and unmanaged vegetation, accumulations of trash and other flammable material away from structures. f) Provide public education about wildfire risk and fire prevention measures, and safety procedures and practices to allow for safe evacuation and/or options to shelter-in-place g) Include external sprinklers with an independent water source to reduce flammability of structures. h) Include local solar power paired with batteries to reduce power flow in electricity lines. i) For developments in high fire-prone areas, have a fire protection plan for residents and businesses.	Significant and unavoidable

SIGNIFICANCE THRESHOLD AND PROJECT IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT
	j) Provide fire hazard and fire safety education for homeowners in or near fire hazard areas. k) Developments in fire-prone areas should have fire-resistant feature, such as: 1) Ember-resistant vents 2) Fire-resistant roofs 3) Surrounding defensible space 4) Proper maintenance and upkeep of structures and surrounding area	
IMPACT WF-3 Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risks or that may result in temporary or ongoing impacts to the environment.	*SCAG Mitigation Measures* See **SMM-WF-1**. *Project-Level Mitigation Measures* See **PMM-HAZ-4**. **PMM-WF-2** In accordance with provisions of Sections 15091(a)(2) and 15126.4(a)(1)(B) of the CEQA Guidelines, a lead agency for a project can and should consider mitigation measures to wildfire risk, as applicable and feasible. Such measures may include the following or other comparable measures identified by the lead agency: a) New development or infrastructure activity within very high hazard severity zones or SRAs to: 1) Submit a fire protection plan including the designation of fire watch staff; 2) Maintain water and other fire suppression equipment designated solely for firefighting on site for any construction and maintenance activities; 3) Locate construction and maintenance equipment in designated "safe areas" such that they do not discharge combustible materials; and 4) Designate trained fire watch staff during project construction to reduce risk of fire hazards.	Significant and unavoidable
IMPACT WF-4 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope stability, or drainage changes.	*SCAG Mitigation Measures* See **SMM-HYD-1, SMM-LU-1** through **SMM-LU-3**, and **SMM-WF-1**. *Project-Level Mitigation Measures* See **PMM-WF-1**, **PMM-WF-2**, **PMM-HYD-1**, and **PMM-HAZ-4**.	Significant and unavoidable

