4.3 GREENHOUSE GAS EMISSIONS

This section evaluates impacts of the proposed Amendment related to greenhouse gas (GHG) emissions.

4.3.1 EXISTING CONDITIONS

The existing conditions included in Section 4.8, *Greenhouse Gas Emissions*, of the approved Plan PEIR are consistent with this evaluation and have not materially changed since the preparation of the approved Plan PEIR, except for the updates included herein.

GREENHOUSE GAS INVENTORIES

A GHG inventory is a quantification of all GHG emissions and sinks[1] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a particular building or person). Although some processes are difficult to evaluate, agencies and practitioners have developed tools to quantify emissions from many common sources.[2]

Within the San Diego region, on-road transportation – passenger cars and light-duty vehicles is the largest emission source (42 percent), followed by electricity consumption (20 percent), natural gas consumption (12 percent), industrial uses (8 percent), on-road transportation – heavy-duty trucks and vehicles (5 percent), other fuels (4 percent), off-road vehicles (2 percent), solid waste (2 percent), and other sectors representing 1 percent of total emissions or less (Appendix H of the approved Plan PEIR and Appendix C of this SEIR). Table 4.3-1 summarizes the 2016 GHG inventory for the San Diego region.

Table 4.3-1
Total Greenhouse Gas Emissions in the San Diego Region, 2016

Source	Annual Emissions ($MMTCO_2e$)	Percentage of Annual Emissions
Passenger Cars and Light-Duty Vehicles	10.9	42%
Electricity	5.3	20%
Natural Gas	3.1	12%
Industrial	2.1	8%
Heavy-Duty Trucks and Vehicles	1.3	5%
Other Fuels	1.1	4%
Off-Road Transportation	0.62	2%
Solid Waste	0.59	2%
Water	0.24	1%
Aviation	0.21	1%

[1]A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

[2] Global, national, and State GHG emissions inventories have been updated since the preparation of the approved Plan PEIR, but the updates are not relevant to analyzing the proposed Amendment's GHG impacts and so are not included in this SEIR.

Source	Annual Emissions ($MMTCO_2e$)	Percentage of Annual Emissions
Rail	0.11	<1%
Wastewater	0.07	<1%
Agriculture	0.05	<1%
Marine Vessels	0.05	<1%
Soil Management	0.05	<1%
Total	**25.8**	**100%**

Source: Appendix H of the approved Plan PEIR and Appendix C of this SEIR.
$MMTCO_2e$ = million metric tons of carbon dioxide equivalent

4.3.2 REGULATORY SETTING

The regulatory setting in Section 4.8 of the approved Plan PEIR included relevant federal, State, regional, and local regulations. The regulatory setting included in Section 4.8 of the approved Plan PEIR is consistent with this evaluation and has not materially changed since the preparation of the approved Plan PEIR, except for the following updates.

FEDERAL LAWS, REGULATIONS, PLANS, AND POLICIES

Fuel Economy Standards

The National Highway Traffic Safety Administration (NHTSA) and EPA set the Corporate Average Fuel Economy Standards (CAFE) to improve the average fuel economy and reduce GHG emissions generated by cars and light-duty trucks. NHTSA and EPA had adopted a rule in 2019 for the current fuel efficiency standards for passenger cars and light trucks, which established new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). NHTSA and EPA had also issued a regulation revoking California's Clean Air Act waiver, which allows California to set its own emissions standards, asserting that the waiver was preempted by federal law (SAFE Rule Part One, 84 *Federal Register* 51310, September 27, 2019).

On December 21, 2021, the NHTSA published its CAFE Preemption rule, which finalizes its repeal of the SAFE Vehicles Rule Part One. NHTSA's 2021 rule thus reopens pathways for State and local fuel economy laws (NHTSA 2021).

SAFE Rule Part Two was finalized on March 31, 2020, and went into effect on June 29, 2020. Part Two of the SAFE Rule sets the CAFE standards to increase in stringency by 1.5 percent per year above model year 2020 levels for model years 2021–2026. These standards are lower than the previous CAFE standards which required that model years 2021–2026 increase in stringency by 5 percent per year. The current federal administration has stated its intent to revisit the current CAFE standards.

STATE LAWS, REGULATIONS, PLANS, AND POLICIES

Legislative GHG Reduction Targets

State law sets forth the following requirements for reducing statewide levels of GHG emissions by 2020, 2030, and 2045.

- **AB 1279, Health and Safety Code Section 38562.2.** On September 16, 2022, AB 1279 codified the State's 2045 GHG emissions target expressed under EO B-55-18. The bill establishes a State policy for California to achieve net zero GHG emissions (i.e., reach a balance between the GHGs emitted and removed from the atmosphere) no later than 2045 and to achieve and maintain net negative GHG emissions from then on. It also mandates an 85 percent reduction in statewide anthropogenic (human-made) GHG emissions (from 1990 levels) by 2045. AB 1279 recognizes that meeting these targets requires direct GHG emission reductions and removal of carbon dioxide (CO_2) from the atmosphere, as well as a nearly complete transition from fossil fuels. As such, the bill directs CARB to work with relevant State agencies to ensure Scoping Plan updates include measures that put California on a trajectory to achieve these targets. It also tasks CARB with implementing strategies that facilitate CO_2 removal solutions and carbon capture, utilization, and storage technologies.

State Agency GHG Reduction Plans and Strategies

- **California's 2022 Climate Change Scoping Plan.** Pursuant to AB 1279, CARB updated the 2017 Scoping Plan to address implementation of GHG reduction strategies to meet the 2045 reduction target. The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) was approved in December 2022. The Scoping Plan Scenario achieves the AB 1279 target of 85 percent below 1990 levels by 2045 and identifies a need to accelerate the 2030 target to 48 percent below 1990 levels. The plan builds upon GHG reduction measures of the previous Scoping Plans and includes additional measures to capture and store atmospheric carbon through the State's natural and working lands and using a variety of mechanical approaches. By incorporating GHG emission reduction and carbon capture methods, the 2022 Scoping Plan identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 (CARB 2022b). Appendix D of the Scoping Plan includes recommendations for local government actions to help the State meet AB 1279's GHG reduction targets.

Fuel Economy Standards

- **Advanced Clean Cars II.** In August 2022, CARB Board members voted to approve the Advanced Clean Cars II proposal, which will dramatically reduce emissions from passenger cars for model years 2026 through 2035. This requires an increasing proportion of new vehicles to be zero-emission vehicles, with the goal of 100 percent zero-emission vehicles for new vehicles sold by 2035 (CARB 2022c). CARB has neither incorporated the regulation into the EMFAC model nor provided off-model correction factors. Therefore, Advanced Clean Cars II had no effect on the emissions inventories analyzed in this SEIR.

