

## 5 CUMULATIVE IMPACT ANALYSIS

This chapter discusses the cumulative effects of past, present, and reasonably foreseeable future projects and the contribution of regional growth and land use change and transportation network improvements and programs included in the proposed Plan to these effects. The CEQA Guidelines define a cumulative impact as one in which two or more individual effects, when considered together, are considerable or can compound or increase other environmental impacts. Individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Section 15355).

### 5.1 CUMULATIVE IMPACT METHODOLOGY

CEQA Guidelines Section 15130 describes the requirements for the discussion of cumulative impacts in an EIR, and states that an EIR will discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. The discussion must reflect the severity of impacts and their likelihood of occurrence, but the discussion need not provide as much detail as is provided for the impacts attributable to the project alone. In addition, the CEQA Guidelines allow for a project's contribution to be rendered less than cumulatively considerable with implementation of appropriate mitigation.

According to Section 15130(b) of the State CEQA Guidelines, cumulative impact analysis may be conducted using one of two methods: the List Method, which includes "a list of past, present, and probable activities producing related or cumulative impacts," or the Plan Method, which uses "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact." For the purposes of this EIR, a combination of both methods is used for the cumulative analysis, as described below.

To analyze the cumulative effects of regional growth and land use and transportation network improvements and programs included in the proposed Plan per CEQA requirements, the following approach for each resource topic was applied:

1. Summarize the impacts of regional growth and land use change and transportation network improvements included in the proposed Plan on the resource.
2. Summarize projected impacts in related plans and impacts of probable future projects within the geographic scope of the cumulative impact analysis.
3. Discuss combined impacts and conclude whether cumulative impacts are significant, then explain whether the proposed Plan's incremental contribution to any significant cumulative impacts is cumulatively considerable and therefore significant.
4. Where the incremental contribution to a significant cumulative impact is cumulatively considerable, list mitigation measures that would reduce the incremental effects and determine whether they would make the impact less than significant. If none exist, conclude that the contribution to the cumulative impact remains significant and unavoidable.

### 5.1.1 CUMULATIVE PROJECTS

Several existing and probable future large-scale projects in the San Diego region are forecast to occur within the 2050 timeframe of the proposed Plan and could contribute to significant cumulative impacts. Past projects include those that have been recently completed but were not necessarily considered in the baseline for the proposed Plan and have ongoing impacts with the potential to combine with the impacts of other projects. Present and probable future projects include those that are under construction, in a preconstruction phase, or show a level of assurance that the project will move forward, such as allocated funding or movement through the necessary planning process for project approval. These projects have independent utility from the proposed Plan, and do not rely on it for their justification. Some of these projects span beyond the boundaries of the San Diego region, have uncertain funding, and/or have no preliminary designs. These projects are described below.

#### California High-Speed Rail LA-SD Segment

The California High-Speed Rail Authority (HSRA) has developed plans for an 800-mile system that includes nine corridors connecting California's major metropolitan areas. Trains would reach speeds in excess of 200 miles per hour (mph) in more rural areas on a dedicated, fully grade-separated system, making it possible to travel from San Diego to Los Angeles in less than 80 minutes and San Diego to San Francisco in less than 4 hours. Figure 5-1 depicts a statewide map of the California High Speed Rail Train (HST) project, as well as four options for the San Diego region.

The High Speed Rail project has independent utility and is not a component of the proposed Plan. Responsibility for the HST belongs to HSRA; SANDAG does not have authority over the alignment, design, or funding of the HST.

The high-speed corridor serving the San Diego region runs from southwest Riverside County along the Interstate (I-) 15 corridor, with a key intermodal transit station planned in the City of Escondido. The Los Angeles-San Diego route is currently in Stage 2 of Planning, that is, the Alternatives Analysis. A proposed schedule for implementation is not available and timing could depend on funding (HSRA 2014).

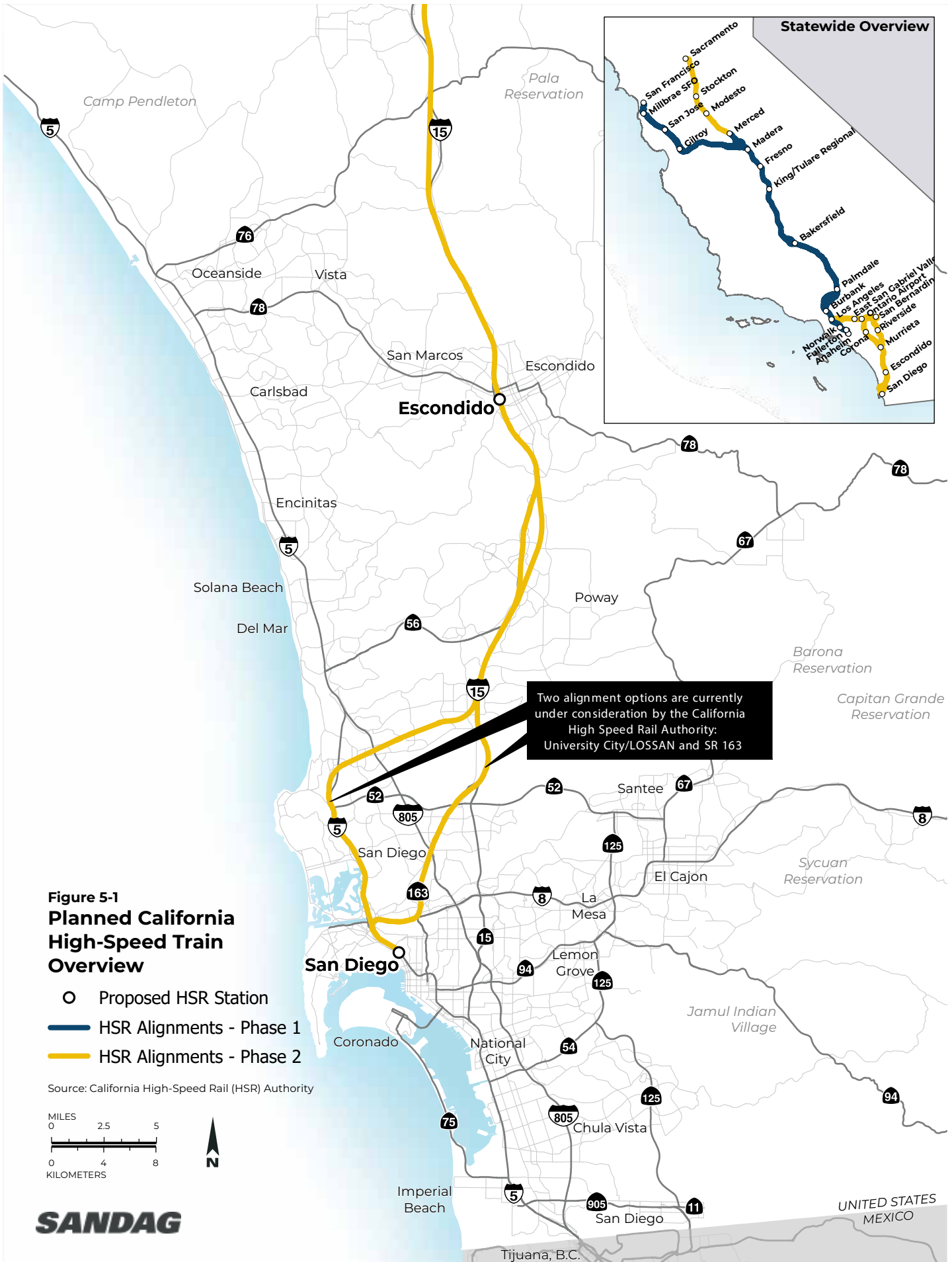
#### Navy Old Town Campus Revitalization

The United States (U.S.) Department of the Navy (Navy) prepared a Draft Environmental Impact Statement (EIS) to evaluate the potential environmental consequences of the proposed modernization of Naval Base Point Loma Old Town Campus (OTC), San Diego, California. OTC is home to the Naval Information Warfare Systems Command (NAVWAR) (Navy 2021). The Navy analyzed five alternatives, and identified Alternative 4 – high density development with a transit center – as its preferred alternative. This transit center could be the Central Mobility Hub, which is included as a part of the proposed Plan.

The proposed modernization of NAVWAR's facilities on OTC would include demolition, construction, and renovation of buildings, utilities, and infrastructure. Modernization would be accomplished in either of two ways:

1. **Navy Redevelopment:** A Navy-only project that would construct new or renovate existing NAVWAR facilities at OTC. No public-private or mixed-use development would occur on OTC under this scenario.
2. **Public-private Redevelopment:** Collaboration between the Navy, the private sector, and possibly other government agencies to finance and construct new NAVWAR facilities at OTC. Development would include

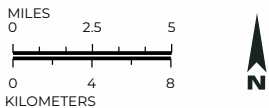
new facilities for NAVWAR and a range of private mixed-use development (e.g., residential, office, retail, hotel). The developers of the mixed-use development would pay for construction of NAVWAR facilities in exchange for the opportunity to develop the remaining OTC land. Two of the action alternatives analyzed in this EIS include consolidation of a transit center to OTC.



**Figure 5-1  
Planned California  
High-Speed Train  
Overview**

- Proposed HSR Station
- HSR Alignments - Phase 1
- HSR Alignments - Phase 2

Source: California High-Speed Rail (HSR) Authority



**SANDAG**

Two alignment options are currently under consideration by the California High Speed Rail Authority:  
University City/LOSSAN and SR 163

## Air Transportation

### ***San Diego County International Airport Development Plan***

Each year, more than ~~1,817,25~~ million air passengers use the San Diego International Airport (SDIA).

~~The air cargo capacity at SDIA is currently constrained by limited infrastructure.~~ To maximize the airport's operational efficiency and make the most of the airport's 661-acre footprint, SDIA is moving forward with its next master planning phase, the Airport Development Plan (ADP). The ADP provides a development framework to implement improvements that will enable the San Diego County Regional Airport Authority (SDCRAA) to accommodate future demand for air travel that is anticipated to occur at SDIA with more modern, efficient, and comfortable facilities. The ADP is considered a probable future project for the cumulative impact analysis.

The primary components of the project are the replacement of the existing Terminal 1, ~~modifications to Terminal 2,~~ a new administration building, and a new airport access roadway with new bicycle and pedestrian infrastructure. As part of the Terminal 1 replacement, a new ~~access road and~~ parking structure would also be constructed. ~~Other improvements include infrastructure upgrades and the removal/relocation of other airport support facilities to accommodate the terminal improvements.~~ Ultimately, the number of gates at SDIA would increase from 51 to ~~62~~ 62+ (SDCRAA 2019a).

### **City of San Diego Pure Water North City Project**

The City of San Diego is implementing the North City Project, which is the first phase of the Pure Water San Diego Program (Pure Water Program). It involves the production of 30 million gallons per day (MGD) of purified water. The North City Project will expand the existing North City Water Reclamation Plant (NCWRP) and construct an adjacent North City Pure Water Facility (City of San Diego 2018). Two alternative purified water pipelines are considered: one to Miramar Reservoir and one to San Vicente Reservoir. Other project components include a new pump station and forcemain to deliver additional wastewater to the NCWRP, a brine/centrate discharge pipeline, upgrades to the existing Metro Biosolids Center, a new North City Renewable Energy Facility at the NCWRP, and a new Landfill Gas (LFG) Pipeline between the Miramar Landfill gas collection system and the NCWRP.

The North City Project includes a variety of facilities located throughout the central coastal areas of San Diego County in the North City geographic area. A new pure water facility and three pump stations would be located within the corporate boundaries of the City of San Diego. Proposed alternative pipelines would traverse a number of local jurisdictions, including the cities of San Diego and Santee, and the community of Lakeside and other areas in unincorporated San Diego County. The proposed LFG Pipeline would traverse federal lands within Marine Corps Air Station (MCAS) Miramar.

### **South County Traffic Relief Effort Project**

The California Department of Transportation (Caltrans), in partnership with the Foothill/Eastern Transportation Corridor Agency, is planning to extend Los Patrones Parkway from Cow Camp Road to Avenida La Pata, in Orange County. This project replaces the former SR 241 Tesoro Extension project that would have extended the current 241 Toll Road from where it now ends at Oso Parkway to Cow Camp Road in the vicinity of Ortega Highway within Orange County. An addendum to Final Environmental Impact Report (FEIR) 589 (Ranch Plan), which was certified on November 6, 2001, FEIR 584 (SSNCCP/MsAA/HCP), which was certified on October 24, 2006, and FEIR 575 (Prima Deshecha General Development Plan), which was certified on

November 8, 2004, was prepared for this project and a Notice of Determination was filed by the Orange County Public Works Department on January 12, 2021.

### **Port/Maritime**

Currently, the Unified Port District of San Diego (Port) is in the process of updating their long-range integrated master plan, known as the Port Master Plan Update (PMPU), that provides the official goals and planning policies, and identifies permissible land and water uses, for development and conservation of the Port lands, tidelands, and submerged lands through the next 30 years (2050) for seven out of the ten planning districts within the PMPU area. The PMPU identifies planned improvements, including appealable and non-appealable development, for each planning district and would include the addition of new hotel and retail space as well as improvements to the public access and recreational resources, and in-water features such as additional recreational boat berthing space. A revised Draft PMPU was released for public review from October 20, 2020, through November 17, 2020, and a program EIR is currently being prepared with an anticipated public review period in late 2021 (Port 2021).

The three planning districts not being updated as part of the PMPU are Planning District 5: National City Bayfront, Planning District 6: Chula Vista Bayfront, and the Pone 20 portion of Planning District 7: South Bay. These planning districts have undergone, or are currently undergoing, separate planning processes with their own environmental review. The National City Bayfront is currently being planned under the National City Bayfront Projects & Port Master Plan program with the EIR public review period anticipated for late 2021. The Chula Vista Bayfront has an approved land use plan for the entire planning district that is currently under implementation, and no changes are proposed to that land use plan. The Final EIR for the Chula Vista Bayfront project was certified in April 2010. In addition, the District-owned property in the southern portion of Pond 20 and adjacent parcels were evaluated under the Wetland Mitigation Bank at Pond 20 Project EIR and Port Master Plan Amendment for the creation of a wetland mitigation bank and to incorporate the property into the Port Master Plan, which was certified by the Board of Port Commissioners on April 13, 2021, and is currently planned to be presented before the Coastal Commission for approval.

In addition, in 2016, the Port adopted a redevelopment plan for the Tenth Avenue Marine Terminal, which would involve a variety of infrastructure investments that may be undertaken over the long term to accommodate an increase of the marine terminal's capabilities and capacity. These include up to five gantry cranes, additional and consolidated dry bulk storage capacity (which may include a new 100,000-square-foot dry bulk structure or an equivalent vertical storage facility), enhancements to the existing conveyor system, demolition of the molasses tanks and Warehouse C, additional open storage space, establishment of an on-dock rail facility, a centralized gate facility, and the Demolition and Initial Rail Component. The Final EIR for this project was certified on December 13, 2016 (Port 2016).

### **Other Probable Future Projects**

For some resource topic areas, additional large-scale probable future projects are also considered in the cumulative impact analysis. For example, for cumulative aesthetics and visual resources impacts, impacts of future long linear projects such as rail pipeline or energy transmission infrastructure are considered.

#### **5.1.2 REGIONAL PLANNING DOCUMENTS**

This analysis considers documents, studies, and plans that have been produced by various agencies and organizations describing or evaluating conditions contributing to cumulative impacts. For some of these

documents, EIRs or EISs have been prepared that describe environmental impacts of plan implementation. Available information in adopted plans or certified environmental documents is used to describe existing and future conditions that may contribute to cumulative impacts. In some cases planning documents are included that have been prepared by local jurisdictions, including cities and other agencies that have applicability to planning efforts or other topic areas throughout the region, such as local general plans and their various elements, resource protection ordinances, and climate action plans. In some cases, the impacts of local plans are already addressed and accounted for in SANDAG and Southern California Association of Governments (SCAG) EIRs.

Documents that have application across multiple resource topics are listed below; additional planning documents are referenced when used within a specific resource topic analysis.

- Southern California Association of Governments: 2020-2040 Regional Transportation Plan/Sustainable Communities Strategy (SCAG 2020a)
- California Air Resources Board: California’s 2017 Climate Change Scoping Plan (CARB 2017)
- California Department of Transportation: California-Baja California Border Master Plan (Caltrans 2021)
- Unified Port of San Diego: San Diego Unified Port District Master Plan (Port 2020)
- San Diego County Regional Airport Authority: Regional Aviation Strategic Plan (RASP) (SDCRAA 2011b)
- San Diego International Airport: Airport Master Plan (SDCRAA 2008); Aviation Activity Forecasts (SDCRAA 2019b)
- SANDAG: San Diego Airport Multimodal Accessibility Plan (SANDAG 2012); 2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SANDAG 2011a) and associated EIR (SANDAG 2011b); 2050 Goods Movement Strategy (incorporated in SANDAG 2011a)
- U.S. Environmental Protection Agency: The U.S.-Mexico Border Environmental Program: Border 2025 (EPA 2021)
- United States Marine Corps: MCB Camp Pendleton Integrated Natural Resources Management Plan (MCB Camp Pendleton 2017); MCAS Miramar Integrated Natural Resources Management Plan (MCAS Miramar 2018)
- Bureau of Land Management: Eastern San Diego County Resource Management Plan (BLM 2007)
- United States Department of Agriculture: Cleveland National Forest Plan (USDA 2006)
- 2034 Tijuana, Tecate, and Playas de Rosarito Metropolitan Strategic Plan (IMPLAN 2013)
- San Diego County Water Authority 2013 Regional Water Facilities Optimization and Master Plan Update (SDCWA 2014)
- San Diego Gas & Electric Company 2012 Long-Term Procurement Plan (SDG&E 2012)

### 5.1.3 GROWTH PROJECTIONS

This analysis considers population projections gathered from a variety of sources, in addition to the projections contained in adopted plans, to understand and characterize the cumulative setting. Population projections include:

- SANDAG Series 14 Regional Growth Forecast used as the basis for proposed Plan

- SCAG's 2020 RTP/SCS Growth Forecast
- California Department of Finance Population Projections (DOF 2019)
- 2021 Border Master Plan

Population projections from these sources are provided in Table 5-1 for the 2025, 2035, and 2050 horizon years.

**Table 5-1  
Growth Projections Considered in the Cumulative Impacts Analysis**

Region	Population			
	2016	2025	2035	2050
SANDAG	3,309,510	3,470,848	3,620,348	3,746,073
SCAG region	18,832,000	19,432,587	21,443,000	20,179,646
Northern Baja	3,484,150	4,169,240	5,357,1222	5,617,7742
State of California	39,254,339	40,808,001	42,718,403	44,049,015

Sources: SANDAG = SANDAG Series 14 Regional Growth Forecast (SANDAG 2021); SCAG = SCAG 2020-2045 RTP/SCS Demographics and Growth Forecast (for 2016, 2035), (SCAG 2020a); DOF 2021 for 2025 and 2050; Northern Baja = 2021 Border Master Plan (2021); SANDAG 2015; State of California = California Department of Finance (DOF 2021).

Note: Northern Baja California generally includes the municipalities of Tijuana, Tecate, Playas de Rosarito, parts of Mexicali, and Ensenada.

#### 5.1.4 GEOGRAPHIC SCOPE

The geographic scope defines the area in which the impacts of the proposed Plan are analyzed in combination with similar impacts of cumulative projects or impacts associated with approved planning documents to determine if cumulative impacts would occur. For the purposes of this EIR, the geographic scope for cumulative impacts analysis is shown in Table 5-2. The cumulative impact analysis section for each resource topic area explains why the specific geographic scope was selected.

**Table 5-2  
Topic Specific Geographic Scope of Cumulative Impacts**

Cumulative Impact Topic	Geographic Scope
Aesthetics and Visual Resources	Southern California/Northern Baja California
Agricultural and Forestry Resources	California
Air Quality	Southern California/Northern Baja California
Biological Resources	Southern California/Northern Baja California
Cultural and Paleontological Resources	Southern California/Northern Baja California
Energy	Southern California/Northern Baja California
Geology, Soils, and Mineral Resources	Southern California/Northern Baja California
Greenhouse Gas Emissions	Global
Hazards	Southern California/Northern Baja California
Hydrology and Water Quality	Southern California/Northern Baja California
Land Use	Southern California
Noise and Vibration	Southern California/Northern Baja California



<b>Cumulative Impact Topic</b>	<b>Geographic Scope</b>
Population and Housing	Southern California/Northern Baja California
Public Services and Utilities	Southern California/Northern Baja California
Transportation	Southern California/Northern Baja California
Water Supply	State of California/Lower Colorado River Basin/ Northern Baja California

Note: Southern California generally includes the areas encompassed by SANDAG and SCAG jurisdictions. SCAG represents six Southern California counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) over an area covering more than 38,000 square miles. Northern Baja California generally includes the municipalities of Tijuana, Tecate, Playas de Rosarito, parts of Mexicali, and Ensenada.

## 5.2 CUMULATIVE IMPACT ANALYSIS

### 5.2.1 AESTHETICS AND VISUAL RESOURCES

#### **C-AES-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON AESTHETIC AND VISUAL RESOURCES**

The area of geographic consideration for cumulative impacts on aesthetics and visual resources is the Southern California and northern Baja region. While diverse, this region contains a similar variety of viewsheds, landscapes, and visual character. Aesthetic effects extend across jurisdictional boundaries and can potentially have wide-ranging impacts. Northern Baja is appropriate to include as there are expansive views of the southern San Diego region from higher elevations throughout Tijuana.

A hybrid approach for the cumulative analysis of aesthetics and visual resources allows for the discussion of visual change associated with general patterns of regional urbanization, growth, and land use change while also incorporating more precise visual effects caused by specific major development and infrastructure projects. The cumulative impact is the combination of the impacts of the proposed Plan, aesthetic impact projections in adopted plans, and impacts on aesthetics and visual resources resulting from large-scale existing and probable future projects. Significant cumulative impacts related to aesthetics and visual resources would occur if there were a substantial cumulative impact on scenic vistas, scenic resources, or degradation of the character of an area, including the addition of visual elements of urban character to an existing rural or open space area or by creating substantial new sources of light or glare that would adversely affect day or nighttime views.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan and SCAG's 2020–2045 RTP/SCS Final EIR (SCAG 2020b) for the Southern California region including Los Angeles, Orange County, Riverside, and San Bernardino County. The 2020–2045 SCAG RTP/SCS planning horizon is 2045; thus, the analysis does not account for the plan's year 2050 impacts. There are no regional plans pertaining to aesthetics and visual resources for the northern Baja California region, except for the 2021 Border Master Plan, which provides a general land use description of the U.S/Mexico border region (Caltrans 2021).

#### **Impacts of the Proposed Plan**

The analysis within this EIR concludes that development associated with regional growth and transportation network improvements would result in new infrastructure and development that would interrupt or detract from a scenic vista, block panoramic views, or views of significant landscape features or landforms (Impact AES-1). Additionally, new development and infrastructure would occur near scenic resources, including historic buildings and scenic rock outcroppings, and could damage these scenic resources (Impact AES-2).

Implementation of the proposed Plan would also result in land use changes and the construction of transportation network improvements that would substantially degrade the character of an area, including adding a visual element of urban character to an existing rural or open space area and the addition of new light and glare sources (Impacts AES-3 and AES-4, respectively). These visual impacts would occur within each horizon year analyzed (2025, 2035, and 2050). Therefore, these impacts related to aesthetics and visual resources as a result of the proposed Plan are significant.

### **Impacts of Related Projects**

The Southern California and northern Baja region is an area of abundant and varied scenic resources. The topography, panoramic views, scenic roadways, open spaces, and significant landscape features found throughout this region contribute greatly to the overall character and quality of the existing visual setting. Projects planned in the Southern California and northern Baja region, such as the Navy OTC Revitalization Project, SDIA Airport Development Plan, HST, border/Port of Entry (POE) facility improvements, port/maritime improvements associated with the PMPU, or long linear projects such as rail pipeline or energy transmission infrastructure, would result in impacts related to blocking panoramic views or views of significant landscape features or landforms, and/or result in degradation of visual character and the addition of new light and glare sources. For example, the HST project in the San Diego region would result in bridges or elevated guideways or other features that may introduce visual contrasts that could block existing views or result in shadow impacts (HSRA 2005). The EIR/EIS prepared for the HST project determined that the project would result in significant cumulative impacts on aesthetic and visual resources. The EIR for the SDIA Airport Development Plan identified aesthetic impacts, but found them to be less than significant (SDCRAA 2019).

The EIS for the Navy OTC Revitalization Project evaluated several alternatives and determined that the project would result in significant impacts on aesthetics and visual resources associated with the construction of new facilities for NAVWAR along with private mixed-use development with buildings up to 240 feet tall. The SCAG 2020-2045 RTP/SCS EIR analyzed project environmental effects of the proposed Plan in the Southern California region. The EIR found potential aesthetic impacts on scenic vistas, scenic resources, and light or glare to be significant and unavoidable. Thus, some of these related projects would have adverse effects on aesthetic and visual resources in the San Diego region in 2025, 2035, and 2050.

### **Impact Projections in Adopted Plans**

The SCAG 2020-2045 RTP/SCS EIR identified significant impacts on visual resources. By increasing mobility and including land-use-transportation measures that influence the pattern of future development, the 2020-2045 RTP/SCS would obstruct views of scenic resources or scenic vistas; alter the appearance of scenic resources along or near designated scenic highways and vista points; create significant contrasts with the overall visual character of the existing landscape setting or add urban visual elements to an existing natural, rural, and open space area; and result in shade/shadow or light and glare impacts. At the regional scale, the 2020-2045 RTP/SCS EIR identified cumulatively significant impacts on the overall visual character of the existing landscape setting (SCAG 2020b).

Adopted land use plans and ordinances for local jurisdictions in Southern California would support the construction of new development and redevelopment through policy changes, general plan updates, and zoning amendments that encourage and facilitate growth and land use changes. As outlined for local jurisdictions in the San Diego region in Table 4.1-3, visual resource protection ordinances often exist at the local level, and local land use plans often contain policies related to design guidelines and review. All discretionary projects would

be subject to these local visual resource protection ordinances, design guidelines, and building requirements/restrictions.

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan, the related projects, and impact projections from adopted plans within the Southern California and northern Baja region were significant when considered together, even if not independently significant. The forecasted regional growth and land use changes, coupled with the transportation network improvements included in the proposed Plan for 2025 would result in significant impacts related to aesthetic and visual resources through substantial adverse effect on scenic vistas, damage to scenic resources within a state scenic highway, and degradation of visual character of an area. The introduction of new light sources that would affect dark skies would also be significant.