SOURCE: ESA, 2023

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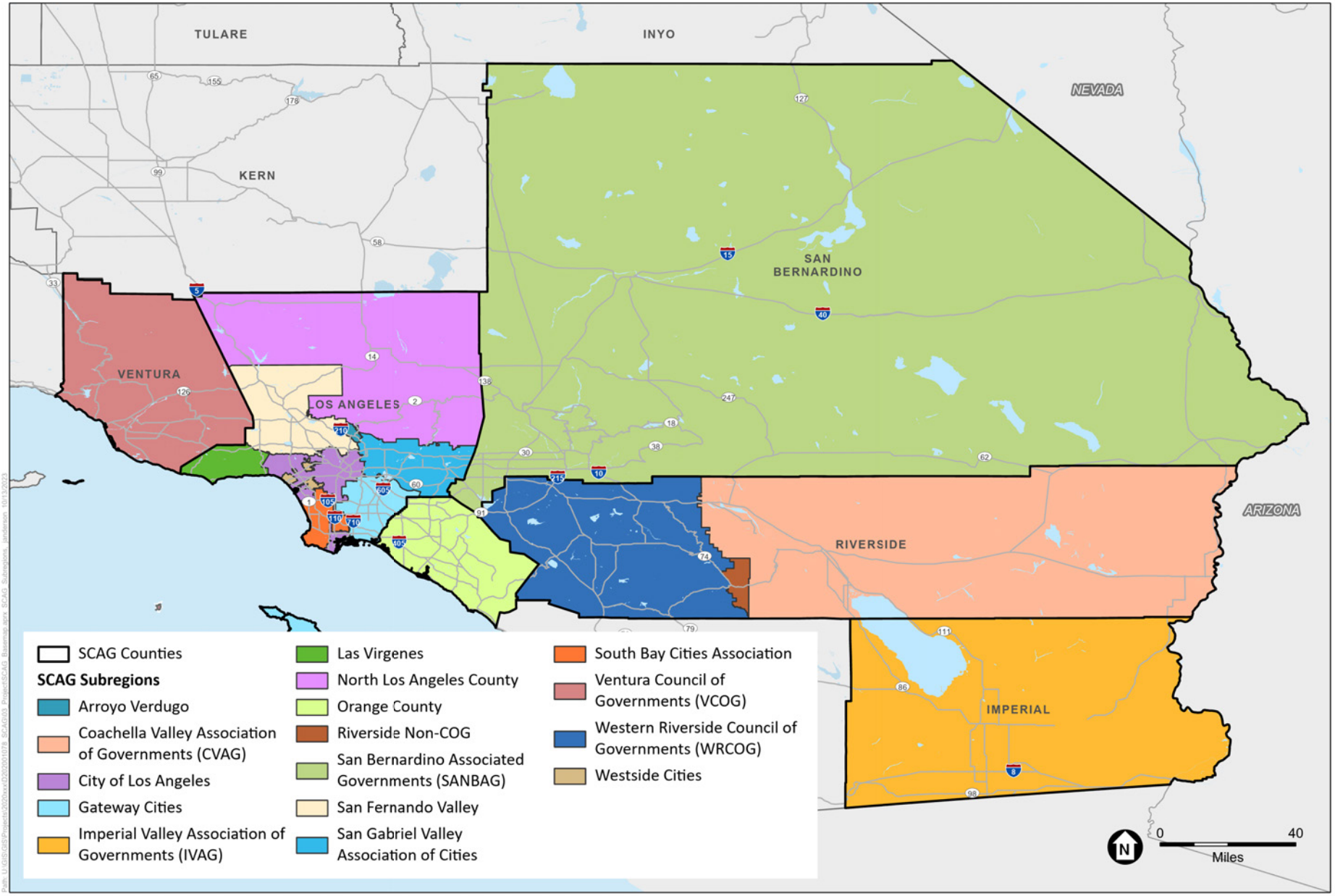
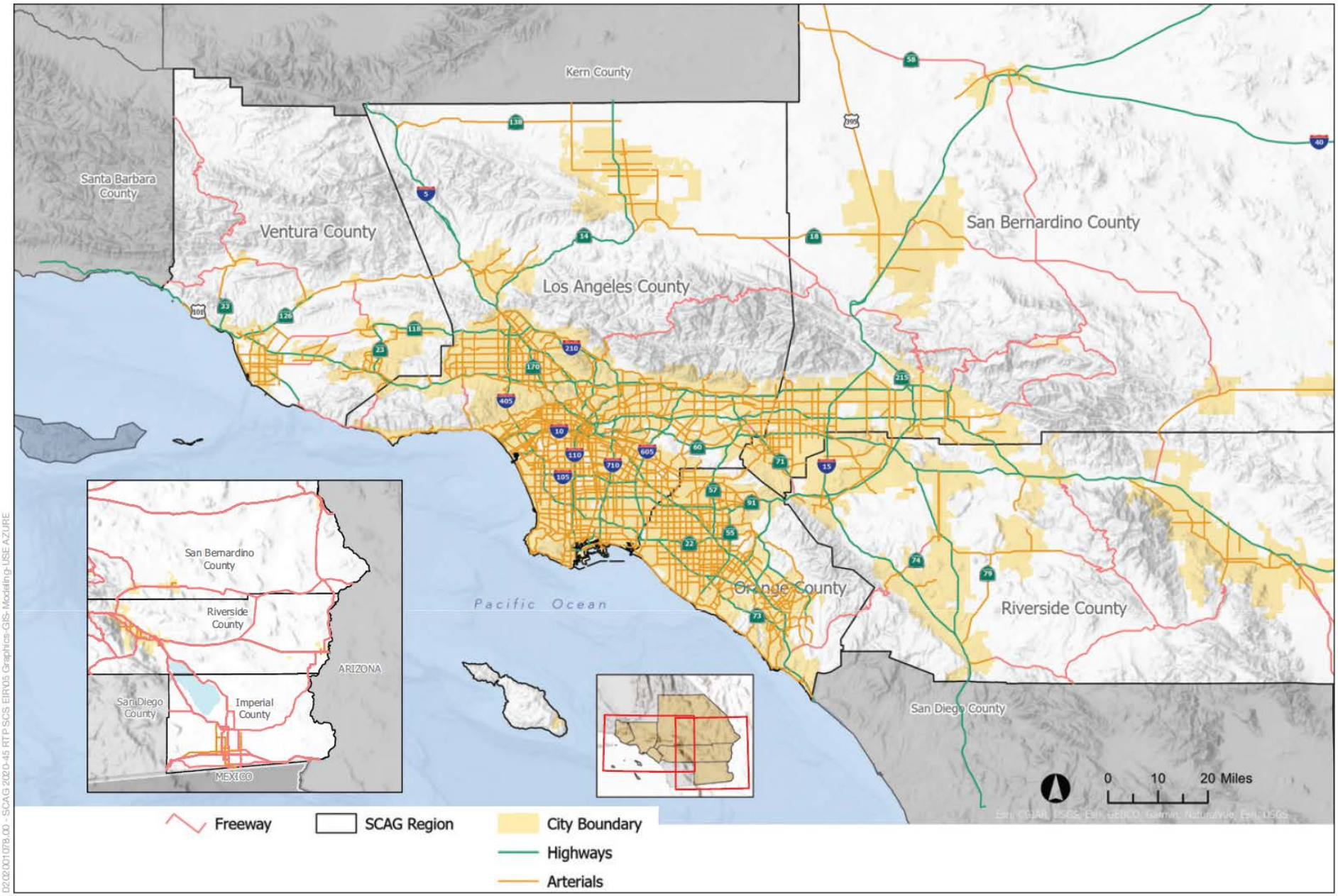
Map ES-1
SCAG Region