Building Efficiency

- **California Building Energy Efficiency Standards.** The energy consumption of new residential and nonresidential buildings in California is regulated by the Building Energy Efficiency Standards (California Energy Code). CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The 2019 California Energy Code was replaced by the 2022 standards, effective January 1, 2023. The 2022 California Energy Code establishes "electric-ready" requirements for new homes, expands solar photovoltaic (PV) and battery storage requirements, strengthens ventilation standards, and encourages electric heat pumps. The CEC estimates that over the next 30 years, the 2022 standards will reduce 10 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) (ACE Resources 2022).
- **California Green Building Standards Code.** California has adopted the Green Building Standards Code (CALGreen, 24 California Code of Regulations [CCR] Part 11), which identifies aggressive energy efficiency standards for new residential and nonresidential buildings that are continuously updated every few years.

The most recent update was the 2022 Building Energy Efficiency Standards, which were adopted in July 2022 and took effect on January 1, 2023. Future standards are expected to result in zero net energy for newly constructed commercial buildings. CalGreen requirements are complementary with the California Energy Code discussed above.

REGIONAL AND LOCAL LAWS, REGULATIONS, PLANS, AND POLICIES

SANDAG

ReCAP

The SANDAG Board of Directors (Board) accepted the Regional Climate Action Planning Framework (ReCAP) in 2018. Version 1.1 of the ReCAP was released in December 2020 (SANDAG 2020). ReCAP identifies best practices and guidance for preparing Climate Action Plans (CAPs) and monitoring implementation over time. ReCAP establishes a technical framework for regionally consistent climate action planning that preserves local policy flexibility for the unique needs and circumstances of each local jurisdiction.

Electric Vehicle Readiness Planning and Plug-in San Diego

SANDAG has provided a forum for local governments and other regional stakeholders to address barriers to deploying alternative fuel vehicles and siting charging and fueling stations. In 2021, SANDAG completed a regional readiness plan for plug-in electric vehicles (EVs) and charging stations titled the San Diego Regional Plan to Support Plug-in Electric Vehicle Readiness (SANDAG 2021). The plan is part of a statewide effort funded through the CEC to prepare local governments for the deployment of EVs. San Diego's Readiness Plan identifies barriers to the deployment of EV charging infrastructure and includes recommendations and resources for public agencies, property owners, consumers, and other stakeholders to overcome those barriers.

With additional funding from the CEC, SANDAG transitioned from readiness planning to implementation via the Plug-in San Diego initiative. The initiative is a combination of resource development, training, technical assistance, and outreach. The primary audience of the project includes member agencies, employers, and multi-family properties. The project is also developing a needs assessment to help document existing infrastructure and identify gaps, including access, in the current EV charging network. One of the novel aspects of the initiative is the availability of a technical expert (the "EV Expert") who is made available in person, via phone, and email to assist stakeholders.

Youth Opportunity Pass Program

Starting May 1, 2022, the Youth Opportunity Pass Program provides anyone aged 18 and under with a pass to ride transit for free in San Diego County. This includes unlimited rides on the bus, Trolley, COASTER, and SPRINTER at no cost through June 30, 2024. SANDAG is funding this pilot program, with support from the County of San Diego, as part of its Transit Equity Initiative, which is guided by the 2021 Regional Plan.

Local Plans to Reduce GHG Emissions

Most of SANDAG's member jurisdictions have adopted CAPs, GHG reduction plans, and/or sustainability plans that set goals and targets for the reduction of GHG emissions, and outline policies and/or measures to achieve those goals and targets. Table 4.3-2 summarizes and updates the status of local plans to reduce GHG emissions in the San Diego region (as of March 2023).

Table 4.3-2
Summary of Local Plans to Reduce GHG Emissions (as of March 2023)

Jurisdiction	Document Title	Adopted (year)	New Plan or Update In Progress?	CEQA Qualified Plan?[1]
Carlsbad	Climate Action Plan	2020	Yes[2]	Yes
Chula Vista	Climate Action Plan	2017	No	No
Coronado	Climate Action Plan	2022	No	Yes
Del Mar	Climate Action Plan	2016	No	No
El Cajon	El Cajon Sustainability Initiative: Policies to Reduce Greenhouse Gas Emissions	2020	No	No
Encinitas	Climate Action Plan	2020	No	Yes
Escondido	Climate Action Plan	2021	No	Yes
Imperial Beach	Resilient Imperial Beach: Climate Action Plan	2019	No	No
La Mesa	Climate Action Plan	2018	No	Yes
Lemon Grove	Climate Action Plan	2020	No	No
National City	Climate Action Plan	2011	No	Yes
Oceanside	Climate Action Plan	2019	No	No
Poway	None	N/A	No	N/A
San Diego (City)	Climate Action Plan	2022	Yes	Yes
San Diego (County)	Climate Action Plan	N/A	Yes	N/A
San Diego (Port)	Climate Action Plan	2013	No	Yes
San Diego County Regional Airport Authority	Sustainability Management Program	2020	No	No
San Marcos	Climate Action Plan	2020	No	Yes
Santee	Sustainable Santee Plan	2019	No	Yes
Solana Beach	Climate Action Plan	2017	No	No
Vista	Climate Action Plan	2021	No	Yes

Sources: City of Carlsbad 2020, City of Chula Vista 2017, City of Coronado 2021, City of Del Mar 2016, City of El Cajon 2020, City of Encinitas 2020, City of Escondido 2021, City of Imperial Beach 2019, City of La Mesa 2018, City of Lemon Grove 2020, National City 2011, City of Oceanside 2019, City of Poway 2009, City of San Diego 2015, Port of San Diego 2013, San Diego County Regional Airport Authority 2020, City of San Marcos 2020, City of Santee 2019, City of Solana Beach 2017, and City of Vista 2021.

[1] CEQA Qualified Plan = a plan for the reduction of GHG emissions that includes the elements listed in CEQA Guidelines Section 15183.5(b)(1) (as determined by the agency adopting the plan).

[2] As of late 2022, the City of Carlsbad is developing measures for a draft CAP update.

4.3.3 SIGNIFICANCE CRITERIA

Appendix G of the CEQA Guidelines provides criteria for determining the significance of a project's environmental impacts in the form of Initial Study checklist questions. This SEIR uses the same significance criteria as the approved Plan PEIR that were based on the Appendix G checklist questions for GHGs. Therefore, for purposes of this SEIR, the implementation of the proposed Amendment would have a significant GHG impact if it would:

GHG-1	Directly or indirectly result in an increase in GHG emissions compared to existing conditions (2016).
GHG-2	Conflict with the SANDAG region's achievement of SB 375 GHG emissions reduction targets for 2035.
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).
GHG-4	Conflict with or impede the implementation of local plans adopted for the purpose of reducing GHG emissions.
GHG-5	Be inconsistent with the State's ability to achieve the 2030 reduction target of SB 32, the accelerated 2030 target of the 2022 Scoping Plan, and long-term reduction goals of Executive Orders S-3-05, B-55-18, and AB 1279.