In addition, significant aesthetic and visual impacts were also identified in the HST project environmental analysis and in the SCAG 2020-2045 RTP/SCS EIR. The Port, SDCRAA, and Navy projects would also have adverse aesthetic and visual impacts, such as future POE projects, airport, and maritime improvements associated with Port for All. Therefore, the combination of the direct and cumulative aesthetic and visual resource-related impacts from these projects and SCAG's adopted 2020-2045 RTP/SCS that would affect the Southern California and northern Baja region would result in significant cumulative aesthetic and visual impacts, based on Impact AES-1 regarding scenic vistas, Impact AES-2 regarding scenic resources within a state scenic highway, Impact AES-3 regarding substantial degradation of the visual character of an area by 2025, and Impact AES-4 regarding light and glare impacts.

Because cumulative aesthetic and visual resource impacts throughout the Southern California and northern Baja region by 2025 would be significant, and because the proposed Plan's incremental aesthetic and visual resource impacts are significant, the proposed Plan's incremental aesthetic and visual resource impacts are also cumulatively considerable (Impact C-AES-1).

### **2035**

The cumulative analysis presented above for year 2025 would be applicable to year 2035, and significant impacts on aesthetic and visual resources are anticipated. By 2035, increases in regional growth, land use changes, and the number of transportation network improvements implemented over those that occurred by 2025 would result in additional adverse impacts on panoramic views, views of significant landscape features, scenic highways, visual character, and light and glare. The combination of the direct and cumulative aesthetic and visual resource-related impacts from the projects and adopted plans described above that would affect the Southern California and northern Baja region would result in significant cumulative aesthetic and visual impacts, based on Impact AES-1 regarding scenic vistas, Impact AES-2 regarding scenic resources within a state scenic highway, Impact AES-3 regarding substantial degradation of the visual character of an area by 2035, and AEA-4 regarding light and glare impacts.

Because cumulative aesthetic and visual resource impacts throughout the Southern California and northern Baja region by 2035 would be significant, and because the proposed Plan's incremental aesthetic and visual resource impacts are significant, the proposed Plan's incremental aesthetic and visual resource impacts are also cumulatively considerable (Impact C-AES-1).

## 2050

The cumulative analysis presented above for years 2025 and 2035 would be applicable to year 2050, and significant impacts on aesthetic and visual resources would occur. By 2050, increases in regional growth, land use changes, and the number of transportation network improvements implemented over those that occurred by 2025 and 2035 would result in additional opportunities for adverse impacts on panoramic views, views of significant landscape features, scenic highways, visual character, and light and glare to occur. The 2050 time period is beyond the planning horizon of the adopted SCAG 2020-2045 RTP/SCS. However, with long-term growth and development throughout the region, similar land use impacts would likely continue throughout the region. The combination of the direct and cumulative aesthetic and visual resource-related impacts from the projects and adopted plans described above that would affect the Southern California and northern Baja region would result in significant cumulative aesthetic and visual impacts, based on Impact AES-1 regarding scenic vistas, Impact AES-2 regarding scenic resources within a state scenic highway, Impact AES-3 regarding substantial degradation of the visual character of an area by 2050, and AES-4 regarding light and glare impacts.

Because cumulative aesthetic and visual resource impacts throughout the Southern California and northern Baja region by 2050 would be significant, and because the proposed Plan's incremental aesthetic and visual resource impacts are significant, the proposed Plan's incremental aesthetic and visual resource impacts are also cumulatively considerable (Impact-C-AES-1).

### Mitigation Measures

#### **C-AES-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON AESTHETIC AND VISUAL RESOURCES**

## 2025, 2035, and 2050

Mitigation measures to reduce aesthetic and visual resource impacts due to implementation of the proposed Plan as identified in Section 4.1 would be applicable to cumulative aesthetic and visual resource impacts as well.

Implementation of mitigation measures **AES-1a, AES-1b, AES-2a, AES-2b, AES-3a, AES-3b, AES-4a** and **AES-4b** would reduce significant impacts on scenic vistas, scenic resources within a state scenic highway, degradation of the visual character of an area, and light and glare. For each future project requiring mitigation (i.e., measures that go beyond what is required by existing regulations), mitigation measures such as those listed in Section 4.1 would help to reduce significant project-level visual resources impacts to less than significant, or the project's incremental impacts would remain significant and unavoidable where no feasible mitigation exists. However, the degree of future impacts and applicability, feasibility, and success of future mitigation measures cannot be ensured for each specific future project.

Additionally, the SCAG 2020-2045 RTP/SCS EIR includes a variety of mitigation measures aimed at providing requirements for visual improvement of transportation facilities and other development, minimizing construction within important viewsheds, and the development of visual development standards and guidelines. The EIR concluded that even with the implementation of mitigation, visual impacts would remain significant and unavoidable. Similarly, the HST environmental document includes a mitigation strategy to minimize building and shading of bridges and elevated guideways with the use of neutral colors and materials to blend with surrounding landscape features.

The HST EIR/EIS concluded that even with the implementation of mitigation, visual impacts would remain significant (HSRA 2005). While proposed mitigation would lessen aesthetic impacts, impacts on aesthetics from related projects would remain significant even with the application of mitigation.

Based on the above analysis, following mitigation of the effects of the proposed Plan, related projects, and adopted plans, cumulative impacts on aesthetic and visual resources would remain significant. Also, mitigation measures **AES-1a**, **AES-1b**, **AES-2a**, **AES-2b**, **AES-3a**, **AES-3b**, **AES-4a** and **AES 4b** would not reduce the proposed Plan's incremental impacts to less than significant. Therefore, the proposed Plan's incremental contributions to cumulative aesthetic and visual resource impacts would remain cumulatively considerable post-mitigation.

## 5.2.2 AGRICULTURE AND FORESTRY RESOURCES

### **C-AG-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON AGRICULTURAL AND FORESTRY RESOURCES**

The area of geographic consideration for cumulative impacts on agriculture and forest resources is the state of California. Agriculture as a whole in California is important as the successful production of many crops is due to the distinctive climates found in the state. While variable by region, the state of California supports an extensive range of agricultural operations and opportunities.

A hybrid approach for cumulative analysis of agricultural and forest resources allows for an overarching discussion of regional loss of agricultural lands and forest resources associated with general patterns of regional urbanization, growth, and land use changes while also allowing for specific consideration of any projects with known impacts on agriculture. The cumulative impact is the combination of the impacts of the proposed Plan, agricultural and forest resources impact projections in adopted plans, and impacts on agricultural and forest resources resulting from probable future projects. Significant cumulative impacts related to agriculture resources would occur if there were a cumulative loss of existing agriculture resources, including conversion of agricultural lands to nonagricultural use and conflicts with Williamson Act contracts and lands zoned for agricultural use. Significant cumulative impacts related to forest lands would occur if there were a cumulative loss or conversion of forest land as defined in the California Forest Legacy Act of 2007 (Public Resources Code [PRC] Section 12220(g)).

There is an ongoing trend of decreased acres of land in agricultural production in California. The most recent California Farmland Conversion Report (2014–2016) issued by the California Department of Conservation found that irrigated farmland in California decreased by 11,165 acres between 2014 and 2016 (DOC 2019). In the San Diego region, land in commercial agricultural crop production decreased from over 312,000 acres in 2008 to less than 304,000 acres in 2012 (County of San Diego 2013). In the nearby Imperial Valley, areas of crop production served by the Imperial Irrigation District decreased from 502,039 acres in 2004 to 457,695 acres in 2013 (IID 2004, 2013).

### **Impacts of the Proposed Plan**

The forecasted regional growth and land use change and planned transportation network improvements associated with the proposed Plan would convert agricultural lands to nonagricultural use between 2016 and 2025 (6,458 acres), between 2026 and 2035 (804 acres), and between 2036 and 2050 (923 acres), for a total of 8,186 acres cumulatively between 2016 and 2050, as detailed in Section 4.2. Implementation of the proposed

Plan would also decrease the viability of agriculture on agriculturally designated land. This would be a significant impact on agricultural resources in 2025, 2035, and 2050 (Impact AG-1).

Additionally, regional growth and land use change and transportation network improvements would conflict with lands zoned for agriculture (1,167 acres between 2016 and 2025, 175 acres between 2026 and 2035, and 18 acres between 2036 and 2050, for a cumulative total between 2016 and 2050 of 1,360 acres) and lands under Williamson Act contract (732 acres between 2016 and 2025, 120 acres between 2026 and 2035, and 1 acre between 2036 and 2050, for a cumulative total between 2016 and 2050 of 853 acres) . This would be a significant impact on agricultural resources in 2025, 2035, and 2050 (Impact AG-2).

Regional growth and land use change would result in new development that would result in the loss of existing forest lands. Proposed transportation network improvements also would require ground-disturbing activities such as brush clearing, grading, trenching, excavation, and/or soil removal that would result in the loss of forest lands. Development associated with regional growth and land use change and transportation network improvements together would result in a direct loss of forest land between 2016 and 2025 (1,170 acres), between 2026 and 2035 (183 acres), and between 2036 and 2050 (13 acres), for a cumulative total between 2016 and 2050 of 1,366 acres. This would be a significant impact (Impact FR-1).

### **Impacts of Related Projects**

Other related regional projects, such as the HST, would have similar types of impacts as identified for the proposed Plan transportation improvements. The programmatic environmental document for the HST identified a potentially significant impact related to agriculture and forest resources for the segments planned for the Southern California region. Implementation of the HST is ongoing and being conducted in phases (HSRA 2005). The EIRs for the SDIA Airport Development Plan Project and the Navy OTC Revitalization Project did not evaluate agricultural impacts as this resource area was determined to not be significant (SCDRAA 2019a, Navy 2021)

Other land development and infrastructure projects throughout the region and state, such as petroleum pipeline transportation infrastructure, and freight rail infrastructure, and energy generation and transmission corridors, would also impact agriculture and/or forest resources if these projects expand the right-of-way (ROW) of highway or rail lines and convert agricultural uses or forest lands to other uses.

The Caltrans South County Traffic Relief Effort Project will extend Los Patrones Parkway from Cow Camp Road to Avenida La Pata, in Orange County. This project replaces the former State Route (SR) 241 Tesoro Extension Project that would have extended the current 241 Toll Road from where it now ends at Oso Parkway to Cow Camp Road in the vicinity of Ortega Highway within Orange County. The environmental process for this project is underway, but because the project would be constructed in the same corridor, it could impact similar resources.

The SR 241 Tesoro Extension Project analyzed project environmental effects in an Addendum to the South Orange County Transportation Infrastructure Improvement Project Final Subsequent EIR. The addendum found the project would not result in more severe agricultural impacts than identified in the EIR, which found significant and unavoidable agricultural impacts. The addendum stated that farmlands within and immediately adjacent to the SR 241 Tesoro Extension Project alignment are limited to cattle grazing areas and no existing forestry resources or zoning for forest land exists within the extension project area (Foothill/Eastern Transportation Corridor Agency 2013).

## Impact Projections in Adopted Plans

In the Southern California region, the EIR prepared for the 2020-2045 SCAG RTP/SCS identified impacts related to the loss of agricultural and forest lands due to new transportation infrastructure and associated land development, particularly those constructed outside of urbanized areas where new urban uses could be located on agricultural or forest lands. Additionally, the EIR found that the contribution of the 2020-2045 SCAG RTP/SCS to agricultural and forest impacts would be cumulatively considerable, as the conversion of agricultural land resulting from changes in regional land use patterns has the potential to set a precedent that would affect areas outside the region resulting in the conversion of agricultural lands (SCAG 2021b). The 2020-2045 SCAG RTP/SCS planning horizon is 2045. This document and analysis do not account for year 2050 impacts.

Adopted land use plans for local jurisdictions throughout the state of California may enact land pattern changes and zoning amendments that encourage and facilitate new urban development. Some of the land use changes would convert agriculture or forest resources to other uses. Additionally, adopted plans for improvements to arterial networks that widen streets or add or expand transportation facilities, especially those in new or nonurbanized areas, would also convert agriculture or forest resources to other uses.

## Cumulative Impacts and Impact Conclusions

### 2025

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan, the related projects, and impact projections from adopted plans within the Southern California and northern Baja region were significant when considered together, even if not independently significant. As described above, implementation of the regional growth and land use changes and transportation network improvements associated with the proposed Plan in 2025 would significantly impact agriculture resources through the conversion of agricultural lands to nonagricultural use and conflicts with existing zoning agricultural uses and Williamson Act contracts. Also, significant impacts were identified for the loss of forest land due to proposed Plan implementation.

As discussed above, significant impacts on agriculture and forest resources have been identified in project-specific environmental documents such as the HST project EIR/EIS and also in the environmental analysis for adopted planning documents. Other related infrastructure projects and land use plans across the state may also contribute to substantial impacts on agriculture and forest resources in a manner similar to the proposed Plan through the expansion of urban uses into areas of agriculture or forest use. The combination of the direct impacts from individual projects and adopted plans would result in significant cumulative impacts on agriculture and forest resources throughout the state of California by 2025.

Because cumulative impacts on agriculture and forest resources throughout the state by 2025 would be significant, and because the proposed Plan's incremental impacts on agriculture and forest resources are significant, the proposed Plan's incremental impacts on agriculture and forest resources are also cumulatively considerable in 2025 (Impact C-AG-1).

### 2035

Similar to the analysis for 2025, implementation of the regional growth and land use changes and transportation network improvements associated with the proposed Plan in 2035 would significantly impact agriculture resources through the conversion of agricultural lands to nonagricultural use and conflicts with

existing zoning agricultural uses and Williamson Act contracts. Also, significant impacts were identified for the loss of forest land due to proposed Plan implementation.

Significant impacts on agriculture and forest resources have been identified in project-specific environmental documents such as the HST project EIR/EIS and also in the environmental analysis for adopted planning documents. Other associated infrastructure projects and land use plans across the state may also contribute to substantial impacts on agriculture and forest resources in a manner similar to the proposed Plan through the expansion of urban uses into areas of agriculture or forest use. The combination of these impacts would result in significant cumulative impacts on agriculture and forest resources throughout the state of California by 2035.

Because cumulative impacts on agriculture and forest resources throughout the state by 2035 would be significant, and because the proposed Plan's incremental impacts on agriculture and forest resources are significant, the proposed Plan's incremental impacts on agriculture and forest resources are also cumulatively considerable in 2035 (Impact C-AG-1).

## **2050**

Similar to the analysis for 2025, implementation of the regional growth and land use changes and transportation network improvements associated with the proposed Plan in 2050 would significantly impact agriculture resources through the conversion of agricultural lands to nonagricultural use and conflicts with existing zoning agricultural uses and Williamson Act contracts. Also, significant impacts were identified for the loss of forest land due to proposed Plan implementation.

As noted above, significant impacts on agriculture and forest resources have been identified in project-specific environmental documents such as the HST project EIR/EIS and also in the environmental analysis for adopted planning documents. Other associated infrastructure projects and land use plans across the state may also contribute to substantial impacts on agriculture and forest resources in a manner similar to the proposed Plan through the expansion of urban uses into areas of agriculture or forest use. The combination of these impacts would result in significant cumulative impacts on agriculture and forest resources throughout the state of California by 2050 (Impact C-AG-1).

## **Mitigation Measures**

### **C-AG-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON AGRICULTURAL AND FORESTRY RESOURCES**

#### **2025, 2035, and 2050**

Mitigation measure **AG-1a** calls for the preservation of existing agricultural lands through avoidance when feasible, and if not feasible, through acquisition or dedication of agricultural conservation easements (Measure **AG-1a** also applies to projects that would require cancellation of a Williamson Act contract). Mitigation measure **AG-1b** reduces conflicts with agricultural operations through the implementation of project design features and mitigation measures to protect surrounding agriculture. However, there is no assurance that the agricultural impacts of all land use changes and transportation network improvement projects implementing the proposed Plan would be reduced to less-than-significant levels by these measures.

Mitigation measure **FR-1** calls for the preservation of forest lands through avoiding conversion of forest lands when feasible and, if not feasible, through the implementation of measures to reduce impacts on forest lands.



In addition, mitigation measures **BIO-1a**, **BIO-1b**, and **BIO-1e** as identified in the biological resources analysis below would minimize impacts. However, there is no assurance that the impacts of all development and transportation network improvement projects implementing the proposed Plan would be reduced to less-than-significant levels by these measures.

The SCAG 2020-2045 RTP/SCS EIR includes multiple mitigation measures to reduce impacts on agricultural resources and farmland, including avoidance of farmlands in project design; development of regional guidelines for farmland buffering; and establishment of programs to direct growth to less agriculturally valuable lands, promote infill development to minimize development of agricultural lands, and conservation easement programs to mitigate prime farmland impacts. The EIR concludes that while these mitigation measures would reduce impacts on agricultural resources, they would not reduce impacts to a less-than-significant level, and impacts would remain significant (SCAG 2020b).

The 2005 EIR/EIS for the HST includes a number of mitigation strategies to reduce impacts on both agriculture resources and sensitive vegetation communities such as forest lands. The EIR concludes that impacts on agricultural lands and biological resources would remain significant, even with the application of mitigation strategies (HSRA 2005).

Based on the above analysis, following mitigation of the effects of the proposed Plan, related projects, and adopted plans, cumulative impacts on agricultural and forestry resources would remain significant. Also, the proposed mitigation measures would not reduce the proposed Plan's incremental impacts to less than significant. Therefore, the proposed Plan's incremental contributions to cumulative agricultural and forestry resource impacts would remain cumulatively considerable post-mitigation.

### 5.2.3 AIR QUALITY

#### **C-AQ-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO AIR QUALITY**

Emissions of criteria air pollutants can travel substantial distances and are not confined by jurisdictional boundaries; rather they are influenced by large-scale climatic and topographical features. Thus, the geographic scope considered for cumulative impacts on air quality is the Southern California and northern Baja region.

A projection approach to air quality is appropriate given the air pollutant emissions resulting from the future overall transportation network improvements, increases in population, and necessary planned regional development.

The plans considered and relied on for this cumulative analysis include the SCAG 2020-2045 RTP/SCS and its EIR (SCAG 2020); the San Diego Air Pollution Control District (SDAPCD) 2016 Regional Air Quality Strategy Revision (2016 RAQS) (SDAPCD 2016a); SDAPCD 2020 San Diego Ozone State Implementation Plan (2020 SIP) (SDAPCD 2020); SDAPCD 2016 Eight-Hour O<sub>3</sub> Attainment Plan (2016 SIP) (SDAPCD 2016b); South Coast Air Quality Management District (SCAQMD) 2016 Air Quality Management Plan (AQMP) (SCAQMD 2016); Imperial County Air Pollution Control District (ICAPCD) Final 2009 8 Hour Ozone Modified Air Quality Management Plan (ICAPCD 2010); U.S. Environmental Protection Agency (EPA) Border 2025 Program, Master Action Plan for California-Baja California (EPA 2013); 2034 Tijuana, Tecate, and Playas de Rosarito Metropolitan Strategic Plan (IMPLAN 2013); and California-Baja California Border Master Plan (Caltrans 2021).

Significant cumulative impacts related to air quality would occur if emissions would conflict with or obstruct implementation of the Regional Air Quality Strategy and/or State Implementation Plan; result in a cumulatively

considerable net increase in nonattainment or attainment criteria pollutants, including VOC, NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>x</sub>; result in construction-related emissions above regional mass emission thresholds; expose sensitive receptors to substantial PM<sub>10</sub> and PM<sub>2.5</sub> concentrations; expose sensitive receptors to substantial TAC concentrations; expose sensitive receptors to carbon monoxide hot spots; and result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

### Impacts of the Proposed Plan

The proposed Plan would result in less-than-significant impacts related to conflicting with or obstructing the implementation of the 2016 RAQS, 2016 SIP, and 2020 SIP, ~~and would result in less-than-significant impacts related to exposure of sensitive receptors to carbon monoxide hot spots and to other emissions such as odors, that could adversely affect a substantial number of people~~ (Impact AQ-1). While the proposed Plan would result in less-than-significant impacts related to a cumulatively considerable net increase in criteria pollutant emissions in 2025 and 2035; by 2050, the proposed Plan would result in a cumulatively considerable net increase in respirable particulate matter (PM<sub>10</sub>) and sulfur oxides (SO<sub>x</sub>) emissions (Impact AQ-2). In addition, the proposed Plan would result in significant and unavoidable impacts related to construction-related emissions exceeding (Impact AQ-3) and exposure of sensitive receptors to substantial PM<sub>10</sub> concentrations in 2025, 2035, and 2050 (Impact AQ-4). The proposed Plan would expose new sensitive receptors to substantial toxic air contaminant (TAC) concentrations in 2025 and 2035, while exposing certain existing sensitive receptors, as well as new receptors, to substantial concentrations of TAC emissions in 2050 (Impact AQ-5). The proposed Plan would result in less-than-significant impacts related to exposure of sensitive receptors to carbon monoxide hot-spots (Impact AQ-6) and result in other emissions (such as those leading to odors) adversely affecting a substantial number of people (Impact AQ-7).

### Impact Projections in Adopted Plans

The 2016 RAQS states that air quality progress is occurring within San Diego County, but that current state and federal ozone standards are not yet attained, and continued emission reduction efforts are needed. The report states that both volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) emissions were reduced by larger percentages between 2007 and 2014 than were projected in the 2009 RAQS Revision, and that based on regulatory actions already taken, total VOC and NO<sub>x</sub> emissions are expected to continue decreasing through 2035 due to ongoing implementation of existing local stationary source rules, as well as state and federal mobile source regulations (SDAPCD 2016a).

The 2020 SIP addresses the requirements for attaining the 2008 and 2015 8-hour ozone (O<sub>3</sub>) NAAQS. The 2016 SIP complies with the moderate nonattainment area classification for the planning requirements and includes demonstrations for attainment of the 2008 O<sub>3</sub> NAAQS by July 20, 2018 (2017 attainment year). Despite substantial air quality progress, the region did not attain the 2008 O<sub>3</sub> NAAQS (75 parts per billion [ppb]) by the attainment deadline; as a result, EPA reclassified San Diego County as a serious nonattainment area for that standard with a new attainment date of July 20, 2027 (2026 attainment year). Furthermore, the 2020 SIP complies with the severe nonattainment area classification planning requirements and includes demonstrations for attainment of the 2008 and 2015 O<sub>3</sub> NAAQS by 2026 and 2032, respectively. The 2020 SIP includes updated inventories of O<sub>3</sub> precursor emissions (VOC and NO<sub>x</sub>) for the 2017 base year (the year from which future-year inventories are projected) and the 2026 and 2032 attainment years (SDAPCD 2020). The SCAQMD 2016 AQMP (SCAQMD 2016) states that the air in Southern California is far from meeting all federal and state air quality standards. However, the long-term trend of the quality shows continuous improvement and is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs. To reach federal Clean Air Act (CAA) deadlines over the next two

decades, Southern California must significantly accelerate its pollution reduction efforts. Many of the control measures proposed in the AQMP are not regulatory in form, but instead focus on incentives, outreach, and education to bring about emissions reductions through voluntary participation and behavioral changes needed to complement regulations.

The ICAPCD 8-Hour Ozone Modified AQMP includes emission inventories and also outlines control measures to address who in Imperial County controls emissions. These include the ICAPCD's stationary source control measures, regional transportation control measures, and state strategy, all of which provide the framework for ICAPCD rules that reduce ROG and NO<sub>x</sub> emissions (ICAPCD 2010).

The U.S.-Mexico Border Environmental Program: Border 2025 includes Goal #1 to reduce air pollution. The plan encourages stakeholders to develop and implement projects that maximize health and environmental benefits from multi-pollutant emissions reductions where available, including at the San Diego/Tijuana binational airshed. Some examples include an improved compliance with vehicle emission standards, and establishment of vehicle inspection and maintenance programs in order to reduce emissions in the border region (EPA 2021).

The 2034 Tijuana, Tecate, and Playas de Rosarito Metropolitan Strategic Plan states that a critical issue for the Baja region is the progressive deterioration of the quality of air that is associated with the number of vehicles and no provision of sustainable transportation (IMPLAN 2013).

The California-Baja California Border Master Plan is a binational comprehensive approach to coordinate planning and delivery of projects at land POEs and transportation infrastructure serving those POEs in the California-Baja California region. The Master Plan does not have an associated environmental analysis document; however, projects included in the Master Plan could have adverse air quality impacts due to temporary construction. Nevertheless, beneficial air quality impacts would result from improved traffic conditions and reduced vehicle idle times at POEs. The plan does identify the need for a comprehensive strategy for border crossings that allows for effective integration of POEs into the municipal environment and that, in addition to the POE facility itself, complementary actions related to transportation, such as air quality, should be considered (Caltrans 2021).

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan and impact projections from adopted plans within Southern California and northern Baja California region were significant when considered together, even if not independently significant.

Many of the air quality plans note that air quality across the region has been improving due to implementation of various measures and stricter emission requirements. Nevertheless, given some uncertainty that air quality plans throughout Southern California and northern Baja would all be implemented successfully, and given that the proposed Plan's direct impacts are significant, cumulative air quality impacts would also be significant due to PM<sub>10</sub> and SO<sub>x</sub> emissions exceeding thresholds, the exposure of sensitive receptors to substantial PM<sub>10</sub> concentrations, impacts associated with construction equipment emissions, and exposure of sensitive receptors to TACs.

Because cumulative air quality impacts throughout Southern California and northern Baja by 2025 would be significant, and because the proposed Plan's incremental air quality impacts are significant, the proposed Plan's incremental air quality impacts are also cumulatively considerable in 2025 (Impact C-AQ-1).

### **2035**

As described above, cumulative air quality impacts would also be significant in 2035 due to PM<sub>10</sub> and SO<sub>x</sub> emissions exceeding thresholds, exposure of sensitive receptors to substantial PM<sub>10</sub> concentrations, impacts associated with exhaust emissions from construction equipment emissions, and exposure of sensitive receptors to TACs.

Because cumulative air quality impacts throughout Southern California and northern Baja by 2035 would be significant, and because the proposed Plan's incremental air quality impacts are significant, the proposed Plan's incremental air quality impacts are also cumulatively considerable in 2035 (Impact C-AQ-1).

### **2050**

As described above, cumulative air quality impacts would be significant in 2050 due to PM<sub>10</sub> and SO<sub>x</sub> emissions exceeding thresholds, exposure of sensitive receptors to substantial PM<sub>10</sub> concentrations, impacts associated with exhaust emissions from construction equipment emissions, and exposure of sensitive receptors to TACs.