SOURCE: ESA, 2023

Connect SoCal 2024 PEIR

Map ES-2
SCAG Subregions



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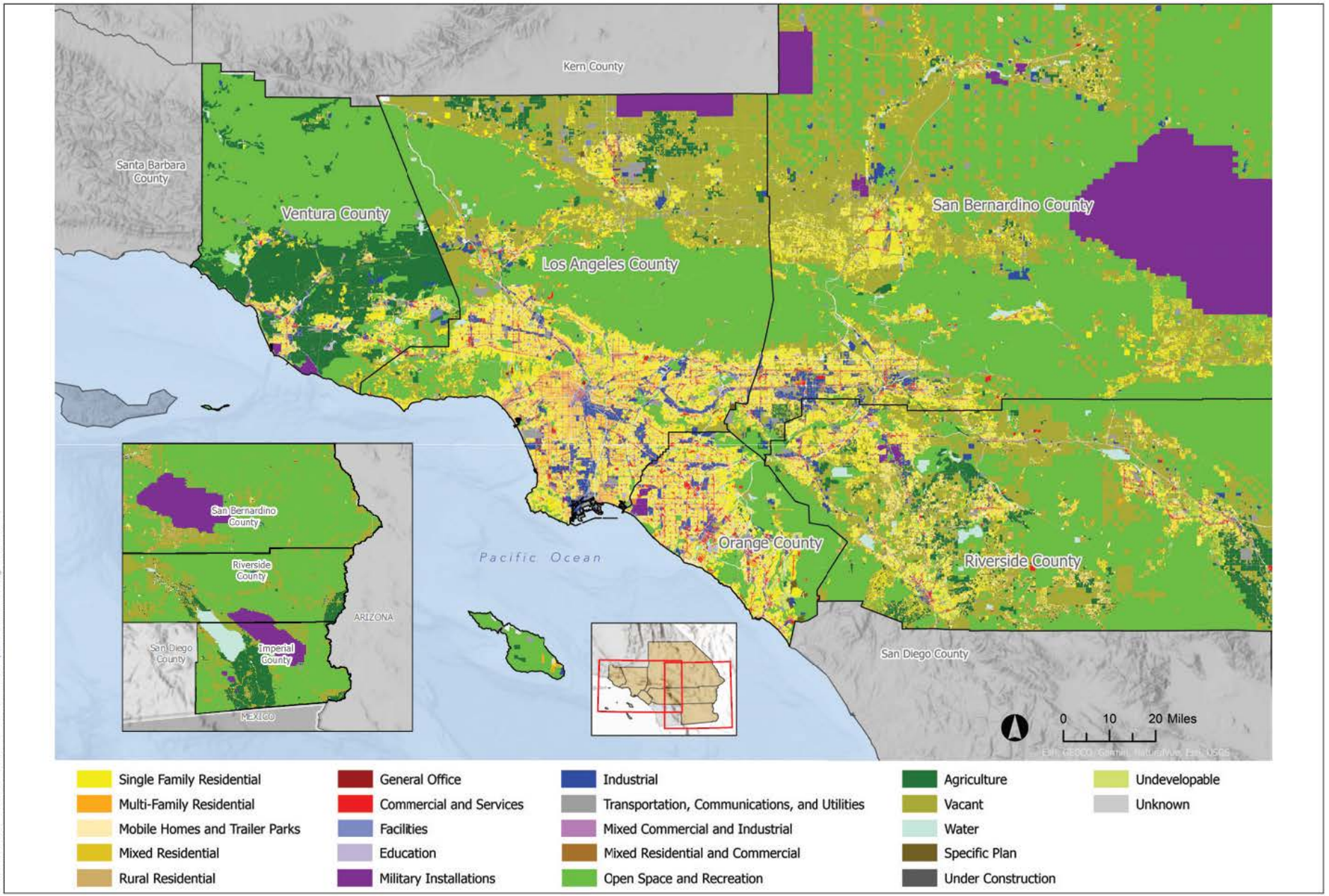
SOURCE: SCAG, 2023