4.3.4 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

GHG-1 DIRECTLY OR INDIRECTLY RESULT IN AN INCREASE IN GHG EMISSIONS COMPARED TO EXISTING CONDITIONS (2016)

ANALYSIS METHODOLOGY

As with the approved Plan PEIR, this analysis is based on the *2016 GHG Inventory and Projections for the San Diego Region* report prepared by SANDAG (Appendix H of the approved Plan PEIR), the updated Activity Based Model (ABM) traffic data associated with the proposed Amendment, and the updated EMFAC2017 emission rates associated with the repeal of the SAFE Vehicles Rule Part One. This report provides an estimate of 2016 GHG emissions for the San Diego region and GHG projections for the years 2025, 2035, and 2050. This analysis compares regional GHG emissions projections for 2025, 2035, and 2050 to 2016 baseline regional GHG emissions to determine if implementation of the proposed Amendment would directly or indirectly result in an increase in GHG emissions compared to existing conditions (2016).

IMPACT ANALYSIS

The proposed Amendment would not change land use or anticipated growth within the region or introduce new transportation network or facility improvements from what was analyzed in the approved Plan PEIR. The proposed Amendment does remove the regional road usage charge. As discussed in Section 4.5, *Transportation*, of this SEIR, this modification would result in a slightly increased vehicle miles traveled (VMT) over what was identified in the approved Plan PEIR. In addition, in the interim between the preparation of the approved Plan PEIR and SEIR the SAFE Vehicles Rule Part One has been repealed. As a result, GHG emissions related to on-road vehicle gasoline and diesel during operations would change.

2025

Under implementation of the proposed Amendment, total GHG emissions in the San Diego region are projected to be approximately 22.2 $MMTCO_2e$ in 2025, or about 14 percent less than total GHG emissions in 2016 (Table 4.3-5).

Table 4.3-5
Total Greenhouse Gas Emissions in the San Diego Region, 2016 to 2025

GHG Emissions Category	2016 (Annual $MMTCO_2e$)[1]	2025 Proposed Amendment (Annual $MMTCO_2e$)[1]	Change from 2025 Approved Plan PEIR[2]
On-Road Transportation – Passenger Cars and Light-Duty Vehicles	10.9	8.2	0.4
Electricity	5.3	3.4	0.0
Natural Gas	3.1	3.3	0.0
Industrial	2.1	2.2	0.0
On-Road Transportation – Heavy-Duty Trucks and Vehicles[3]	1.3	1.4	-0.3
Other Fuels	1.1	1.4	0.0
Off-Road Transportation	0.6	0.7	0.0
Solid Waste	0.6	0.6	0.0
Water	0.2	0.3	0.0
Aviation	0.2	0.3	0.0
Rail	0.1	0.2	0.0
Wastewater	0.1	0.1	0.0
Agriculture	0.05	0.06	0.0
Marine Vessels	0.05	0.06	0.0
Soil Management	0.05	0.04	0.0
Total Annual Emission ($MMTCO_2e$)	**25.8**	**22.2**	**0.1 (0.5%)**
Change from 2016 to 2025	**-3.6 $MMTCO_2e$ (14%)**		

Source: Appendix H of the approved Plan PEIR and Appendix C of this SEIR.
[1] Emissions are estimated using global warming potential values from the Intergovernmental Panel on Climate Change's Fourth Assessment Report.
[2] As the SAFE Vehicles Rule Part One has been repealed, the proposed Amendment emissions are compared to the approved Plan emissions that exclude the EMFAC2017 SAFE Rule correction factors. The approved Plan emissions reflect the modeling corrections described in Chapter 2, *Project Description*, of this SEIR.
[3] The modeling corrections noted in Chapter 2 of this SEIR resulted in a change to the vehicle mix causing an increase in light-duty VMT and a reduction in heavy-duty VMT. This change affects all model years.

2025 Conclusion

No New or Substantially More Severe Significant Impacts in Comparison to the Approved Plan PEIR: The approved Plan PEIR identified that Impact GHG-1 in the year 2025 would be less than significant. As shown in Table 4.3-5, implementation of the proposed Amendment would not directly or indirectly result in an increase in GHG emissions compared to existing conditions because total annual regional emissions would be

approximately 14 percent lower in 2025 relative to 2016. Therefore, although the proposed Amendment increases the GHG emissions within the San Diego region by 0.1 $MMTCO_2e$ (0.5 percent), the conclusion for the proposed Amendment in the year 2025 would be unchanged from what was identified in the approved Plan PEIR and would remain less than significant.

2035

Under implementation of the proposed Amendment, total GHG emissions in the San Diego region are projected to be approximately 18.5 $MMTCO_2e$ in 2035, or about 28 percent less than GHG emissions in 2016 (Table 4.3-6).

Table 4.3-6
Total Greenhouse Gas Emissions in the San Diego Region, 2016 to 2035

GHG Emissions Category	2016 (Annual $MMTCO_2e$)[1]	2035 Proposed Amendment (Annual $MMTCO_2e$)[1]	Change from 2035 Approved Plan PEIR[2]
On-Road Transportation – Passenger Car and Light-Duty Vehicles	10.9	6.2	0.4
Electricity	5.3	1.3	0.0
Natural Gas	3.1	3.4	0.0
Industrial	2.1	2.4	0.0
On-Road Transportation – Heavy-Duty Trucks and Vehicles	1.3	1.4	-0.3
Other Fuels	1.1	1.5	0.0
Off-Road Transportation	0.6	0.8	0.0
Solid Waste	0.6	0.7	0.0
Water	0.2	0.2	0.0
Aviation	0.2	0.3	0.0
Rail	0.1	0.2	0.0
Wastewater	0.1	0.1	0.0
Agriculture	0.05	0.06	0.0
Marine Vessels	0.05	0.06	0.0
Soil Management	0.05	0.04	0.0
Total Annual Emission ($MMTCO_2e$)	**25.8**	**18.5**	**0.1 (0.5%)**
Change from 2016 to 2035	**-7.3 $MMTCO_2e$ (28%)**		

Source: Appendix H of the approved Plan PEIR and Appendix C of this SEIR.
[1] Emissions are estimated using global warming potential values from the Intergovernmental Panel on Climate Change's Fourth Assessment Report.
[2] As the SAFE Vehicles Rule Part One has been repealed, the proposed Amendment emissions are compared to the approved Plan emissions that exclude the EMFAC2017 SAFE Rule correction factors. The approved Plan emissions reflect the modeling corrections described in Chapter 2 of this SEIR.