Because cumulative air quality impacts throughout Southern California and northern Baja by 2050 would be significant, and because the proposed Plan's incremental air quality impacts are significant, the proposed Plan's incremental air quality impacts are also cumulatively considerable in 2050 (Impact C-AQ-1).

## **Mitigation Measures**

### **C-AQ-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO AIR QUALITY**

As described in Section 4.3, the proposed Plan's significant air quality impacts would be reduced by mitigation measures **AQ-2a**, **AQ-2b**, **AQ-3a**, **AQ-3b**, **AQ-3c**, **AQ-4**, **AQ-5a**, and **AQ-5b** and would be further reduced by mitigation measures **GHG-5a**, **GHG-5b**, **GHG-5d**, **GHG-5e**, **GHG-5f**, and **TRA-2**.

Similar mitigation measures are specified in other regional plans, such as the SCAG 2020-2045 RTP/SCS EIR. However, that EIR concluded that even with implementation of mitigation measures, some direct air quality impacts would remain significant. Regional air quality planning documents provide short- and long-term strategies for reducing air pollution and control measures to be implemented by applicable jurisdictions and agencies to further reduce air pollutant emissions.

As described in Section 4.3, mitigation measures **AQ-2a** through **AQ-5b** and **GHG-5a**, **GHG-5b**, **GHG-5d**, **GHG-5e**, **GHG-5f**, and **TRA-2**, would not reduce the proposed Plan's incremental impacts to less than significant. Therefore, the proposed Plan's incremental contributions to cumulative air quality impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

## 5.2.4 BIOLOGICAL RESOURCES

### C-BIO-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON BIOLOGICAL RESOURCES

The area of geographic consideration for cumulative impacts on biological resources is the Southern California and northern Baja region. Biological resources have commonalities across the expanse of this region while also having very unique and specific characteristics in certain locations. Biological resources extend beyond jurisdictional boundaries and can be impacted by development and projects across an expansive area; thus, it is necessary to consider the entire region to adequately include broad-reaching impacts and overall loss of sensitive resources.

A hybrid approach to consideration of cumulative biological impacts allows for an overarching discussion of regional loss of biological resources associated with general patterns of regional urbanization, growth, and land use changes while also allowing for explicit consideration of individual large-scale probable future projects with impacts on specific biological resources per their environmental analysis documents.

Information on planned residential development and land use changes in Southern California is available in adopted land use plans for individual cities and counties. The plans considered and relied on for this cumulative biological analysis include the SCAG 2020-2045 RTP/SCS and its EIR (SCAG 2020); SANDAG Multiple Habitat Conservation Program (MHCP) and associated EIS/EIR (SANDAG 2003); County of San Diego Multiple Species Conservation Plan (MSCP) and associated EIR (County of San Diego 1997); San Diego County Water Authority (SDCWA) Subregional Natural Community Conversation Plan/Habitat Conservation Plan (NCCP/HCP) and associated EIR/EIS (SDCWA 2010); Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP) and associated EIR/EIS (County of Riverside 2003); Coachella Valley MSHCP and associated EIR/EIS (Coachella Valley Association of Governments 2007); Strategic Plan of the Commission for Environmental Cooperation 2010-2015 (Commission for Environmental Cooperation 2010); and California-Baja 2021 California Border Master Plan (Caltrans 2021).

The cumulative impact is the combination of the impacts of the proposed Plan, probable future projects, and impact projections in adopted plans. Significant cumulative impacts related to biological resources would occur if the land use changes and transportation network improvements associated with the proposed Plan, together with adopted plans and associated infrastructure, would have a substantial adverse effect on any sensitive natural vegetation community or regulated aquatic resources; have a substantial adverse effect on any candidate, sensitive, or special-status species; interfere substantially with the movement of any native resident or migratory fish or wildlife species; or conflict with the provisions of an adopted HCP, NCCP, or other conservation plan.

#### Impacts of the Proposed Plan

Implementation of the proposed Plan's regional growth and land use change and transportation network improvements would result in substantial direct and indirect adverse effects on sensitive natural communities and regulated aquatic resources (Impact BIO-1); and species identified as candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS) (Impact BIO-2); and has the potential to interfere substantially with fish and wildlife movement, wildlife corridors, and nursery sites in 2025, 2035, and 2050 (Impact BIO-3). These impacts would remain significant and unavoidable even with mitigation.

The proposed Plan is designed to comply with all approved HCPs, NCCPs, other conservation plans, and local biological protection policies and ordinances. Therefore, no conflicts would occur (Impact BIO-4). Any encroachment into hardline preserve areas would not conflict with HCPs because biologically equivalent or superior compensation of habitat or project redesign would be required when there is encroachment into hardline preserve areas. Thus, the proposed Plan would result in a less-than-significant impact related to conflicts with HCPs, NCCPs, and other conservation plans in 2025, 2035, and 2050.

### **Impacts of Related Projects**

One of the major infrastructure projects planned for development in Southern California is the California HST. The possible HST routes would affect the region of Southern California from Los Angeles to San Diego. According to the HST EIR/EIS, sufficient information is not available at the program level to conclude with certainty that mitigation will reduce impacts on affected resources to a less-than-significant level in all circumstances (HSRA 2005). Therefore, the EIR/EIS concludes that the “impacts to biological resources and wetlands are considered significant at the program level even with the application of mitigation strategies.” Additional environmental assessment for individual phases of the HST project will allow more precise evaluation in the second-tier, project-level environmental analyses. The Navy OTC Revitalization and the City of San Diego Pure Water North City projects concluded there would be less-than-significant impacts related to biological resources.

### **Impact Projections in Adopted Plans**

According to the EIR for the SCAG 2020-2045 RTP/SCS, which analyzes impacts through 2045, growth and projects would result in a wide variety of significant and unavoidable biological impacts. While site-specific analyses would be required to identify and minimize the impacts of each particular transportation and/or development project, the SCAG 2020-2045 RTP/SCS would substantially affect vegetation communities and habitat, some of which are utilized by special-status species. The EIR identified the potential to contribute to a cumulatively considerable loss of habitat and biological resources (SCAG 2020).

The MHCP is the Subregional Plan for the northwestern portion of San Diego County that encompasses 111,908 acres (29,962 acres of natural habitat) and provides conservation for 77 species in a 20,593-acre reserve. The EIS/EIR for the MHCP concluded that, because the project has the potential to cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; and reduce the number or restrict the range of an endangered, rare, or threatened species, a significant impact on some biological resources would occur (SANDAG 2003).

The San Diego County MSCP Subregional Plan is a cooperative effort by the County of San Diego and other city jurisdictions in southwestern San Diego County to implement a regional NCCP and HCP and contribute collectively to the conservation of vegetation communities and species in the MSCP study area. The associated EIR/EIR identified significant but mitigable direct and indirect impacts on biological resources (County of San Diego 1997).

The SDCWA NCCP/HCP is a comprehensive program designed to facilitate conservation and management of covered species and habitats associated with SDCWA activities and contribute to ongoing regional conservation efforts. The EIR/EIS found that implementation of the NCCP/HCP would result in less-than-significant impacts on biological resources after mitigation (SDCWA 2010).

The Western Riverside MSHCP encompasses approximately 1,966 square miles and provides for the creation of a Conservation Area that protects and manages 500,000 acres of habitat for 146 covered species. The associated EIR/EIS found significant and unavoidable impacts on sensitive upland communities as well as noncovered species; however, no cumulative biological impacts were identified as the plan would preserve sufficient acreage of the sensitive vegetation communities present in western Riverside County (County of Riverside 2003).

The Coachella Valley MSHCP protects 240,000 acres of open space and 27 species. The associated EIR/EIS found that effective implementation of the plan will help ensure that impacts on biological resources in the plan area will be less than significant (Coachella Valley Association of Governments 2007).

The Strategic Plan of the Commission for Environmental Cooperation 2010-2015 includes Strategic Objective #2, which is to increase resilience of shared ecosystems at risk. While there is no associated environmental analysis document, the intent of the plan is to develop capacity to implement an ecosystem approach to conservation and sustainable use and monitor relevant outcomes in internationally shared ecosystems, with attention to both terrestrial and marine ecosystems (Commission for Environmental Cooperation 2010).

The California-Baja California Border Master Plan is a binational comprehensive approach to coordinate planning and delivery of projects at land POEs and transportation infrastructure serving those POEs in the California-Baja California region (Caltrans 2008). The projects included in the Master Plan would have construction and operational impacts that could have an adverse effect on biological resources. No detailed analysis of biological impacts was conducted for this Master Plan.

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan, the related projects, and impact projections from adopted plans within the Southern California and northern Baja region were significant when considered together, even if not independently significant. Implementation of the proposed Plan's regional growth and transportation network improvements and programs would have significant impacts related to biological resources in the San Diego region by the year 2025. By 2025, the regional growth and land use change as well as transportation network improvements would result in substantial direct and indirect adverse effects on sensitive natural communities and regulated aquatic resources; and species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The proposed Plan would also interfere substantially with fish and wildlife movement, wildlife corridors, and nursery sites.

Some related projects such as the HST, developed in the Southern California region by 2020, or implementation of other regional plans would also have a substantial adverse effect on sensitive natural communities, regulated aquatic resources, and special-status species, or interfere substantially with the movement of wildlife. Thus, the combination of the proposed Plan and continued growth and development through the rest of the Southern California and northern Baja region would result in significant cumulative biological resource impacts.

Because cumulative biological resource impacts throughout the Southern California and northern Baja region by 2025 would be significant, and because the proposed Plan's incremental biological resource impacts are significant, the proposed Plan's incremental biological resource impacts are cumulatively considerable (Impact C-BIO-1).

The proposed Plan's impacts related to conflicts with adopted policies of HCPs and NCCPs and other local policies and ordinances protecting biological resources, in combination with similar impacts that would result in the southern California and northern Baja California region based on projections in adopted plans and other cumulative projects, would not cause a significant cumulative impact.

### **2035**

As described in the 2025 analysis, the planned growth and projects throughout Southern California and northern Baja region and implementation of the proposed Plan resulting in regional growth and land use change and transportation network improvements would contribute to the cumulative loss of biological resources due to conversion of undeveloped lands to developed lands, including direct and indirect adverse effects on sensitive natural communities and regulated aquatic resources; and on species identified as candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the CDFW or USFWS; and has the potential to interfere substantially with fish and wildlife movement, wildlife corridors, and nursery sites.

Implementation of the proposed Plan growth and transportation network improvements and programs would have significant impacts related to biological resources in the San Diego Region by the year 2035. Land use changes and transportation network improvements associated with both the proposed Plan and regional projects and plans developed in Southern California and northern Baja by 2035 would allow for more development and redevelopment to occur, and would therefore result in substantial direct and indirect adverse effects on sensitive natural communities and regulated aquatic resources; and on species identified as candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the CDFW or USFWS. to the proposed Plan would also interfere substantially with fish and wildlife movement, wildlife corridors, and nursery sites. Thus, the combination of the proposed Plan and continued growth and development through the rest of the Southern California and northern Baja region would result in significant cumulative biological resource impacts. Because cumulative biological resource impacts throughout the Southern California and northern Baja region by 2035 would be significant, and because the proposed Plan's incremental biological resource impacts are significant, the proposed Plan's incremental biological resource impacts are cumulatively considerable (Impact C-BIO-1).

Similar to the 2025 analysis, the proposed Plan's impacts related to conflicts with adopted policies of HCPs and NCCPs and other local policies and ordinances protecting biological resources, in combination with similar impacts in adopted plans and other cumulative projects, would not cause a significant cumulative impact in 2035.

### **2050**

As described in the 2025 analysis, the planned growth and projects throughout Southern California and northern Baja region and implementation of the proposed Plan resulting in regional growth and land use change and transportation network improvements would contribute to the cumulative loss of biological resources as result of conversion of undeveloped lands to developed lands, including substantial direct and indirect adverse effects on sensitive natural communities and regulated aquatic resources; and on species identified as candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the CDFW or USFWS; and has the potential to interfere substantially with fish and wildlife movement, wildlife corridors, and nursery sites.



Implementation of the proposed Plan growth and transportation network improvements and programs would have significant impacts related to biological resources in the San Diego Region by the year 2050. Land use changes and transportation network improvements associated with both the proposed Plan as well as regional projects and plans developed in Southern California and northern Baja by 2050 would allow for more development and redevelopment to occur, and would therefore result in substantial direct and indirect adverse effects on sensitive natural communities and regulated aquatic resources; and species identified as candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the CDFW or USFWS. The proposed Plan would also interfere substantially with fish and wildlife movement, wildlife corridors, and nursery sites. Thus, the combination of the proposed Plan and continued growth and development through the rest of the Southern California and northern Baja region would result significant cumulative biological resource impacts.

Because cumulative biological resource impacts throughout the Southern California and northern Baja region by 2050 would be significant, and because the proposed Plan's incremental biological resource impacts are significant, the proposed Plan's incremental biological resource impacts are cumulatively considerable (Impact C-BIO-1).

Similar to the 2025 analysis, the proposed Plan's impacts related to conflicts with adopted policies of HCPs and NCCPs and other local policies and ordinances protecting biological resources, in combination with similar impacts in adopted plans and other cumulative projects, would not cause a significant cumulative impact in 2050.

## Mitigation Measures

### **C-BIO-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON BIOLOGICAL RESOURCES**

Implementation of mitigation measures **BIO-1a** through **BIO-1e**, **BIO-2a** through **BIO-2c**, and **BIO-3** would reduce direct and indirect impacts of the proposed Plan. Measures **BIO-1a** through **BIO-1e** include design and avoidance measures to be incorporated into projects to avoid impacts on sensitive natural vegetation communities and aquatic resources; provide compensatory mitigation when impacts are unavoidable; implement mitigation and monitoring plans per agency requirements; prepare habitat restorations plans; prepare habitat/long-term management plans; and implement BMPs to avoid indirect impacts. Measures **BIO-2a**, through **BIO-2c** include design and avoidance measures to be incorporated into projects to avoid and reduce impacts on special-status wildlife and plant species and provide compensatory mitigation. Measure **BIO-3** includes measures to provide for movement of wildlife. Some impacts on sensitive natural communities and regulated aquatic resources; species identified as candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the CDFW or USFWS; and interference with wildlife movement and wildlife corridors remain significant and unavoidable after implementation of all applicable mitigation measures.

Similar types of mitigation measures are provided in other regional plans, such as the SCAG 2020-2045 RTP/SCS EIR, and individual projects have project-specific biological mitigation. The SCAG 2020-2045 RTP/SCS EIR concluded that even with implementation of mitigation, biological resource impacts would remain significant. The HST EIR/EIS provided biological mitigation strategies, but concluded that it could not be determined that all biological impacts would be fully mitigated to below a level of significance. Thus, there is no assurance that the proposed mitigation would reduce impacts of related projects in Southern California and northern Baja to a less-than-significant level.

Mitigation measures **BIO-1a** through **BIO-3** would not reduce the proposed Plan's incremental impacts to less than significant. Therefore, the proposed Plan's incremental contributions to cumulative biological impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

### 5.2.5 CULTURAL RESOURCES

#### **C-CULT-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON CULTURAL RESOURCES**

The area of geographic consideration for cumulative impacts on cultural resources is the Southern California and northern Baja California region. Because local and regional settlement patterns are closely linked, it is important to evaluate the loss of cultural resources across this entire geographic area to adequately consider how the loss of resources would impact the understanding of the closely interrelated prehistory and history of the peoples who have inhabited the Plan Area. Historical resources should be considered based on their importance both within their local setting and in the regional framework. A projection approach for cumulative analysis of cultural resources allows for an overarching discussion of regional loss of interrelated cultural resources associated with general patterns of regional urbanization, growth, and land use changes. The cumulative impact is the combination of the impacts of the proposed Plan and impact projections in adopted planning documents. Significant cumulative impacts related to cultural resources would occur if cumulatively there would be a substantial increase in impacts with regard to the significance of historic or unique archaeological resource, or disturbance of human remains.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan, SCAG's Connect SoCal (2020-2045 RTP/SCS EIR (SCAG 2020) for the Southern California region, the County of San Diego General Plan Update EIR (County of San Diego 2011), and the California-Baja California 2021 Border Master Plan (Caltrans 2021). Many local jurisdictions provide guidance and protective measures for cultural resources in their general plans and other local planning documents. There are generally no regional plans pertaining to such resources for the northern Baja California region. The California-Baja California Border Master Plan is a binational comprehensive approach to coordinate planning and delivery of projects at land POEs and transportation infrastructure serving those POEs in the California-Baja California region. The Master Plan does not have an associated environmental analysis document, and no detailed analysis of cultural resource impacts was conducted for this Master Plan (Caltrans 2021).

#### **Impacts of the Proposed Plan**

Areas in the San Diego region are known to have a high potential for prehistoric, historic, and cultural resources. Implementation of the proposed Plan would result in the construction of development projects and transportation network improvements that would result in a wide range of construction and ground-disturbing activities, such as excavation, grading, and clearing, which remove and/or disturb the upper layer of soils. As cultural resources have been found within inches of the ground surface in some areas of the San Diego region, in some locations these ground-disturbing activities would cause a substantial adverse change in the significance of a historical or unique archeological resource (Impact CULT-1). Implementation of the proposed Plan would necessitate construction activities that in some locations would cause a substantial adverse change in the significance of a historical or unique archeological resource through the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of a historical or unique archeological resource would be materially impaired. This would occur within each horizon year analyzed (2025, 2035, and 2050). Therefore, impacts related to a substantial adverse change in the significance of a historical or unique archeological resource would be significant.

As described in Section 4.5, the proposed Plan would result in ground-disturbing activities associated with regional growth and land use change and planned transportation network improvements that in some locations would unearth and impact buried human remains in 2025, 2035, and 2050. Impacts would be less than significant because adherence to existing laws and regulations associated with the disturbance of human remains as detailed in Section 4.5 ensures the appropriate handling of any human remains that are encountered (CULT-2).

### **Impact of Related Projects**

Projects planned in the Southern California region, such as the Navy OTC Revitalization Project, SDIA Airport Development Plan, HST, City of San Diego Pure Water North City, would result in impacts related to destruction or alteration of historical resources. Other land development and infrastructure projects throughout the region and state, such as transportation infrastructure, energy generation and transmission corridors, and commercial and residential land development would also result in impacts if these projects occur in areas containing significant cultural resources.

For example, the HST project in the San Diego region would result in construction of track, bridges and elevated guideways, stations, and other features that may result in destruction or alteration of cultural resources (HSRA 2005). The EIR/EIS prepared for the HST project determined that the project would result in significant cumulative impacts on cultural resources. The EIR for the SDIA Airport Development Plan also identified significant and unavoidable impacts to historical resources (SDCRAA 2019). Both the Navy Old Town Campus Revitalization and City of San Diego Pure Water North City Project would result in impacts, however, impacts associated with historical resources would be significant and mitigated to a level of less than significant respectively. Impacts would similarly be cumulatively considerable, if these projects occur in close proximity to one another.

### **Impact Projections in Adopted Plans**

Implementation of SCAG's 2020-2045 RTP/SCS would result in significant and unavoidable impacts related to adverse changes in the significance of archaeological and historic built environment resources and potentially disturb human remains. In addition, the 2020-2045 RTP/SCS's influence on growth would contribute to regionally significant impacts on cultural resources and be cumulatively considerable (SCAG 2020). The EIR prepared for the County of San Diego General Plan Update found that, with mitigation, implementation of the updated General Plan would result in less-than-significant direct or cumulative impacts on historical, archaeological, or disturbance of human remains. The California-Baja California Border Master Plan does not provide analysis of impacts on cultural resources; however, projects included in the Master Plan could have adverse impacts on cultural resources due to ground disturbance necessary for construction of infrastructure

### **Cumulative Impacts and Impact Conclusions**

#### **2025**

A significant cumulative impact in year 2025 would result if the combined impacts of the proposed Plan, impacts of related projects, and impact projections from adopted plans within the Southern California and northern Baja region are significant when considered together, even if not independently significant. As described above, implementation of the proposed Plan, related projects, and other adopted plans would result in ground-disturbing activities that would cause a substantial adverse change in the significance of a historical or unique archeological resource. California projects are required to adhere to federal, state and local

regulations, as described in Section 4.5; however, cumulative growth development located in Mexico would not be subject to compliance with such regulations. Additionally, even with regulations in place, individual historical or unique archeological resources could still be impacted or degraded from demolition, destruction, alteration, or structural relocation as a result of new private or public development or redevelopment allowable under the proposed plan or other adopted regional plans. Therefore, cumulative impacts on historical and unique archeological resources would be significant. Because the proposed Plan's impacts on historical and unique archeological resources are significant, they are also cumulatively considerable in 2025. In addition, implementation of the proposed Plan combined with development associated with other regional plans and related projects would result in adverse impacts on human remains from development activities. Development associated with the proposed Plan as well as in the SCAG region would be required to comply with federal, state, and local regulations, as described in Section 4.5, if human remains are encountered. Cumulative projects located in Mexico would not be subject to compliance with such regulations. However, the proposed Plan's contribution to these impacts would be less than cumulatively considerable, because required compliance with federal, state, and local regulations would ensure the appropriate handling of any human remains that are encountered (Impact C-CULT-1).

### **2035**

The cumulative analysis presented above for year 2025 would be applicable to year 2035, and significant cumulative impacts on cultural resources would occur. By 2035, increases in regional growth and land use change, and the number of transportation network improvements implemented over those that occurred by 2025 would result in additional adverse impacts related to changes in the significance of a historical or unique archeological resource. As described in the 2025 analysis, cumulative impacts on historical and unique archeological resources would be significant because there would be cumulative adverse changes in the significance of those resources due to the proposed Plan, other regional plans, and development located in northern Baja California. Because cumulative cultural resource impacts throughout the Southern California and northern Baja region by 2035 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental cultural resource impacts are also cumulatively considerable (Impact C-CULT-1).

### **2050**

The cumulative analysis presented above for years 2025 and 2035 would be applicable to year 2050, and significant cumulative impacts on cultural resources would occur. By 2050, increases in regional growth and land use change, and the number of transportation network improvements implemented over those that occurred by 2025 and 2035, would result in adverse impacts related to changes in the significance of a historical or unique archeological resource.

As described in the 2025 analysis, cumulative impacts on historical or unique archeological resources would be significant because there would be cumulative adverse changes in the significance of those resources due to the proposed Plan, other regional plans, and development located in northern Baja California. Because the proposed Plan's impacts on cultural resources are significant, they are also cumulatively considerable in 2050 (Impact C-CULT-1).

## Mitigation Measures

### **C-CULT-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON CULTURAL RESOURCES.**

Mitigation measures **CULT-1a** and **CULT-1b** call for measures to avoid or substantially reduce adverse changes in the significance of a cultural resource, and protect cultural resources listed on or eligible for listing on the California Register of Historical Resources (CRHR). These measures also require the implementation of monitoring and data recovery programs during construction. The mitigation measures would be included in project-level planning, design, and CEQA reviews. However, their implementation would not reduce impacts to less than significant because it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level.

Because mitigation measures **CULT-1a** and **CULT-1b** would not reduce the proposed Plan's incremental impacts to less than significant, the proposed Plan's incremental contributions to cumulative cultural resources impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

## 5.2.6 ENERGY

### **C-EN-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON ENERGY**

The area of geographic consideration for cumulative energy impacts is the Southern California and northern Baja region. The demand for energy is a common theme throughout the region. Land use change and the transportation system would influence the demand for future energy development or the location and need for new or additional energy infrastructure across the Southern California and northern Baja region. The provision of energy can be linked to jurisdictions, but often service providers and their infrastructure cover large areas. Thus, it is necessary to consider the Southern California and northern Baja region as a whole and the overall amount of development that would generate additional pressure and demand on energy use and generation facilities.

A hybrid approach to the cumulative energy analysis allows for an overarching discussion of regional impacts associated with general patterns of regional urbanization, growth, and land use changes that would create new or additional energy use, modify demand for the provision of energy, or dictate where new or expanded energy infrastructure is located. Discussion of specific projects also allows for consideration of individual large-scale existing and probable future projects with known impacts on energy resources.

Growth, land use change, and transportation system improvements occurring throughout the Southern California and northern Baja region would impact energy demand, development, and supply. Cumulative energy impacts would result if there were an increase in overall per capita energy consumption or inefficient, wasteful, or unnecessary energy use; or obstruction of state and local renewable energy and energy efficiency plans, regulations, and policies.

Documents considered in the cumulative energy analysis include the California Energy Commission's (CEC) California Energy Demand 2018-2030 Revised Forecast (CEC 2018), County of San Diego Strategic Energy Plan 2015-2020 (County of San Diego 2015), and San Diego Gas & Electric Company 2012 Long-Term Procurement Plan (SDG&E 2012).

### Impacts of the Proposed Plan

As detailed in Section 4.6, total energy use and per capita energy use in 2025, 2035, and 2050 would be less than total energy use and per capita energy use in 2016. Therefore, the proposed Plan would not result in an increase in overall per capita energy consumption or otherwise use energy in an inefficient, wasteful, or unnecessary manner in 2025, 2035, or 2050, and the impact would be less than significant (Impact EN-1).

The county and various cities within the SANDAG region, in accordance with state law, will require the implementation of a variety of energy efficiency and renewable energy measures to decrease fossil fuel energy consumption as a means to reduce GHG emissions. As detailed in Section 4.6, the proposed Plan would comply with the state's programs and local plans and policies aimed at reducing energy consumption and promoting renewable energy. Thus, this impact would be less than significant in 2025, 2035, and 2050 (Impact EN-2).

### Impacts of Related Projects

Multiple energy projects in various stages of planning, permitting, and construction are ongoing in the Southern California and northern Baja region. Some of these include the Crimson Solar Project in Blythe, California; Palen-Nalep Solar, Victory Pass Solar, and Rice Solar energy projects in Riverside County; Carlsbad NRG and Pio Pico Energy Center in San Diego County; Clean Hydrogen Energy and Comino Solar project in Kern County; and Black Rock 5 & 6 Geothermal Power Project in Imperial County. All energy projects requiring CEC approval or licensing must go through the CEC permitting process, which is a certified regulatory program under CEQA. The CEC license/certification subsumes all requirements of state, local, or regional agencies otherwise required before new infrastructure is constructed.

The HST environmental document states that, while the project would have a potentially significant effect related to long-term electric power consumption when viewed on a system-wide basis, it represents a more energy-efficient mode of transportation than travel by aircraft or car, such that the HST system would result in an overall reduction in total energy consumption. The EIR/EIS states that the HST system would reduce energy consumption overall and any localized energy impacts would be avoided through proper planning and design of power distribution systems and their relationship with the overall power grid (HSRA 2005).

