3.2 Greenhouse Gas Emissions and Climate Change

This section analyzes the greenhouse gas (GHG) impacts that could result from implementation of the proposed City of Encinitas Mobility Element Update (MEU; Project). The analysis in this section is based on the City's current Climate Action Plan (CAP 2018), the existing and buildout traffic vehicle miles traveled (VMT) in the Planning Area (Appendix E), and the California Air Resources Board (CARB) Emissions Factor model (EMFAC2021). Appendix C provides modeling data.

3.2.1 Existing Conditions

3.2.1.1 Environmental Setting

Understanding Global Climate Change

Global climate change is a change in the average weather of the Earth, which can be measured by wind patterns, storms, precipitation, and temperature. The Earth's climate is in a state of constant flux with periodic warming and cooling cycles. For most of the Earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include volcanic eruptions, the amount of water, vegetation, and ice covering the earth's surface, subtle changes in the earth's orbit, and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the Earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This in turn has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in the Earth's atmosphere. Recently observed increased concentrations of GHGs in the atmosphere appear to be related to increases in human activity. Therefore, the current cycle of "global warming" is believed to be largely due to human activity. Because it is believed that the increased GHG concentrations around the world are related to human activity and the collective of human actions taking place throughout the world, it is quintessentially a global or cumulative issue.

Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Each GHG has variable atmospheric lifetime and global warming potential (GWP). The atmospheric lifetime of the gas is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. GWP is a measure of the potential for a gas to trap heat and warm the atmosphere. Although GWP is related to its atmospheric lifetime, many other factors, including chemical reactivity of the gas, also influence GWP. GWP is reported as a unitless factor representing the potential for the gas to affect global climate relative to the potential of carbon dioxide (CO_2). Because CO_2 is the reference gas for establishing GWP, by definition its GWP is 1. Although methane (CH_4) has a shorter atmospheric lifetime than CO_2, it has a 100-year GWP of 28; this means that CH_4 has 28 times more effect on global warming than CO_2.

The U.S. Environmental Protection Agency (U.S. EPA 2010) officially defines GWP as "The cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas."

GHG emissions estimates are typically represented in terms of equivalent metric tons of CO_2 (MT CO_2E). CO_2E emissions are the product of the amount of each gas by its GWP. The effects of several GHGs may be discussed in terms of MT CO_2E and can be summed to represent the total potential of these gases to warm the global climate. **Table 3.2-1** summarizes some of the most common GHGs.

The U.S. EPA and other organizations occasionally update the GWP values they use. This can be due to updated scientific estimates of the energy absorption or lifetime of the gases or to changing atmospheric concentrations of GHGs that result in a change in the energy absorption of one additional ton of a gas relative to another. The GWPs shown in **Table 3.2-1** are the most current. However, in the California Emissions Estimator Model (CalEEMod)—which is the model used in this analysis to calculate emission—CH_4 has a GWP of 25 and nitrous oxide (N_2O) has a GWP of 298, consistent with the *2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target* (2017 Scoping Plan; CARB 2017).

All of the gases in **Table 3.2-1** are produced by either biogenic (natural) or anthropogenic (human) sources or both. These are the GHGs of primary concern in this analysis. CO_2 would be emitted by the proposed Project due to the combustion of fossil fuels in vehicles (including construction), from electricity generation and natural gas consumption, from water use, and from solid waste disposal. Smaller amounts of CH_4 and N_2O would be emitted from the same project operations.

Table 3.2-1 Global Warming Potentials and Atmospheric Lifetimes (years)

Gas	Atmospheric Lifetime (years)	100-year GWP	20-year GWP
Carbon dioxide (CO_2)	50–200	1	1
Methane (CH_4)	12.4	25/28*	84
Nitrous oxide (N_2O)	121	298/265*	264
HFC-23	222	12,400	10,800
HFC-32	5.2	677	2,430
HFC-125	28.2	3,170	6,090
HFC-134a	13.4	1,300	3,710
HFC-143a	47.1	4,800	6,940
HFC-152a	1.5	138	506
HFC-227ea	38.9	3,350	5,360
HFC-236fa	242	8,060	6,940
HFC-43-10mee	16.1	1,650	4,310
CF4	50,000	6,630	4,880
C2F6	10,000	11,100	8,210
C3F8	2,600	8,900	6,640
C4F10	2,600	9,200	6,870

Table 3.2-1 Global Warming Potentials and Atmospheric Lifetimes (years)			
Gas	**Atmospheric Lifetime (years)**	**100-year GWP**	**20-year GWP**
c-C4F8	3,200	9,540	7,110
C5F12	4,100	8,550	6,350
C6F14	3,100	7,910	5,890
SF6	3,200	23,500	17,500

Source: Intergovernmental Panel on Climate Change (IPCC) 2007, 2014.

* The CH4 and N2O 100-year GWPs included in CalEEMod are 25 and 298, respectively, from the IPCC Fourth Assessment Report. All other values are from the current Fifth Assessment Report.

GWP = Global Warming Potential; HFC = hydrofluorocarbons

State and Regional GHG Inventories

The CARB performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of CO_2 equivalent (MMT CO_2E). **Table 3.2-2** shows the estimated statewide GHG emissions for the years 1990, 2012, and 2021. Although annual GHG inventory data is available for years 2000 through 2021, these three years are highlighted in **Table 3.2-2** because 1990 is the baseline year for established reduction targets, 2012 corresponds to the same year for which inventory data for the City is available, and 2021 is the most recent data available.

