

EXECUTIVE SUMMARY

This is the San Diego Association of Governments' (SANDAG's) ~~Draft~~ Final Environmental Impact Report (EIR) for San Diego Forward: The 2021 Regional Plan ("the proposed Plan"). It has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the Guidelines for Implementation of CEQA (CEQA Guidelines) (14 California Code of Regulations Sections 15000 et seq.). The proposed Plan is an update to San Diego Forward: The 2015 Regional Plan ("the 2015 Regional Plan"), adopted in October 2015, and the 2019 Federal Regional Transportation Plan ("the 2019 Federal RTP"), adopted in October 2019. The proposed Plan updates the Regional Comprehensive Plan (RCP) for the San Diego region and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

This ~~Draft~~ EIR analyzes the significant environmental impacts of the proposed Plan, mitigation measures to avoid or reduce these impacts, and alternatives to the proposed Plan. It was prepared to disclose this information to decision makers, members of the public, and public agencies so that informed decisions can be made about the proposed Plan. CEQA requires that decision makers make informed decisions on a project, considering the information presented in the EIR, along with social, economic, and other factors.

The ~~is~~ Draft EIR ~~is~~ was available for a 45-day public review period, from August 27, 2021 to October 11, 2021. Following the public review period, SANDAG ~~will~~ prepared written responses to significant environmental concerns raised in the comments on the Draft EIR. The Final EIR ~~will~~ includes revisions to the Draft EIR, comments received on the Draft EIR either verbatim or in summary, and SANDAG's responses to significant environmental concerns raised in the public comments (Appendix P).

ES.1 SUMMARY OF THE PROPOSED PLAN

The proposed Plan includes a blueprint for a regional transportation system, serving existing and projected residents and workers within the San Diego region (Figure 2-1) that further enhances quality of life and offers more mobility options for people and goods. The proposed Plan looks ahead to 2050, and accommodates for more than 430,000 new residents, approximately 440,000 new jobs, and over 280,000 new housing units.

The underlying purpose of the proposed Plan, in summary, is to develop a Regional Plan that addresses the many regional transportation challenges that are deeply connected to larger societal issues that impact everyone's quality of life, including economic and social inequities, climate change, public health, and safety. Consistent with this underlying purpose, SANDAG developed the following project objectives for this EIR:

1. Focus population and employment growth in mobility hubs and existing urban areas to protect sensitive habitat and natural resource areas.
2. Provide transportation investments that support compact land development patterns and reduce sprawl.
3. Meet greenhouse gas emissions targets established for the San Diego region by the California Air Resources Board and the SANDAG Board of Directors.
4. Provide transportation investments and land use patterns that promote social equity.
5. Provide transportation investments and land use patterns that reduce vehicle miles traveled and improve air quality.
6. Provide multi-modal access to employment centers and key destinations for all communities.

7. Enhance the efficiency of the transportation network for moving people and goods through the deployment of new technologies.

Under Senate Bill (SB) 375, the regional transportation plan must include an SCS consisting of land use, housing, and transportation strategies that, if implemented, would allow the region to meet its regional targets for greenhouse gas (GHG) emissions reductions from passenger vehicle use established by the California Air Resources Board (CARB). The purpose of an SCS is to align regional transportation, housing, and land use planning to attain the regional GHG reduction target. Although SB 375 sets GHG reduction targets for only the years 2020 and 2035, the proposed Plan also includes a longer 2050 time horizon. This was done because a major local transportation funding program (the *TransNet* Extension Ordinance and Expenditure Plan) extends to almost 2050.

The SCS land use pattern concentrates future development in areas that support connection to high-frequency transit services called *Mobility Hubs*. The proposed Plan incentivizes land uses and transportation infrastructure in Mobility Hub areas that maximize the connectivity of the transportation system. Mobility Hubs are proposed for communities with a high concentration of people, destinations, and travel choices where densification is envisioned in the SCS. Mobility Hubs are unique to each community and reflect respective community transportation needs, and would be developed in accordance with the land use authority reserved to local jurisdictions.

The proposed Plan includes the SCS as well as the “5 Big Moves,” transportation network improvements, and supporting policies and programs. The 5 Big Moves consist of Complete Corridors, Transit Leap, Mobility Hubs, Flexible Fleets, and Next Operating System (Next OS), and each of these elements is discussed in greater detail in Section 2.5.1, *The 5 Big Moves*, of this EIR.