Connect SoCal 2024 PEIR

Map ES-3
Existing Arterial System, 2019



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SOURCE: SCAG, 2023

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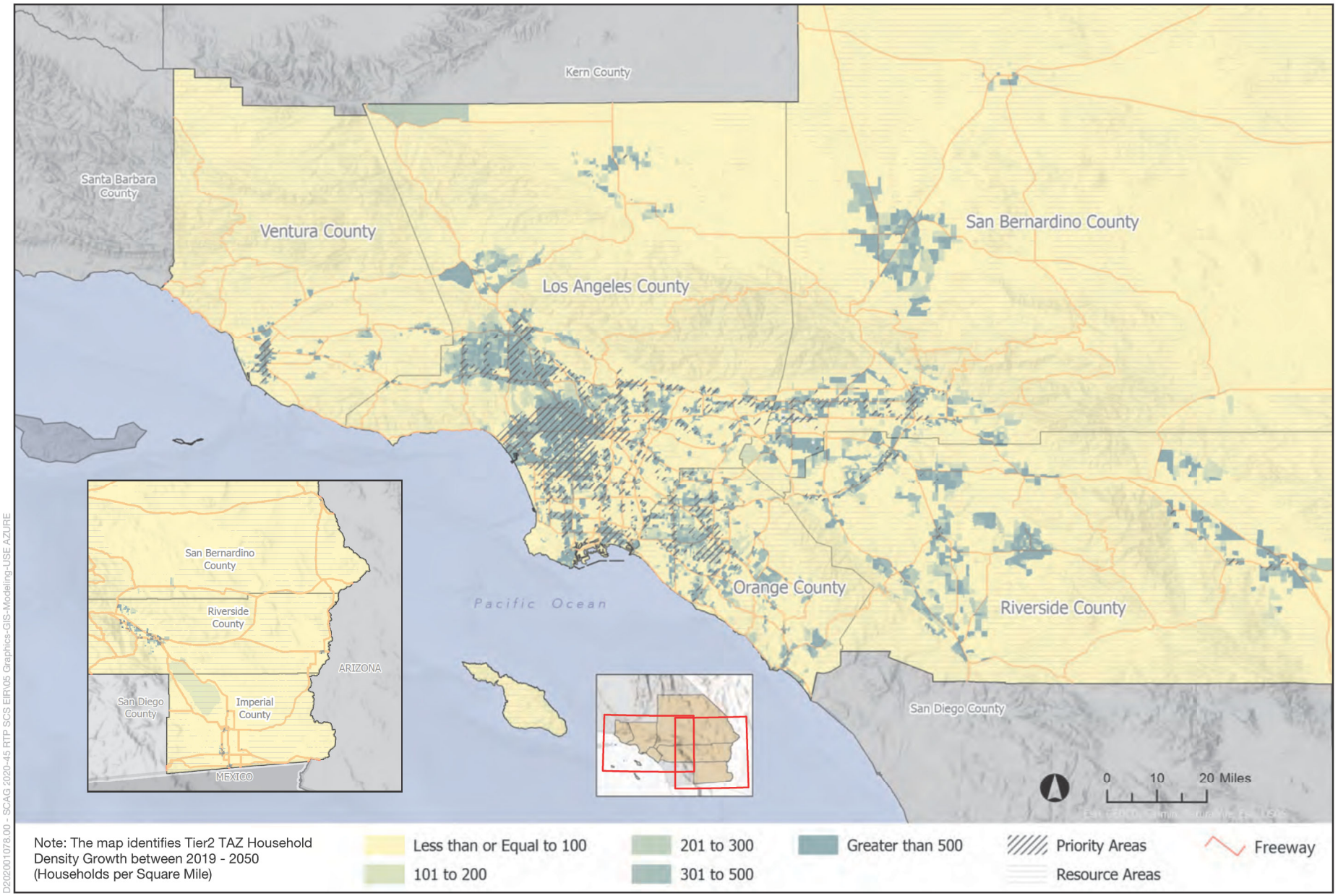
Map ES-4
Existing Land Use