Table 3.2-2 California GHG Emissions by Sector			
Sector	**1990[1] Emissions in MMT CO_2E (% total)[2]**	**2012[3] Emissions in MMT CO_2E (% total)[2]**	**2021[3] Emissions in MMT CO_2E (% total)[2]**
Electricity Generation	110.5 (25.7%)	99.7 (22.9%)	62.6 (16.4%)
Transportation	150.6 (35.0%)	161.8 (37.2%)	149.5 (39.2%)
Industrial	105.3 (24.4%)	91.4 (21.0%)	85.3 (22.4%)
Commercial	14.4 (3.4%)	19.5 (4.5%)	22.5 (5.9%)
Residential	29.7 (6.9%)	27.8 (6.4%)	30.5 (8.0%)
Agriculture and Forestry	18.9 (4.4%)	35.2 (8.1%)	30.9 (8.1%)
Not Specified	1.3 (0.3%)	--	--
Total[4]	430.7	435.4	381.3

Source: CARB 2007 and 2023.

[1] 1990 data was obtained from the CARB 2007 source and are based on IPCC fourth assessment report GWPs.

[2] Percentages may not total 100 due to rounding.

[3] 2012 and 2021 data was retrieved from the CARB 2023 source and are based on IPCC fourth assessment report GWPs.

[4] Totals may vary due to independent rounding.

MMT CO^2E = million metric tons of CO2 equivalent

As shown in **Table 3.2-2**, statewide GHG source emissions totaled approximately 431 MMT CO2E in 1990, 435 MMT CO2E in 2012, and 381 MMT CO2E in 2021. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. **Table 3.2-2** shows that transportation-related emissions consistently contribute to the most GHG emissions.

Encinitas GHG Inventories

The City prepared a baseline year 2012 GHG emissions inventory as a part of its 2018 CAP. The results of the inventory for 2012 are summarized in **Table 3.2-3**. Similar to the statewide emissions, transportation related GHG emissions contributed the most citywide, followed by emissions associated with energy use.

Table 3.2-3 Encinitas GHG Emissions in 2012

Source	2012 Baseline Emissions	
	MMT CO_2E	percentage
On-Road Transportation	244,172	53%
Electricity	113,556	25%
Natural Gas	62,027	14%
Solid Waste	13,610	3%
Water	14,299	3%
Off-Road Equipment	9,138	2%
Wastewater	2,155	0.5%
Total Inventory	459,000	100%

Source: City of Encinitas 2020.
Note: Total may vary due to independent rounding.
MMT CO^2E = million metric tons of CO2 equivalent

3.2.2 Regulatory Framework

3.2.2.1 Federal

The federal Corporate Average Fuel Economy standards determine the fuel efficiency of certain vehicle classes in the U.S. The National Highway Traffic Safety Administration sets Corporate Average Fuel Economy standards for passenger cars and for light trucks (collectively, light-duty vehicles), and separately sets fuel consumption standards for medium- and heavy-duty trucks and engines. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel. The most recent standards require an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8% annually for model years 2024 and 2025, and 10% annually for model year 2026.

3.2.2.2 State

Executive Orders and Legislation

Executive Order S-3-05

This Executive Order (EO) established the following GHG emission reduction targets for the State of California:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80% below 1990 levels

This EO also directs the secretary of the California Environmental Protection Agency to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years.

Executive Order B-30-15

This EO establishes an GHG emission reduction goal for the State of California by 2030 of 40% below 1990 levels. This EO also directed all State agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the 2030 goal, as well as the preexisting, long-term 2050 goal identified in EO S-3-05. Additionally, this EO directed CARB to update its Climate Change Scoping Plan to address the 2030 goal.

Assembly Bill 1279

Assembly Bill (AB) 1279, approved in September 2022, requires the state to achieve net-zero GHG emissions as soon as possible (but no later than 2045), achieve and maintain net-negative GHG emissions thereafter, and ensure that statewide anthropogenic GHG emissions are reduced to at least 85% below 1990 levels by 2045. The bill would require the State board to work with relevant State agencies for two purposes: to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals; and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions as well as carbon capture, utilization, and storage technologies.

California Global Warming Solutions Act

In response to EO S-3-05, the California Legislature passed AB 32, the California Global Warming Solutions Act of 2006 (CARB), and thereby enacted Sections 38500–38599 of the California Health and Safety Code. AB 32 requires CARB to establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009, indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

In 2008, CARB estimated that annual statewide GHG emissions were 427 MMT CO2E in 1990 and would reach 596 MMT CO2E by 2020 under a business as usual (BAU) condition (CARB 2008). To achieve the mandate of AB 32, CARB determined that a 169 MMT CO2E (or approximate 28.5%) reduction in BAU emissions was needed by 2020. In 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. CARB determined that the economic downturn reduced the 2020 BAU by 55 MMT CO2E; as a result, achieving the 1990 emissions level by 2020 required a reduction in GHG emissions of 21.7% (not 28.5%) from the 2020 BAU. California achieved its 2020 goal in 2015 (CARB 2023).

Approved in September 2016, Senate Bill (SB) 32 updates the California Global Warming Solutions Act of 2006 and enacts EO B-30-15. Under SB 32, the state would reduce its GHG emissions to 40% below 1990 levels by 2030. This is equivalent to an emissions level of approximately 260 MMT CO_2E for 2030. In implementing the 40% reduction goal, CARB is required to prioritize emissions reductions to consider the social costs of the emissions of GHGs; where "social costs" is defined as "an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year."

Climate Change Scoping Plan

As directed by the California Global Warming Solutions Act of 2006, in 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (Scoping Plan), which identified the main strategies California implemented to achieve the GHG reductions necessary to reduce forecasted BAU emissions in 2020 to the state's historic 1990 emissions level (CARB 2008). The 2020 reduction goals were met. In November 2017, CARB released the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan; CARB 2017). The 2017 Scoping Plan identifies state strategies for achieving the state's 2030 GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan Scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, Renewables Portfolio Standard (RPS), Sustainable Communities Strategy (SCS), Short-Lived Climate Pollutant (SLCP) Reduction Strategy, and the Cap-and-Trade Program. Additionally, the 2017 Scoping Plan proposes new policies to address GHG emissions from natural and working lands.