Energy impacts were found to be less than significant for the City of San Diego Pure Water North City Project (City of San Diego 2018), and were not addressed in the Navy OTC Revitalization Draft EIS (Navy 2021).

### Impact Projections in Adopted Plans

The SCAG 2020-2045 RTP/SCS EIR identified that implementation of the RTP/SCS would contribute to a cumulatively considerable increase in non-renewable energy use that would be significant and unavoidable. The EIR also found that the plan would result in a significant and unavoidable impact related to the use of electricity, natural gas, gasoline, diesel, and other non-renewable energy types in the construction and expansion of the regional transportation system and forecasted development (SCAG 2020).

The CEC California Energy Demand 2018-2030 Revised Forecast report updates 10-year forecasts for electricity and end-user natural gas in California and for major utility planning areas within the state. The forecast includes estimates of additional achievable energy efficiency, electricity consumption, peak demand, and natural gas consumption savings. While there is no associated environmental analysis, the forecast does show the continued increase in demand for energy supplies in the state over the next 10 years (CEC 2018).

The County of San Diego Strategic Energy Plan provides high-level energy and sustainability objectives and goals in the areas of energy and water conservation and efficiency, promotion of renewable energy; reduction in demand for fossil fuel consumption and addressing vehicle emissions and VMTs, energy and sustainability education and outreach; regional collaboration; and climate action planning. The main priorities for the plan period are to control utility costs, accelerate distributed generation employment, facilitate alternative fuel vehicle deployment, reduce the region's carbon footprint, expand choice for consumer energy supply, and increase the use of information technology to help reach objectives and inform the public (County of San Diego 2015).

SDG&E is a major provider of energy for the San Diego region. The objective of SDG&E's 2012 Long-Term Procurement Plan is to provide reliable electric supply to customers at the lowest cost, while also meeting the state's preferred loading order for resources and reducing greenhouse gas (GHG) emissions. The long-term plan (10 years) addresses both demand- and supply-side resources and makes recommendations to achieve the appropriate balance between each of these resource types. The plan adds resources in the order of the state's priorities as follows: energy efficiency; demand response; renewable power; distributed generation; and clean and efficient fossil-fired generation (SDG&E 2012).

### **Cumulative Impacts and Impact Conclusions**

#### **2025**

The proposed Plan would not result in an increase in overall per capita energy consumption or otherwise use energy in an inefficient, wasteful, or unnecessary manner in 2025. Additionally, the proposed Plan would result in a decrease of total and per capita energy use, including a decrease in fossil fuel energy. In addition, regional growth and land use change and transportation network improvements and programs would not conflict with or obstruct a state or regional plan related to the increased use of renewable energy or energy efficiency in 2025. Because the proposed Plan does not make an incremental contribution to these cumulative energy impacts, cumulative energy impacts would not be significant, and the proposed Plan would not result in cumulatively considerable impacts in 2025. Impacts would be less than significant.

#### **2035**

The proposed Plan would not result in an increase in overall per capita energy consumption or otherwise use energy in an inefficient, wasteful, or unnecessary manner in 2035. Additionally, the proposed Plan would result in a decrease of total and per capita energy use, including a decrease in fossil fuel energy. In addition, regional growth and land use change and transportation network improvements and programs would not conflict with or obstruct a state or regional plan related to the increased use of renewable energy or energy efficiency in 2035. Because the proposed Plan does not make an incremental contribution to these cumulative energy impacts, cumulative energy impacts would not be significant, and the proposed Plan would not result in cumulatively considerable impacts in 2035. Impacts would be less than significant.

#### **2050**

The proposed Plan would not result in an increase in overall per capita energy consumption or otherwise use energy in an inefficient, wasteful, or unnecessary manner in 2050 because the proposed Plan would result in a decrease of total and per capita energy use, including a decrease in fossil fuel energy. In addition, regional growth and land use change and transportation network improvements and programs would not conflict with or obstruct a state or regional plan related to the increased use of renewable energy or energy efficiency in

2050. Because the proposed Plan does not make an incremental contribution to these cumulative energy impacts, cumulative energy impacts would not be significant, and the proposed Plan would not result in cumulatively considerable impacts in 2050. Impacts would be less than significant.

### **Mitigation Measures**

No mitigation is required.

## **5.2.7 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES**

### **C-GEO-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON GEOLOGICAL AND SOIL RESOURCES**

### **C-PALEO-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON PALEONTOLOGICAL RESOURCES**

The area of geographic consideration for cumulative impacts is the Southern California and northern Baja region. While some geology and soil features can be very distinct to certain locations, geologic features can also have broad-reaching elements, such as faults and underlying bedrock formations. Geology, soils, and paleontological resources are not confined by jurisdictional boundaries. Thus, it is necessary to consider geologic resources, soils, and paleontological resources in Southern California and northern Baja as a whole region.

A projection approach for cumulative analysis of geologic, soils, and paleontological resources allows for an overarching discussion of regional and cross-border risks of seismic and geologic hazards, soil erosion or loss, and destruction of unique paleontological resources or unique geologic features associated with general patterns of regional urbanization, growth, and land use changes. The cumulative impact is the combination of the impacts of the proposed Plan and impacts on geology, soils, and paleontological resources resulting from implementation of approved regional planning documents. Significant cumulative impacts would occur if there were cumulative risks of exposure of people or structures to substantial seismic or geologic hazards, development on unstable geologic units, soil loss or erosion, or destruction of unique paleontological resources or unique geologic features in Southern California and northern Baja. (Impacts related to development in areas with unsuitable soils for septic tanks or alternative wastewater disposal systems are localized in nature, and thus are not considered further in this cumulative impact analysis.)

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan, SCAG's 2020-2045 RTP/SCS EIR (SCAG 2020) for the Southern California region, the County of San Diego General Plan Update EIR (County of San Diego 2011), and the California-Baja California Border Master Plan (Caltrans 2021). There are generally no regional plans pertaining to such resources for the northern Baja California region.

### **Impacts of the Proposed Plan**

Regional growth and land use change and the transportation network improvements included as part of the proposed Project would expose additional people and structures to seismic hazards such as strong seismic ground shaking, fault rupture, liquefaction, and earthquake-induced landslides as some development would occur in hazard areas within the San Diego region.



Future land development and transportation network improvements also would place structures at risk to impacts caused by unstable soils, including expansive, collapsible, or unstable soils; landslides; and erosion or loss of topsoil. Existing regulations discussed in Section 4.7 would ensure that these impacts would not be significant in 2025, 2035, and 2050. Compliance with regulatory requirements and implementation of required design measures would ensure that regional growth and land use change as well as transportation network improvements and programs associated with the proposed Plan would not cause substantial soil erosion or the loss of topsoil, and the impact would be less than significant in 2025, 2035, and 2050 (Impact GEO-1 through GEO-4).

Areas throughout the region have distinct geologic rock formations with known paleontological sensitivity and areas with unique geologic features. Ground-disturbing activities, such as construction associated with development, redevelopment, and transportation network improvements, in some locations would directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Existing federal, state, and local laws, regulations, and programs included in Section 4.7 would help reduce impacts on paleontological resources and unique geological resources, but there is no assurance that they would keep impacts from being significant. Therefore, impacts on paleontological resources and unique geologic features would be significant in 2025, 2035, and 2050 (Impact PALEO-1).

### **Impacts of Related Projects**

Projects planned in the Southern California region, such as the Navy OTC Revitalization Project, SDIA Airport Development Plan, HST, and City of San Diego Pure Water North City, would involve ground-disturbing activities that could result in impacts related to destruction or alteration of paleontological resources. Other land development and infrastructure projects throughout the region, such as transportation infrastructure, energy generation and transmission corridors, and commercial and residential land development would also result in impacts if these projects occur in areas containing significant paleontological resources.

For example, the HST project in the San Diego region would result in construction of track, bridges and elevated guideways, stations, and other features that may result in destruction or alteration of paleontological resources (HSRA 2005). The EIR/EIS prepared for the HST project determined that the project would result in significant cumulative impacts on paleontological resources. The EIR for the SDIA Airport Development Plan did not identify significant impacts to paleontological resources (SDCRAA 2019). The Navy Old Town Campus Revitalization Project would also not result in impacts to paleontological resources (U.S. Department of the Navy 2021). Impacts would similarly be cumulatively considerable, if these projects occur in close proximity to one another. The City of San Diego Pure Water North City Project concluded that impacts on paleontological resources would be less than significant with the implementation of mitigation measures (City of San Diego 2018).

### **Impact Projections in Adopted Plans**

The EIR prepared for the SCAG 2020-2045 SCS/RTP EIR analyzed impacts on the SCAG region up to 2045 and identified significant and unavoidable impacts related to implementation of that plan due to substantial soil erosion and loss of topsoil and the destruction of a unique paleontological resource or site or unique geologic feature. The EIR also found that the 2020-2045 SCAG RTP/SCS would contribute to a cumulatively considerable impact related to the damage or destruction of paleontological resources (SCAG 2020). The EIR prepared for the County of San Diego General Plan Update found that implementation of the updated General Plan would not result in potentially significant direct or cumulative impacts associated with the exposure to seismic-related hazards, soil erosion or topsoil loss, soil stability, expansive soils, or waste water disposal systems; and

with mitigation, the General Plan Update would result in less-than-significant direct or cumulative impacts on paleontological resources (County of San Diego 2011).

Adopted land use plans for local jurisdictions in Southern California and northern Baja would support the construction of new development and redevelopment through policy changes, general plan updates, and zoning amendments that encourage and facilitate population growth and land use changes. Due to the seismically active nature of the Southern California and northern Baja region, these development projects would subject additional people and structures to ground shaking, fault rupture, liquefaction, and earthquake-induced landslides. Projects would also be susceptible to impacts caused by unstable soils, including expansive, collapsible, or unstable soils; and landsliding. The severity of these impacts would be determined by geographic location, soil type, and construction requirements such as grading and excavation. Development associated with the implementation of regional planning documents in California would be required to adhere to the design standards described in the California Building Code (CBC) and the Uniform Building Code (UBC), which regulate the design and construction of buildings and structures and effectively reduce the effects of seismic activity and geologic hazards at the project level, as described in Section 4.7.

The California-Baja California Border Master Plan does not provide analysis of impacts on paleontological resources; however, projects included in the Master Plan could have adverse impacts on paleontological resources due to ground disturbance necessary for construction of infrastructure.

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A significant cumulative impact in the year 2025 would result if the combination of impacts of the proposed Plan and impact projections from adopted plans within the Southern California and northern Baja region, and related projects, were significant when considered together, even if not independently significant. As described above, implementation of the regional growth and land use changes and transportation network improvements associated with the proposed Plan would expose additional people and structures to seismic hazards such as ground shaking, fault rupture, liquefaction, and earthquake-induced landslides as development occurs in hazard areas within the San Diego region. Future development would also place structures at risk to impacts caused by unstable soils, including expansive, collapsible, or unstable soils; landsliding; and erosion or loss of topsoil. Some development would occur in areas with soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. Whether from the proposed Plan or from development associated with other approved plans, such as the SCAG 2020-2045 RTP, or from related projects, impacts would generally be confined to a specific project area, rather than result in an aggregated cumulative effect over the Southern California and northern Baja California region. All California development and infrastructure projects would be required to adhere to the design standards described in the CBC and the UBC, which regulate the design and construction of buildings and structures and substantially reduce the effects of seismic activity and other geologic hazards at the project level, as described in Section 4.7. Therefore, cumulative impacts related to geologic and seismic hazards or unstable soils would not be significant, and the proposed Plan would not result in cumulatively considerable impacts related to geologic and seismic hazards or unstable soils.

Implementation of the proposed Plan combined with other regional plans, related projects, and development in northern Baja California would result in a significant cumulative impact associated with paleontological resources and unique geological features from extensive grading, excavation, or other ground-disturbing activities. Development would be regulated by state and local laws and regulations, including CEQA and local jurisdictions' grading ordinances. However, cumulative growth and development located in Mexico would not

be subject to compliance with such regulations. Additionally, the loss of paleontological resources or unique geological features on a regional level would not be adequately avoided or reduced through methods specified in these regulations. Based on the above analysis, cumulative impacts on paleontological resources and unique geological features would be significant. Because cumulative paleontological resource impacts throughout the Southern California and northern Baja region by 2020 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental paleontological resource and unique geological feature impacts are cumulatively considerable (Impact C-PALEO-1).

### **2035**

By 2035, transportation and development projects associated with the proposed Plan and other development in Southern California and northern Baja would expose additional people and structures to geologic and seismic hazards such as ground shaking, fault rupture, liquefaction, and earthquake-induced landslides, and would also place structures at risk to impacts caused by unstable soils, including expansive, collapsible, or unstable soils, and landsliding. All California development and infrastructure projects would be required to adhere to the design standards described in the CBC and the UBC, which regulate the design and construction of buildings and structures and substantially reduce the effects of seismic activity and other geologic hazards at the project level, as described in Section 4.7. Therefore, cumulative impacts related to geologic and seismic hazards or unstable soils would not be significant, and the proposed Plan would not result in cumulatively considerable impacts related to geologic and seismic hazards or unstable soils.

As described in the 2025 analysis, cumulative impacts on paleontological resources and unique geological features would be significant because there would be cumulative adverse changes in the significance of those resources due to the proposed Plan, other regional plans, and development located in northern Baja California (Impact C-PALEO-1).

### **2050**

By 2050, transportation and development projects associated with the proposed Plan and other development in Southern California and northern Baja would expose additional people and structures to geologic and seismic hazards such as ground shaking, fault rupture, liquefaction, and earthquake-induced landslides, and would also place structures at risk to impacts caused by unstable soils, including expansive, collapsible, or unstable soils, and landsliding. Although the 2050 time period is beyond implementation of the planning horizons of regional planning documents other than the proposed Plan, such as most adopted land use plans, this analysis would apply to future projects in the Southern California and northern Baja region. All California development and infrastructure projects would be required to adhere to the design standards described in the CBC and the UBC, which regulate the design and construction buildings and structures and substantially reduce the effects of seismic activity and other geologic hazards at the project level, as described in Section 4.7. Therefore, cumulative impacts related to geologic and seismic hazards or unstable soils would not be significant, and the proposed Plan would not result in cumulatively considerable impacts related to geologic and seismic hazards or unstable soils.

As described in the 2020 analysis, cumulative impacts on paleontological resources and unique geological features would be significant because there would be cumulative adverse changes in the significance of those resources due to the proposed Plan, future projects, and development located in northern Baja California. Because the proposed Plan's impacts on paleontological resources and unique geological features are significant, they are also cumulatively considerable in 2050 (Impact C-PALEO-1).

## Mitigation Measures

### **C-PALEO-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS ON PALEONTOLOGICAL RESOURCES**

Mitigation measure **PALEO-1a** calls for project implementation agencies to assess impacts on unique paleontological resources or unique geological features prior to construction of individual projects associated with the proposed Plan. If a project is determined to be located within an area likely to contain unique paleontological resource sensitivity or unique geologic features, implementation of mitigation measure **PALEO-1b** calls for avoidance where feasible or provide a qualified paleontologist to be stationed on site of any future development to monitor construction; identify valuable paleontological specimens, if any; and recover and report on any significant resources found at the site.

Implementation of mitigation measures **PALEO-1a** and **PALEO-1b** would protect these unique resources through the presence of a certified paleontologist and compliance with existing regulations; however, it cannot be guaranteed that these measures will reduce impacts to a less-than-significant level for all projects. Therefore, the proposed Plan's incremental contributions to cumulative paleontological and unique geologic feature impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

## 5.2.8 GREENHOUSE GAS EMISSIONS

### **C-GHG-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO GHG EMISSIONS**

Climate change is a global problem and greenhouse gases (GHGs) persist in the atmosphere for long enough time periods to be dispersed around the globe. Thus, the area of geographic consideration for cumulative impacts of GHG emissions is global. Atmospheric concentrations of GHGs have been increasing since measurements began in the 1970s. As of 2020, the globally averaged annual mean concentration of atmospheric carbon dioxide (CO<sub>2</sub>) is approximately 413 parts per million (ppm), methane (CH<sub>4</sub>) is approximately 1,891 parts per billion (ppb), and nitrous oxides (N<sub>2</sub>O) is approximately 333 ppb (NOAA 2021a, 2021b, and 2021c).

The projection approach to GHG considers both forecasted GHG emissions on a global scale, as well as a state and local-level analysis of GHGs. In the SANDAG region, the transportation sector is the largest contributor of GHG emissions. Thus, this analysis takes into consideration the cumulative GHG impacts resulting from the overall future transportation improvements, future increases in population, and planned regional development tied to the proposed Plan.

From the standpoint of CEQA, GHG impacts to climate change are inherently cumulative on a Statewide level. Significant cumulative impacts would occur if the proposed Plan were to directly or indirectly result in an increase in GHG emissions compared to existing project conditions; conflict with SB 375 GHG emission reduction targets for 2035, SANDAG Board of Directors Resolution No. 2021-17, Local Climate Action Plans, or; or be inconsistent with the State's ability to achieve the 2030 reduction target of SB 32 and long-term reduction goals of Executive Orders S-3-05 and B-55-18.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan, the 2016 GHG Inventory and Projections for the San Diego Region (SANDAG 2016), SB 375, the SANDAG Board of Directors Resolution No. 2021-2017, and the California Air Resources Board 2017 Scoping Plan Update (CARB 2017).

## Impacts of the Proposed Plan

The proposed Plan's regional growth and land use change and transportation network improvements would create additional sources of GHG emissions. The proposed Plan supports sustainable growth through creating a compact development pattern with growth focused in existing urban areas where transit and infrastructure are already in place. Locating people and jobs near each other and near transit encourages use of transit, carpooling, and active transportation options, thereby reducing transportation related GHG emissions. Also, the proposed Plan encourages GHG emissions reductions through alternative transit improvements including pedestrian network improvements, safe routes to schools strategies, bicycle network facilities, vanpools, carpools, and buspools. GHG emissions in 2025, 2035, and 2050 would be lower than in 2016. Because the proposed Plan would not directly or indirectly result in an increase in GHG emissions compared to existing conditions, this is a less than significant impact in all forecasted years (Impact GHG-1).

The proposed Plan would not conflict with SB 375 emission reduction targets for 2035 or the SANDAG Board of Directors Resolution No. 2021-17 emissions reduction target because it would result in reductions of per capita CO<sub>2</sub> emissions that exceed those targets. In addition, implementation of regional growth and land use change and transportation network improvements and programs under the proposed Plan would not conflict with or impede the implementation of adopted CAPs, GHG reduction plans, and/or sustainability plans for the years 2025, 2035, and 2050 (Impact GHG-2 through GHG-4).

However, because the total emissions in the San Diego region in 2030 would exceed the 2030 regional GHG reduction reference point of 15.6 million metric tons of carbon dioxide equivalent (MMTCO<sub>2e</sub>), which is based on the SB 32 targets for 2030 and the 2017 Scoping Plan, the proposed Plan's GHG emissions would be inconsistent with state's ability to achieve the goals of SB 32 and these impacts would be significant in 2030. In addition, because total regional GHG emissions in 2045 and 2050 would exceed the 2045 and 2050 reference points of net zero and 5.2 MMTCO<sub>2e</sub>, respectively (based on the goals of EO B-55-18 and S-3-05), the proposed Plan's 2045 and 2050 GHG emissions would be inconsistent with the State's ability to achieve the goals of EO B-55-18 and S-3-05. Therefore, this impact would be significant in 2030, 2045, and 2050 (Impact AQ-5).

## Impact Projections in Adopted Plans

As stated in the Climate Change 2014 Synthesis Report published by the United Nation's Intergovernmental Panel on Climate Change (IPCC), human influence on the climate system is clear, and recent anthropogenic emissions of GHGs are the highest in history. Recent climate changes have had widespread impacts on human and natural systems and that cumulative emissions of CO<sub>2</sub> will largely determine global mean surface warming by the late 21st century and beyond.

Scaling back from a global overview, Section 4.8 outlines a large number of federal, state, and local laws, regulations, and policies that are aimed at reducing GHG emissions through a variety of means. On the federal level, GHG reduction is mandated through energy policies, the CAFE program, CAA, and a series of executive orders.

In 2019, emissions from GHG emitting activities statewide were 418.2 MMTCO<sub>2e</sub>, 7.2 MMTCO<sub>2e</sub> lower than 2018 levels and almost 13 MMTCO<sub>2e</sub> below the 2020 GHG Limit of 431 MMTCO<sub>2e</sub> (CARB 2021). The State of California has a considerable policy and regulation regimen related to GHG reduction, including SB 32 and associated 2017 Climate Change Scoping Plan. The 2017 Climate Change Scoping Plan identifies measures for how California can achieve the 2030 target set forth in SB 32, and substantially advance toward the 2050 reduction goal identified in EO-S-3-05. The 2017 Scoping Plan integrates several existing CARB regulations and

State strategies, including the Cap-and-Trade Program, Low Carbon Fuel Standard (LCFS), SB 350 goals for renewable electricity procurement and doubling of Statewide energy efficiency savings in electricity and natural gas end uses, Mobile Source Strategy, Sustainable Freight Action Plan, and the Short-Lived Climate Pollutant (SLCP) Strategy. The 2017 Scoping Plan accelerates the State's focus on moving freight with zero and near-zero technologies, investing in renewables, using low-carbon fuels including electricity and hydrogen, reducing emissions of short-lived climate pollutants (e.g., CH<sub>4</sub>, black carbon, and fluorinated gases), creating walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the cap-and-trade program, and managing natural lands to become carbon sinks (CARB 2017). Locally, GHG emissions projections and reduction are addressed in various plans and policies, including local jurisdictions' individual Climate Action Plans. However, while the State is currently on target for achieving GHG emission reductions compared to existing conditions, there are currently no statewide plans for achieving state GHG emissions reduction goals beyond 2030, and future Statewide cumulative GHG emissions are highly variable and unknown; thus, cumulative impacts related to GHG emissions are potentially significant.

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan and impact projections from adopted plans were significant when considered together, even if not independently significant. GHG emissions and impacts to global climate change are inherently cumulative as the quantity of GHGs that it takes to ultimately result in climate change is not precisely known; however, a single project would be unlikely to measurably contribute to a noticeable incremental change in the global average temperature. As described above, a wide variety of plans and regulations at all levels of government, including global, federal, state, and local, provide for regulation and reduction of GHG emissions. However, there is uncertainty about the ability of the nation and world to meet GHG reduction goals. Many of the proposed strategies and mitigation proposed in GHG reduction plans and policies are based on new and developing technology and can be highly dependent upon the global economy and other influencing factors.

As discussed in Section 4.8, implementation of the proposed Plan would decrease GHG emissions in 2025 from 2016 levels. The proposed Plan would not conflict with local climate action plans. However, uncertainty about the ability for GHG emissions to be reduced by national and international efforts means that global GHG emissions may not be reduced to 2016 levels. But because the proposed Plan's GHG emissions decrease between 2012 and 2020, and would not conflict with local climate plans, there is no significant GHG cumulative impact in 2025, and the proposed Plan's incremental contribution would not be cumulatively considerable.

### **2030 and 2035**

Total emissions in the San Diego region in 2030 exceed the regional 2030 GHG reduction reference point based on SB 32 the proposed Plan's 2030 GHG emissions would be inconsistent with state's ability to achieve SB 32 GHG reduction target This would be a significant impact. Also, uncertainty about the ability for GHG emissions to be reduced by national and international efforts means that global GHG emissions may not be reduced on a trajectory consistent with the SB 32 target.

As discussed in Section 4.8, implementation of the proposed Plan in 2035 would decrease GHG emissions from 2016 levels. Moreover, the proposed Plan would not conflict with SB 375 emission reduction targets for 2035 because it would result in a 20 percent reduction in per capita CO<sub>2</sub> emissions from passenger cars and light-duty trucks from 2005 levels by 2035, which exceeds the 2035 target of a 19 percent reduction for the SANDAG

region. The proposed Plan would not conflict with the SANDAG Board Resolution No. 2021-17 or local climate action plans, and the proposed Plan's incremental contribution for those thresholds using the 2035 horizon would not be cumulatively considerable.

Because cumulative GHG impacts on a global basis would be significant, and because the proposed Plan's incremental GHG impacts are significant, the proposed Plan's incremental GHG impacts in 2030 would also be cumulatively considerable (Impact C-GHG-1).

### **2045 and 2050**

As discussed in Section 4.8, implementation of the proposed Plan in 2050 would decrease GHG emissions from 2016 levels. Also, the proposed Plan would not conflict with the SANDAG Board Resolution No. 2021-17 or local climate action plans. However, because total emissions in the San Diego region in 2050 exceed the regional 2045 and 2050 GHG reduction reference points based on EO B-55-18 and EO S-3-05, the proposed Plan's 2050 GHG emissions would be inconsistent with state's ability to achieve the Executive Orders' GHG reduction goals. This would be a significant impact. Also, uncertainty about the ability for GHG emissions to be reduced by national and international efforts means that global GHG emissions may not be reduced on a trajectory consistent with the EO B-55-18 and EO S-3-05 goals.

Because cumulative GHG impacts on a global basis would be significant, and because the proposed Plan's incremental GHG impacts are significant, the proposed Plan's incremental GHG impacts in 2050 would also be cumulatively considerable (Impact C-GHG-1).

### **Mitigation Measures**

#### **C-GHG-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO GHG EMISSIONS**

Implementation of Mitigation Measures **GHG-5a** through **GHG-5f** would reduce direct and indirect GHG emission associated with the proposed Plan. These mitigation measures include actions such as competitive grant funding for GHG-reducing projects, allocation of additional funding for electric vehicle-charging infrastructure and incentives, allocation of funding to habitat creation, restoration, or enhancement projects that remove carbon dioxide from the atmosphere, implementing a regional carbon offset program, achieving energy savings through a regional energy network, and measures to reduce GHG emissions from transportation and development projects. Additional mitigation measures that would reduce GHG emissions are presented in the air quality, energy, and water supply sections.