The proposed Plan creates an integrated transportation system throughout the 11 Major Travel Corridors of the San Diego region, specifically: South Bay to Sorrento; Central Mobility Hub; State Route 125 (SR 125); Interstate 15 (I-15); Interstate 5 (I-5) North Coast Corridor; State Route 94 (SR 94); Interstate 8 (I-8); Coast, Canyons, and Trails; State Route 56 (SR 56); San Vicente; and North County. The system components in each Major Travel Corridor consist of transportation improvements under each of the 5 Big Moves, enhanced Airport Connectivity, and improved Border/Ports of Entry. The proposed Plan consists of 11 policies and programs that support the implementation of the transportation network and SCS.

ES.2 PROJECT LOCATION

The project boundary of the proposed Plan includes the entire San Diego region, which is composed of more than 4,200 square miles (see Figure 2-1). To the north, the region is bordered by Orange and Riverside counties, although largely separated from Orange County by Marine Corps Base Camp Pendleton. To the south of the region is the U.S. border with Mexico. The Pacific Ocean forms a natural border to the west, and the region shares a border with Imperial County to the east. The majority of urban development lies in the western portion of the San Diego region along the coast. The communities located inland in the eastern portion of the region have focused on maintaining a rural character. Over half of the total land area in the region is not available for public development, including public lands, dedicated parks and open space, lands constrained for environmental reasons, and military use. The San Diego region is supported by an existing network of freeways, expressways, regional arterials, transit corridors, regional bus and rail transit corridors, bikeways, commercial and general aviation facilities, seaport facilities, and ports of entry at the U.S.–Mexico border. The project location and environmental setting are discussed in more detail in Chapter 3, *Environmental Setting*.

ES.3 AREAS OF CONTROVERSY

CEQA Guidelines Section 15123(b)(2) requires that an EIR contain a discussion of areas of controversy known to the lead agency, including issues raised by agencies and the public. Several areas of controversy were identified during the EIR scoping process, and through public input on the proposed Plan outside of the Notice of Preparation (NOP) process.

These areas of concern were brought forth through letters and presented at SANDAG board meetings. In no particular order, areas of controversy known to SANDAG include:

- Providing an increase in *Rapid* transit, the Purple Line as a Trolley, and other rail corridor service enhancements.
- Determining a long-term sustainable solution for continue rail service through the Del Mar Bluffs area.
- Importance of meeting and exceeding SB 375 and other State greenhouse gas reduction targets.
- How to provide an efficient and equitable transportation system.
- How to address the need for affordable housing in the region; make infrastructure investments in areas with future housing growth.
- Whether to provide transit fare subsidies for Youth Opportunity Passes, senior citizens, and disadvantaged community members.
- How to address the regional divide in digital access.
- Whether to reduce expanding freeways and focus land use and transportation growth within urban core areas that would provide affordable housing and transportation needs and meet GHG and vehicle miles traveled (VMT) reduction targets.
- How to reduce transportation-related pollution levels in disadvantaged communities.
- How to accommodate future growth and housing while decreasing sprawl into natural open space areas.
- Providing safe opportunities for biking and walking that encourage increased physical activity.

ES.4 ISSUES TO BE RESOLVED

CEQA Guidelines Section 15123(b)(3) requires that an EIR contain a discussion of issues to be resolved. Issues to be resolved in this EIR include choosing among alternatives to the proposed Plan, and deciding how to mitigate the proposed Plan's significant environmental impacts. Additionally, if it adopts the proposed Plan, the SANDAG Board of Directors must decide whether specific social, economic, or other benefits of the proposed Plan outweigh its significant unavoidable environmental impacts; if so, the Board of Directors must adopt a Statement of Overriding Considerations.

ES.5 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table ES-1 provides a summary of environmental impacts, mitigation measures to avoid or reduce significant impacts, and significance of the impact after mitigation is applied, for 2020, 2035, and 2050. This summary is based on the impact analyses provided in Chapter 4, Sections 4.1 through 4.19. A detailed analysis of cumulative impacts is provided in Chapter 5, which identifies probable future projects, as well as regional planning documents and other growth projections, and analyzes the cumulative environmental impacts for each environmental resource area when combined with the proposed Plan.