The 2022 Scoping Plan was adopted in December 2022 (CARB 2022). The 2022 Scoping Plan assesses the progress towards the 2030 GHG emissions reduction target identified in the 2017 Scoping Plan and lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85% below 1990 levels no later than 2045, as directed by AB 1279. The 2022 Scoping Plan identifies strategies related to clean technology, energy development, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Regional Emissions Targets – SB 375

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG-reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a SCS or

Alternative Planning Strategy to address GHG-reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan (RTP). The San Diego region's MPO is the San Diego Association of Governments (SANDAG). In 2010, CARB set targets for the SANDAG region of a 7% reduction in GHG emissions per capita from automobiles and light -duty trucks compared to 2005 levels by 2020 and a 13% reduction by 2035. These targets are periodically reviewed and updated. CARB's current targets for the SANDAG region are a reduction of 15% by 2020 and 19% by 2035.

Renewables Portfolio Standard

The RPS promotes diversification of California's electricity supply and decreased reliance on fossil fuel energy sources. Renewable energy includes wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Originally adopted in 2002 with a goal to achieve a 20% renewable energy mix by 2020 (referred to as the Initial RPS), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33% by 2020. In April 2011, SB 2 (1X) codified California's 33% RPS goal. SB 350 (2015) increased California's renewable energy mix goal to 50% by 2030. SB 100 (2018) further increased the standard set by SB 350 establishing the RPS goal of 44% by the end of 2024, 52% by the end of 2027, and 60% by 2030.

3.2.2.3 Local

Regional Transportation Plan/ Sustainable Communities Strategy

San Diego Forward: The 2021 Regional Plan is the 2050 RTP prepared by SANDAG and adopted in December 2021 (SANDAG 2021). The RTP establishes an implementation plan for how the region will grow over the next 30 years. Developed in accordance with California SB 375, the RTP includes a SCS. An SCS demonstrates how the region will meet its GHG-reduction targets through integrated land use, housing, and transportation planning. While the purpose of an SCS is to reduce GHG emissions due to mobile sources, it also results in a decrease in mobile sources of criteria pollutants. Enhanced public transit service combined with incentives for land use development that provides a better market for public transit will play an important role in the SCS.

The SCS focuses on the following five main strategies, referred to as the 5 Big Moves, which will result in a more efficient transportation system:

- Complete Corridors – Complete corridors act as the backbone of the entire regional transportation system, using technology, infrastructure improvements, pricing, and connectivity to support all forms of movement.
- Transit Leap – Transit leap offers people a network of high-capacity, high-speed, and high-frequency transit services that will incorporate new modes of transit while also providing improved existing services.
- Mobility Hubs – Mobility hubs are the centers of activity where a high concentration of people, destinations, and travel choices converge. They offer on-demand travel options and safe streets to enhance connections to high-quality transit while also making it easier for people to take short trips without needing a car.

- Flexible Fleets – Flexible fleets offer people a variety of on-demand, shared vehicles, including microtransit, bikeshare, scooters, and other modes of transportation, to connect them to transit and make travel easy within Mobility Hubs.
- Next Operating System – Next OS refers to an integrated digital platform that ties the transportation system together. Next OS enables the transportation system to be managed in real time so that people can be connected immediately to the modes of transportation that work best for them for any given situation and at any time.

General Plan/ Local Coastal Program

The General Plan is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life in Encinitas. The General Plan states that a goal of the City is to analyze proposed land uses to ensure that the designations would contribute to a proper balance of land uses within the community. The relevant goals and policies of the General Plan are included in the existing Circulation Element and Resource Management Element. As the MEU would replace the existing Circulation Element, only the GHG-related goal and policies provided in the Resource Management Element are discussed. They include the following (City of Encinitas 1989):

Resource Management Element

- Goal 1: The City will conserve, protect, and enhance the water resources in the Planning Area.
  - Policy 1.1: Require new development to utilize measures designed to conserve water in construction.
  - Policy 1.10: Promote the use of water efficient sprinkling and gardening systems to include ordinances and technology to encourage drought tolerant plants.
- Goal 6: The City will make every effort to reduce the amount of solid and liquid waste generated in the Planning Area and will identify ways to responsibly deal with these wastes.
  - Policy 6.1: The City will phase in all practical forms of mandatory recycling as soon as possible.
  - Policy 6.2: The City will contract only with waste haulers who will willingly cooperate with the City's recycling effort.
- Goal 9: The City will encourage the abundant use of natural and drought tolerant landscaping in new development and preserve natural vegetation, as much as possible, in undeveloped areas.
  - Policy 9.4: Encourage and adopt standards for the use of drought-tolerant and natural landscaping as well as efficient irrigation systems throughout the City.
- Goal 15: The City will make every effort to conserve energy in the City, thus reducing our dependence on fossil fuels.
  - Policy 15.1: The City will encourage the use of alternate energy systems, including passive solar and architectural and mechanical systems, in both commercial and residential development.

- Policy 15.2: The patterns of proposed subdivisions and the orientation and design of structures on lots shall be designed with the objective of maximizing the opportunities for solar energy use and energy conservation.
- Policy 15.3: Energy conserving construction standards and requirements shall be enforced in the field inspection of new construction.

The City has also adopted a Local Coastal Program that is comprised of a Land Use Plan and an Implementation Plan (City of Encinitas 1995). The Land Use Plan includes issues and policies related to the requirements of the Coastal Act. The Implementation Plan consists of portions of the City's Municipal Code and the City's various Specific Plan areas, including the Cardiff-by-the-Sea Specific Plan, the Encinitas Downtown Specific Plan, the Encinitas North 101 Corridor Specific Plan, and the Encinitas Ranch Specific Plan. The Specific Plans refer to the General Plan goals and policies.