2035 Conclusion

No New or Substantially More Severe Significant Impacts in Comparison to the Approved Plan PEIR: The approved Plan PEIR identified that Impact GHG-1 in the year 2035 would be less than significant. As shown in

Table 4.3-6, implementation of the proposed Amendment would not directly or indirectly result in an increase in GHG emissions compared to existing conditions because total annual regional emissions would be approximately 28 percent lower in 2035 relative to 2016. Therefore, although the proposed Amendment increases the GHG emissions within the San Diego region by 0.1 $MMTCO_2e$ (0.5 percent), the conclusion for the proposed Amendment in the year 2035 would be unchanged from what was identified in the approved Plan PEIR and would remain less than significant.

2050

Under implementation of the proposed Amendment, total GHG emissions in the San Diego region are projected to be approximately 17.8 $MMTCO_2e$ in 2050, or about 31 percent less than GHG emissions in 2016 (Table 4.3-7).

Table 4.3-7
Total Greenhouse Gas Emissions in the San Diego Region, 2016 to 2050

GHG Emissions Category	2016 (Annual $MMTCO_2e$)[1]	2050 Proposed Amendment (Annual $MMTCO_2e$)[1]	Change from 2050 Approved Plan PEIR[2]
On-Road Transportation – Passenger Car and Light-Duty Vehicles	10.9	6.0	0.4
Electricity	5.3	0.2	0.0
Natural Gas	3.1	3.6	0.0
Industrial	2.1	2.5	0.0
On-Road Transportation – Heavy-Duty Trucks and Vehicles	1.3	1.4	-0.3
Other Fuels	1.1	1.5	0.0
Off-Road Transportation	0.6	1.0	0.0
Solid Waste	0.6	0.7	0.0
Water	0.2	0.0	0.0
Aviation	0.2	0.4	0.0
Rail	0.1	0.2	0.0
Wastewater	0.07	0.08	0.0
Agriculture	0.05	0.06	0.0
Marine Vessels	0.05	0.08	0.0
Soil Management	0.05	0.04	0.0
Total Annual Emission ($MMTCO_2e$)	**25.8**	**17.8**	**0.1 (0.6%)**
Change from 2016 to 2050	**-8.0 $MMTCO_2e$ (31%)**		

Source: Appendix H of the approved Plan PEIR and Appendix C of this SEIR.
[1] Emissions are estimated using global warming potential values from the Intergovernmental Panel on Climate Change's Fourth Assessment Report.
[2] As the SAFE Vehicles Rule Part One has been repealed, the proposed Amendment emissions are compared to the approved Plan emissions that exclude the EMFAC2017 SAFE Rule correction factors. The approved Plan emissions reflect the modeling corrections described in Chapter 2 of this SEIR.

2050 Conclusion

No New or Substantially More Severe Significant Impacts in Comparison to the Approved Plan PEIR: The approved Plan PEIR identified that Impact GHG-1 in the year 2050 would be less than significant. As shown in Table 4.3-7, implementation of the proposed Amendment would not directly or indirectly result in an increase in GHG emissions compared to existing conditions because total annual regional emissions would be approximately 31 percent lower in 2050 relative to 2016. Therefore, although the proposed Amendment increases the GHG emissions within the San Diego region by 0.1 $MMTCO_2e$ (0.6 percent), the conclusion for the proposed Amendment in the year 2050 would be unchanged from what was identified in the approved Plan PEIR and would remain less than significant.

Exacerbation of Climate Change Effects

As discussed above, the proposed Amendment will reduce the GHG emissions within the San Diego region when compared to the 2016 baseline. Therefore, when compared to the approved Plan, the 0.1 $MMTCO_2e$ increase associated with the proposed Amendment would not exacerbate any GHG emissions that occur due to climate change effects.

GHG-2 CONFLICT WITH THE SANDAG REGION'S ACHIEVEMENT OF SB 375 GHG EMISSIONS REDUCTIONS TARGETS FOR 2035

ANALYSIS METHODOLOGY

The analysis evaluates whether the proposed Amendment would conflict with the SB 375 GHG emission reduction target for 2035. SB 375 requires CARB to develop and update regional GHG emission reduction targets compared to 2005 emissions for passenger vehicles for 2020 and 2035. The updated targets established for SANDAG by CARB in 2018 are to reduce per capita CO_2 emissions 15 percent below 2005 levels by 2020, and to 19 percent below 2005 levels by 2035 (CARB 2018). CARB has not developed any post-2035 targets (CARB 2018). Because the proposed Amendment is anticipated to be adopted in 2023, its implementation is unrelated to SANDAG achieving the 2020 target, because 2020 is in the past. Therefore, conflict with the 2020 target is not addressed herein.

Because SB 375 does not establish 2050 GHG emissions reduction targets, this SEIR does not present a 2050 analysis of conflicts with SB 375 emissions reduction targets for that horizon year.

As with the approved Plan PEIR, the SB 375-related GHG emissions reductions in 2035 from implementation of the proposed Amendment were calculated by SANDAG using the CARB model EMFAC2014 and adjustment factors provided by CARB to account for differences in emissions rates between EMFAC2007 (used to set the 2005 baseline and original targets in 2010) and EMFAC2014. Off-model calculators were used to calculate emission reductions associated with strategies that are not accounted for in SANDAG travel demand modeling tools. Refer to Appendix I of the approved Plan PEIR for discussion of the CARB methodology that SANDAG is required to use when performing SB 375 calculations, including the reasons for using the EMFAC2014 model.

IMPACT ANALYSIS

The proposed Amendment would not change land use or anticipated growth within the region or introduce new transportation network or facility improvements from what was analyzed in the approved Plan PEIR. The proposed Amendment does remove the regional road usage charge. As discussed in Section 4.5, *Transportation*, of this SEIR, this modification would result in a slightly increased VMT compared to what was identified in the approved Plan PEIR. In addition, in the interim between the preparation of the SEIR and this modification, the SAFE Vehicles Rule Part One was repealed. As a result, GHG emissions related to on-road vehicle gasoline and diesel during operations would change.