While SANDAG has the authority to implement mitigation measures **GHG 5a** through **GHG-5f**, **AQ-3b**, **AQ-3c**, **AQ-4**, **TRA-2**, **WS-1a**, and **WS-1b** it has committed to, it has no legal authority to require other transportation project sponsors or local jurisdictions to implement mitigation measures for specific projects for which they have responsibility and jurisdiction. Based on the studies described in Section 4.8 in the introduction to the mitigation section, even full implementation of all identified mitigation measures would not be sufficient to reduce the proposed Plan's GHG emissions below the regional 2030, 2035 and 2050 GHG reduction reference points based on SB 32, EO B-55-18 and EO S-3-05. Full implementation of many of the measures that could result in a reduction of GHG emissions. Mitigation measures **GHG-5a** through **GHG-5f** would help reduce regional GHG emissions through reducing VMT, increasing use of alternative fuels, and other measures; they would reduce inconsistency of the proposed Plan's GHG emissions with the state's ability to achieve the SB 32, EO B-55-18, and EO S-3-05 GHG reduction goals. However, full implementation of changes required to achieve

he SB 32 target or Executive Orders' goals is beyond SANDAG's or local agencies' current ability to implement. Because the proposed Plan's 2030, 2045 and 2050 GHG emissions would remain inconsistent with state's current ability to achieve the Executive Orders' GHG reduction goals, this impact (Impact GHG-5) remains cumulatively considerable post-mitigation.

### **5.2.9 HAZARDS AND HAZARDOUS MATERIALS**

#### **C-HAZ-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO HAZARDS AND HAZARDOUS MATERIALS**

Generally, the geographic scope of cumulative impact analysis for hazardous materials includes the area immediately surrounding the affected hazardous materials location as the potential risk is limited to the area immediately surrounding the affected hazardous material site or risk generator. However, other topics associated with hazards such as transportation of hazardous materials, wildfire, and flooding can occur at large regional-scales and as a result of growth, population increase, or land use change. Thus, consideration of the Southern California and northern Baja California region is appropriate.

The projection approach is used for the cumulative analysis of hazards and hazardous materials to allow for an overarching discussion of regional and cross-border hazards, associated with general patterns of regional urbanization, growth, and land use changes. The consideration of regional development patterns and changes provides for the ability to assess potential increases to regional hazards and regional transportation of hazardous materials. The cumulative impact is the combination of the impacts of the proposed Plan and impacts on or from hazards and hazardous materials resulting from implementation of approved regional planning documents. Significant cumulative impacts would occur if there were cumulative significant risks of hazardous material emissions, exposure of the public to hazardous materials, air traffic hazards, or impediment of emergency response or evacuation.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan and the SCAG 2020-2045 RTP/SCS EIR (SCAG 2020). Other plans with applicable information, but no associated environmental analysis include: San Diego County Multi-Jurisdictional Hazard Mitigation Plan (County of San Diego 2017); State of California Emergency Plan (California Emergency Management Agency 2017); and California-Baja California Border Master Plan (Caltrans 2021).

#### **Impacts of the Proposed Plan**

Regional growth and land use change and the transportation network improvements included in the proposed Plan would increase the risk of significant hazards to the public and/or the environment through the routine transport, use, or disposal of hazardous materials, and the hazardous emissions generated and hazardous emissions handled during pre-construction, demolition, and construction activities. Future development and transportation network improvements would also occur near public airports and private airstrips, exposing people to aircraft and airport-related safety hazards. Additionally, increased development and transportation network improvements would in some locations cause obstruction for emergency response vehicles or result in activities that would cause physical interference in the implementation of an emergency response and evacuation plans or interfere with adequate emergency access. However, adherence to the existing regulations discussed in Section 4.9 would ensure that these impacts would be less than significant in 2025, 2035, and 2050 (Impact HAZ-1 through HAZ-4).



### Impact Projections of Related Projects

The environmental analyses for the other related projects, including the HST, the Airport Master Plan, the City of San Diego Pure Water North City Project, and the Navy Old Town Campus Revitalization determined that these projects have the potential increase the risk of significant hazards to the public and/or the environment through the routine transport, use, or disposal of hazardous materials, and the hazardous emissions generated and hazardous emissions handled during pre-construction, demolition, and construction activities and could have more localized hazardous materials. However, these plans would also be required to adhere to the existing regulations discussed in Section 4.9, and as such these impacts would be less than significant (Impact HAZ-1 through HAZ-4).

### Impact Projections in Adopted Plans

The SCAG 2020-2045 RTP/SCS EIR found that the increased mobility accommodated by the transportation investments of the SCAG 2020-2045 RTP/SCS would result in not only increased hazardous materials transport through the SCAG region but also outside the area to result in cumulative impacts throughout Southern California. As the population increases through 2045, the number of trips in the SCAG region that originate, end, or pass through Santa Barbara, San Diego, and Kern counties as well as other counties and states would increase, including trips involving the transportation of hazardous materials. Thus, the 2020-2045 RTP/SCS would contribute to significant hazardous material transportation impacts in these other areas. The SCAG 2020-2045 RTP/SCS EIR also determined that the 2020-2045 RTP/SCS had the potential to create a significant hazard to the public through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, emit hazardous materials within one-quarter mile of an existing or proposed school, result in development located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, involve projects located within an airport land use plan, or within two miles of a public airport, which could result in a safety hazard or excessive noise for people residing or working in the area; and impair or interfere with an adopted emergency plan.

The County of San Diego and various jurisdictions throughout the county have prepared the San Diego County Multi-Jurisdictional Hazard Mitigation Plan, which provides a risk assessment and identification of hazards prevalent within the region. The plan also outlined mitigation strategies and provided an explanation of how jurisdictions intend to incorporate the mitigation strategies into existing planning mechanisms such as the County Comprehensive Land Use Plan, Capital Improvement Plans, and Building Codes.

The state-wide State of California Emergency Plan addresses the state's response to extraordinary emergency situations associated with natural disasters or human-caused emergencies and describes the methods for carrying out emergency operations, the process for rendering mutual aid, the emergency services of governmental agencies, how resources are mobilized, how the public will be informed and the process to ensure continuity of government during an emergency or disaster. While no environmental analysis accompanies the plan, the State Emergency Plan emphasizes mitigation programs to reduce the vulnerabilities to disaster and preparedness activities to ensure the capabilities and resources are available for an effective response (California Emergency Management Agency 2017).

The California-Baja California Border Master Plan is a binational comprehensive approach to coordinate planning and delivery of projects at land POEs and transportation infrastructure serving those POEs in the California-Baja California region (Caltrans 2021). The Master Plan does not have an associated environmental analysis document; however, it is reasonable to assume that projects included in the Master Plan could have adverse impacts related to hazards, including hazardous materials, airport safety hazards, and interference

with emergency and evacuation plans. Construction of new facilities could add to impacts from the projects associated with both the SANDAG and SCAG RTP/SCSs as they add to the increased mobility and transportation access throughout the California-Baja California region.

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan impacts of related projects, and impact projections from adopted plans within the Southern California and northern Baja region were significant when considered together, even if not independently significant. Future development associated with increased population growth forecasted in the proposed Plan would increase the number of people exposed to impacts related to hazardous materials, airport safety hazards, and interference with emergency response or emergency evacuation. Impacts associated with these hazards would generally be confined to a specific project area, rather than result in an incremental cumulative effect spread over the Southern California and northern Baja region. Adherence to federal, state, and local regulations as described in Section 4.9 would reduce incremental impacts associated with exposure to hazards and hazardous materials in each of the affected project areas. Though projects located in Mexico would not be subject to such regulations, all development throughout the region within the U.S. would be fully regulated and therefore cumulative impacts associated with exposure to hazards and hazardous materials would be less than significant.

Future development and transportation network improvements forecasted in the proposed Plan would also occur near public airports and private airstrips, exposing people to aircraft and airport-related safety hazards. Related development infrastructure projects in the Southern California and northern Baja region would result in changed land uses within the vicinity of a public airport or a private airstrip, and safety hazards for people residing or working in these project areas. However, cumulative projects in the U.S. would be subject to safety regulations as discussed in Section 4.9, such as ALUCPs, FAA standards, and the State Aeronautics Act, which minimize airport hazards. Therefore, cumulative impacts associated with exposing people to aircraft and airport-related safety hazards near both public airports and private airstrips/helipads would be less than significant.

Additionally, increased development and transportation network improvements in the proposed Plan would in some locations cause obstruction for emergency response vehicles or result in activities that would cause physical interference in the implementation of an emergency response and evacuation plans. Related growth, development, and infrastructure projects in the Southern California and northern Baja region would also impair existing emergency and evacuation plans. However, cumulative projects in the U.S. would be required to adhere to the applicable emergency response and evacuation policies outlined in regulations discussed in Section 4.9. Therefore, cumulative impacts associated with the interference in the implementation of an emergency response and evacuation plans would be less than significant.

### **2035**

The cumulative analysis presented above for the horizon year of 2025 would be applicable to year 2035. Therefore, less-than-significant cumulative impacts would be associated with significant hazards to the public and/or the environment through the routine transport, use, or disposal of hazardous materials; hazardous emissions emitted during construction activities; exposing people to aircraft and airport related safety hazards near public airports and private airstrips; and the physical interference in the implementation of an emergency

response and evacuation plan. Cumulative impacts associated with hazards and hazardous materials would be less than significant.

## **2050**

The cumulative analyses presented above for the horizon years of 2020 and 2035 would be applicable to year 2050. Therefore, there would be less-than-significant cumulative impacts associated with significant hazards to the public and/or the environment through the routine transport, use, or disposal of hazardous materials; accidental release of hazardous materials into the environment; hazardous emissions emitted during construction activities; exposing people to aircraft and airport-related safety hazards near public airports and private airstrips; and the physical interference in the implementation of an emergency response and evacuation plan. Cumulative impacts associated with hazards and hazardous materials would be less than significant.

### **Mitigation Measures**

None required.

#### **5.2.10 HYDROLOGY AND WATER QUALITY**

##### **C-HWQ-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO HYDROLOGY AND WATER QUALITY**

The area of geographic consideration for cumulative impacts on hydrology and water quality is the Southern California and northern Baja region. The analysis of cumulative hydrology and water quality impacts considers how land use change and the transportation system would influence hydrology and water quality across the Southern California and northern Baja region as a whole because the majority of water bodies within the San Diego area are part of hydrologic systems located in multiple jurisdictions. As a result, water pollution or alterations to a portion of a watershed produced by urban development in one jurisdiction can result in hydrology and water quality impacts that affect other jurisdictions or the entire region.

A projection approach for hydrology and water quality cumulative analysis allows for an overarching discussion of regional and cross-border impacts throughout multiple watersheds relative to hydrology and water quality associated with general patterns of regional urbanization, growth, and land use changes. The cumulative impact is the combination of the impacts of the proposed Plan and impact projections in adopted regional documents addressing water quality or hydrology. Significant cumulative impacts related to hydrology and water quality would occur if there were a: substantial degradation of water quality in violation of any water quality standards or waste discharge requirements; substantial reduction in groundwater quantity or quality; substantial alteration of the existing drainage pattern of an area such that flood risk, erosion, or siltation would increase; exposure of people, structures, or facilities to a significant risk involving flooding; or exposure of people or structures to a significant risk of inundation by seiche, tsunami, or mudflow.

Some of the plans considered in the cumulative analysis include the Water Quality Control Plans for the five basins within the greater region: San Diego Basin, Colorado River Basin, Santa Ana Basin, Los Angeles Basin, and the Lahontan Basin. As discussed in Section 4.10, these basin plans set forth water quality objectives for constituents that could have a significant impact related to the beneficial uses of water. Additionally, the San Diego Integrated Regional Water Management (IRWM) Plan was considered (Regional Water Management Group 2019). While these documents do not have accompanying environmental analysis, they provide

important overarching strategies, future planning considerations, and planned large projects related to water quality and hydrology throughout the region.

### **Impacts of the Proposed Plan**

Compliance with existing regulatory requirements described in Section 4.10 would ensure that the regional growth and land use change and the transportation network improvements would not result in: substantial degradation of water quality in violation of any water quality standards or waste discharge requirements; substantial reduction in groundwater quantity or quality; substantial alteration of the existing drainage pattern of an area such that flood risk, erosion, or siltation would increase; exposure of people, structures, or facilities to a significant risk involving flooding; or exposure of people or structures to a significant risk of inundation by seiche, tsunami, or mudflow. These impacts would be less than significant in 2025, 2035, and 2050 (Impact HWQ-1 through HWQ-4).

### **Impact Projections in Adopted Plans**

The SCAG 2020-2045 RTP/SCS EIR identified the potential to violate water quality standards associated with wastewater and storm water permits. The EIR also concluded that the 2020-2045 RTP/SCS would alter the existing drainage patterns in ways that would result in substantial erosion or siltation. Implementation was found to also reduce groundwater infiltration due to increased impervious surfaces and increase flooding hazards by locating projects on alluvial fans and within 100-year flood hazard areas. These water quality and hydrology impacts would be significant and unavoidable, even with the implementation of proposed mitigation (SCAG 2020).

This 2019 IRWM Plan was prepared by the San Diego Regional Water Management Group which consists of the SDCWA, the City of San Diego, and the County of San. IRWM planning is a relatively new California initiative with regional plans designed to improve collaboration in water resources management and comprehensively address all aspects of water management and planning throughout an IRWM Region. IRWM plans cross jurisdictional, watershed, and political boundaries; involve multiple agencies, stakeholders, individuals, and groups; and attempt to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions. Specific to water quality, the IRWM includes Objective H to effectively reduce sources of pollutants and environmental stressors to protect and enhance human health, safety, and the environment (Regional Water Management Group 2019).

Water Quality Control Plans or Basin Plans have been written by each RWQCB. These plans determine the beneficial uses of each water body within the basin and set forth narrative and numerical water quality objectives for constituents that could have a substantial impact related to those beneficial uses. They also describe implementation programs to protect the beneficial uses of all water in the region, and surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. For example, the San Diego Basin Plan includes multiple policies specific to the protection of water quality including Policy Three: Point sources and nonpoint sources of pollution shall be controlled to protect designated beneficial uses of water and Policy Four: Instream beneficial uses shall be maintained, and when practical, restored, and enhanced (CRWQCB 2016).

Adopted land use plans for local jurisdictions in Southern California would support the construction of new development and redevelopment through policy changes, general plan updates, and zoning amendments that encourage and facilitate population growth and land use changes. These development projects would impact hydrology and water quality. The severity of these impacts would be determined by location of the projects within the watersheds, and the sensitivity of the receiving bodies and the types of BMPs employed. All U.S.

projects would be required to adhere to all of the regulatory requirements described in Section 4.10. Projects associated with policy changes and amendments would also impact hydrology and water quality, for the same reasons as discussed with infrastructure projects.

Waste discharges into some receiving waters from northern Baja California would ultimately enter the Tijuana River and the Pacific Ocean where the waste would impact beaches in the southern part of the San Diego region. The Tijuana River is a 303(d) listed water body for various impairments. The Tijuana River Estuary, a National Estuarine Sanctuary, supports a variety of threatened and endangered plants and animals and is 303(d) listed for eutrophic conditions, indicator bacteria, lead, low dissolved, oxygen, nickel, pesticides, thallium, trash, toxicity, and turbidity (SWRCB 2021). Discharges from northern Baja, which are not controlled by regional regulations, would impact these water bodies within the region.

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of proposed Plan and impact projections from adopted plans within the Southern California and northern Baja region were significant when considered together, even if not independently significant. As described above, federal, state, and local water quality requirements would ensure that implementation of the proposed Plan would not result in: substantial degradation of water quality in violation of any water quality standards or waste discharge requirements; substantial reduction in groundwater quantity or quality; substantial alteration of the existing drainage pattern of an area such that flood risk, erosion, or siltation would increase; exposure of people, structures, or facilities to a significant risk involving flooding; or exposure of people or structures to a significant risk of inundation by seiche, tsunami, or mudflow. Cumulative impacts on these resources would be less than significant due to federal and state regulatory requirements also applicable to development throughout the region for the protection of water quality objectives to protect beneficial uses throughout Southern California, and the effectiveness of regulations pertaining to water quality and hydrologic modifications. However, cumulative water quality impacts occur as polluted water from northern Baja California, which is not subject to federal and state regulatory requirements discharges into the Tijuana River and affects the quality of receiving waters throughout the region. While cumulative impacts exist due to unregulated polluted water that enters the region, the proposed Plan would not add to this cumulative water quality impact for the reasons outlined above, including adherence to federal and state regulatory requirements. Thus, the cumulative water quality impact would not be significant, and the proposed Plan's contribution to the cumulative water quality impact would not be cumulatively considerable in 2025.

### **2035**

As described above, federal, state, and local water quality requirements would ensure that implementation of the proposed Plan would not result in a substantial degradation of water quality in violation of any water quality standards or waste discharge requirements; substantial reduction in groundwater quantity or quality; substantial alteration of the existing drainage pattern of an area such that flood risk, erosion, or siltation would increase; exposure of people, structures, or facilities to a significant risk involving flooding; or exposure of people or structures to a significant risk of inundation by seiche, tsunami, or mudflow. Cumulative impacts on these resources from water sources originating in the United States would be less than significant due to federal and state regulatory requirements also applicable to development throughout the region for the protection of water quality objectives to protect beneficial uses throughout Southern California, and the effectiveness of regulations pertaining to water quality and hydrologic modifications.

However, cumulative water quality impacts occur as polluted water from northern Baja California, which is not subject to federal and state regulatory requirements, discharges into the Tijuana River and affects receiving waters throughout the region. While cumulative impacts exist due to unregulated polluted water that enters the region, the proposed Plan would not add to this cumulative water quality impact for the reasons outlined above, including adherence to federal and state regulatory requirements. Thus, the cumulative water quality impact would not be significant, and the proposed Plan's contribution to the cumulative water quality impact would not be cumulatively considerable in 2035.

## **2050**

As described above, federal, state, and local water quality requirements would ensure that implementation of the proposed Plan would not result in a substantial degradation of water quality in violation of any water quality standards or waste discharge requirements; substantial reduction in groundwater quantity or quality; substantial alteration of the existing drainage pattern of an area such that flood risk, erosion, or siltation would increase; exposure of people, structures, or facilities to a significant risk involving flooding; or exposure of people or structures to a significant risk of inundation by seiche, tsunami, or mudflow. Cumulative impacts on these resources would be less than significant due to federal and state regulatory requirements also applicable to development throughout the region for the protection of water quality objectives to protect beneficial uses throughout Southern California, and the effectiveness of regulations pertaining to water quality and hydrologic modifications.

However, cumulative water quality impacts occur as polluted water from northern Baja California, which is not subject to federal and state regulatory requirements, discharges into the Tijuana River and affects receiving waters throughout the region. While cumulative impacts exist due to unregulated polluted water that enters the region, the proposed Plan would not add to this cumulative water quality impact for the reasons outlined above, including adherence to federal and state regulatory requirements. Thus, the cumulative water quality impact would not be significant, and the proposed Plan's contribution to the cumulative water quality impact would not be cumulatively considerable in 2050.

## **Mitigation Measures**

Mitigation measures are not required.

### **5.2.11 LAND USE AND PLANNING**

#### **C-LU-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO LAND USE AND PLANNING**

The geographic scope for the land use cumulative analysis is the Southern California region. While land uses and development patterns are typically established in local land use planning documents specific to jurisdictions, it is important to consider land use change and how the transportation system would influence the development pattern across the Southern California region as a whole because land uses merge and flow together along jurisdictional boundaries. A wide variety of land use patterns and development types can be found throughout the Southern California region including urban and rural development, commercial and industrial developments, military installations, tribal reservations, agricultural land, parks and open space, and habitat conservation areas.

Use of the hybrid approach for the analysis of cumulative land use impacts allows for an overarching discussion of regional land use capability, conflicts, or other land use impacts associated with general patterns of regional

urbanization, growth, and land use changes. As shown in Table 5-1, the population throughout the Southern California region is forecasted to steadily increase throughout 2050.

The cumulative impact is the combination of the land use impacts of the proposed Plan, land use impact projections in adopted plans, and impacts on land use resulting from substantial regional projects. Significant cumulative impacts related to land use would occur if established communities are physically divided, or if conflicts are created with land use plans adopted for the purpose of avoiding or mitigating an environmental effect.

This cumulative land use impact assessment considers the impact analysis presented in the SCAG 2020-2045 RTP/SCS and its EIR (SCAG 2020a, 2020b). The SCAG 2020-2045 RTP/SCS and associated EIR generally encompass Imperial, Orange, San Bernardino, Riverside, Los Angeles, and Ventura counties. The San Diego County General Plan and its EIR (County of San Diego 2011) was used to consider land use effects within San Diego County. Additionally, multiple agencies and jurisdictions have land use control throughout the region, including local cities and counties, numerous military branches, tribal governments, state and federal agencies, port authorities, and airport authorities that outline their policies in various planning documents.

### **Impacts of the Proposed Plan**

The land use patterns outlined in the proposed Plan focus greater development intensity in existing urban centers. The pattern of more intensive land uses, along with the transit improvements planned to service higher intensity residential, commercial, and employment centers, is generally in character with the lifestyle and character typical of compact urban communities. Impacts of growth and land use change on physically dividing an established community would be less than significant. However, transportation network improvements, such as new commuter rail extensions into previously unserved areas, could in some locations result in a physical division of an established community in 2025, 2035 and 2050 (Impact LU-1).

Development patterns and growth forecasted to occur under the proposed Plan would generally be consistent with applicable land use plans; in a few cases, the SCS land use pattern may conflict with specific land use designations in General Plans, but impacts of SCS implementation are already evaluated in other sections of this EIR so these conflicts would not cause new significant impacts. However, some transportation network improvements, such as commuter line extensions into previously unserved areas, would in some locations conflict with land use portions of adopted general plans or other applicable land use plans, and but also would be less than significant because impacts of SCS implementation are already evaluated in other sections of this EIR (Impact LU-2).

### **Impacts of Related Projects**

Projects planned in the Southern California and northern Baja region, such as the HST, border/POE facility improvements, airport expansions in the San Diego region, port/maritime improvements associated with Port for All, or long linear projects such as rail pipeline or energy transmission infrastructure, would result in impacts related to the physical division of established communities or conflicts with adopted general plans or other applicable land use plans. For example, the HST project in the San Diego region would result in property acquisition along existing rights of way and some acquisition along new rights of way in undeveloped areas, resulting in significant displacement and land use compatibility impacts (HSRA 2005). The EIR/EIS prepared for the HST project determined that the project would result in significant cumulative impacts on land use. The EIR for the SDIA Airport Development Plan identified significant land use impacts due to conflict with certain aspects of land use plans, policies or regulations adopted for the purpose of avoiding or mitigating an

environmental effect. The project would generate future noise and traffic impacts that are in conflict with certain community plans and policies, resulting in significant and unavoidable impacts (SDIA 2019).

The EIS for the Navy OTC Revitalization Project evaluated several alternatives and determined that the project would result in increased density under several alternative options that would contribute to significant additional proposed growth in dwelling units, population, jobs, and non-residential uses over the targets contained in the applicable community plan.

### **Impact Projections in Adopted Plans**

The SCAG 2020-2045 RTP/SCS EIR found that implementation of the Connect SoCal Plan has the potential to physically divide an established community and to conflict with existing land use plans. The proposed Plan would result in an increase in density and land use development. Improved accessibility from the proposed Plan could help facilitate urbanization to areas outside the region. Furthermore, changes in land use patterns in the region (i.e., increased urbanization) could affect areas outside the region, resulting in increased urbanization in adjacent jurisdictions, which would result in a regionally significant land use impacts (SCAG 2020a).

The County of San Diego General Plan Update EIR identified a potentially significant cumulative impact associated with the physical division of an established community due to future roadway development under the proposed General Plan Update, including new roads, road extensions, and widening of existing roads throughout the County. The EIR found that the General Plan Update would not contribute to a significant cumulative impact associated with conflicts with local plans, policies, and regulations (County of San Diego 2011).

### **Cumulative Impacts and Impact Conclusions**

#### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan and impact projections from adopted plans within the Southern California region were significant when considered together, even if not independently significant. As described above, implementation of the transportation network improvements as considered in the proposed Plan would result in the division of established communities and conflict with land use plans in 2025.

The combination of the direct land use impacts from the proposed Plan together with impacts of the adopted plans and related projects described above, including the Navy OTC Revitalization, SDIA Airport Development Plan, HST, SCAG 2020-2045 RTP/SCS and the County of San Diego General Plan Update would result in significant cumulative land use impacts regarding the division of an established community by 2025.

Because cumulative land use impacts throughout the Southern California region by 2025 would be significant, and because the proposed Plan's incremental land use impacts associated with transportation network improvements are significant, the proposed Plan's incremental land use impacts are also cumulatively considerable (Impact C-LU-1).



**2035**

As described above, implementation of the transportation network improvements such as commuter rail extensions into previously unserved areas in the proposed Plan would result in the division of established communities in 2035. The combination of the direct land use impacts from the proposed Plan together with impacts of the adopted plans and related projects described above, including the Navy OTC Revitalization, SDIA Airport Development Plan, HST, SCAG 2020-2045 RTP/SCS and the County of San Diego General Plan Update would result in significant cumulative land use impacts regarding the division of an established community by 2035.

Because cumulative land use impacts throughout the Southern California region by 2035 would be significant, and because the proposed Plan's incremental land use impacts are significant, the proposed Plan's incremental land use impacts are also cumulatively considerable (Impact C-LU-1).

**2050**

As described above, implementation of the transportation network improvements such as commuter rail extensions into previously unserved areas in the proposed Plan would result in the division of established communities and conflict with land use portions of adopted general plans or other applicable land use plans in 2050. The 2050 time period is beyond the planning horizon of the adopted 2020-2040 SCAG RTP/SCS and the County General Plan Update does not specify a planning horizon date. However, with anticipated long-term growth and development throughout the region, it can be expected that similar land use impacts would continue throughout the planning area. The combination of the direct land use impacts from the proposed Plan together with impacts of the adopted plans described above, including the Navy OTC Revitalization, SDIA Airport Development Plan, HST, SCAG 2020-2045 RTP/SCS and the County of San Diego General Plan Update would result in significant cumulative land use impacts regarding the division of an established community by 2050.

Because cumulative land use impacts throughout the Southern California region by 2050 would be significant, and because the proposed Plan's incremental land use impacts are significant, the proposed Plan's incremental land use impacts are also cumulatively considerable (Impact C-LU-1).

**Mitigation Measures****C-LU-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO LAND USE AND PLANNING**

Mitigation Measure **LU-1** to reduce land use impacts due to transportation improvements as identified in Section 4.11 would be applicable to cumulative land use impacts. Mitigation measure **LU-1** calls for design of transportation network improvements to provide access and connections to and within established communities.

The SCAG 2020-2045 RTP/SCS EIR provided a wide variety of mitigation measures to address land use conflicts and impacts; however, even with implementation of mitigation, the EIR concluded that land use impacts would remain significant and unavoidable (SCAG 2020a). The County of San Diego General Plan Update EIR required mitigation to reduce the potentially significant cumulative impact related to the division of a community to less than significant. Mitigation included coordination with adjacent cities and agencies regarding planning and transportation improvements, coordination with land owners, other departments and community groups, and maintenance plans and standards for infrastructure and roads so that community division does not occur. The

cumulative impact was found to be less than significant after the application of mitigation (County of San Diego 2011).