Climate Action Plan

Encinitas adopted its CAP in January 2018, with a revision in November 2020 (City of Encinitas 2020). The CAP contains GHG emissions inventory, projections, goals, reduction measures, and actions to reduce Citywide GHG emissions and achieve the City's 2020 and 2035 reduction targets. The CAP sets targets to reduce emissions 13% below 2012 levels by 2020 and 41% below 2012 levels by 2030. To achieve these goals, the CAP establishes GHG-reduction strategies and goals which are summarized in **Table 3.2-4**.

Table 3.2-4 CAP Strategies and Goals

Strategy	Goals	Measures
Strategy 1: Building Efficiency	Goal 1.1: Reduce Building Energy Consumption	BE-1: Adopt a Residential Energy Efficiency Ordinance
		BE-2: Require Decarbonization of New Residential Buildings
		BE-3: Adopt Higher Energy Efficiency Standards for Commercial Buildings
		BE-4: Require Decarbonization of New Commercial Buildings
	Goal 1.2: Reduce Municipal Operation Energy Consumption	MBE-1: Continue Implementation of Energy Efficient Projects in Municipal Facilities
Strategy 2: Renewable Energy	Goal 2.1: Achieve 100% Renewable Electricity Supply in Homes and Businesses	RE-1: Establish a Community Choice Energy Program
		RE-2: Require New Homes to Install Solar Photovoltaic Systems
		RE-3: Require Commercial Buildings to Install Solar Photovoltaic Systems
	Goal 2.2: Increase Renewable Electricity Supply in Municipal Operations	MRE-1: Supply Municipal Facilities with Onsite Renewable Energy
Strategy 3: Water Efficiency	Goal 3.1: Reduce City-wide Potable Water Consumption	WE-1: Regularly Conduct Water Rate Studies and Implement Approved Water Rates

Table 3.2-4 CAP Strategies and Goals		
Strategy	**Goals**	**Measures**
Strategy 4: Clean and Efficient Transportation	Goal 4.1: Reduce Vehicle Miles Traveled	CET-1: Complete and Implement the Citywide Active Transportation Plan
		CET-2: Implement a Local Shuttle System
	Goal 4.2: Reduce On-road Fuel Use	CET-3: Improve Traffic Flow
	Goal 4.3: Increase Use of Alternative Fuels.	CET-4: Require Residential Electric Vehicle Charging Stations
		CET-5: Require Commercial Electric Vehicle Charging Stations
		MCET-1: Transition to Zero Emission Vehicle Municipal Fleet
		MCET-2: Adopt a Municipal Employee Telecommute Policy
Strategy 5: Reduce Off-Road Equipment	Goal 5.1: Reduce Off-Road Fuel Use	OR-1: Adopt a Leaf Blower Ordinance to Limit Use of 2-stroke Leaf Blowers
Strategy 6: Zero Waste	Goal 6.1: Divert Solid Waste	ZW-1: Implement a Zero Waste Program
Strategy 7: Carbon Sequestration	Goal 7.1: Increase Urban Tree Cover	CS-1: Develop and Implement an Urban Tree Planting Program

Ordinances and Programs

A number of ordinances and programs have been adopted and implemented to support the CAP GHG-reduction strategies and goals. Ordinances related to building energy efficiency, renewable energy, water efficiency, leaf blowers, and waste have been adopted and implemented, however, they are not directly related to the MEU and are not discussed in this analysis. The programs most applicable to the Project include the Active Transportation Plan (ATP, City of Encinitas 2018) and the Modal Alternatives Project (MAP, City of Encinitas 2023).

The CAP established a goal of completing and implementing a citywide ATP. An ATP addresses local and regional bike and pedestrian travel by establishing proposed biking and walking facilities and improvements to multimodal connections to public transit. The City completed and adopted its ATP on August 22, 2018. The implementation of cost-effective projects has and will continue to be initiated and major projects will be incorporated into the City's Capital Improvement Plan based on project priority and availability of funding.

In 2020, the City received funding through the Caltrans Sustainable Communities Grant to begin work on the development of the MAP, which directly implements the ATP. The ATP identified needed routes, gap closures, safety considerations, and facility options. The purpose of the MAP is to provide City staff with a comprehensive list of community-prioritized ATP bike and pedestrian projects, so that the City is well-positioned to apply for grant funding.

3.2.3 Significance Determination Thresholds

Thresholds used to evaluate impacts to GHG emissions are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the Project would do either of the following:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

State CEQA Guidelines Section 15064.4 states that "the determination of the significance of greenhouse gas emissions (GHG) calls for careful judgment by the lead agency, consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project."

Further, Section 15064.4(b) states that a lead agency should consider the following non-exclusive factors when assessing the significance of GHG emissions:

1. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

State CEQA Guidelines Section 15064(h)(1) states that "the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable." A cumulative impact may be significant when the project's incremental effect, though individually limited, is cumulatively considerable. Therefore, for the purposes of this analysis, the significance of impacts was evaluated using the criteria above. Specifically, the following analysis determines that the Project would not result in a significant GHG impact because it would result in an overall reduction in GHG emissions in the Planning Area. The Project was also evaluated for consistency with state and local GHG-reductions plans including the 2017 and 2022 Scoping Plan, SANDAG's RTP/SCS, and the City's CAP.

3.2.4 Methodology

3.2.4.1 Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment, and through combustion of diesel and gasoline in on-road

construction vehicles and construction worker commute vehicles. Smaller amounts of GHGs are also emitted through the energy use embodied in water use for fugitive dust control.