2035

CARB's target is for SANDAG to reduce per capita CO_2 emissions from passenger cars and light-duty trucks to 19 percent below 2005 levels by 2035. Table 4.3-8 summarizes the CO_2 per capita reductions from on-model and off-model strategies after accounting for the EMFAC adjustment factor and induced demand adjustment factor. As shown in Table 4.3-8, implementation of the proposed Amendment would reduce per capita CO_2 emissions from passenger cars and light-duty trucks to 18.6 percent below 2005 levels by 2035. Therefore, after rounding, implementation of regional growth and land use change and transportation network improvements and programs would not conflict with SB 375 GHG emission reduction targets. CARB's Final SCS Program and Evaluation Guidelines provide: "MPOs that rely on a combination of modeled and off-model methods to estimate per capita GHG emission reductions from its RTP/SCS should round to the nearest integer percent" (Final SCS Program and Evaluation Guidelines, Appendices, at p. 28)

Table 4.3-8
SB 375 GHG Reduction Targets and GHG Emissions Under the Proposed Amendment from Passenger Vehicles and Light-Duty Trucks, 2035

	Proposed Amendment Per Capita Reductions from 2005 Levels	Change from Approved Plan PEIR
Per Capita Reduction Under the Proposed Amendment (On-Model Results Only)	-17.7%	1.6
Per Capita Reduction Under the Proposed Amendment (Off-Model Results Only)	-3.0%	0
CARB Adjustment Factor for EMFAC 2007–2014[1]	+1.7%	0
Induced Demand Adjustment Factor[2]	+0.3%	0.1
Per Capita Reductions[3]	-18.6%	1.8
CARB Target	-19%	0

Source: Appendix I of the approved Plan PEIR and Appendix C of this SEIR.
[1] The GHG reductions for the proposed Amendment were calculated using the CARB model EMFAC 2014 and adjustment factors provided by CARB to account for differences in emissions rates between EMFAC 2007 (used to set the original targets in 2010) and EMFAC 2014.
[2] The induced demand adjustment factor methodology is described in Attachment 3 of Appendix I of the approved Plan PEIR.
[3] CARB's Final SCS Program and Evaluation Guidelines provide: "MPOs that rely on a combination of modeled and off-model methods to estimate per capita GHG emission reductions from its RTP/SCS should round to the nearest integer percent" (Final SCS Program and Evaluation Guidelines, Appendices, at p. 28).

2035 Conclusion

No New or Substantially More Severe Significant Impacts in Comparison to the Approved Plan PEIR: The approved Plan PEIR determined that implementation of the approved Plan would not conflict with SB 375 emission reduction targets for 2035, and impacts would be less than significant. As shown in Table 4.3-8, implementation of the proposed Amendment would not conflict with SB 375 emission reduction targets for 2035 because it would result in a 19 percent reduction in per capita CO_2 emissions from passenger cars and light-duty trucks from 2005 levels by 2035, which meets the 2035 target of a 19 percent reduction for the SANDAG region. Therefore, the conclusion for the proposed Amendment in the year 2035 would be unchanged from what was identified in the approved Plan PEIR and would remain less than significant.

Exacerbation of Climate Change Effects

Although there will be climate change effects in the San Diego region that could increase GHG emissions, as described in Section 4.8.1 of the approved Plan PEIR, the proposed Amendment would reduce GHG emissions within the San Diego region when compared to the 2016 baseline. Therefore, the proposed Amendment would not exacerbate any GHG emissions that occur due to climate change effects.

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)

ANALYSIS METHODOLOGY

The analysis evaluates whether the proposed Amendment would achieve at least a 30 percent reduction in per capita emissions from the entire on-road transportation sector by 2035 as compared to baseline conditions (2016). This target was included in SANDAG Board of Directors Resolution No. 2021-17, which was adopted on April 9, 2021. For purposes of this analysis, the entire on-road transportation sector includes the following sectors from the regional inventory:

- On-road transportation – passenger cars and light-duty trucks, and
- On-road transportation – heavy-duty trucks and vehicles.

As with the approved Plan PEIR, to perform this analysis, SANDAG has summed existing GHG emissions in the above sectors for 2016, and divided by the 2016 regional population to determine existing on-road transportation emissions per capita. SANDAG used the same method to determine on-road transportation emissions per capita in 2035. The per capita metrics for 2016 and 2035 are then compared to determine if the proposed Amendment would achieve the at least 30 percent reduction identified in Resolution No. 2021-17.

The GHG emissions used in this analysis were calculated using CARB's EMFAC2017 model.

IMPACT ANALYSIS

The proposed Amendment would not change land use or anticipated growth within the region or introduce new transportation network or facility improvements from what was analyzed in the approved Plan PEIR. The proposed Amendment does remove the regional road usage charge. As discussed in Section 4.5 of this SEIR, this modification would result in a slightly increased VMT over what was identified in the approved Plan PEIR. In addition, in the interim between the preparation of the SEIR and this modification, the SAFE Vehicles Rule

Part One was repealed. As a result, GHG emissions related to on-road vehicle gasoline and diesel during operations would change.

2035

Regional Growth and Land Use Change and Transportation Network Improvements and Programs

Per capita emissions from the entire on-road transportation sector were 3.71 metric tons of carbon dioxide equivalent ($MTCO_2$) per person per day in 2016. Under implementation of the proposed Amendment, GHG emissions from the on-road transportation sector would be reduced to 2.10 $MTCO_2$ per person per day in 2035, a 43 percent reduction from 2016 levels.

Table 4.3-9
Calculation to Estimate Per Capita GHG Emissions from the Entire On-Road Transportation Sector, 2035 Compared to 2016

Components Used in the Calculation	2016	2035 Proposed Amendment	Change from 2035 Approved Plan PEIR[1]
Total Emissions from the Entire On-Road Transportation Sector ($MMTCO_2$)	12.2	7.6	0.1
Total Population in the San Diego Region (Residents)	3,287,280	3,620,348	0
Per Capita Emissions ($MTCO_2$ /Capita)	3.71	2.10	0.03
Percent Reduction Under the Proposed Amendment, 2035 Compared to 2016	**-43%**		**1%**

Source of Total Emissions from the Entire On-Road Transportation Sector: Appendix H of the approved Plan PEIR and Appendix C of this SEIR.
[1] As the SAFE Vehicles Rule Part One has been repealed, the proposed Amendment emissions are compared to the approved Plan emissions that exclude the EMFAC2017 SAFE Rule correction factors. The approved Plan emissions reflect the modeling corrections described in Chapter 2 of this SEIR.

2035 Conclusion

No New or Substantially More Severe Significant Impacts in Comparison to the Approved Plan PEIR: The approved Plan PEIR identified that Impact GHG-3 in the year 2035 would be less than significant. As shown in Table 4.3-9, the GHG emissions reductions under the proposed Amendment would exceed the SANDAG Board Resolution target of a 30 percent reduction by 2035 by 13 percent. Therefore, implementation of the proposed Amendment would not conflict with or impede achievement of an at least 30 percent reduction in per capita GHG emissions from the entire on-road transportation sector by 2035 compared to existing conditions (2016). The conclusion for the proposed Amendment in the year 2035 would be unchanged from what was identified in the approved Plan PEIR and would remain less than significant.

Exacerbation of Climate Change Effects

Although there will be climate change effects in the San Diego region that could increase GHG emissions, as described in Section 4.3.1, *Existing Conditions,* the approved Plan as amended by the proposed Amendment would reduce GHG emissions within the San Diego region when compared to the 2016 baseline. Therefore, the proposed Amendment would not exacerbate any GHG emissions that occur due to climate change effects.