**Table ES-1
Summary of Environmental Impacts and Mitigation Measures**

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
4.1 Aesthetics and Visual Resources				
AES-1 Have a substantial adverse effect on a scenic vista Significant impact in 2025, 2035, and 2050	AES-1a Protect Public Views of Scenic Vistas for Transportation Network Improvements AES-1b Protect Public Views of Scenic Vistas for Development Projects	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
AES-2 Substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic structures within a state scenic highway Significant impact in 2025, 2035, and 2050	AES-1a Protect Public Views of Scenic Vistas for Transportation Network Improvements AES-2a Reduce Impacts on Scenic Resources within a State Scenic Highway and Local Scenic Resources for Transportation Network Improvements AES-2b Reduce Impacts on Scenic Resources within a State Scenic Highway and Local Scenic Resources for Development Projects	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
AES-3 Substantially degrade the existing visual character or quality of public views of the site and its surroundings, including adding a visual element of urban character to an existing rural or open space area, conflicting with regulations governing scenic quality Significant impact in 2025, 2035, and 2050	AES-1a Protect Public Views of Scenic Vistas for Transportation Network Improvements AES-2a Reduce Impacts on Scenic Resources within a State Scenic Highway and Local Scenic Resources for Transportation Network Improvements	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
	<p>AES-2b Reduce Impacts on Scenic Resources within a State Scenic Highway and Local Scenic Resources for Development Projects</p> <p>AES-3a Reduce Impacts on Visual Character for Transportation Network Improvements</p> <p>AES-3b Reduce Impacts on Visual Character for Development Projects</p>			
<p>AES-4 Substantially degrade the existing visual character or quality of public views of the site and its surroundings by creating a new source of substantial light or glare that would adversely affect day or nighttime views</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>AES-4a Minimize Effects of Light and Glare for Transportation Network Improvements</p> <p>AES-4b Minimize Effects of Light and Glare for Development Projects</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
4.2 Agricultural and Forestry Resources				
<p>AG-1 Convert agricultural lands to nonagricultural use</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>AG-1a Preserve Existing Agricultural Lands</p> <p>AG-1b Reduce Transportation Network Improvement and Development Conflicts with Agricultural Operations</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
<p>AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract Significant impact in 2025, 2035, and 2050</p>	<p>AG-1a Preserve Existing Agricultural Lands AG-1b Reduce Transportation Network Improvement and Development Conflicts with Agricultural Operations</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>FR-1 Convert or result in the loss of “Forest Land” as defined in the California Forest Legacy Act of 2007 (Public Resources Code Section 12220(g)) Significant impact in 2025, 2035, and 2050</p>	<p>FR-1 Reduce Impacts on Forest Lands BIO-1a Implement Design, Minimization, and Avoidance Measures for Sensitive Natural Communities and Regulated Aquatic Resources BIO-1b Provide Compensatory Mitigation BIO-1e Implement Best Management Practices to Avoid Indirect Impacts</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
4.3 Air Quality				
<p>AQ-1 Conflict with or obstruct implementation of the Regional Air Quality Strategy and/or State Implementation Plan Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
<p>AQ-2 Result in a cumulatively considerable net increase in nonattainment criteria pollutants, including VOC, NO_x, PM₁₀, PM_{2.5}, and SO_x Significant impact in 2050. Less-than-significant impact in 2025 and 2035.</p>	<p>AQ-2a Secure Incentive Funding AQ-2b Zero Emission Trains GHG-5a Allocate Competitive Grant Funding to Projects that Reduce GHG Emissions and for Updates to CAPs or GHG Reduction Plans GHG-5b Establish New Funding Programs for Zero-Emissions Vehicles and Infrastructure</p>	Not applicable	Not applicable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
	<p>GHG-5d Develop and Implement Regional Digital Equity Strategy and Action Plan to Advance Smart Cities and Close the Digital Divide</p> <p>GHG-5f. Implement Measures to Reduce GHG Emissions from Development Projects</p> <p>TRA-2 Achieve Further VMT Reductions for Transportation and Development Projects</p>			
<p>AQ-3 Result in construction-related emissions above regional mass emission thresholds</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>AQ-3a Implement Construction Best Management Practices for Fugitive Dust</p> <p>AQ-3b Reduce Diesel Emissions During Construction from Off-Road Equipment</p> <p>AQ-3c Reduce Diesel Emissions from On-Road Vehicles</p> <p>GHG-5e Implement Measures to Reduce GHG Emissions from Transportation Projects</p> <p>GHG-5f Implement Measures to Reduce GHG Emissions from Development Projects</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>AQ-4 Expose sensitive receptors to substantial PM10 and PM2.5 concentrations</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>AQ-2a Secure Incentive Funding</p> <p>AQ-4 Reduce Exposure to Localized Particulate and/or TAC Emissions</p> <p>GHG-5a Allocate Competitive Grant Funding to Projects that Reduce GHG Emissions and for Updates to CAPs or GHG Reduction Plans</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
	<p>GHG-5b Establish New Funding Programs for Zero-Emissions Vehicles and Infrastructure</p> <p>GHG-5d Develop and Implement Regional Digital Equity Strategy and Action Plan to Advance Smart Cities and Close the Digital Divide</p> <p>GHG-5f. Implement Measures to Reduce GHG Emissions from Development Projects</p> <p>TRA-2 Achieve Further VMT Reductions for Transportation and Development Projects</p>			