The Project would provide a long-term blueprint that guides transportation decision making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The Project would revise the City's existing Circulation Element policies to account for changes made to state law with the recent development of several mode-specific, strategic, community and neighborhood plans to create one, cohesive mobility framework. As the Project is a planning-level document, no specific construction activities are proposed at this time. Construction activities that could occur to implement the mobility network proposed as part of the MEU could include, but are not limited to:

- Roadway improvements such as paving and restriping
- Facilities to support public transit (such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks)
- Facilities to support bicycle and micromobility (such as multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations)
- Facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping
- Other mobility-related improvement projects

GHGs generated by future mobility projects within the Planning Area would vary depending on the number of projects occurring simultaneously and the size of each project. The exact number and timing of all mobility projects that could occur under buildout of the MEU are unknown. Therefore, construction-related emissions cannot be accurately determined at the program level of analysis. However, for informational purposes, construction-related GHG emissions were calculated for a typical 5-acre project. The methodology for modeling construction emissions is discussed in detail in Section 3.1.4.1. Based on these parameters, and typical construction the project is anticipated to result in approximately 168 MT CO_2E. Based on guidance from the South Coast Air Quality Management District (SCAQMD), total construction GHG emissions resulting from a project should be amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project (SCAQMD 2009). When amortized over 30 years, construction emissions would be approximately 5 MT CO_2E annually.

3.2.4.2 Mobile Emissions

Vehicle traffic is the main source of emissions in the Planning Area. Regional mobile source emissions were estimated based on CARB's Emission Factor model (EMFAC2021; CARB 2021) and the VMT for the Planning Area (Appendix E). The existing year 2016 baseline condition is 1,441,692 VMT. The future year 2050 condition without adoption of the MEU is 1,730,272 VMT. The future year 2050 condition with adoption of the MEU is 1,727,015 VMT. Mobile-source emissions were calculated using EMFAC2021 year 2016 emission factors for the existing baseline condition and year 2050 emission factors for the year 2050 buildout conditions. Appendix C provides EMFAC calculation data as well as VMT data used in preparation of the Traffic Impact Analysis Report.

3.2.4.3 Other Sources of Emissions

Other sources of operational emissions that are typically associated with land use development projects include energy consumption (electricity and natural gas), area sources (landscaping equipment), water consumption, and solid waste generation. However, the Project would not result in any additional land uses in the Planning Area. Any emissions associated with these sources would be negligible and would not be significantly different than existing landscaping and roadway work in the Planning Area; therefore, they are not included in this analysis.

3.2.5 Issue 1: Greenhouse Gas Emissions

3.2.5.1 Impacts

GHG Emissions

Construction Emissions

The Project would provide a long-term blueprint that guides transportation -decision making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The Project would revise the City's existing Circulation Element policies to account for changes made to State law with the recent development of several mode-specific, strategic, community, and neighborhood plans to create one, cohesive mobility framework.

As the Project is a planning level document, no specific construction activities are proposed at this time. Construction activities that could occur to implement the mobility network proposed within the MEU may include the following:

- Roadway improvements, such as paving and restriping.
- Facilities to support public transit, such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks.
- Facilities to support bicycle and micromobility, such as multiuse paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations.
- Facilities to support pedestrian travel, such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping.
- Other mobility-related improvement projects.

GHG emissions would be generated by construction activity associated with proposed enhancements. No specific enhancements have been proposed in this planning analysis, and an annualized quantification of construction emissions would be entirely speculative. In addition, construction-related GHG emissions would be a negligible percentage of total regional emissions when considering the emissions generated by mobile sources. For example, based on the GHG emissions inventory provided in **Table 3.2-3**, off-road equipment emissions were approximately 2% of the total emissions inventory. These emissions included construction emissions from all development activity (e.g., electricity, natural gas, and solid waste decomposition), not just transportation improvements. GHG

emissions strictly from transportation projects would represent less than 2% of total emissions. Therefore, the Project would result in a less than significant impact related to construction GHG emissions.

Mobile Emissions

Mobile source emissions associated with the baseline year 2016 condition and the future year 2050 condition without and with implementation of the Project were calculated using EMFAC2021. **Table 3.2-5** summarizes the results and Appendix C provides the EMFAC2021 calculations.

Table 3.2-5 Mobile Source GHG Emissions

Modeled Scenario	VMT	Metric Tons per Year			
		CO_2	CH_4	N_2O	CO_2E
Baseline Year 2016	1,441,692	229,831.13	8.01	11.28	233,043.39
Future Year 2050 without Project	1,730,272	176,144.56	1.40	6.81	177,988.24
Future Year 2050 with Project	1,727,015	175,813.00	1.40	6.80	177,653.20
Future Year 2050 with Project Percentage Change over Baseline Year 2016	+19.8%	-23.5%	-82.6%	-39.7%	-23.8%
Future Year 2050 with Project Percentage Change over Future Year 2050 without Project	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%

CO_2 = carbon dioxide, CH_4 = methane, N_2O = nitrous oxide, CO_2E = carbon dioxide equivalent
Source: Appendix C

As shown in **Table 3.2-5** both future year 2050 conditions would decrease emissions compared to the baseline year 2016 condition. Although it is estimated that regional growth would result in increased regional VMT over the baseline condition, the implementation of the more advanced engine standards known as the Low-Emission Vehicle Greenhouse Gas Program as well as the Low Carbon Fuel Standard would substantially reduce tailpipe GHG emissions between now and 2035. It is anticipated that mobility enhancements associated with the Project together with anticipated emission controls would reduce GHG emissions by 23.8% when compared to baseline conditions.