GHG-4 CONFLICT WITH OR IMPEDE THE IMPLEMENTATION OF LOCAL PLANS ADOPTED FOR THE PURPOSE OF REDUCING GHG EMISSIONS

ANALYSIS METHODOLOGY

Section 4.3.2, *Regulatory Setting*, describes adopted CAPs, GHG reduction plans, and/or sustainability plans relevant to the proposed Amendment. Most of SANDAG's member jurisdictions have adopted CAPs, GHG reduction plans, and/or sustainability plans that set goals and targets for the reduction of GHG emissions, and outline policies and/or measures to achieve those goals and targets. Generally, these local targets are developed in consideration of the State's long-term GHG reduction goals by legislatively significant benchmark years (e.g., 2030).

The proposed Amendment is generally evaluated against the goals, measures, and implementing actions of local CAPs and GHG reduction plans to determine any conflicts in this analysis. A detailed CAP consistency analysis by jurisdiction was provided in Appendix J of the approved Plan PEIR. The analysis of the proposed Amendment and local CAPs is provided for 2025, 2035, and 2050. Although no adopted local CAPs or GHG reduction plans have 2050 horizon years, the analysis addresses potential conflicts between the proposed Amendment and such adopted plans in 2050 because the effects of these plans would extend beyond their horizon years, including through 2050.

IMPACT ANALYSIS

The proposed Amendment would not change land use or anticipated growth within the region or introduce new transportation network or facility improvements from what was analyzed in the approved Plan PEIR. The proposed Amendment does remove the regional road usage charge. As discussed in Section 4.5 of this SEIR, this modification would result in a slightly increased VMT over what was identified in the approved Plan PEIR. In addition, in the interim between the preparation of the SEIR and this modification, the SAFE Vehicles Rule Part One was repealed. As a result, GHG emissions related to on-road vehicle gasoline and diesel during operations would change.

2025, 2035, and 2050

As of March 2023, 19 of the 21 local jurisdictions in the San Diego region have an adopted CAP or similar plan to reduce GHG emissions. The County does not have an adopted CAP or plan to reduce GHG emissions but is in the process of preparing one. One city does not have an adopted plan and is not in the process of preparing one.

An analysis of whether the approved Plan would conflict with the policies, measures, and actions of adopted plans was provided in Appendix J of the approved Plan PEIR. The removal of the regional road usage charge would slightly increase the regional VMT; however, the proposed Amendment would not impede implementation of local plans to reduce GHG emissions. Typically, CAPs include various measures and actions to reduce GHG emissions by sector including, but not limited to, transportation, energy, solid waste, water and wastewater, and carbon sequestration. Common measures to reduce emissions from the transportation sector include the promotion of near-zero and zero-emission vehicles and associated infrastructure, the deployment of Transportation Demand Management (TDM) strategies such as iCommute and commuter benefits programs, and the development of Complete Streets that include pedestrian and bicycle programs, among others. A major objective of the proposed Amendment is to reduce GHG emissions from passenger cars and light-duty trucks. Therefore, many transportation network improvements and programs that would be implemented under the

approved Plan, and remain unchanged with the proposed Amendment, would complement these existing and future local efforts to reduce GHG emissions from the on-road transportation sector.

Other examples of local CAP measures that reduce GHG emissions include renovations to existing buildings to be more energy efficient, deployment of solar photovoltaic (PV) systems to existing and new residential and nonresidential buildings, additional waste diversion goals exceeding statewide requirements, capture and control of landfill emissions, improved water efficiency in existing and new residential and nonresidential development, and tree planting to increase carbon sequestration. The approved Plan PEIR determined that these implementing actions would be outside of the scope of the proposed Amendment and SANDAG's direct authority, and, therefore, their implementation would not be impeded or obstructed by implementation of the regional growth and land use changes and transportation network improvements and programs and would be unchanged with the proposed Amendment.

2025, 2035, and 2050 Conclusion

No New or Substantially More Severe Significant Impacts in Comparison to the Approved Plan PEIR: The approved Plan PEIR identified that Impact GHG-4 in the years 2025, 2035, and 2050 is less than significant. As discussed above, implementation of the proposed Amendment would not conflict with or impede the implementation of adopted CAPs, GHG reduction plans, and/or sustainability plans. The conclusion for the proposed Amendment in the years 2025, 2035, and 2050 would be unchanged from what was identified in the approved Plan PEIR and would remain less than significant.

Exacerbation of Climate Change Effects

Although there will be climate change effects in the San Diego region that could increase GHG emissions, the proposed Amendment would reduce GHG emissions within the San Diego region when compared to the 2016 baseline. Therefore, the proposed Amendment would not exacerbate any GHG emissions that occur due to climate change effects.

GHG-5 BE INCONSISTENT WITH THE STATE'S ABILITY TO ACHIEVE THE 2030 REDUCTION TARGET OF SB 32, THE ACCELERATED 2030 REDUCTION TARGET OF THE 2022 SCOPING PLAN, AND LONG-TERM REDUCTION GOALS OF EXECUTIVE ORDERS S-3-05, B-55-18, AND AB 1279

ANALYSIS METHODOLOGY

This analysis evaluates whether the proposed Amendment would be inconsistent with the State's ability to achieve the SB 32 target of reducing statewide GHG emissions to 40 percent below the 1990 levels by 2030 and the accelerated target of 48 percent below the 1990 levels by 2030 under the 2022 Scoping Plan Scenario, as well as whether the proposed Amendment is inconsistent with the State's ability to achieve the EO B-55-18 and AB 1279 goal of reducing California's GHG emissions to 85 percent below 1990 levels by 2045 or the EO S-3-05 goal of reducing California's GHG emissions to 80 percent below 1990 levels by 2050.

To perform this analysis, SANDAG identified estimated emissions reduction reference points for the region for 2030, 2045, and 2050, based on the target dates from SB 32, EO S-3-05 and EO B-55-18, and AB 1279. The GHG emissions results for 2030, 2045, and 2050 from the 2016 GHG inventory and projections prepared for Appendix C are then compared to the reference points. Note that there is no requirement that the SANDAG region's emissions be reduced by the same percentage ("equal share") as the statewide percentage in order for the State to achieve the goals of SB 32, EO S-3-05, EO-B-55-18, and AB 1279. For purposes of this SEIR, the

proposed Amendment's impacts nevertheless are considered significant if total emissions in the San Diego region exceed the estimated 2030, 2045, and 2050 GHG reduction reference points.