The overall proposed redevelopment associated with the Navy OTC Revitalization project would represent a change from existing land use and a recreation shortfall from the goals in the community plans. Therefore, implementation of the alternatives when combined with the past, present, and reasonably foreseeable actions would result in significant cumulative impacts on land use within the project study area.

The SDIA Airport Development Plan found that with implementation of mitigation measures, land use planning inconsistency impacts would be less than significant, but impacts related to noise and traffic incompatibilities would remain significant and unavoidable.

As outlined in Section 4.11, mitigation measures would not guarantee reduction of all proposed Plan land use impacts to below a level of significance. Therefore, the proposed Plan's incremental contributions to the cumulative land use impacts in years 2025, 2035 and 2050 would remain cumulatively considerable post-mitigation.

### **5.2.12 MINERAL RESOURCES**

#### **C-MR-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO MINERAL RESOURCES**

The area of geographic consideration for cumulative impacts is the Southern California and northern Baja region. While some mineral resources can be distinct to certain locations, they are not confined by jurisdictional boundaries. Thus, it is necessary to consider availability of mineral resources in Southern California and northern Baja as a whole region.

A projection approach for cumulative analysis of mineral resources allows for an overarching discussion of regional and cross-border loss of availability of mineral resources associated with general patterns of regional urbanization, growth, and land use changes. The cumulative impact is the combination of the impacts of the proposed Plan and impacts on mineral resources resulting from implementation of approved regional planning documents. Significant cumulative impacts would occur if there were cumulative risks of loss of availability of valuable mineral resources or recovery sites in Southern California and northern Baja.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan, and SCAG 2020-2045 RTP/SCS EIR (SCAG 2020b) for the Southern California region. There are generally no regional plans pertaining to such resources for the northern Baja California region.

#### **Impacts of the Proposed Plan**

Regional growth and land use changes and transportation network improvements associated with the proposed Plan would cause loss of availability of known mineral resources, as land development and transportation network improvements would encroach into MRZs and other locally important resource recovery sites, resulting in the loss of 853 acres of MRZ-2 lands by 2050. As such, mineral resources impacts would be significant for 2025, 2035, and 2050 (Impact MR-1).

## Impact Projections in Adopted Plans

The EIR prepared for the SCAG 2020-2045 EIR/SCS RTP analyzed impacts on the SCAG region up to 2045 and identified significant and unavoidable impacts related to the loss of availability of known mineral resources. The EIR also found that the 2020-2045 SCAG RTP/SCS would contribute to cumulatively considerable impacts on mineral resources (SCAG 2020a). Adopted land use plans for local jurisdictions in Southern California and northern Baja would support the construction of new development and redevelopment through policy changes, general plan updates, and zoning amendments that encourage and facilitate population growth and land use changes. Development associated with the implementation of regional planning documents would in some cases also impact availability of known mineral resources, as development would likely occur in some locations within MRZs or resource recovery sites.

## Cumulative Impacts and Impact Conclusions

### 2025

A significant cumulative impact in the year 2025 would result if the combination of impacts of the proposed Plan and impact projections from adopted plans within the Southern California and northern Baja region were significant when considered together, even if not independently significant.

The proposed Plan would significantly impact loss of availability of known mineral resources due to development in locations within MRZs or resource recovery sites. Combined with loss of availability of mineral resources from implementation of adopted regional planning documents, impacts from the proposed Plan would also result in significant cumulative impacts on availability of known mineral resources.

Because cumulative mineral resources impacts throughout the Southern California and northern Baja region by 2025 would be significant, and because the proposed Plan's incremental impacts on these resources are significant, the proposed Plan's incremental impacts on mineral resources are cumulatively considerable (Impact C-MR-1).

### 2035

The proposed Plan would also significantly impact loss of availability of known mineral resources due to development in locations within MRZs or resource recovery sites. Combined with loss of availability of mineral resources from implementation of adopted regional planning documents, impacts from the proposed Plan would also result in significant cumulative impacts on availability of known mineral resources in 2035.

Because cumulative mineral resources impacts throughout the Southern California and northern Baja region by 2035 would be significant, and because the proposed Plan's incremental impacts on these resources are significant, the proposed Plan's incremental impacts on mineral resources are cumulatively considerable (Impact C-MR-1).

### 2050

The proposed Plan would also significantly impact loss of availability of known mineral resources due to development in locations within MRZs or resource recovery sites. Combined with loss of availability of mineral resources from implementation of adopted regional planning documents, impacts from the proposed Plan would also result in significant cumulative impacts on availability of known mineral resources in 2050.

Because cumulative mineral resource impacts throughout the Southern California and northern Baja region by 2050 would be significant, and because the proposed Plan's incremental impacts on these resources are significant, the proposed Plan's incremental impacts on mineral resources are cumulatively considerable (Impact C-MR-1).

### Mitigation Measures

#### **C-MR-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO MINERAL RESOURCES**

Mitigation measures **MR-1a** and **MR-1b** would conserve aggregate and mineral resources through avoidance of aggregate and mineral resources, or incorporation of appropriate design features to reduce impacts on resources when avoidance is not feasible. However, as outlined in Section 4.7, this mitigation measure would not guarantee that all proposed Plan impacts on availability of known mineral resources would be less than significant. Therefore, the proposed Plan's incremental contributions to cumulative impacts on availability of known mineral resources in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

### 5.2.13 NOISE AND VIBRATION

#### **C-NOI-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO NOISE AND VIBRATION**

The geographic scope for the noise and vibration cumulative analysis is the Southern California and northern Baja Mexico region. Transportation networks, including facilities such as the regional roadway/Interstate networks, rail lines, and airports, are large contributors to environmental noise in the region. Development, growth, population increase, or land use change can cause an increase in ambient noise and vibration directly related to the type of development, increased use of transportation facilities and the general introduction of new sources of noise and vibration.

This cumulative noise impact assessment considers the impact analysis presented in the SCAG 2020-2045 RTP/SCS and its EIR (SCAG 2020a, 2020b); California-Baja California Border Master Plan (Caltrans 2021); and the ~~2008-2019 San Diego International Airport Development Plan, Airport Master Plan Environmental Impact Report~~ EIR (SDCRAA 2019a**08**).

### Impacts of the Proposed Plan

The analysis of the proposed Plan shows that regional growth and land use change associated with the proposed Plan would expose noise-sensitive receptors to noise levels in excess of applicable noise standards, and transportation network improvements associated with the proposed Plan would generate construction and operational noise levels that would expose noise-sensitive receptors (i.e., residences, churches, hospitals, etc.) to noise levels in excess of applicable noise standards. This exposure of persons to or generating noise levels exceeding applicable noise standards established by local jurisdictions and/or other agencies is considered a significant impact in horizon years 2025, 2035, and 2050 (Impact NOI-1).

Regional growth land use change and transportation network improvements under the proposed Plan in horizon years 2025, 2035, and 2050 would also result in conditions where construction of new development and transportation network improvements would temporarily increase noise levels during construction at surrounding land uses. While construction-related noise impacts would be short term and localized in nature,

construction would result in a substantial increase in ambient noise level or would result in exceedances of applicable noise standards established by local jurisdictions and/or other agencies, which would be a significant impact in 2025, 2035, and 2050 (Impact NOI-1).

Under the proposed Plan, land use development increase relative to the existing development, which would expose noise-sensitive receptors in close proximity to new noise sources. The increases in population, housing, and employment in the proposed Plan would result in increases in noise levels by the placement of operational stationary and traffic noise sources from new residential, commercial, or industrial uses in proximity to noise sensitive receptors. The transportation network improvements in the proposed Plan would permanently increase ambient noise levels adjacent to transportation network improvements. Ambient noise level increases associated with transportation network improvements would primarily result from forecasted regional population growth, the improvements to the transportation networks which removed shielding or move the facility close to noise sensitive land uses, and the increases in the number of trucks, buses, and trains operating forecasted under the proposed Plan, which generate greater noise per vehicle than automobiles (Caltrans 2013). These substantial permanent increases in ambient noise levels due to regional growth and land use change, and transportation network improvements are considered a significant noise impact in 2025, 2035, and 2050 (Impact NOI-1).

Implementation of regional growth and land use change, as well as transportation network improvements and programs, associated with the proposed Plan would also result in exposure of persons to or generation of excessive groundborne vibration and groundborne noise during certain construction activities in 2025, 2035, and 2050 (Impact NOI-2).

The growth and land use changes of the proposed Plan would occur near public use or military airports, and private airstrips or helipads; however, existing aviation regulations, procedures, ALUCPs, and AICUZ studies would ensure compatibility with public use or military airports, and FAA and Caltrans regulations would ensure compatibility with private airstrips or helipads. Therefore, the impact of exposing people to excessive aviation noise would be less than significant in 2025, 2035, and 2050 (Impact NOI-3).

### **Impact of Related Projects**

Other related regional projects, such as the HST, could have more localized construction and operational noise impacts which would occur along the project alignment. Other land development and infrastructure projects throughout the region and state, such as petroleum pipeline transportation infrastructure, and freight rail infrastructure, and energy generation and transmission corridors, would also impacts related to noise if these projects occur in close proximity to one another as well as within the same time frame.

Both the Navy Old Town Campus Revitalization and City of San Diego Pure Water North City Project would result in impacts, however, impacts associated with noise would be significant and mitigated to a level of less than significant respectively. Impacts would similarly be cumulatively considerable, if these projects occur in close proximity to one another as well as within the same time frame.

### **Impact Projections in Adopted Plans**

The SCAG 2020-2045 RTP/SCS EIR found that construction activities associated with the proposed transportation projects and development projects in the 2020-2045 RTP/SCS would temporarily generate substantial noise and vibration levels above ambient background levels, sometimes for extended duration, and would result in a significant impact. Additionally, noise-sensitive land uses could be exposed to operational

noise in excess of normally acceptable noise levels and/or could experience substantial increases in noise as a result of the operation of expanded or new transportation facilities or increased transportation activity. The EIR also found that the 2020-2045 RTP/SCS would contribute to cumulative ambient noise and vibration levels in areas outside the region as a result of the operation of expanded or new transportation facilities (i.e., increased traffic resulting from new infrastructure and use of new and existing transit and rail facilities) (SCAG 2020b).

The California-Baja California Border Master Plan is a binational comprehensive approach to coordinate planning and delivery of projects at land POEs and transportation infrastructure serving those POEs in the California-Baja California region. The Master Plan does not have an associated environmental analysis document; however, projects included in the Master Plan could have adverse noise impacts due to the expansion of existing, and development of new, transportation facilities that could generate noise and vibration in excess of the ambient condition.

The 2019 San Diego International Airport Development Plan EIR (SDCRAA 2019a) ~~2008 San Diego International Airport, Airport Master Plan EIR (SDCRAA 2008)~~ was certified in May 2008 by the Airport Authority Board. The EIR considered potential aviation, surface transportation, construction, and cumulative noise impacts associated with the Airport ~~Master Development~~ Development Plan and its alternatives. The EIR found that ~~no~~ the Airport Development Plan's cumulative noise impact would ~~occur~~ be cumulatively considerable in combination with aircraft and ~~highway~~ roadway noise exposure levels. Construction and ~~surface transportation~~ noise changes due to the Airport ~~Master Development~~ Development Plan were found to be less than significant. ~~The EIR also identified no substantial change in noise affecting sleep or affecting schools and found a less than significant impact in terms of cumulative aircraft-induced noise exposure due to the Airport Master Plan or its alternatives (SDCRAA 2008).~~

## Cumulative Impacts and Impact Conclusions

### 2025

A significant cumulative impact in the year 2025 would result if the combination of impacts of the proposed Plan, and impact projections from adopted plans were significant when considered together, even if not independently significant. As described above, implementation of the proposed Plan's transportation network improvements and future development would cause exceedances of noise standards or increases in ambient noise and result in substantial short-term and permanent increases in the existing noise environment at adjacent sensitive land uses in 2025. In addition, significant noise impacts have been identified in other regional environmental analysis documents. The combination of the direct noise impacts from the proposed Plan and other adopted plans that would affect the San Diego and northern Baja region would therefore result in significant cumulative noise impacts, based on exposure to or generation of: noise levels in excess of standards, substantial temporary and permanent increases in noise levels, and excessive groundborne vibration and groundborne noise. Because cumulative noise impacts throughout the San Diego and northern Baja region by 2025 would be significant, and because the proposed Plan's incremental noise impacts are significant, the proposed Plan's incremental noise impacts are also cumulatively considerable (Impact C-NOI-1).

As described above, implementation of the proposed Plan would not cause exposure to excessive aviation noise due to regional growth and land use change or transportation improvements and related noise impacts would be less than significant. ~~Similarly~~ As discussed above, while the ~~2008-2019 San Diego International Airport, Airport Master Development~~ 2019 San Diego International Airport, Airport Master Development Plan EIR identified ~~no~~ a cumulative aircraft-induced noise exposure due to the Airport ~~Master Development~~ Development Plan (SDCRAA ~~2008~~ 2019a), the proposed Plan's impacts related to aircraft noise

exposure would be less than significant. As such, the proposed Plan would not contribute to cumulative impacts related to aircraft noise and ~~Because significant cumulative noise impacts associated with exposure of people to excessive noise levels from aircraft operations would not occur within the region,~~ the proposed Plan's less-than-significant noise impacts associated with aircraft noise exposure are not cumulatively considerable.

### **2035**

As described above, implementation of the proposed Plan's transportation network improvements and regional growth and land use change would cause exceedances of noise standards and result in substantial temporary and permanent increases in the existing noise environment at adjacent sensitive land uses in 2035. In addition, significant noise impacts were also identified in other regional environmental analysis documents. The combination of the direct noise impacts from the proposed Plan and other adopted plans that would affect the San Diego and northern Baja region would result in significant cumulative noise impacts, based on exposure to or generation of: noise levels in excess of standards, substantial temporary and permanent increases in noise levels, and excessive groundborne vibration and groundborne noise. Because cumulative noise impacts throughout the San Diego and northern Baja region by 2035 would be significant, and because the proposed Plan's incremental noise impacts are significant, the proposed Plan's impacts are also cumulatively considerable (Impact C-NOI-1).

As described for 2025, ~~because while~~ significant cumulative noise impacts associated with exposure of people to excessive noise levels from aircraft operations would ~~not~~ occur within the region, the proposed Plan's less-than-significant noise impacts associated with aircraft noise exposure would not result in a cumulatively considerable contribution to aircraft noise exposure, and the proposed Plan's impacts related to aircraft noise exposure are not cumulatively considerable in 2035.

### **2050**

As described above, implementation of the proposed Plan's transportation network improvements and regional growth and land use change would cause exceedances of noise standards and result in substantial temporary and permanent increases in the existing noise environment at adjacent sensitive land uses in 2050. In addition, significant noise impacts were also identified in other regional environmental analysis documents. The combination of the direct noise impacts from and the proposed Plan and other adopted plans that would affect the San Diego and northern Baja region would result in significant cumulative noise impacts, based on exposure to or generation of: noise levels in excess of standards, substantial temporary and permanent increases in noise levels, and excessive groundborne vibration or groundborne noise. Because cumulative noise impacts throughout the San Diego and northern Baja region by 2050 would be significant, and because the proposed Plan's incremental noise impacts are significant, the proposed Plan's incremental noise impacts are also cumulatively considerable (Impact C-NOI-1).

As described for 2025, ~~because while~~ significant cumulative noise impacts associated with exposure of people to excessive noise levels from aircraft operations would ~~not~~ occur within the region, the proposed Plan's less-than-significant noise impacts associated with aircraft noise exposure would not result in a cumulatively considerable contribution to aircraft noise exposure, and the proposed Plan's impacts related to aircraft noise exposure are not cumulatively considerable in 2050.

## Mitigation Measures

### **C-NOI-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO NOISE AND VIBRATION**

Mitigation measure **NOI-1a** calls for construction noise reduction measures to meet local noise standards and reduce temporary noise levels during construction and mitigation measures **NOI-1b** and **NOI-1c** call for operational noise reduction measures for transportation network improvements and development projects, respectively, to be implemented to meet local standards and reduce permanent noise levels during operations. As outlined in Section 4.13, mitigation measures would reduce noise impacts but would not guarantee reduction of all proposed Plan noise impacts on below a level of significance for all projects. Therefore, the proposed Plan's incremental contributions to cumulative noise impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

Mitigation measure **NOI-2a** calls for groundborne vibration and groundborne noise reduction measures to be implemented during construction activities and mitigation measure **NOI-2b** requires groundborne vibration and groundborne noise-reducing measures for rail operations. As outlined in Section 4.13, mitigation measures would reduce significant increases in groundborne vibration and groundborne noise for some projects; however, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level. Therefore, the proposed Plan's incremental contributions to cumulative groundborne vibration and groundborne noise impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

## **5.2.14 POPULATION AND HOUSING**

### **C-POP-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO POPULATION AND HOUSING**

The area of geographic consideration for cumulative impacts is the Southern California and northern Baja region. Large-scale land use change and the effectiveness of the transportation system influence the regional development pattern that dictates the location, timing, and amount of resulting population and housing increases or decreases across the region as a whole. If growth is not accommodated in one specific area, it would likely be accommodated at another locale within the general area. Thus, the entire region needs to be considered when addressing population and housing.

A projection approach is used for the cumulative analysis of population and housing impacts as growth, land use change, and transportation network improvements across the region can substantially impact and modify population and housing by supporting and facilitating the addition or displacement of homes and population on a large scale. The cumulative impact is the combination of the impacts of the proposed Plan and impacts of population and housing impact projections identified in adopted plans. Significant cumulative impacts related to population and housing would occur if the proposed Plan and other planning documents would induce substantial increases in unplanned population growth or contribute to displacement of a substantial number of existing people or housing units which would necessitate the construction of replacement housing elsewhere.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan; SCAG 2020-2045 RTP/SCS EIR (SCAG 2020a); and the California-Baja California Border Master Plan (Caltrans 2021). Information on population forecasts and transportation network improvements was compiled



from the documents listed in Section 5.1. Table 5-1 shows these population forecasts for 2025, 2035, and 2050. Information on planned residential development and land use changes in Southern California is also available in adopted land use plans for individual cities and counties.

### **Impacts of the Proposed Plan**

Implementation of regional growth and land use change and planned transportation network improvements would induce unplanned growth in some areas of the San Diego region in 2025, 2035, and 2050. This is considered a significant impact (Impact POP-1). By 2025, 2035, and 2050, the proposed Plan's regional growth and land use change would have the potential to displace a substantial number of residences, necessitating the construction of replacement housing elsewhere. Transportation network improvements, such as new rail extensions would also have the potential to displace a substantial number of people and existing housing units. As such, impacts related to the displacement of a substantial number of people and existing housing units, necessitating the construction of replacement elsewhere is significant in 2025, 2035, and 2050 (Impact POP-2).

### **Impact Projections in Adopted Plans**

According to the EIR prepared for the SCAG 2020-2045 RTP/SCS, the proposed Plan would facilitate population growth in some areas of the SCAG region. It also found that transportation network improvements would displace a substantial number of existing homes due to ROW acquisitions. The 2020-2045 RTP/SCS would influence the pattern of growth in the region through transportation investments and land use strategies that would contribute to a cumulatively considerable increase in population outside the region. These impacts were found significant and unavoidable (SCAG 2020a).

The California-Baja California Border Master Plan is a binational comprehensive approach to coordinate planning and delivery of projects at land POEs and transportation infrastructure serving those POEs in the California-Baja California region. The projects included in the Master Plan would support and facilitate current and projected cross-border travel demand and economic activity as populations on both sides of the border are forecasted to increase. Thus, the Master Plan would induce population growth and economic development.

Adopted land use plans for local jurisdictions in Southern California and northern Baja would induce population growth through policy changes and zoning amendments that encourage and facilitate increased residential and employment growth. Some of this growth, particularly in currently built-out locations, would be driven by redevelopment in existing urban areas as communities increase their housing and commercial densities. For redevelopment to occur, existing housing and population would likely be displaced.

### **Cumulative Impacts and Impact Conclusions**

#### **2025**

A cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan and impact projections from adopted plans within the Southern California and northern Baja region were significant when considered together, even if not independently significant. As described above, implementation of the regional growth and land use change as well as transportation network improvements associated with the proposed Plan would induce substantial unplanned population growth. Additionally, by 2025, regional growth and land use change would displace a substantial number of existing homes and population. In addition, population and housing impacts were also identified in other land use plans would contribute to substantial unplanned population growth and/or displacement of homes or population. The combination of the direct population and

housing impacts from the proposed Plan and these adopted plans would result in significant cumulative population and housing impacts in the Southern California and northern Baja region by 2025.

Because cumulative population and housing impacts throughout the Southern California and northern Baja region by 2025 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental population and housing impacts are also cumulatively considerable (Impact C-POP-1).

### **2035**

As discussed in the 2025 analysis, implementation of the regional growth and land change as well as transportation network improvements associated with the proposed Plan by 2035 would induce substantial unplanned population growth and displace a substantial number of existing homes and population. In addition, population and housing impacts were also identified in other land use plans would contribute to substantial unplanned population growth and displacement of homes or population. The combination of the direct population and housing impacts from the proposed Plan and these adopted plans would result in significant cumulative population and housing impacts in the Southern California and northern Baja region by 2035.

Because cumulative population and housing impacts throughout the Southern California and northern Baja region by 2035 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental population and housing impacts are also cumulatively considerable (Impact C-POP-1).

### **2050**

As discussed in the 2025 and 2035 analyses, implementation of the regional growth and land change as well as transportation network improvements associated with the proposed Plan would induce substantial unplanned population growth and displace a substantial number of existing homes and population. While the analysis of the SCAG 2020-2045 RTP/SCS does not extend to 2050, regional population growth and associated impacts would continue through this timeframe.

Although currently adopted land use plans rarely extend to 2050, infrastructure improvement projects, policy changes, and zoning amendments that support residential and employment growth would induce population growth beyond their timeframes. Policy changes and zoning amendments that allow and encourage higher-density residential and employment uses would likely continue to displace existing homes and population. The combination of the direct population and housing impacts from the proposed Plan and these projects and adopted plans would result in significant cumulative population and housing impacts in the Southern California and northern Baja region by 2050.

Because cumulative population and housing impacts throughout the Southern California and northern Baja region by 2050 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental population and housing impacts are also cumulatively considerable (Impact C-POP-1).

## **Mitigation Measures**

**C-POP-1      MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS  
RELATED TO POPULATION AND HOUSING**

Mitigation regarding inducement of substantial unplanned population growth by the proposed Plan was found to be infeasible. As described in Section 4.14, SANDAG has no control over the amount of growth the region would experience during the implementation of the proposed Plan. For the same reasons, mitigation to reduce population growth in Southern California and northern Baja would also be considered infeasible.

Section 4.14 of the proposed Plan includes mitigation measures **POP-2a** and **POP-2b**, which calls for project designs that reduce displacement. Even with implementation of mitigation, displacement impacts would be significant and unavoidable.

The SCAG 2020-2045 RTP/SCS EIR includes a similar mitigation measure as the proposed Plan to implement growth strategies and urban form design enhancing mobility and reducing land consumption. The SCAG 2020-2045 RTP/SCS EIR also includes measures to minimize displacement of homes and provide affordable housing (SCAG 2020a). These mitigation measures and design strategies would reduce impacts on the displacement of residences, but would not reduce impacts to less-than-significant levels. Displacement of homes and population from regional growth and land use changes would remain cumulatively considerable.

Therefore, the proposed Plan's incremental contributions to cumulative population and housing impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

#### **5.2.15 PUBLIC SERVICES AND UTILITIES**

**C-PS-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO PUBLIC SERVICES**

**C-U-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO UTILITIES**

**C-REC-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO RECREATIONAL RESOURCES**

The area of geographic consideration for cumulative impacts on public services and utilities is Southern California and northern Baja. Public services and utilities are common infrastructure throughout the region, and land use change and the transportation system would influence the location and demand for future development new or additional services and utilities across the region. The provision of public services and utilities can be linked to jurisdictions, but often service providers cover large areas spanning multiple jurisdictional boundaries. Also, while some recreational facilities are local and serve only a small neighborhood, other recreational facilities provide opportunities for the population throughout the region. Thus, it is necessary to consider the region as a whole and the overall amount of development that would generate additional pressure and demand on services, utilities, and recreation facilities.

The projection approach for the analysis of cumulative public services and utility impacts allows for an overarching discussion of regional impacts associated with general patterns of regional urbanization, growth, and land use change that would create new or additional demand for services, utilities, and recreation facility use, or dictate where new or expanded infrastructure is located.

Growth, land use change, and transportation system improvements occurring throughout the Southern California and northern Baja region would impact public services and utilities. Significant cumulative impacts related to public services and utilities would occur if the combination of impacts from the proposed Plan and impact projections in adopted plans would cause a substantial physical deterioration of public facilities or

cause substantial adverse physical impacts associated with the provision of, or need for, new or physically altered public facilities to maintain adequate fire and police protection, schools, libraries, and recreation facilities; or result in the expansion or construction of wastewater treatment, storm water drainage, electricity/natural gas, or solid waste disposal facilities to adequately meet projected capacity needs or comply with regulations, the construction of which would cause significant environmental impacts

The plans considered and relied on for this cumulative analysis include the SCAG Regional Transportation Plan/ Sustainable Communities Strategy 2020-2045 and its EIR (SCAG 2020a). Additionally, public service or utility providers, including cities, counties, special districts, school districts, and utilities that operate in Southern California and northern Baja region, have adopted long-term plans that forecast the demand for services and identify specific facilities projects required to meet projected demand and needs.

### **Impacts of the Proposed Plan**

Analysis in Section 4.15 of the proposed Plan describes how regional growth and land use change would increase demand for public services including fire and police protection, emergency services, schools, libraries, and recreational facilities. Section 4.15 also describes how the proposed Plan would increase demands on governmental facilities such as wastewater collection and treatment facilities, storm water drainage facilities, energy infrastructure, and solid waste facilities. This regional growth would require or result in the construction of new facilities or expansion of existing facilities, due to the higher levels of public service demand. This would result in short-term construction-related impacts, as well as operational impacts, to resources such as air quality, noise, and traffic. These impacts are typically reduced through actions of the implementing agency, including adherence to existing regulations and BMPs, but are considered significant because impact mitigation to less-than-significant levels for all projects cannot be guaranteed. Therefore, as described in Section 4.15, public service and utilities impacts due to the regional growth and land use change in the proposed Plan are significant in 2025, 2035, and 2050 (Impact PS-1) (impacts related to construction of new or expanded solid waste facilities are less than significant in 2025).