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SOURCE: SCAG, 2023

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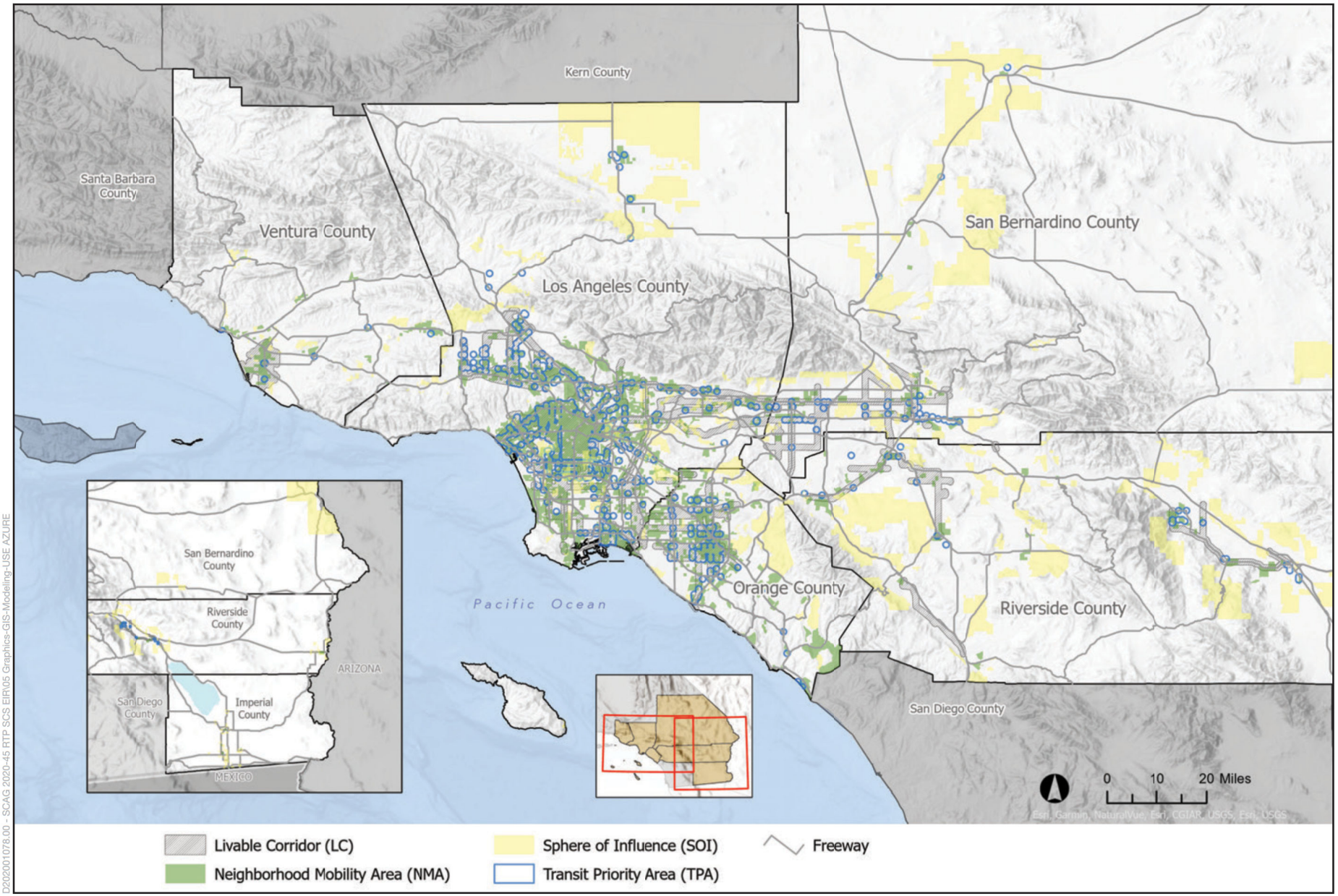
Map ES-5
Forecasted Regional Development Pattern