Because there is not an available 1990 emissions inventory for the San Diego region that is comparable to the regional inventory and projections prepared for the proposed Amendment, reference points were developed for this analysis to show the level of GHG reductions needed between 2016 (the baseline year of the inventory and proposed Amendment) and future years of 2030, 2045, and 2050 that would be equivalent to the level of reductions needed when measured against 1990.[3]

As discussed in the approved Plan PEIR, in 2016, total statewide emissions equaled 429 $MMTCO_2e$, which was 2 $MMTCO_2e$ (less than 1 percent) lower than the statewide 1990 emissions level of 431 $MMTCO_2e$. Because total statewide emissions in 2016 were essentially equal to the statewide 1990 level, for purposes of this analysis, total regional emissions in 2016 are assumed to be representative of total regional emissions in 1990. Therefore, to identify the reference point for 2030 a 40 percent reduction was applied to the total regional emissions in 2016, which results in a 2030 reference point of 15.6 $MMTCO_2e$. To identify the reference point for the 2022 Scoping Plan accelerated target a 48 percent reduction was applied to the total regional emissions in 2016, which results in a 2030 reference point of 13.4 $MMTCO_2e$. Similarly, to identify a reference point for 2050, an 80 percent reduction was applied to the total regional emissions in 2016, which results in a 2050 reference point of 5.2 $MMTCO_2e$. The reference point for 2045 is 3.9 $MMTCO_2e$ because AB 1279 sets a goal of reducing statewide anthropogenic GHG emissions by 85 percent below 1990 levels.

IMPACT ANALYSIS

The proposed Amendment would not change land use or anticipated growth within the region or introduce new transportation network or facility improvements from what was analyzed in the approved Plan PEIR. The proposed Amendment does remove the regional road usage charge. As discussed in Section 4.5 of this SEIR, this modification would result in a slightly increased VMT over what was identified in the approved Plan PEIR. In addition, in the interim between the preparation of the SEIR and this modification, the SAFE Vehicles Rule Part One was repealed. As a result, GHG emissions related to on-road vehicle gasoline and diesel during operations would change.

2030

Total regional emissions in 2016 were estimated to be approximately 25.8 $MMTCO_2e$. Under implementation of the proposed Amendment, total GHG emissions for the San Diego region would be 20.4 $MMTCO_2e$ in 2030, which is above the SB 32 reference point of 15.6 $MMTCO_2e$ (Table 4.3-10) and the 2022 Scoping Plan reference point of 13.4 $MMTCO_2e$. Therefore, total regional emissions in 2030 under implementation of regional growth and land use change and transportation network improvements and programs would be inconsistent with the levels of reductions required by SB 32 and the 2022 Scoping Plan.

Because the total emissions in the San Diego region of 20.4 $MMTCO_2e$ in 2030 would exceed the regional 2030 SB 32 GHG reference point of 15.6 $MMTCO_2e$ (which is based on SB 32 targets for 2030) and the 2022 Scoping Plan reference point of 13.4 $MMTCO_2e$, the proposed Amendment's 2030 GHG emissions would be inconsistent

[3] The 2012 inventory report prepared for the 2015 Regional Plan included an estimated 1990 emissions level for the San Diego region, but it was prepared using data sources and methods that do not allow for a direct comparison with the GHG emissions projections provided in the 2016 GHG Inventory and Projections report prepared for the approved Plan.

with the State's ability to achieve the goals of SB 32 and the 2022 Scoping Plan. Therefore, this impact (GHG-5) in the year 2030 would be significant.

Table 4.3-10
Reference Point and GHG Emissions Under the Proposed Amendment, 2030

	Proposed Amendment Annual Emissions ($MMTCO_2e$)	Change from Approved Plan PEIR[2]
GHG Emissions in the San Diego Region in 2016	25.8	0.0
GHG Emissions in the San Diego Region in 2030[1]	20.4	0.1
2030 SB 32 Reference Point (40% Below 2016 Levels)	15.6	0.0
Accelerated 2030 Scoping Plan Reference Point (48% Below 2016 Levels)	13.4	N/A

Source: Appendix C of this SEIR.
[1] Emissions are estimated using global warming potential values from the Intergovernmental Panel on Climate Change's Fourth Assessment Report.
[2] As the SAFE Vehicles Rule Part One has been repealed, the proposed Amendment emissions are compared to the approved Plan emissions that exclude the EMFAC2017 SAFE Rule correction factors. The approved Plan emissions reflect the modeling corrections described in Chapter 2 of this SEIR.

2030 Conclusion

New Significant Impacts in Comparison to the Approved Plan PEIR: The approved Plan PEIR identified that Impact GHG-5 in the year 2030 would be significant and unavoidable. As shown in Table 4.3-10, the projected emissions in the San Diego region in 2030 would not meet the 2030 SB 32 reference point of 15.6 $MMTCO_2e$ or the 2022 Scoping Plan reference point of 13.4 $MMTCO_2e$ following implementation of the proposed Amendment. Therefore, this impact (GHG-5) is considered significant in the year 2030 because the proposed Amendment would not meet the 2022 Scoping Plan reference point of 13.4 $MMTCO_2e$. The 2022 Scoping Plan reference point was published after the approved Plan PEIR was adopted (November 2022); thus, this impact was not identified in the approved Plan PEIR. Therefore, this is a new significant impact.

2045 and 2050

Total regional emissions in 2016 were estimated to be 25.8 $MMTCO_2e$ in the approved Plan PEIR. Under implementation of the proposed Amendment, total GHG emissions for the San Diego region would be 17.6 $MMTCO_2e$ in 2045 and 17.8 $MMTCO_2e$ in 2050, which is above the 2045 reference point of 3.9 $MMTCO_2e$ and 2050 reference point of 5.2 $MMTCO_2e$ (Table 4.3-11). Therefore, total regional emissions in 2045 and 2050 under implementation of regional growth and land use change and transportation network improvements and programs would be inconsistent with the levels of reductions required by EO S-3-05, EO B-55-18, and AB 1279.

Table 4.3-11
Reference Points and GHG Emissions Under the Proposed Amendment, 2045 and 2050

	Proposed Amendment Annual Emissions ($MMTCO_2e$)	Change from Approved Plan PEIR[1]
GHG Emissions in the San Diego Region in 2016	25.8	0
GHG Emissions in the San Diego Region in 2045 with the Proposed Amendment[2]	17.6	0.1
2045 Reference Point (85% Below 1990 Levels per AB 1279)	3.9	3.9[2]
GHG Emissions in the San Diego Region in 2050 with the Proposed Amendment[3]	17.8	0.1
2050 Reference Point (80% Below 2016 Levels per EO S-3-05)	5.2	0

Source of GHG Emissions in the San Diego Region: Appendix C of this SEIR.
[1] As the SAFE Vehicles Rule Part One has been repealed, the proposed Amendment emissions are compared to the approved Plan emissions that exclude the EMFAC2017 SAFE Rule correction factors. The approved Plan emissions reflect the modeling corrections described in Chapter 2 of this SEIR.
[2] Emissions are estimated using global warming potential values from the Intergovernmental Panel on Climate Change's Fourth Assessment Report.
[3] AB 1279 and the 2022 Scoping Plan have established targets of reducing anthropogenic GHG emissions by 85 percent below 1990 levels by 2045, as well as to achieve carbon neutrality by 2045. The State proposes to achieve the carbon neutrality target through the use of carbon capture and sequestration.