<p>AQ-5 Expose sensitive receptors to substantial TAC concentrations Significant impact in 2025, 2035, and 2050</p>	<p>AQ-2a Secure Incentive Funding</p> <p>AQ-4 Reduce Exposure to Localized Particulate and/or TAC Emissions</p> <p>AQ-5a Reduce Exposure to Localized Toxic Air Contaminant Emissions</p> <p>AQ-5b. Reduce Exposure to Localized Toxic Air Contaminant Emissions during Railway Design</p> <p>GHG-5a Allocate Competitive Grant Funding to Projects that Reduce GHG Emissions and for Updates to CAPs or GHG Reduction Plans</p> <p>GHG-5b Establish New Funding Programs for Zero-Emissions Vehicles and Infrastructure</p> <p>GHG-5d Develop and Implement Regional Digital Equity Strategy and</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
	Action Plan to Advance Smart Cities and Close the Digital Divide GHG-5f. Implement Measures to Reduce GHG Emissions from Development Projects TRA-2 Achieve Further VMT Reductions for Transportation and Development Projects			
AQ-6 Expose sensitive receptors to carbon monoxide hot-spots Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
AQ-7 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
4.4 Biological Resources				
BIO-1 Have a substantial adverse effect on any sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS; or have a substantial adverse effect on state or federally regulated waters and wetlands through direct removal, filling, hydrological interruption, or other means Significant impact in 2025, 2035, and 2050	BIO-1a Implement Design, Minimization, and Avoidance Measures for Sensitive Natural Vegetation Communities and Regulated Aquatic Resources BIO-1b Provide Compensatory Mitigation BIO-1c Prepare a Habitat Restoration Plan BIO-1d Prepare Habitat/Long-Term Management Plans	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
	Bio-1e Implement Best Management Practices to Avoid Indirect Impacts			
<p>BIO-2 Have a substantial adverse effect, either directly or indirectly, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or listed by CDFW or USFWS, including their federally designated critical habitat, or species that are considered sensitive in CEQA Guidelines Section 15380</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>BIO-2a Implement Design, Minimization, and Avoidance Measures for Special-Status Animal Species</p> <p>BIO-2b Provide Compensatory Mitigation for Special-Status Plant Species</p> <p>BIO-2c Provide Compensatory Mitigation for Special-Status Animal Species</p> <p>BIO-1a Implement Design, Minimization, and Avoidance Measures for Sensitive Natural Vegetation Communities and Regulated Aquatic Resources</p> <p>BIO-1b Provide Compensatory Mitigation</p> <p>BIO-1c Prepare a Habitat Restoration Plan</p> <p>BIO-1d Prepare Habitat / Long-Term Management Plans</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>BIO-3 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites</p> <p>Significant impact in 2025, 2035, and 2050</p>	BIO-3 Facilitate Wildlife Movement	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
<p>BIO-4 Conflict with the provisions of an adopted HCP, NCCP, or other conservation plan, or with any local policies or ordinances protecting biological resources Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
4.5 Cultural Resources				
<p>CULT-1 Cause a substantial adverse change in the significance of a historical resource or unique archaeological resource Significant impact in 2025, 2035, and 2050</p>	<p>CULT-1a Develop Project-Level Measures for Development Projects and Transportation Network Improvements CULT-1b Implement Monitoring and Data Recovery Programs for Development Projects and Transportation Network Improvements</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>CULT-2 Disturb any human remains, including those interred outside of dedicated cemeteries, in violation of existing laws and regulations protecting human remains Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
4.6 Energy				
<p>EN-1 Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy during project construction or operations</p>	Not applicable	Not applicable	Not applicable	Not applicable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
Less-than-significant impact in 2025, 2035, and 2050				
EN-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
4.7 Geology, Soils, and Paleontological Resources				
GEO-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence showing an earthquake fault is active; • Strong seismic ground shaking; • Seismic-related ground failure, including liquefaction; and • Landslides Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
GEO-2 Locate projects on a geologic unit or soil that is expansive or unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, creating substantial direct or indirect risks to life or property	Not applicable	Not applicable	Not applicable	Not applicable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
Less-than-significant impact in 2025, 2035, and 2050				
GEO-3 Result in substantial soil erosion or the loss of topsoil Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
GEO-4 Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater, potentially causing adverse groundwater impacts Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
PALEO-1 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature Significant impact in 2025, 2035, and 2050	PALEO-1a Identify the Potential for Unique Paleontological Resources or Unique Geologic Features for Development Projects or Transportation Network Improvements PALEO-1b Avoid or Reduce Impacts on Unique Paleontological Resources or Unique Geologic Features for Development Projects or Transportation Network Improvements	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
4.8 Greenhouse Gas Emissions				
GHG-1 Directly or indirectly result in an increase in GHG emissions compared to existing conditions (2016)	Not applicable	Not applicable	Not applicable	Not applicable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
Less-than-significant impact in 2025, 2035, and 2050				
GHG-2 Conflict with the SANDAG region’s achievement of SB 375 GHG emissions reduction targets for 2035 Less-than-significant impact in 2035	Not applicable	Not applicable	Not applicable	Not applicable