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SOURCE: SCAG, 2023

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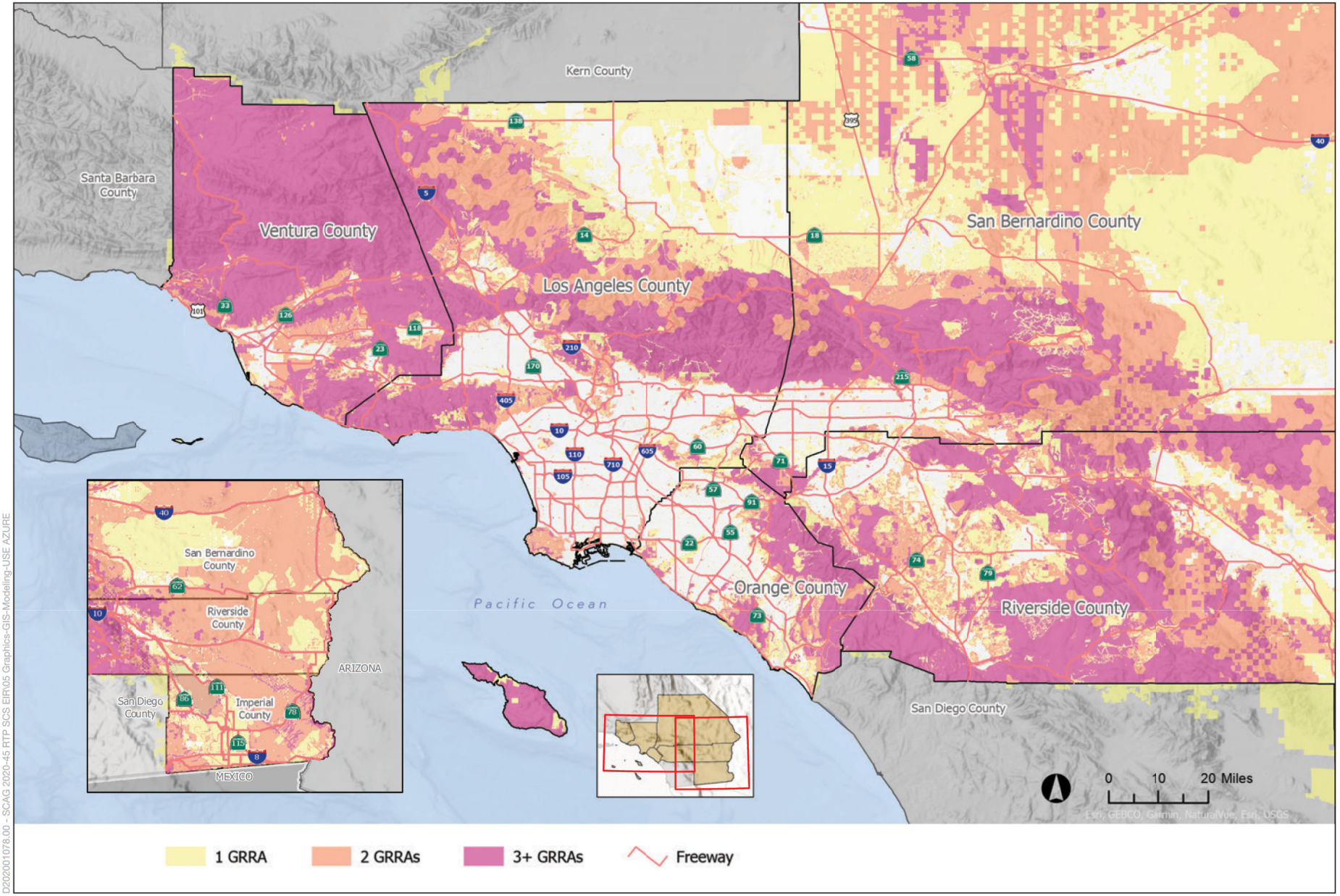
Map ES-6
Priority Development Areas

SCAG



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SOURCE: SCAG, 2023

Connect SoCal 2024 PEIR

Map ES-7
Green Region Resource Areas

ES.9 SOURCES

California Department of Fish and Wildlife (CDFW) 2023.

Federal Highway Administration (FHWA). 2010. *Transportation Conformity: A Basic Guide for State and Local Officials.* Revised 2010. FHWA-HEP-11-001. http://www.fhwa.dot.gov/environment/air_quality/conformity/guide/guide10.cfm.

Southern California Association of Governments (SCAG). 2023. Connect SoCal Demographics & Growth Forecast. Draft Technical Report.

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