As addressed under Impact GHG-2, the proposed Amendment would reduce per capita CO_2 emissions from passenger cars and light-duty trucks to meet the per capita target for 2035 established by SB 375. These reductions are achieved through a combination of land use planning and transportation network improvements and programs that reduce VMT and improve the efficiency of vehicle travel. In addition, the proposed Amendment would reduce per capita GHG emissions from the entire on-road transportation sector by 43 percent in 2035 relative to 2016 levels, as detailed under Impact GHG-3. The reductions from the entire on-road transportation sector account for the land use and transportation components of the proposed Amendment as well as the federal and State regulations improving vehicle efficiency and increasing use of zero-emission vehicles.

Despite these transportation-related reductions under proposed Amendment implementation, total regional GHG emissions would exceed the reference points for 2045 and 2050. Additional reductions would be needed in the transportation sector and all other GHG sectors to achieve the goals of EO B-55-18, EO S-3-05, and AB 1279. The other sectors include how energy is sourced, generated, and used; how solid waste is generated, managed, and disposed of; treatment, conveyance, and uses of water supply and wastewater; energy sources and feedstocks for industrial processes and activities; management of natural and working lands; and uses of high-global warming potential gases. Achieving GHG reductions from these sectors at the scale required to meet the goals of EO B-55-18, EO S-3-05, and AB 1279 would require major changes to government regulation, private sector activity, consumer behavior, and other facets of life throughout California and beyond.

2045 and 2050 Conclusion

New Significant Impacts in Comparison to the Approved Plan PEIR: The approved Plan PEIR identified that Impact GHG-5 in the years 2045 and 2050 would be significant. As shown in Table 4.3-11, the total regional GHG emissions in 2045 and 2050 would exceed the 2045 and 2050 reference points of 3.9 and 5.2 $MMTCO_2e$,

respectively (based on the goals of EO B-55-18, EO S-3-05, and AB 1279). Therefore, this impact (GHG-5) is considered significant in the year 2045 because the proposed Amendment would not meet the reduction goal of AB 1279 or the 2022 Scoping Plan. AB 1279 and the 2022 Scoping Plan were published after the approved Plan PEIR was adopted (September and November 2022, respectively); thus, this impact was not identified in the approved Plan PEIR. Therefore, this is a new significant impact.

Exacerbation of Climate Change Effects

Although there will be climate change effects in the San Diego region that could increase GHG emissions, as described in Section 4.3.1, the proposed Amendment would reduce GHG emissions within the San Diego region when compared to the 2016 baseline. Therefore, the proposed Amendment would not exacerbate any GHG emissions that occur due to climate change effects.

MITIGATION MEASURES

GHG-5 BE INCONSISTENT WITH THE STATE'S ABILITY TO ACHIEVE THE 2030 REDUCTION TARGET OF SB 32, THE ACCELERATED 2030 REDUCTION TARGET OF THE 2022 SCOPING PLAN, AND LONG-TERM REDUCTION GOALS OF EXECUTIVE ORDERS S-3-05, B-55-18, and AB 1279

The following mitigation measures identified in the approved Plan PEIR would still be applicable to the proposed Amendment and would help reduce regional GHG emissions by reducing VMT, increasing use of zero-emission fuels, sequestration of carbon from the atmosphere, and other measures; they would reduce inconsistency of the proposed Amendment's GHG emissions with the State's ability to achieve the SB 32, EO B-55-18, EO S-3-05, and AB 1279 GHG reduction goals. However, full implementation of the changes required to achieve these goals is beyond SANDAG's and local agencies' current jurisdiction and authority.

Program-Level Mitigation

- **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 Action Plan to Advance Smart Cities and Close the Digital Divide**

Project-Level Mitigation

- **GHG-5e. Implement Measures to Reduce GHG Emissions from Transportation Projects**
- **GHG-5f. Implement Measures to Reduce GHG Emissions from Development Projects**

The following additional mitigation measure is proposed to help reduce regional GHG emissions:

- **GHG-5g. Prepare/Develop a Regional Climate Action Plan.** SANDAG shall prepare a regional Priority Climate Action Plan by April 2024, and a Comprehensive Climate Action Plan by October 2025, that include measures to reduce GHG emissions and help achieve the 2045 targets established by AB 1279 and CARB's Final 2022 Scoping Plan Update.

As discussed in further detail in Sections 4.3, *Air Quality,* 4.16, *Transportation*, and Section 4.18, *Water Quality*, of the approved Plan PEIR, mitigation measures **AQ-3b**, **AQ-3c**, **AQ-4**, **TRA-2**, **WS-1a**, and **WS-1b** would also reduce emissions of GHGs by decreasing overall pollutant emissions from equipment, vehicles, and water consumption and would remain applicable to the proposed Amendment. Section 4.5, *Transportation*, of this SEIR, includes minor updates to mitigation measure **TRA-2.**

- **AQ-3b. Reduce Diesel Emissions During Construction from Off-Road Equipment**
- **AQ-3c. Reduce Diesel Emissions During Construction from On-Road Vehicles**
- **AQ-4. Reduce Exposure to Localized Particulate Emissions**
- **TRA-2. Achieve Further VMT Reductions for Transportation and Development Projects**
- **WS-1a. Implement Water Conservation Measures for Transportation Network Improvements**
- **WS-1b. Implement Water Conservation Measures for Development Projects**

SIGNIFICANCE AFTER MITIGATION

Implementation of mitigation measures **GHG-5a through GHG-5g**, as well as mitigation measures **AQ-3b, AQ-3c, AQ-4, TRA-2, WS-1a,** and **WS-1b**, would substantially lessen the amount of proposed Amendment GHG emissions in 2030, 2045, and 2050. However, even full implementation of all identified mitigation measures would not be sufficient to reduce the proposed Amendment's GHG emissions to below the regional 2030, 2045, and 2050 reference points based on SB 32, EO B-55-18, EO S-3-05, and AB 1279. AB 1279 and the 2022 Scoping Plan were published after the approved Plan PEIR was adopted (September and December 2022, respectively); thus, the inability of the Plan to meet the updated 2030 and 2045 goals was not identified in the approved Plan PEIR. Therefore, this impact (GHG-5) remains significant and unavoidable.