GHG-3 Conflict with or impede achievement of an at least 30% reduction in per capita GHG emissions from the entire on-road transportation sector by 2035 compared to existing conditions (2016) Less-than-significant impact in 2035	Not applicable	Not applicable	Not applicable	Not applicable
GHG-4 Conflict with or impede the implementation of local plans adopted for the purpose of reducing GHG emissions Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
GHG-5 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. Significant impact in 2030, 2045, and 2050	GHG-5a Allocate Competitive Grant Funding to Projects that Reduce GHG Emissions and for Updates to CAPs or GHG Reduction Plans GHG-5b Establish New Funding Programs for Zero-Emissions Vehicles and Infrastructure GHG-5c Implement Nature-Based Climate Solutions to Remove Carbon Dioxide from the Atmosphere GHG-5d Develop and Implement Regional Digital Equity Strategy and	Significant and Unavoidable (in 2030)	Significant and Unavoidable (in 2045)	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
	<p>Action Plan to Advance Smart Cities and Close the Digital Divide</p> <p>GHG-5e Implement Measures to Reduce GHG Emissions from Transportation Projects</p> <p>GHG-5f Implement Measures to Reduce GHG Emissions from Development Projects</p> <p>AQ-3b Reduce Diesel Emissions During Construction from Off-Road Equipment</p> <p>AQ-3c Reduce Diesel Emissions from On-Road Vehicles</p> <p>AQ-4 Reduce Exposure to Localized Particulate and/or TAC Emissions</p> <p>TRA-2 Achieve Further VMT Reductions for Transportation and Development Projects</p> <p>WS-1a Implement Water Conservation Measures for Transportation Network Improvements</p> <p>WS-1b Implement Water Conservation Measures for Development Projects</p>			
4.9 Hazards and Hazardous Materials				
HAZ-1 Create a significant hazard by generating hazardous emissions or handling hazardous materials, or result in the release of hazardous materials into the environment during pre-construction, demolition, and/or construction activities, including being located on a Government	Not applicable	Not applicable	Not applicable	Not applicable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
<p>Code Section 65952.5 hazardous materials site Less-than-significant impact in 2025, 2035, and 2050</p>				
<p>HAZ-2 Create a significant hazard to the public, schools within one-quarter mile, or the environment through the routine use, handling, transport, or disposal of hazardous materials Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
<p>HAZ-3 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
<p>HAZ-4 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan or result in inadequate emergency access Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
4.10 Hydrology and Water Quality				
<p>HWQ-1 Substantially degrade surface water or groundwater quality, including in violation of any water quality standards or</p>	Not applicable	Not applicable	Not applicable	Not applicable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
<p>waste discharge requirements or in conflict with a water quality control plan or its implementation</p> <p>Less-than-significant impact in 2025, 2035, and 2050</p>				
<p>HWQ-2 Substantially alter the existing drainage pattern of an area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site</p> <p>Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
<p>HWQ-3 Substantially alter the existing drainage pattern of an area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would (i) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site or (ii) impede or redirect flood flows</p> <p>Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
<p>HWQ-4 Substantially increase risk of pollutant release due to inundation of a flood hazard, tsunami, or seiche zone</p> <p>Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
4.11 Land Use				
LU-1 Physically divide an established community Significant impact in 2025, 2035, and 2050	LU-1 Provide Access and Connections for Transportation Network Improvements	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
LU-2 Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation (including, but not limited to, the general plan, local coastal program, or zoning ordinance) and result in a physical change to the environment not already addressed in the other resource chapters of this EIR Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
4.12 Mineral Resources				
MR-1 Result in the loss of availability of known aggregate and mineral resources supply sites that would be of value to the region and the residents of the state, or result in the loss of availability of a locally-important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan Significant impact in 2025, 2035, and 2050	MR-1a Conserve Aggregate and Mineral Resources During Planning and Design of Development Projects MR-1b Conserve Aggregate and Mineral Resources During Planning and Design of Transportation Network Improvements	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
4.13 Noise and Vibration				
NOI-1 Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable	NOI-1a Implement Construction Noise Reduction Measures for Development Projects and Transportation Network Improvements	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
standards of other agencies; or generate a substantial absolute increase in ambient noise Significant impact in 2025, 2035, and 2050	NOI-1b Implement Operational Noise Reduction Measures for Transportation Network Improvements NOI-1c Implement Operational Noise Reduction Measures for Development Projects			
NOI-2 Generation of excessive groundborne vibration or groundborne noise levels Significant impact in 2025, 2035, and 2050	NOI-2a Implement Construction Groundborne Vibration and Noise Reduction Measures NOI-2b Implement Groundborne Vibration and Noise-Reducing Measures for Rail Operations	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
NOI-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the project would expose people residing or working in the project area to excessive noise levels Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