One main goal of the Project is to reduce automobile VMT and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services. The MEU contains goals and policies to reduce congestion, thereby reducing GHG emissions. The complete level of VMT reductions associated with implementation of the MEU are not possible to quantify at this level of analysis (such as implementation of micro transit and bike facilities); therefore, the VMT and mobile source emissions modeling only includes network changes that can be accounted for in the regional traffic model. Thus, there are likely additional VMT and associated mobile source emissions reductions that would occur under implementation of the MEU policy framework that would not occur under the no-Project condition.

The Project would not introduce new land uses and therefore would not result in an increase in trip generation in the Planning Area. As shown in **Table 3.2-5**, when compared to buildout of the no-Project condition, the mobility enhancements associated with the Project would result in a slight decrease in VMT and GHG emissions. As discussed in Section 3.2.3, one factor in determining the significance of the Project's GHG impacts should be the extent to which the Project may increase or reduce GHG emissions

as compared to the existing environmental setting. Regional GHG emissions would decrease compared to both baseline year 2016 conditions and a year 2050 no-Project condition. Therefore, the Project would result in a less-than-significant impact related to generating GHG emissions.

GHG Regulatory Programs

As discussed in Section 3.2.2.3, the programs most applicable to the Project include the CAP, the ATP, and the MAP. Consistency with the CAP is discussed in detail in Section 3.2.6. The MEU includes the multimodal networks identified in the ATP. Policies in the MEU include maintaining and implementing the pedestrian network and bicycle/micromobility network identified in the ATP. The Project would therefore support implementation of the ATP through the funding and priorities recommended in the MAP.

3.2.5.2 Significance of Impacts

The Project would result in a less-than-significant impact related to construction GHG emissions. Regional GHG emissions would decrease compared to both baseline year 2016 conditions and a year 2050 no-Project condition. Therefore, the Project would result in a less-than-significant impact related to generating GHG emissions.

3.2.5.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.2.6 Issue 2: Consistency with GHG-Reduction Plans

3.2.6.1 Impacts

State GHG-Reduction Plans

EO S-3-05 and EO B30-15 established GHG -emission reduction targets for the state, and AB 32 launched the CARB Climate Change Scoping Plan that outlined the reduction measures needed to reach the 2020 target, which the state has achieved. As required by SB 32, CARB's 2017 Climate Change Scoping Plan outlines reduction measures needed to achieve the interim 2030 target. AB 1279, the California Climate Crisis Act, codified the carbon neutrality target as 85% below 1990 levels by 2045. The 2022 Scoping Plan was adopted in December 2022. The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85% below 1990 levels no later than 2045, as directed by AB 1279.

Further, the Project would be consistent with the 2022 Scoping Plan. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the state's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities. As shown in **Table 3.2-6**, the Project would be consistent with the strategies related to reducing VMT by providing alternatives to automobile travel and would be consistent with strategies related to electric vehicles by implementing the Electric Vehicle Charging Station Master Plan.

Table 3.2-6 Project Consistency with 2022 Scoping Plan Key Prioritization Strategies		
Priority Area	**Key Project Attribute**	**Project Consistency**
Transportation Electrification	Provides electric vehicle charging infrastructure that, at a minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of Project approval.	Consistent. In March 2023, the City adopted an Electric Vehicle Charging Station Master Plan in support of this goal. Policy 6.5 would "Incorporate electric and alternative-energy vehicle charging stations/fueling facilities in public and private development projects in accordance with state and local building codes and the Electric Vehicle Charging Station Master Plan." Policy 6.6 would "In accordance with the Electric Vehicle Charging Station Master Plan and to support the state's goal to phase out internal combustion vehicles and transition to electric vehicles, encourage, incentivize and partner with employers, commercial property owners, and multi-family property owners to provide convenient and reliable electric vehicle charging stations for employees, residents, visitors, and the general public." These policies would support the installation of electric vehicles throughout the City.
VMT Reduction	Is located on infill sites that are surrounded by existing urban uses and reuses or redevelopments previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).	Not Applicable. The Project does not propose any land use development.
	Does not result in the loss or conversion of natural and working lands.	Consistent. The Project would not convert natural or working lands.
	Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre)—or is in proximity to existing transit stops (within a half mile)—or satisfies more. detailed and stringent criteria specified in the region's SCS	Consistent. The Project does not propose any land use development or densities. However, the Project would be consistent with San Diego Forward, the region's SCS, as detailed in **Table 3.2-7**.
	Reduces parking requirements by: Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet)—or providing residential parking supply at a ratio of less than one parking space per dwelling unit—or for multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.	Consistent. The Project does not propose any land use development with parking requirements. However, the goal of this measure is to reduce VMT. Policy 2.5 of the MEU encourages strategies to reduce the need for parking, such as dynamic pricing and transportation demand management (TDM). Goal 3 would "Reduce automobile vehicle-miles traveled and related impacts to air quality and congestion by providing time-competitive alternatives to automobile

Table 3.2-6 Project Consistency with 2022 Scoping Plan Key Prioritization Strategies		
Priority Area	**Key Project Attribute**	**Project Consistency**
		travel, including public transit, cycling, micromobility, walking, and on-demand mobility services." Policy 3.2 includes TDM measures such as parking cash-out programs.
	At least 20% of units included are affordable to lower-income residents.	Not Applicable. The Project does not propose any land use development.
	Results in no net loss of existing affordable units.	Not Applicable. The Project does not propose any land use development. The Project would not result in a loss in existing affordable units.
Building Decarbonization	Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.	Not Applicable. The Project does not propose any land use development.

Regional GHG-Reduction Plans

San Diego Forward is the regional RTP/SCS. It establishes an implementation plan for how the region will grow over the next 30 years and demonstrates how the region will meet its GHG -reduction targets through integrated land use, housing, and transportation planning. **Table 3.2-7** illustrates the Project's consistency with all applicable goals and policies of San Diego Forward (SANDAG 2021).