Implementation of transportation network improvements would require minor use of public services and utilities and would generally not cause substantial deterioration or the need for new facilities. However, transportation network improvements associated with the proposed Plan would contribute to substantial adverse physical impacts associated with the construction of new or expanded storm water facilities in 2025, 2035, and 2050 (Impact U-1) and also in substantial adverse physical impacts associated with the construction of new or expanded solid waste facilities in 2035 and 2050 (Impact U-2).

Implementation of regional growth and land use changes, as well as transportation network improvements, would result in increased demand for recreation facilities leading to accelerated deterioration and contribute to the physical removal of open space park and recreation lands. The proposed Plan would result in the removal of 988 acres of open space park and recreation lands in 2025, 1,512 acres by 2035, and 1,585 acres by 2050. Collectively, these impacts (Impact REC-1) would result in the substantial physical deterioration of existing park and recreation facilities and adverse physical impacts related to future facility expansions.

### **Impacts of Related Projects**

Projects planned in the Southern California region, such as the Navy OTC Revitalization Project, border/POE facility improvements, airport expansions in the San Diego region, or port/maritime improvements associated with the Port Master Plan Update, would result in impacts related to increased demand for governmental utilities such as wastewater collection and treatment facilities, storm water drainage facilities, energy

infrastructure and solid waste facilities. This regional growth would require or result in the construction of new facilities or expansion of existing facilities, due to the higher levels of public service demand. For example, the EIS for the Navy OTC Revitalization Project determined that the project would result in increased density under several alternative options that would contribute to significant additional proposed growth in dwelling units, population, jobs, and non-residential uses over the targets contained in the applicable community plan. The project would require approximately 37 additional teachers, 11 new police officers, 9 additional emergency personnel and five new library employees by 2050 to accommodate the estimated increase in population from development. An additional 40.2 acres of parkland would be required to meet the city's population-based standard for parkland if the property were to transfer out of federal ownership.

### **Impact Projections in Adopted Plans**

The County of San Diego General Plan EIR identified significant impacts on public services and utilities associated with the construction or expansion of police protection facilities, expansion of school facilities, and library facilities. Regionally, cumulatively considerable impacts on public services and utilities would result from implementation of the County of San Diego General Plan Update (County of San Diego 2011).

The SCAG Regional Transportation Plan/ Sustainable Communities Strategy 2020-2045 analyzes impacts on the SCAG region up to 2045 and found that even with implementation of identified mitigation measures, significant impacts on public services would result due to the considerable effects to the cumulative staffing level and response times of police, fire, and emergency services in Southern California; direct and cumulative demand for school facilities; loss of open space and recreational lands; demand on existing recreational facilities; and direct and cumulative demand for solid waste services in the SCAG region (SCAG 2020a). Thus, regionally cumulatively considerable impacts on public services and utilities would result from implementation of the SCAG 2020-2045 RTP/SCS.

Throughout Southern California, individual cities and counties have also adopted general plans that guide growth and land use changes within their jurisdictions. Moreover, individual service providers, including cities, counties, special districts, school districts, and utilities, that operate in the Southern California region have adopted long-term plans that forecast the demand for services and identify specific facilities projects that will be required to meet projected needs. Each individual service provider, including cities, counties, special districts, school districts, and utilities, that has an adopted general plan or other long-term plan that forecasts the demand for services and identifies projects that will be required to meet projected needs, is responsible for conducting the appropriate environmental assessment, identifying impacts, and implementing mitigation measures to reduce impacts when possible. Construction-related and operational impacts are typically reduced through actions of the implementing agency, including adherence to existing regulations and BMPs, but are considered significant because impact mitigation to less-than-significant levels for all projects cannot be guaranteed.

### **Cumulative Impacts and Impact Conclusions**

#### **2025**

A significant cumulative impact in the year 2025 would result if the combination of impacts of the proposed Plan and impact projections from adopted plans within the Southern California region are significant when considered together, even if not independently significant. Impacts from construction and of expanded or new facilities for public services, utilities, and recreational resources from the proposed Plan and adopted plans in the Southern California region would be cumulatively significant in 2025. Because cumulative public services

and utilities impacts throughout the Southern California region by 2025 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental public services and utilities impacts are also cumulatively considerable, with the exception of impacts related to provision of new or expanded solid waste facilities (Impact C-PS-1, Impact C-U-1, and Impact C-REC-1).

As described in Section 4.15, there is sufficient landfill capacity in the region to accommodate forecasted regional growth at least through 2030. As a result, the proposed Plan would not generate solid waste at a level that would require new or expanded solid waste disposal facilities. The State of California continues to pass legislation in support of additional recycling requirements with an emphasis on increasing organic material diversion and developing the necessary organics processing infrastructure. While cumulative demand in the Southern California region for solid waste disposal would increase by 2025, there is sufficient capacity for solid waste disposal in the San Diego region through 2025. Therefore, the cumulative solid waste impact is not significant, and the proposed Plan's less-than-significant impacts related to solid waste disposal are not cumulatively considerable in 2025.

### **2035**

As described above, impacts from construction of expanded or new facilities for public services and utilities from the proposed Plan and adopted plans in the Southern California region would be cumulatively significant in 2035. Because cumulative public services and utilities impacts, including solid waste, and recreational resources throughout the Southern California region by 2035 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental public services and utilities impacts are also cumulatively considerable (Impact C-PS-1, Impact C-U-1, and Impact C-REC-1).

### **2050**

While many regional plans or projection impacts do not extend until the year 2050, public service and utility impacts, similar in nature to those identified for earlier years would likely persist and also occur in 2050. As described above, impacts from construction and of expanded or new facilities for public services, utilities, and recreational resources from the proposed Plan and adopted plans in the Southern California, including solid waste, would be cumulatively significant in 2050. Because cumulative public services and utilities impacts throughout the Southern California region by 2050 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental public services and utilities impacts are also cumulatively considerable (Impact C-PS-1, Impact C-U-1, and Impact C-REC-1).

### **Mitigation Measures**

- |                |   |
|----------------|---|
| <b>C-PS-1</b>  | <b>MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO PUBLIC SERVICES</b>        |
| <b>C-U-1</b>   | <b>MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO UTILITIES</b>              |
| <b>C-REC-1</b> | <b>MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO RECREATIONAL RESOURCES</b> |

Mitigation measures to reduce impacts associated with public services and utilities as identified in Section 4.15 would be applicable to cumulative impacts as well.

Section 4.15 includes mitigation measures **PS-1**, **REC-1**, **U-1a**, and **U-1b**, which call for jurisdictions with responsibility for construction of public facilities, recreation facilities, wastewater treatment facilities, or storm water facilities to apply mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. Section 4.15 also references mitigation measure WS-1a from Section 4.17 regarding the reduction of water use for construction and operation of projects to conserve water. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level.

Mitigation measure **U-2a** calls for the reduction of impacts from construction or expansion of solid waste facilities, and mitigation measures **U-2b** and **U-2c** would reduce solid waste volumes that would require accommodation in regional landfills through the diversion of construction waste from transportation network improvement projects or other development projects and the implementation of green building waste management measures. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level.

Similarly, the SCAG 2020-2045 RTP/SCS EIR included mitigation measures to reduce impacts on public services, such as coordination with emergency service providers, avoidance and conservation of recreation and open space areas, patterns of urban development and land use that reduce costs on infrastructure and make better use of existing facilities green building measures, source reduction and recycling for construction projects, and waste management strategies. However, even with the implementation of mitigation measures, the EIR concluded that significant and unavoidable public service impacts would result.

Based on the above analysis, the proposed Plan's incremental contributions to cumulative public services and utilities impacts in years 2025, 2035, and 2050 would remain significant and cumulatively considerable post-mitigation.

## 5.2.16 TRANSPORTATION

### **C-TRA-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS TO TRANSPORTATION**

The geographic scope for the transportation cumulative analysis is the Southern California and northern Baja region. Urban development and transportation systems are not bound by jurisdictional boundaries as movement within, through, and beyond the region is necessary for commuters, personal travel, and goods movement. Thus, it is important to consider both the Southern California region as well as the connection with northern Baja California.<sup>1</sup>

A hybrid approach for the cumulative analysis of transportation allows for an overarching discussion of regional impacts associated with general patterns of regional urbanization, growth, and land use change and how the transportation network both influences, and is affected by, those regional development patterns. Discussion of specific large-scale existing and probable future projects will also allow for consideration of individual projects with known impacts on traffic and transportation.

Cumulative impacts related to transportation would occur if future operating conditions of the regional transportation system, including the SANDAG, SCAG, and northern Baja regions, conflict with a program, plan,

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<sup>1</sup> It should be noted that the SANDAG model only calculates VMT within the San Diego region.

ordinance or policy addressing the circulation system; conflict with CEQA Guidelines Section 15064.3 by not achieving the substantial VMT reductions needed to help achieve statewide GHG reduction goals; substantially increase hazards due to design features; or result in loss of parking that causes significant adverse environmental impacts not evaluated elsewhere in the EIR.

This cumulative impact assessment relies on the impact analysis within this EIR for the proposed Plan; SCAG 2020-2045 RTP/SCS EIR (SCAG 2020); SCAG 2021 Federal Transportation Improvement Program (SCAG 2021); San Diego County Regional Airport Authority 2008 Airport Master Plan, San Diego International Airport and associated EIR (SDCRAA 2008); SDCRAA Aviation Activity Forecast (SDCRAA 2019); SDCRAA Regional Aviation Strategic Plan Update (SDCRAA 2011b); Border 2025 Program, Master Action Plan for California-Baja California (EPA 2013); California-Baja California Border Master Plan (Caltrans 2008); and 2034 Tijuana, Tecate, and Playas de Rosarito Metropolitan Strategic Plan (IMPLAN 2013).

### **Impacts of the Proposed Plan**

Implementation of regional growth and land use change as well as transportation network improvements associated with the proposed Plan would not conflict with a program, plan, ordinance or policy addressing the circulation system in 2025, 2035, or 2050. As documented in Section 4.16, the proposed Plan would increase multi-modal options, including bicycle, pedestrian, and transit trips within the region, in all years, while reducing vehicle trips, which would be consistent with the policies outlined in the 2019 Federal RTP. In addition, the proposed Plan would not result in hazardous design features because transportation network improvements would be designed in accordance with existing standards. Nor would the proposed Plan result in loss of parking that causes significant adverse environmental impacts not evaluated elsewhere in the EIR. These impacts would be less than significant in 2025, 2035, and 2050 (Impacts TRA-1, TRA-3, and TRA-4).

However, while implementation of the proposed Plan would result in a decrease in the region's VMT per capita, it will not be enough to achieve the state's VMT reduction goal of 14.3 percent below baseline year 2016 conditions. Additionally, the proposed project would result in substantial increase in the overall VMT generated by the region. Therefore, this would result in a significant impact in 2025, 2035 and 2050 conditions (Impact TRA-2).

### **Impacts of Related Projects**

Related infrastructure projects, such as the HST, would result in potentially significant transportation impacts. The environmental document for the HST project found that the project would have a positive effect when viewed on a system-wide basis, particularly by reducing traffic on highways and around airports to the extent that intercity trips are diverted to the train system and by eliminating delays at existing at-grade crossings where the train system would provide grade separation. However, localized traffic conditions around some HST system stations would experience a decrease in level of service and some added delays, and transit lines serving the stations areas would experience increases in passengers during peak hours.

The Airport Development Plan would include improvements at SDIA in order to continue to accommodate the approximately 1.82 million passengers that travel through SDIA each year. Improvements would include replacement of the existing Terminal 1, modifications to Terminal 2, a new administration building, and a new airport access roadway with new bicycle and pedestrian infrastructure. The recirculated EIR for the Airport Development Plan concluded that implementation of the plan would result in significant and unavoidable traffic impacts (SDCRAA 2019).



Recent cross-border and POE projects have been completed along the U.S./Mexico border including the San Diego-Tijuana Airport Cross Border Facility, which opened in 2015, and the San Ysidro Port of Entry Expansion Project, the last phase of which opened in December 2019. The Cross Border Facility project involved creation of a POE limited to pedestrian toll-paying airline passengers, avoiding and reducing delays at the San Ysidro and Otay Mesa POEs. The EIR for this project found that project's contribution to significant buildout transportation/circulation impacts would be cumulatively considerable and would remain significant after implementation of the identified mitigation (City of San Diego 2011). The San Ysidro Expansion Project that would provide additional pedestrian and vehicle lanes and capacity through the POE to reduce traffic delays.

### **Impact Projections in Adopted Plans**

The EIR prepared for the 2020-2045 SCAG RTP/SCS identified a significant and unavoidable impact regarding conflicts or inconsistencies with CEQA Guidelines Section 15064.3(b) due to the potential to increase total daily VMT in 2045. The EIR also found a significant cumulative impact resulting from implementation of the 2020-2045 SCAG RTP/SCS to a cumulatively considerable amount of transportation impacts, such as VMT, in areas outside of the SCAG region (SCAG 2020). The SCAG 2021 FTIP is prepared to implement projects and programs listed in the RTP and is developed in compliance with state and federal requirements (SCAG 2021).

The 2008 Airport Master Plan, San Diego International Airport EIR identified that all traffic-related impacts related to implementation of the Airport Master Plan would be reduced to less than significant with mitigation. However, the SDCRAA lacks the legal authority to implement the identified mitigation measures as the roadway segments, intersections, and freeway ramps are within the responsibility and jurisdiction of other agencies; thus, if the agencies do not implement the measures identified in the EIR, the traffic impacts would remain significant. The EIR analyzed parking supply and did not identify significant parking impacts related to implementation of the plan or alternatives (SDCRAA 2008).

The SDCRAA Aviation Activity Forecast Update updated the 2012 forecasts for current and future capacity of the County's existing single runway and projected passenger traffic, aircraft operations, cargo activity, general aviation, and military operations through the year 2050 (SDCRAA 2019). The updated forecasts were prepared to analyze the factors behind the faster than forecast growth than what was anticipated in the 2012 forecasts. The 2012 forecasts found that, by 2021 through 2035, runway congestion will not allow further growth and that the single runway does not have enough capacity to handle the forecasted growth in aircraft operations; the airport will experience a cumulative loss of at least five million to as many as 31 million passengers over the forecast period (SDCRAA 2004). The RASP was prepared by SDCRAA to assess the long-range capabilities of all public-use airports in the county with the goal of improving the performance of the regional airport system (SDCAA 2011).

The Border 2025 Program, Master Action Plan for California-Baja California includes objectives to reduce air emissions with one action to reduce vehicle emissions in the border region by establishing or strengthening programs that reduce the number of vehicles that do not comply with vehicle emissions standards (EPA 2021). In addition, the 2034 Tijuana, Tecate, and Playas de Rosarito Metropolitan Strategic Plan states that a critical issue for the Baja region is the progressive deterioration of the quality of air associated with the number of vehicles and no provision of sustainable transportation (IMPLAN 2013). While there is no associated environmental documentation for these plans, the actions to improve air quality through better traffic operations and opportunities would benefit regional border transportation issues.

According to the California-Baja California Border Master Plan, approximately 16.6 million northbound pedestrian crossings and more than 30 million northbound privately owned vehicle crossings in 2015.

Projections for the year 2040 estimate a growth of approximately 68 percent for northbound crossings and the Master Plan addresses concerns and benefits related to border planning. The Master Plan does not have associated environmental analysis documents. The Master Plan concludes that the expansion of residents in the border region will increase cross-border travel demand and continue to add pressure to the POE facilities and connecting roads. Given the current and projected travel demand at the existing POEs, improving the capacity and operations of the current infrastructure is critical to decrease traffic congestion and delays, facilitate international trade, and improve the quality of life for residents in the border region (Caltrans 2021).

## **Cumulative Impacts and Impact Conclusions**

### **2025**

As described in Section 4.16, implementation of the proposed Plan in 2025 would result in a significant impact because of an increase in daily VMT within the San Diego region and because the proposed Plan would only achieve a decrease in VMT per capita of 7.2 percent below 2016 conditions, which falls short of the 14.3 reduction CARB estimates will be needed to achieve 2050 state climate goals. Other transportation-related impacts would be less than significant. As detailed in the sections above, there are forecasted adverse direct and cumulative traffic and transportation impacts that would result with the implementation of regional plans and related projects. For example, the SCAG 2020-2045 RTP/SCS EIR identified a significant cumulative impact resulting from a considerable contribution to impacts, such as VMT, in areas outside of the SCAG region (SCAG 2020). Therefore, cumulative transportation impacts throughout the Southern California and northern Baja region by 2025 would be significant due to implementation of regional plans and related projects, and the proposed Plan's contribution to VMT impacts would be cumulatively considerable (Impact C-TRA-1).

### **2035**

As described in Section 4.16, implementation of the proposed Plan in 2035 would result in a significant impact because of increased total annual VMT and the regional VMT per capita would not be reduced to the levels that are required to meet the state's GHG reduction goals. As detailed in the sections above, there are forecasted adverse direct and cumulative traffic and transportation impacts such as VMT that would result with the anticipated implementation of regional plans and related projects including the 2020-2045 SCAG RTP/SCS.

Because implementation of regional growth and land use change as well as transportation network improvements associated with the proposed Plan would not achieve the substantial VMT reductions needed to help achieve statewide GHG reduction goals and would result in a significant cumulative impact, in combination with other cumulative traffic impacts occurring throughout the region, the traffic impact of increased total annual miles traveled is cumulatively considerable in 2035 (Impact C-TRA-1).

### **2050**

As described in Section 4.16, implementation of the proposed Plan in 2050 would result in a significant impact because of increased total annual VMT and the regional VMT per capita would not be reduced to the levels that are required to meet the state's GHG reduction goals. As detailed in the sections above, there are forecasted adverse direct and cumulative traffic and transportation impacts such as VMT that would result with the anticipated implementation of regional plans and related projects including the 2020-2045 SCAG RTP/SCS, (whose VMT effects would extend into 2050).

Because implementation of regional growth and land use change as well as transportation network improvements associated with the proposed Plan would not achieve the substantial VMT reductions needed to

help achieve statewide GHG reduction goals and would result in a significant cumulative impact, in combination with other cumulative traffic impacts occurring throughout the region, the traffic impact of increased total annual miles traveled is cumulatively considerable in 2050 (Impact C-TRA-1).

### Mitigation Measures

#### **C-TRA-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS TO TRANSPORTATION**

As detailed in Section 4.16, many features currently included in the proposed Plan (e.g., the SCS, increased transit and active transportation investments) have the effect of reducing total annual VMT that might not otherwise occur. Mitigation measure **TRA-2** would further reduce total VMT through implementation of transportation demand management strategies, reducing parking minimums, implementing additional active transportation facilities not identified in the proposed Plan (i.e., complete street investments and bicycle and pedestrian facilities), and implementation of road diet and traffic calming measures. In addition, GHG mitigation measures **GHG-5a**, **GHG-5d**, and **GHG-5f** include additional feasible VMT reduction measures not included in the proposed Plan that SANDAG would or other agencies can and should implement.

However, these mitigation measures would not reduce this impact to a less-than-significant level. Based on the above analysis and lack of further feasible mitigation, the proposed Plan's incremental contributions to cumulative transportation impacts in years 2020, 2035, and 2050 would remain significant and cumulatively considerable post-mitigation.

### 5.2.17 TRIBAL CULTURAL RESOURCES

#### **C-TCR-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS TO TRIBAL CULTURAL RESOURCES**

The area of geographic consideration for cumulative impacts on tribal cultural resources is the Southern California and northern Baja California region. Because local and regional settlement patterns are closely linked, it is important to evaluate the loss of tribal cultural resources across this entire geographic area to adequately consider how the loss of resources would impact the understanding of the closely interrelated prehistoric and historic context. A projection approach for cumulative analysis of tribal cultural resources allows for an overarching discussion of regional loss of interrelated tribal cultural resources associated with general patterns of regional urbanization, growth, and land use changes. The cumulative impact is the combination of the impacts of the proposed Plan and impact projections in adopted planning documents. Significant cumulative impacts related to tribal cultural resources would occur if cumulatively there would be a substantial increase in impacts with regard to the significance of tribal cultural resources.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan, SCAG's Connect SoCal (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy EIR (SCAG 2020) for the Southern California region, the County of San Diego General Plan Update EIR (County of San Diego 2011), and the California-Baja California 2021 Border Master Plan (Caltrans 2021). Many local jurisdictions provide guidance and protective measures for tribal cultural resources in their general plans and other local planning documents. There are generally no regional plans pertaining to such resources for the northern Baja California region. The California-Baja California Border Master Plan is a binational comprehensive approach to coordinate planning and delivery of projects at land POEs and transportation infrastructure serving those POEs in the California-Baja California region. The Master Plan does not have an

associated environmental analysis documents and no detailed analysis of cultural resource impacts was conducted for this Master Plan (Caltrans 2021).

### **Impacts of the Proposed Plan**

Areas in the San Diego region are known to have a high potential for tribal cultural resources. Implementation of the proposed Plan would result in the construction of development projects and transportation network improvements that would result in a wide range of construction and ground-disturbing activities, such as excavation, grading, and clearing, which remove and/or disturb the upper layer of soils. Since tribal cultural resources have been found within inches of the ground surface in some areas of the San Diego region, in some locations these ground-disturbing activities would cause a substantial adverse change in the significance of a tribal cultural resource. Implementation of the proposed Plan would necessitate construction activities that in some locations would cause a substantial adverse change in the significance of a tribal cultural resource through the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of a tribal cultural resource would be materially impaired. This would occur within each horizon year analyzed (2025, 2035, and 2050). Therefore, impacts related to a substantial adverse change in the significance of a tribal cultural resource would be significant (Impact TCR-1).

### **Impacts of Related Projects**

Projects planned in the Southern California region, such as the Navy OTC Revitalization Project, SDIA Airport Development Plan, HST, and City of San Diego Pure Water North City, would result in impacts related to destruction or alteration of tribal cultural resources. Other land development and infrastructure projects throughout the region, such as transportation infrastructure, energy generation and transmission corridors, and commercial and residential land development would also result in impacts if these projects occur in areas containing significant tribal cultural resources.

For example, the HST project in the San Diego region would result in construction of track, bridges and elevated guideways, stations, and other features that may result in destruction or alteration of tribal cultural resources, referred to in the program EIR/EIS as traditional cultural properties (HSRA 2005). The EIR/EIS prepared for the HST project determined that the project would result in significant cumulative impacts on traditional cultural properties. The EIR for the SDIA Airport Development Plan did not identify significant impacts to tribal cultural resources (SDCRAA 2019). The Navy Old Town Campus Revitalization Project would result in impacts, to tribal cultural resources however, impacts would be mitigated to a level of less than significant respect. Impacts would similarly be cumulatively considerable, if these projects occur in close proximity to one another. The City of San Diego Pure Water North City Project did not identify cumulatively considerable impacts to tribal cultural resources, which are referred to in the EIR as locations of “religious or sacred use”.

### **Impact Projections in Adopted Plans**

Implementation of the 2020-2045 RTP/SCS would result in significant and unavoidable impacts related to adverse changes in the significance of tribal cultural resources. In addition, the 2020-2045 RTP/SCS's influence on growth would contribute to regionally significant impacts on tribal cultural resources and be cumulatively considerable (SCAG 2020). The EIR prepared for the County of San Diego General Plan Update did not explicitly analyze impacts on tribal cultural resources; however, the EIR considers impacts on tribal archaeological resources and identifies mitigation consistent with the requirement of SB 18 related to regional coordination and consultation with local tribal governments. The California-Baja California Border Master Plan does not provide analysis of impacts on cultural resources; however, projects included in the Master Plan could have

adverse impacts on cultural or paleontological resources due to ground disturbance necessary for construction of infrastructure.

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan, related projects, and impact projections from adopted plans within the Southern California and northern Baja region are significant when considered together, even if not independently significant. As described above, implementation of the proposed Plan and other regional plans would result in ground-disturbing activities that would cause a substantial adverse change in the significance of a tribal cultural resource. California projects are required to adhere to federal, state and local regulations, as described in Section 4.5; however, cumulative growth development located in Mexico would not be subject to compliance with such regulations. Additionally, even with regulations in place, individual tribal cultural resources could still be impacted or degraded from demolition, destruction, alteration, or structural relocation as a result of new private or public development or redevelopment allowable under the proposed plan or other adopted regional plans. Therefore, cumulative impacts on tribal cultural resources would be significant. Because the proposed Plan's impacts on tribal cultural resources are significant, they are also cumulatively considerable in 2025 (Impact C-TCR-1).

### **2035**

The cumulative analysis presented above for the horizon year of 2025 would be applicable to year 2035, and significant cumulative impacts on tribal cultural resources would occur. By 2035, increases in regional growth and land use change, and the number of transportation network improvements implemented over those that occurred by 2025 would result in additional adverse impacts related to changes in the significance of a tribal cultural resource. As described in the 2025 analysis, cumulative impacts on tribal cultural resources would be significant because there would be cumulative adverse changes in the significance of those resources due to the proposed Plan, and other regional plans, and development located in northern Baja California. Because cumulative tribal cultural resource impacts throughout the Southern California and northern Baja region by 2035 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental tribal cultural resource impacts are also cumulatively considerable (Impact C-TCR-1).

### **2050**

The cumulative analysis presented above for the horizon years of 2025 and 2035 would be applicable to year 2050, and significant cumulative impacts on tribal cultural resources would occur. By 2050, increases in regional growth and land use change, and the number of transportation network improvements implemented over those that occurred by 2025 and 2035 would result in adverse impacts related to changes in the significance of a tribal cultural resource.

As described in the 2025 analysis, cumulative impacts on tribal cultural resources would be significant because there would be cumulative adverse changes in the significance of those resources due to the proposed Plan, and other regional plans, and development located in northern Baja California. Because the proposed Plan's impacts on tribal cultural resources are significant, they are also cumulatively considerable in 2050 (Impact C-TCR-1).

## Mitigation Measures

### **C-TCR-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS TO TRIBAL CULTURAL RESOURCES**

Mitigation measures to reduce impacts on tribal cultural resources due to implementation of the proposed Plan as identified in Section 4.17 would be applicable to cumulative impacts as well.