4.14 Population and Housing				
POP-1 Induce substantial unplanned population growth to areas of the region either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., by extending roads and other infrastructure) Significant impact in 2025, 2035, and 2050	No feasible mitigation	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
<p>POP-2 Displace substantial numbers of people or housing units, which would necessitate the construction of replacement housing elsewhere Significant impact in 2025, 2035, and 2050</p>	<p>POP-2a Design Development Projects to Reduce Displacement POP-2b Design Transportation Network Improvement Projects to Reduce Displacement</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
4.15 Public Services and Utilities				
<p>PS-1 Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered (i.e., expanded) public facilities, in order to maintain adequate fire and police protection, emergency services, schools, libraries, and recreation facilities Significant impact in 2025, 2035, and 2050</p>	<p>PS-1 Implement Mitigation Measures for New/Expanded Public Service Facilities</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>REC-1 Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated Significant impact in 2025, 2035, and 2050</p>	<p>REC-1 Implement Mitigation Measures for Parks and other Recreational Facilities</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>U-1 Result in the expansion, relocation, or construction of wastewater collection and treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities to adequately meet projected capacity needs, the construction of which could cause significant environmental impacts Significant impact in 2025, 2035, and 2050</p>	<p>U-1a Implement Mitigation Measures for New/Expanded Wastewater, Stormwater, Electrical, Natural Gas, and Telecommunications Facilities Associated with Development Projects U-1b Implement Mitigation Measures for New/Expanded Stormwater Facilities Associated with Transportation Network Improvements</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
<p>U-2 Generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure; negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals; or fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste</p> <p>Significant impact in 2035 and 2050. Less-than significant-impact in 2025.</p>	<p>U-2a Implement Mitigation Measures for New/Expanded Solid Waste Facilities</p> <p>U-2b Reduce Construction Waste</p> <p>U-2c Reduce Operational Waste</p>	Not applicable	Significant and Unavoidable	Significant and Unavoidable
4.16 Transportation				
<p>TRA-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities</p> <p>Less-than-significant impact in 2025, 2035, and 2050</p>	Not applicable	Not applicable	Not applicable	Not applicable
<p>TRA-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3 by not achieving the substantial VMT reductions needed to help achieve statewide GHG reduction goals</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>TRA-2 Achieve Further VMT Reductions for Transportation and Development Projects</p> <p>GHG-5a Allocate Competitive Grant Funding to Projects that Reduce GHG Emissions and for Updates to CAPs or GHG Reduction Plans</p> <p>GHG-5d Develop and Implement Regional Digital Equity Strategy and Action Plan to Advance Smart Cities and Close the Digital Divide</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
	GHG-5f Implement Measures to Reduce GHG Emissions from Development Projects			
TRA-3 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
TRA-4 Lead to a lack of parking supply that would cause significant secondary environmental impacts not already analyzed in other resource chapters of this EIR Less-than-significant impact in 2025, 2035, and 2050	Not applicable	Not applicable	Not applicable	Not applicable
4.17 Tribal Cultural Resources				
TCR-1 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 that is either (1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or (2) determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1	TCR-1a Implement Tribal Cultural Resources Mitigation Measures for Development Projects and Transportation Network Improvements TCR-1b Implement Monitoring and Mitigation Programs for Development Projects and Transportation Network Improvements	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
Significant impact in 2025, 2035, and 2050				
4.18 Water Supply				
<p>WS-1 Not have sufficient water supplies available to serve the projected regional demand during normal, dry and multiple dry years</p> <p>Significant impact in 2050. Less-than-significant impact in 2025 and 2035</p>	<p>WS-1a Implement Water Conservation Measures for Transportation Network Improvements</p> <p>WS-1b Implement Water Conservation Measures for Development Projects</p> <p>WS-1c Ensure Adequate Water Supply for Development Projects</p>	Not applicable	Not applicable	Significant and Unavoidable
<p>WS-2 Substantially decrease groundwater supplies, or interfere substantially with groundwater recharge such that the proposed Plan would impede sustainable management of groundwater basins or obstruct implementation of a sustainable groundwater management plan</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>WS-1a Implement Water Conservation Measures for Transportation Network Improvements</p> <p>WS-1b Implement Water Conservation Measures for Development Projects</p> <p>WS-2 Implement Groundwater Measures to Ensure Sustainable Yield for Development Projects</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>WS-3 Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>WS-1a Implement Water Conservation Measures for Transportation Network Improvements</p> <p>WS-1b Implement Water Conservation Measures for Development Projects</p> <p>WS-1c Ensure Adequate Water Supply for Development Projects</p> <p>WS-2 Implement Groundwater Measures to Ensure Sustainable Yield for Development Projects</p> <p>WS-3 Implement Measures for New or Expanded Water Facilities</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