Table 3.2-7 San Diego Forward: The 2021 Regional Plan Consistency Analysis		
Category	**Policy Objective or Strategy**	**Consistency Analysis**
Complete Corridors	Providing a regional transportation system using technology, infrastructure, improvements, pricing and connectivity to support all forms of movement.	Consistent. The Project would directly implement this policy. The Project would provide a long-term blueprint that guides transportation decision-making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The Project would revise the City's existing Circulation Element policies to account for changes made to State law with the recent development of several mode-specific, strategic, community, and neighborhood plans to create one, cohesive mobility framework.

Table 3.2-7 San Diego Forward: The 2021 Regional Plan Consistency Analysis		
Category	**Policy Objective or Strategy**	**Consistency Analysis**
Transit Leap	Offering people a network of high-capacity, high-speed, and high-frequency transit services that will incorporate new modes of transit while also improving existing services.	Consistent. The Project would continue coordination efforts with public transit providers to increase the accessibility of key destinations via public transit and improve its availability to underserved populations—consistent with the Climate Action Plan and other relevant State, regional, and local climate plans.
Mobility Hubs	Centers of activity where a high concentration of people, destinations, and travel choices converge. They will offer on-demand travel options and safe streets to enhance connections to high-quality transit while also making it easier for people to take short trips without needing a car.	Consistent. The MEU policies would directly implement these objects. The Project would develop and maintain a mobility system that connects people to where they want to go with high-quality, multimodal connections between residential areas, schools, transit facilities, employment centers, parks, coastal resources, and commercial hubs.
Flexible Fleets	Offer people a variety of on-demand, shared vehicles, including microtransit, bikeshare, scooters, and other modes of transportation that will connect them to transit and make travel easy within Mobility Hubs.	Consistent. The Project would directly implement these strategies by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services.
Next Operating System (Next OS)	This will be the "brain" of the transportation system—an integrated digital platform that ties the transportation system together. Next OS will be the digital network that analyzes data in real time from the region's physical networks, making them all work better—more integrated, more efficient, and most of all, more responsive to people's immediate needs.	Consistent. The Project would not impair SANDAG's ability to provide Next OS improvements to the transportation system. The Project would facilitate the implementation of new mobility-related transportation technologies and options as they develop.
Active Transportation	Providing critical connections along Complete Corridors and other streets, providing people with safe and convenient ways to connect to transit and other destinations within and between Mobility Hubs.	Consistent. The Project would directly implement these strategies by developing and maintaining a mobility system that connects people to where they want to go with high-quality, multimodal connections between residential areas, schools, transit facilities, employment centers, parks, coastal resources, and commercial hubs. The Project would prioritize safety for all users of the mobility system through a combination of design, enforcement, and education.
Goods Movement	Supports the local, interregional, and international movement of goods.	Not applicable. The Project would not impair SANDAG's ability to support goods movement.

Table 3.2-7 San Diego Forward: The 2021 Regional Plan Consistency Analysis		
Category	**Policy Objective or Strategy**	**Consistency Analysis**
Sustainable Growth and Development	A regional pattern of growth and development that reflects smart growth, transit-oriented development, preserving natural resources and agricultural lands, and building communities that are resilient to the consequences of climate change and other environmental changes.	Not applicable. The Project would not result in any land use changes or increase in regional growth and development. The Project would not impair SANDAG's ability to protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat.
Habitat Conservation	To Protect, Connect, and Respect species and their natural habitats to prevent their extinction in San Diego County.	Not applicable. The Project would not impair SANDAG's ability to protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat.
Source: SANDAG 2021.		

As shown in **Table 3.2-7**, the Project is consistent with all applicable 2021 Regional Plan policy objectives and strategies. Impacts would be less than significant.

Local GHG-Reduction Plans

As discussed in Section 3.2.2.3, the City's CAP contains GHG -emissions inventory, projections, goals, reduction measures, and actions to reduce Citywide GHG emissions and achieve the City's 2020 and 2035 reduction targets. To achieve these goals, the CAP establishes GHG-reduction strategies and goals, which are summarized in **Table 3.2-4**. Of importance to the Project is Strategy 4: Clean and Efficient Transportation. Goals and measures related to this strategy include reducing VMT by implementing the ATP, reducing fuel use by improving traffic flow, and requiring electric vehicle charging stations. **Table 3.2-8** summarizes the Project's consistency with Strategy 4 of the City's CAP.

Table 3.2-8 CAP Strategy 4 Consistency Analysis		
Goals	**Measures**	**Consistency Analysis**
Goal 4.1: Reduce Vehicle Miles Traveled	CET-1: Complete and Implement the Citywide Active Transportation Plan CET-2: Implement a Local Shuttle System	The CAP contains the following supporting measures related to Goal 4.1 (City of Encinitas 2020): • Develop and implement a complete streets policy. • Develop a program to support car sharing and bike sharing for the community. • Complete Safe Routes to Schools projects to decrease need to drive students to school. • Coordinate with regional transit authorities and local school districts to improve student busing and public transit options. • Support SANDAG iCommute Program for guaranteed ride home for the community. • Develop and implement a City Bike Rack Program. • Develop and implement a program to incentivize City employees commuting to work by bike or other modes of alternative transport as a model for other local employers.