Mitigation measures **TCR-1a** and **TCR-1b** are measures to avoid or substantially reduce adverse changes in the significance of a cultural resource, and protect cultural resources. These mitigation measures also require the implementation of monitoring and data recovery programs during construction. These mitigation measures would be included in project-level planning, design, and CEQA reviews. Implementation of these mitigation measures would not reduce impacts that would cause a substantial adverse change in the significance of a tribal cultural resource to less than significant because it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level. Mitigation measures **TCR-1a** and **TCR-1b** would not reduce the proposed Plan's incremental impacts to less than significant. Therefore, the proposed Plan's incremental contributions to cumulative tribal cultural resources impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

### **5.2.18 WATER SUPPLY**

#### **C-WS-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS TO WATER SUPPLY**

The geographic scope for the water supply cumulative analysis is the state of California, the Lower Colorado River Basin, and northern Baja California. The large geographic scope is appropriate because regional growth and land use change, transportation system needs, and the resulting water demand can influence water supply reliability across the region as a whole, as development and water supplies are not strictly characterized by jurisdictional boundaries.

The projection approach for the cumulative analysis of water supply is used. A projection approach allows for an overarching discussion of regional impacts associated with water supply if existing water supplies and facilities were not adequate for projected regional demand or if general patterns of regional urbanization, growth, and land use changes and infrastructure development would result in the need for new or expanded water treatment and distribution facilities.

The plans and studies relied on and considered for the cumulative analysis include the SCAG 2020–2045 RTP/SCS and its EIR (SCAG 2020a; 2020b), the San Diego County Water Authority (SDCWA), 2013 Regional Water Facilities Optimization and Master Plan Update (SDCWA 2014), Water Supply for Baja California: Economic – Engineering Analysis for Agricultural, Environmental and Urban Demands (Medellin-Azuara et al. 2009), California Water Action Plan (California Natural Resources Agency 2014), California Water Plan Update 2013 (California Department of Water Resources 2013), SDCWA's 2020 Urban Water Management Plan (SDCWA 2021), Metropolitan Water District of Southern California's 2020 Regional Urban Water Management Plan (Metropolitan Water District of Southern California 2021), Municipal Water District of Orange County's (MWDOC) Draft 2020 Regional Urban Water Management Plan (Municipal Water District of Orange County 2021), Imperial Irrigation District's 2012 Integrated Regional Water Management Plan (IID 2012), 2034 Tijuana, Tecate, and Playas de Rosarito Metropolitan Strategic Plan (IMPLAN 2013), Colorado River Basin Water Supply and Demand Study (Bureau of Reclamation 2012), and Lower Colorado River Interim Shortage

Criteria and associated EIS (Bureau of Reclamation 2007). While many of these documents do not have accompanying environmental analysis, they provide valuable information regarding the current and future status of water supply throughout the cumulative region.

Within the geographic scope of the analysis are three groundwater basins designated by the state as medium priority and one basin designated as high priority pursuant to the SGMA. Preparation of GSPs for the medium-priority basins to allow future maintenance of a sustainable yield from these basins is underway should be completed by 2022. A GSP has been prepared for the high-priority basin, the Borrego Valley Groundwater Subbasin, by the Borrego Valley Groundwater Sustainability Agency (BVGSA). The Borrego Springs GSP establishes a sustainability goal to halt the overdraft condition in the Subbasin by bringing the groundwater demand in line with a sustainable yield of 5,700 acre-feet per year by 2040 (BVGSA 2019). A Settlement Agreement to adjudicate groundwater rights in a manner consistent with the GSP was approved on April 8, 2021 (see *Borrego Water District v. All Persons who Claim a Right to Extract Groundwater in the Borrego Valley Groundwater Subbasin No. 7.024-01*) [Superior Court of the State of California, County of Orange 2021].

The County of San Diego in the most recent General Plan Update (County of San Diego 2011) examined groundwater basins and fractured rock aquifers across the County to determine which were being exploited in an unsustainable manner as evidenced by insufficient aquifer recovery.

Significant cumulative impacts related to water supply would occur if existing water supplies and facilities were not adequate to serve cumulative growth such that new or expanded water supplies or entitlements would be required, if cumulative growth would impact groundwater resources in a manner that would hinder sustainable use, or if cumulative growth and infrastructure development resulted in construction of new or expanded water facilities that would cause significant environmental impacts.

### **Impacts of the Proposed Plan**

Reasonably foreseeable existing and future regional water supplies would be adequate to meet regional water demands associated with growth and land use change and transportation network improvements in 2025 and 2035. Beyond 2045, however, adequate water supplies to meet regional needs cannot be confirmed. This uncertainty means that there may be insufficient regional water supplies in 2050, resulting in a significant impact (Impact WS-1). Also, there would be localized significant impacts because of regional development and land use changes within the boundaries of groundwater basins that are currently being pumped at unsustainable levels. Proposed Plan impacts associated with groundwater water supplies in 2025, 2035, and 2050 are significant. (Impact WS-2).

Also, in 2025, 2035, and 2050, forecasted growth and land use change and implementation of transportation network improvements would require construction of new water facilities or the expansion of existing facilities; impacts of constructing these facilities would be significant (Impact WS-3).

### **Impact Projections in Adopted Plans**

While a majority of the documents and plans available for cumulative analysis do not have associated environmental analysis, they do provide anticipated water supply demand for the region and consider the adequacy of their existing supplies and plans for future supplies to meet future needs. These regional plans also offer resource management strategies and objectives for ensuring future water supply such as reduce water demand, improve operational efficiencies, increase and diversify water supply, and provide resource stewardship. Due to current drought conditions throughout the state of California, many water districts and

other water suppliers have implemented a variety of drought responses that could influence the availability of water supplies and water deliveries as previously anticipated in local and regional plans.

The SCAG 2020-2045 RTP/SCS EIR (SCAG 2020b) found that the 2020-2045 RTP's influence on growth would contribute to an increased demand for water supply and its associated infrastructure. The EIR also identified the potential of the 2020-2045 RTP/SCS to contribute to cumulatively considerable demand on water resources. Further, the increased demand resulting from the proposed Plan's influence on growth could only be even partially mitigated via measures beyond the purview of SCAG to implement, meaning that potentially significant water supply impacts would result.

As described in a paper titled, *Water Supply for Baja California: Economic – Engineering Analysis for Agricultural, Environmental and Urban Demands*, agricultural operations and population growth in California-Baja California has placed pressure on natural resources, particularly water supply. It is of significant concern to the California-Baja California border, where 50 percent of the entire U.S./Mexico border population lives. The conditions of northern Baja region of arid climate, prominent agriculture, fast-growing border cities, and water-sensitive ecosystems indicate that future water supplies will be a problem (Medellin-Azuara et al. 2009).

SDCWA's 2020 Urban Water Management Plan reports that, for normal years through 2045, no water supply shortages would occur if supplies are developed as planned. Under the parameters assumed in the multiple dry-year analysis no shortages would be experienced. Diversified supplies, consisting of water transfer agreements, local surface water, desalination, and entitlements to MWD supplies assure adequate water even during drought cycles through 2045. After 2045 there are no projections (SDCWA 2021).

The County General Plan Update EIR determined that groundwater basins and fractured rock aquifers in the County were currently being pumped at levels that resulted in insufficient water level recovery. Such use is unsustainable over time and is a significant impact to the groundwater resources.

The focus of the SDCWA's 2013 Regional Water Facilities Optimization and Master Plan was to optimize existing infrastructure and maintain the flexibility to adjust to a range of future regional planning outcomes through 2035. The update continued to find that the existing aqueduct system is fully capable of meeting regional demands through the mid-2020s and under normal and wet weather patterns, there is a very low occurrence of supply-demand gaps through 2035. However, during multiple dry-year weather patterns, the 2013 Regional Water Facilities Optimization and Master Plan Update identified that supply-demands gaps will likely occur (SDCWA 2014).

Metropolitan's 2020 Regional Urban Water Management Plan reports that Metropolitan has supply capabilities that would be sufficient to meet projected demands from 2020 through 2045 under the single dry-year and multiple dry-year conditions (2021). There are no projections post-2045.

The MWDOC Draft 2020 Regional Urban Water Management Plan (MWDOC 2021) concludes that the MWDOC service area (the region served by MWDOC is in Orange County and includes 26 cities and water districts) will have sufficient existing and planned supplies to meet full service demands under every water-year hydrologic scenario through 2045 by depending on MWD deliveries to compensate for any local shortfalls. The plan also discusses potential sources of water supply that are being investigated to diversify the region's water supply portfolio, such as water transfers and exchange and ocean water desalination (MWDOC 2021).

IID's 2012 Integrated Regional Water Management Plan states that the Imperial Region is faced with significant water resources challenges, most of which relate to the availability of imported water from the Colorado River.



System and on-farm efficiency conservation measures have been formulated to enable IID to meet the reduction requirement of net annual consumptive use of Colorado River water by 408,000 acre-feet by 2026. These measures are designed to maintain historic levels of agricultural productivity and MCI water supplies; however, when forecasted renewable energy and other demands are added to the future demand, the historic amount would no longer be sufficient (IID 2012).

The Colorado River Basin Water Supply and Demand Study found that the Colorado River Basin faces a range of potential future imbalances between supply and demand and states that addressing such imbalances will require diligent planning and cannot be resolved through any single approach or option. Instead, an approach that applies a wide variety of ideas at local, state, regional, and portfolio exploration demonstrated that implementation of a broad range of options can reduce Basin resource vulnerability and improve the system's resiliency to dry hydrologic conditions while meeting increasing demands in the Basin and adjacent areas receiving Colorado River water (Bureau of Reclamation 2012).

The 2034 Tijuana, Tecate, and Playas de Rosarito Metropolitan Strategic Plan lists the low water availability in the region as a critical environmental issue, which is a limiting factor for future development. The plan states that water demand in 2025 will be greater than 80 percent of the available water reserves. Strategies for improvement listed in the plan include promote investment to ensure capacity of reuse and infiltration of treated water and install sea water desalination plants (IMPLAN 2013).

The Lower Colorado River Interim Shortage Criteria and associated EIS (Bureau of Reclamation 2007) represent a plan to share water supply shortages among Lower Colorado River water users, including SDCWA. The EIS prepared for the interim shortage criteria projects Lower Colorado River water supply and demand conditions through 2050. It also analyzes and considers trade-offs between the frequency and magnitude of shortages, and describes potential effects on water shortage in Lake Powell and Lake Mead, and on water supplies, power production, recreation, and other environmental resources. Ongoing drought conditions and the potential for water supply shortages prompted discussions and negotiations focused on how to conserve additional basin water supplies. After several years of negotiations, on March 19, 2019, Reclamation and the Colorado River Basin states finalized Drought Contingency Plans (DCPs) for both the Upper Basin and the Lower Basin. The Lower Basin DCP is designed to require Arizona, California, and Nevada to curtail deliveries and thereby contribute additional water to Lake Mead storage at predetermined "trigger" elevations. It is also designed to create additional flexibility to incentivize voluntary conservation of water to be stored in Lake Mead, thereby increasing lake levels (Congressional Research Service 2021).

As described in many of the plans above, often there is an expectation that future water supply could be met given certain parameters, such as proposed water supply projects are constructed and operational, entitlements are fully granted, and water use reduction measures are successful. These factors are highly uncertain, and in some cases such as rainfall and drought conditions, are uncontrollable by the water agencies, districts, or suppliers.

## **Cumulative Impacts and Impact Conclusions**

### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan and impact projections from adopted plans within state of California, the Lower Colorado River Basin, and northern Baja California region were significant when considered together, even if not independently significant.

As described above, significant water supply impacts were not identified for proposed Plan growth and land use change and transportation network improvements in 2025. However, the SCAG 2020-2045 RTP/SCS was found to contribute to cumulatively considerable demand on water resources. While many of the regional water supply planning documents anticipate being able to adequately meet future water demand in the near term, their ability to do so is based on anticipated, but uncertain circumstances. Furthermore, a number of additional indeterminate factors could affect future water supply, including meteorological conditions; climate change; cost and use of energy; potential policy and permitting restrictions; endangered species protections; and demographic unknowns. The combined cumulative impacts of these regional and statewide plans, coupled with the uncertainties mentioned above, would be significant regarding increased demands on existing water supplies such that they could be inadequate to serve future demands, and new or expanded water supplies or entitlements would be needed by 2025.

Regional growth and land development would result in population increases on land overlying one of the three groundwater basins requiring preparation of a GSP because of being identified as medium priority by DWR. Regional growth and land development would also occur on land overlying groundwater basins identified by the County (2011) as having insufficient storage. Regional growth on land overlying medium-priority groundwater basins would also contribute to an existing aquifer overdraft. Groundwater impacts of regional growth and land use change would be cumulatively significant in the Year 2025.

Cumulative demand for water supply as a result of regional growth and land use change would likely necessitate the need for new water treatment or distribution facilities or the expansion of existing facilities. Construction of new or expanded facilities would cause short-term construction impacts that are typically controllable through adherence to regulations and BMPs, as well as operational impacts. There is no assurance the impacts from new or expanded water facilities would be less than significant for all projects. The SCAG 2020-2045 RTP/SCS was also found to contribute to cumulatively considerable demand on associated water supply infrastructure. Thus, the cumulative impact related to construction of new or expanded water treatment or distribution facilities would be significant in 2025.

Because cumulative water supply impacts throughout the state of California, the Lower Colorado River Basin, and northern Baja region by 2025 would therefore be significant, and because the proposed Plan's incremental water supply impacts are significant, the proposed Plan's incremental water supply impacts are also cumulatively considerable (Impact C-WS-1).

### **2035**

The cumulative analysis presented above for year 2025 would be applicable to year 2035. While significant water supply impacts were not identified for proposed Plan growth and land use change and transportation network improvements in 2035, the combined cumulative water supply impacts of regional and statewide plans, coupled with the uncertainties mentioned in the 2025 analysis, would be significant in 2035 regarding available water supplies.

A decrease in population between 2026 and 2035 is forecast in the areas overlying the groundwater basins designated as medium priority by DWR is forecasted. Nevertheless, growth would continue to occur on land overlying other groundwater basins and fractured rock aquifers identified by the County of San Diego (2011) as having insufficient storage. This continued growth is a significant cumulative impact to groundwater sustainability.

Construction of new or expanded facilities would cause short-term construction impacts that are typically controllable through adherence to regulations and BMPs, as well as operational impacts. There is no assurance the impacts from new or expanded water facilities would be less than significant for all projects. The SCAG 2020-2045 RTP/SCS was also found to contribute to cumulatively considerable demand on associated water supply infrastructure. Thus, the cumulative impact related to construction of new or expanded water treatment or distribution facilities would be significant in 2035.

Because cumulative water supply impacts throughout the state of California, the Lower Colorado River Basin, and northern Baja region by 2035 would be significant, and because the proposed Plan's incremental water supply impacts are significant, the proposed Plan's incremental water supply impacts are also cumulatively considerable in 2035 (Impact C-WS-1).

## **2050**

The cumulative analysis presented above for years 2025 and 2035 would be applicable to year 2050. In addition, water planning documents prepared by water agencies in the region have no projections for water supplies after 2045. Significant water supply and facility impacts were identified for proposed Plan growth and land use changes as well as transportation network improvements in 2050. The combined cumulative water supply impacts of regional and statewide plans coupled with the uncertainties mentioned in the 2025 analysis, would be significant in 2050 regarding increased water demands on existing supplies such that they would be inadequate to serve future demands.

Regional growth and land use change between 2036 and 2050 would continue to occur on land overlying groundwater basins and fractured rock aquifers identified by the County (2011) as having an insufficient level of aquifer storage to ensure sustainability. Forecasted regional growth would increase the population of land overlying two of the groundwater basins designated as medium priority by DWR. Growth between 2036 and 2050 would exacerbate current unsustainable condition characterizing these aquifers and would cause a significant cumulative groundwater impact.

Construction of new or expanded facilities would cause short-term construction impacts that are typically controllable through adherence to regulations and BMPs, as well as operational impacts. There is no assurance the impacts from new or expanded water facilities would be less than significant for all projects. The SCAG 2020-2045 RTP/SCS was also found to contribute to cumulatively considerable demand on associated water supply infrastructure. Thus, the cumulative impact related to construction of new or expanded water treatment or distribution facilities would be significant in 2050.

Because cumulative water supply impacts throughout the state of California, the Lower Colorado River Basin, and northern Baja region by 2050 would therefore be significant, and because the proposed Plan's incremental water supply impacts are significant, the proposed Plan's incremental water supply impacts are also cumulatively considerable (Impact C-WS-1).

## **Mitigation Measures**

### **C-WS-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS TO WATER SUPPLY**

Mitigation measure **WS-1a** calls for implementation of water conservation measures for transportation projects. Mitigation measure **WS-1b** calls for the implementation of water conservation measures as part of land development projects. Mitigation measure **WS-1c** calls for verification of adequate water supply

availability to satisfy projected water demands. Implementation of mitigation measures **WS-1a**, **WS-1b**, and **WS-1c** would not guarantee reduction of all proposed Plan impacts associated with the availability of water supplies to a level of less than significant. Therefore, the proposed Plan's incremental contributions to the cumulative water supply impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

To reduce environmental impacts resulting from land use changes and transportation facility development on the sustainable yield of groundwater basins, mitigation measure **WS-2** calls for the County of San Diego, cities, and other local jurisdictions to ensure sustainable yield of groundwater basins during planning, design, and project-level CEQA review of development projects. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level. Therefore, the proposed Plan's incremental contributions to the cumulative impacts to the sustainability of groundwater resources in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

To reduce environmental impacts resulting from the construction of new or expanded water treatment or distribution facilities, mitigation measure **WS-3** calls for jurisdictions or agencies with responsibility for the construction of new or expanded water treatment and conveyance facilities apply necessary mitigation measures to reduce significant environmental impacts associated with these facilities during the CEQA review process for individual facilities. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level. Therefore, the proposed Plan's incremental contributions to the cumulative impacts from new or expanded water facilities in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

### 5.2.19 WILDFIRE

#### **C-WF-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO WILDFIRE**

The area of geographic consideration for cumulative impacts is the Southern California and northern Baja region. Large-scale land use change and improvements to the transportation system influence the regional development pattern, thereby altering the level of risk exposure to buildings, transportation facilities, and people to the risks posed by wildfire. The most immediate indication of potential wildfire risk is the projected location of new development, either structures or transportation facilities, in areas classified as Very High Fire Severity Zones (VHFSZs). Post-fire slope instability poses a risk in the form of debris flows and landslides. Wildfires pose a significant public health risk due to their air quality impacts.

A projection approach is used for the cumulative analysis of wildfire risk as growth, land use change, and transportation network improvements across the region can result in the placement of structures and people in VHFSZs and in areas adjacent to slopes posing risks after wildfires. The cumulative impact is the combination of the impacts of the proposed Plan and similar impacts identified in adopted plans. Significant cumulative impacts related to wildfire would occur if the proposed Plan and other planning documents would induce substantial increases in structures and residents in areas with a high risk of wildfire or of post-fire debris flows or slope failures. In addition, placement of development in areas characterized by high fire risk increases the likelihood of wildfires and the resulting regional exposure to public health risk due to air quality impacts.

This cumulative impact assessment considers and relies on the impact analysis within this EIR for the proposed Plan, and EIR for the SCAG 2020-2045 RTP (SCAG 2020b), and the EIR for the most recent update of

the San Diego County General Plan (2011). Comparable information is not available for Baja California, however a United Nations-sponsored assessment of natural disaster risk in Baja California indicated a situation that, with respect to natural conditions, anticipated growth, and identified wildfire risk, is very similar to conditions in Southern California (Global Risk Identification Program 2011).

### **Impacts of the Proposed Plan**

The proposed Plan would result in significant wildfire risk impacts. Impacts associated with wildfire hazards related to implementation of the proposed Plan are analyzed in Section 4.19. Development of transportation or land development projects in wildfire-prone areas would cause an increase in population exposed to wildfire risk as a result of development in VHFSZs, would expose people to post-fire risks associated with debris flows, flash floods and landslides, and exacerbate exposure of those populations to pollutant concentrations from wildfires, particularly populations living downwind of the fire. These impacts would be significant (Impacts WF-1 through WF-3).

### **Impact Projections in Adopted Plans**

Potential development resulting from implementation of regional plans could occur in wildfire areas and could result in additional impacts related to wildfire. SCAG's 2020–2045 RTP/SCS (SCAG 2020a) covers all of the other counties in Southern California, i.e., Los Angeles, Orange, Imperial, Riverside, San Bernardino and Ventura. The EIR for the SCAG RTP/SCS (SCAG 2020b) identified significant impacts related to wildfire risk, concluding that development resulting from the plan would be responsible for “exposing occupants to wildfire risks and pollutant concentrations from wildfire, and exposing people or structures to post-fire slope instability. Wildfires pose a significant public health risk due to their air quality impacts.”

The County General Plan Update EIR was prepared prior to the amendment to the CEQA Guidelines requiring the analysis of wildfire as a separate environmental issue. The EIR (County of San Diego 2011) did conclude in the Public Services section, however, that “...the development of future land uses as designated in the proposed General Plan Update would increase demand for fire protection services requiring the provision of new or physically altered fire facilities, which would have the potential to result in adverse environmental impacts. Therefore, the proposed project, in combination with the identified cumulative projects, would have the potential to result in a significant cumulative impact associated with fire protection services.”

### **Cumulative Impacts and Impact Conclusions**

#### **2025**

A significant cumulative impact in the year 2025 would result if the combined impacts of the proposed Plan and impact projections from the other adopted plan were significant when considered together, even if not independently significant. It was concluded that the proposed Plan would result in significant impacts related to wildfire risk. This impact determination was based on projected land development of approximately 6,655 acres of land classified as a VHFSZ. An additional 50 acres of land classified as VHFSZ would be developed with transportation facilities. The potential need to extend electrical transmission and other infrastructure into these fire-prone areas was identified as a significant impact, as were the post-fire risks in these posed by potential debris flows, landslides, and drainage changes on nearby slopes. In addition, the exposure of additional people and structures to risk of loss, injury, or death involving wildland fires, and including exposure of harmful pollutant concentrations in the form of wildfire smoke, was identified as a significant impact. The EIR for the SCAG 2020-2045 RTP/SCS (2020b) identified similar impacts for six additional counties to the north

and east of San Diego County. The County of San Diego General Plan Update EIR (2011) concluded that a significant cumulative impact would result from the expanded fire services required by planned future growth. While comparable analysis for Baja California is not available, the combination of similar landscape and rapid demographic growth allows a similar conclusion.

Because cumulative wildfire impacts throughout Southern California, and likely in the northern Baja region by 2025 would be significant, and because the proposed Plan's incremental wildfire impacts are significant, the proposed Plan's incremental wildfire impacts are also cumulatively considerable in 2025 (Impact C-WF-1).

### **2035**

A significant cumulative impact in the year 2035 would result if the combined impacts of the proposed Plan and impact projections from the other adopted plan were significant when considered together, even if not independently significant. It was concluded that the proposed Plan would result in significant impacts related to wildfire risk. This impact determination was based on projected land development of approximately 1,737 acres of land classified as a VHFSZ. An additional 524 acres of land classified as VHFSZ would be developed with transportation facilities. The potential need to extend electrical transmission infrastructure into these fire-prone areas was identified as a significant impact, as were the post-fire risks in these posed by potential debris flows, landslides, and drainage changes on nearby slopes. In addition, the exposure of additional people and structures to risk of loss, injury, or death involving wildland fires, and including exposure of harmful pollutant concentrations in the form of wildfire smoke, was identified as a significant impact. The EIR for the SCAG 2020-2045 RTP/SCS (2020b) identified similar impacts for six additional counties to the north and east of San Diego County. The County of San Diego General Plan Update EIR (2011) concluded that a significant cumulative impact would result from the expanded fire services required by planned future growth. While comparable analysis for Baja California is not available, the combination of similar landscape and rapid demographic growth allows a similar conclusion.

Because cumulative wildfire impacts throughout Southern California, and likely in the northern Baja region by 2035 would be significant, and because the proposed Plan's incremental wildfire impacts are significant, the proposed Plan's incremental wildfire impacts are also cumulatively considerable in 2035 (Impact C-WF-1).

### **2050**

A significant cumulative impact in the year 2050 would result if the combined impacts of the proposed Plan and impact projections from the other adopted plan were significant when considered together, even if not independently significant. It was concluded that the proposed Plan would result in significant impacts related to wildfire risk. This impact determination was based on projected land development of approximately 172 acres of land classified as a VHFSZ. An additional 1041 acres of land classified as VHFSZ would be developed with transportation facilities. The potential need to extend electrical transmission infrastructure into these fire-prone areas was identified as a significant impact, as were the post-fire risks in these posed by potential debris flows, landslides, and drainage changes on nearby slopes. In addition, the exposure of additional people and structures to risk of loss, injury, or death involving wildland fires, and including exposure of harmful pollutant concentrations in the form of wildfire smoke, was identified as a significant impact. The EIR for the SCAG 2020-2045 RTP/SCS (2020b), whose wildfire effects extend through 2050, identified similar impacts for six additional counties to the north and east of San Diego County. The County of San Diego General Plan Update EIR (2011) concluded that a significant cumulative impact would result from the expanded fire services required by planned future growth. While comparable analysis for Baja California is not available, the combination of similar landscape and rapid demographic growth allows a similar conclusion.

Because cumulative wildfire impacts throughout Southern California, and likely in the northern Baja region by 2035 would be significant, and because the proposed Plan's incremental wildfire impacts are significant, the proposed Plan's incremental wildfire impacts are also cumulatively considerable in 2050 (Impact C-WF-1).

### **Mitigation Measures**

#### **C-WF-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO WILDFIRE.**

Mitigation measure **WF-1** is intended to reduce wildfire risk for development and transportation projects during planning, design, and project-level CEQA review of projects in areas classified as VHFHSZs. SANDAG and other transportation project sponsors would implement measures to reduce impacts from wildfires. Mitigation measure **WF-2** would require that during planning, design, and project-level CEQA review of transportation network improvements or development projects located in SRAs or in LRAs classified as VHFHSZs, local jurisdictions, and public service and utility providers would ensure that project sponsors implement measures to reduce impacts from wildfire-associated infrastructure. Mitigation measure **WF-3** would reduce post-fire risks related to flooding, landslides, slope instability, or drainage changes resulting from development and transportation projects. It would apply to planning, design, and project-level CEQA review of development projects or transportation network improvement projects in areas classified as VHFHSZs. Local agencies would ensure that project applicants work with local communities to implement measures to reduce post-fire impacts.

Implementation of mitigation measures **WF-1**, **WF-2** and **WF-3** would not guarantee reduction of all proposed Plan impacts associated with wildfire to a level of less than significant. Therefore, the proposed Plan's incremental contributions to the cumulative water supply impacts in years 2025, 2035, and 2050 would remain cumulatively considerable post-mitigation.