Impacts of the Proposed Plan in 2025, 2035, and 2050	Mitigation Measures	Level of Significance After Mitigation		
		2025	2035	2050
4.19 Wildfire				
<p>WF-1 Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; or expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>WF-1 Reduce Wildfire Risk for Development and Transportation Projects</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>WF-2 Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>WF-2 Reduce Wildfire Risk Related to Wildfire-Associated Infrastructure Required to Support Development or Transportation Projects</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
<p>WF-3 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes</p> <p>Significant impact in 2025, 2035, and 2050</p>	<p>WF-3 Reduce Post-Fire Risks Related to Flooding, Landslides, Slope Instability, or Drainage Changes for Development and Transportation Projects</p>	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable

ES.6 ALTERNATIVES TO THE PROPOSED PLAN

Chapter 6 in this EIR analyzes three alternatives to the proposed Plan in detail. The analysis determines the extent to which alternatives are capable of avoiding or substantially lessening the significant environmental effects of the proposed Plan. Chapter 6 also explains why other alternatives were considered but rejected from detailed consideration. The three alternatives analyzed in detail are listed below and summarized in Table ES-2:

- **Alternative 1:** No Project Alternative
- **Alternative 2:** 2019 Transportation Network with New Value Pricing and User Fee Policies
- **Alternative 3:** All Growth Focused in Mobility Hubs and More Progressive Value Pricing and User Fee Policies

The alternatives respond to public suggestions for alternatives that reduce vehicle miles traveled, air pollutants, and GHG emissions, while decreasing sprawl and the consumption of native habitat areas. The alternatives were developed based on public input from the NOP scoping period and during the development of the proposed Plan.