Table 3.2-8 CAP Strategy 4 Consistency Analysis		
Goals	**Measures**	**Consistency Analysis**
		• Adopt the National Association of City Transportation Officials Urban Bikeway Design Guide and utilize as a policy in the Capital Improvement Program (CIP) roadway projects. • Update the City's Housing Element and implement and enforce the City's existing specific plans (Downtown Encinitas Specific Plan and the North 101 Corridor Specific Plan) to reduce VMT and encourage dense, infill development. • Develop building regulations that support bike parking and the installation of bike racks, including covered bike parking/storage, and allow bike parking spaces to contribute to a development's overall parking requirement. • Install traffic infrastructure enhancements that support biking and walking. These could include bike sensors and associated street markings to indicate the location of the sensor, pedestrian detectors at intersection, cross walks, and traffic bollards. • Implement a monitoring program for assessing biking, walking and transit ridership in the City to determine the baseline level of travel and facilitate the development of appropriate mode shift targets for the City. • Complete the Modal Alternatives Plan to support this design and installation of the bike and pedestrian projects identified in the Active Transportation Plan. Consistent. The MEU would directly implement these CAP goals and measures. These goals include the following: • Goal 1: Mobility System Purpose and Guiding Principles. Develop and maintain a mobility system that accommodates the City's diverse needs and land uses, including planned growth. • Goal 2: Multimodal Options. Provide multimodal mobility options that are safe, accessible, and comfortable for all types of users including residents, visitors, and goods movement. • Goal 3: Vehicle Miles Traveled and Mode Share. Reduce automobile vehicle-miles traveled and related impacts to air quality and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services. • Goal 4: System Connectivity. Improve system connectivity by adopting multimodal standards, eliminating gaps in mobility networks, and increasing the ease of multimodal and multijurisdictional travel. • Goal 5: System Safety. Maximize the safety of the mobility system through design best practices, regular maintenance, community education, and consistent enforcement.

Table 3.2-8 CAP Strategy 4 Consistency Analysis

Goals	Measures	Consistency Analysis
		• Goal 6: Environmental and Community Impacts. Balance mobility benefits with impacts to the environment and community. Each of these goals includes supporting policies that directly implement these measures related to reducing VMT. The Project would not conflict with this CAP goal.
Goal 4.2: Reduce On-road Fuel Use	CET-3: Improve Traffic Flow	The CAP contains the following supporting measures related to Goal 4.2 (City of Encinitas 2020): • Identify rebate and incentive programs and financing opportunities for installing roundabouts. • Update the City's Circulation Element to support improved traffic flow. Consistent. The City has installed a roundabout at the intersections of N Coast Highway 101 and El Portal Street, Leucadia Boulevard and Hermes Avenue, and Leucadia Boulevard and Hymettus Avenue, and is seeking funding to construct a roundabout at the intersection of Leucadia Boulevard and Hygeia Avenue. The MEU would directly implement these goals, measures, and supporting measures by improving traffic flow.
Goal 4.3: Increase Use of Alternative Fuels.	CET-4: Require Residential Electric Vehicle Charging Stations CET-5: Require Commercial Electric Vehicle Charging Stations MCET-1: Transition to Zero Emission Vehicle Municipal Fleet MCET-2: Adopt a Municipal Employee Telecommute Policy	The CAP contains the following supporting measures related to Goal 4.2 (City of Encinitas 2020): • Expand and implement a Green Building Incentive Program to increase electric vehicle charging at home and businesses. • Complete and implement an Electric Vehicle Charging Station Master Plan to increase the use of zero emission vehicles by the community. • Work with SDG&E to explore projects through their Power Your Drive Program. • Develop and implement electric-vehicle charging plan for municipal facilities. • Pursue partnerships with school districts and NCTD to explore the use of electric busing or public transit busing for schools. • Implement a wayfinding program with signage and information systems to facilitate walking, biking, and efficient driving and parking. • Implement educational activities to raise awareness about electric vehicles among residents and businesses. • Develop and implement a program to incentivize City employees commuting to work by electric vehicle or other modes of alternative transport as a model for other local employees. • Install electric-vehicle charging stations at municipal facilities.

Table 3.2-8 CAP Strategy 4 Consistency Analysis		
Goals	**Measures**	**Consistency Analysis**
		• Develop a City vehicle fleet conversion plan and identify funding to support conversion of fleet vehicles. • Expand the City employee alternative commute program to include incentives to commute by bicycle, walking, carpooling, or electric vehicle, as approved by City Council. Consistent. In March 2023, the City adopted an Electric Vehicle Charging Station Master Plan in support of this goal. Policy 6.5 would "Incorporate electric and alternative-energy vehicle charging stations/fueling facilities in public and private development projects in accordance with state and local building codes and the Electric Vehicle Charging Station Master Plan." Policy 6.6 would "In accordance with the Electric Vehicle Charging Station Master Plan and to support the state's goal to phase out internal combustion vehicles and transition to electric vehicles, encourage, incentivize and partner with employers, commercial property owners, and multi-family property owners to provide convenient and reliable electric vehicle charging stations for employees, residents, visitors, and the general public." These policies would support the installation of residential and commercial electric vehicle charging stations as well as the transition of City fleets to electric vehicles.

In summary, the MEU supports these CAP strategies and goals to reduce VMT and improve traffic flow in the Planning Area. The Project would be consistent with the CAP and would directly implement its transportation-related GHG-reduction goals. Impacts would be less than significant.

3.2.6.2 Significance of Impacts

The Project would be consistent with the 2017 and 2022 Scoping Plans and statewide GHG-reduction goals consistent with SB 32 and AB 1279. The Project would be consistent with all applicable San Diego Forward policy objectives and strategies. Additionally, the Project would be consistent with the CAP and would directly implement its transportation related GHG-reduction goals. The Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs. Impacts would be less than significant.

3.2.6.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.2.7 Conclusion

Regional GHG emissions would decrease compared to both baseline year 2016 conditions and a year 2050 no-Project condition. Therefore, the Project would result in a less than significant impact to generating GHG emissions. Additionally, the Project would be consistent with all State, regional, and local GHG-reduction plans including the 2017 and 2022 Scoping Plans, San Diego Forward, and the City's CAP. The Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs. Impacts would be less than significant.