Alternative 3 is considered the environmentally superior alternative. As discussed in Chapter 6, although Alternative 3 would not reduce any of the proposed Plan's significant impacts to less-than-significant levels, it would reduce many of the proposed Plan's significant impacts. Compared to the proposed Plan's significant impacts, Alternative 3 would have decreased impacts for one or more significance criteria for the following environmental resources: aesthetics and visual resources, agricultural and forestry resources, air quality, biological resources, cultural resources, energy, paleontological resources, greenhouse gas emissions, mineral resources, noise and vibration, public services, transportation, tribal cultural resources, water supply, and wildfire. Compared to the proposed Plan's significant impacts, Alternative 3 would have increased impacts for only a few significance criteria: for land use, and population and housing.

Alternative 3 would result in a ~~-23.1~~ 23.1 percent per capita GHG reduction in 2050, which would result in a greater reduction than the proposed Plan (~~-20.7~~ 20.7 percent below 2005). In addition, Alternative 3 would result in VMT per capita of ~~16.3~~ 15.6 (for all vehicle classes home-based) compared to the proposed Plan VMT per capita of ~~16.8~~ 16.03 in 2050 (see Table O-2 in Appendix O). Alternative 3 would result in a total VMT increase of ~~3,479,273~~ 2,756,715 miles per day in year 2050, which is approximately ~~38~~ 39 percent lower than the proposed Plan (total VMT increase of ~~5,611,752~~ 4,519,230 miles per day in year 2050). Alternative 3 would also result in a decrease in ROG, NO_x (with the exception of a 0.01 tons per day increase in 2025), CO, PM_{2.5}, PM₁₀, and SO_x emissions compared to the proposed Plan from on-road sources. Among the alternatives, Alternative 3 would achieve the greatest reductions for VMT, GHG emissions, and air quality emissions compared to the proposed Plan.

**Table ES-2
Summary of Alternatives Considered in Detail**

Components		Alternative 1: No Project	Alternative 2: 2019 Transportation Network with New Value Pricing and User Fee Policies	Alternative 3: All Growth in Mobility Hubs and More Progressive Value Pricing and User Fee Policies
<i>Land Use Pattern</i>		2019 Federal RTP Land Use Pattern	2019 Federal RTP land use pattern	Similar to Proposed Plan except land use pattern with new growth focused in proposed mobility hubs
<i>Transportation Network</i>		“No Build” Projects	2019 Federal RTP transportation network	Proposed Plan transportation network
<i>New Value Pricing and User Fees Policies</i>	<i>Toll Pricing</i>	Existing Policy	Same as proposed Plan (By 2035, update toll pricing to \$0.30 per mile on I-15 and other Managed Lane facilities)	Same as proposed Plan (By 2035, update toll pricing to \$0.30 per mile on I-15 and other Managed Lane facilities)
	<i>Road User Charge</i>	None	None	By 2026, increase road user charge rate to 34.95 cents/mile, compared to 23.3 cents/mile by 2030 in the proposed Final Plan .
	<i>Parking Costs</i>	Existing Policy	2019 Federal RTP	Increases in parking costs by 50% compared to the proposed Plan.
	<i>Transit Costs</i>	Existing Policy	2019 Federal RTP (No planned transit fare discounts.)	Free transit by 2035.
	<i>Microtransit Costs</i>	N/A	N/A	Free Microtransit by 2035, compared to \$1.25 one way/\$3 day in the proposed Plan
	<i>Micro-Transponder ownership</i>	N/A	Same as proposed Plan (Microtransponder ² ownership of 100 percent by 2035)	Same as proposed Plan (Microtransponder ownership of 100 percent by 2035)
	<i>Telework Assumptions</i>	N/A	Same as proposed Plan	Same as proposed Plan

Components		Alternative 1: No Project	Alternative 2: 2019 Transportation Network with New Value Pricing and User Fee Policies	Alternative 3: All Growth in Mobility Hubs and More Progressive Value Pricing and User Fee Policies
	<i>Micromobility</i>	N/A	Same as proposed Plan (Increases in micro-mobility through assumed personal owned e-bike growth)	Same as proposed Plan (Increases in micro-mobility through assumed personal owned e-bike growth)
<i>Funding</i>		Committed funding	2019 Federal RTP (\$130 billion)	Same as Proposed Plan (\$163 billion)

¹These consist of transportation projects with environmental clearance, that have full funding, are under construction, or are otherwise reasonably foreseeable based on current plans.

²A microtransponder is an electronic toll collection device that allows users to pay tolls automatically from inside their vehicle.

