

INITIAL STUDY/NEGATIVE  
DECLARATION FOR THE

# San Marcos Climate Action Plan Update

City of San Marcos  
August 2020



# PROPOSED NEGATIVE DECLARATION

## PROJECT: CLIMATE ACTION PLAN INITIAL STUDY

### LEAD AGENCY: CITY OF SAN MARCOS

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. The City of San Marcos is the CEQA lead agency because they are responsible for adopting and implementing the proposed Climate Action Plan (CAP).

### PROJECT DESCRIPTION SUMMARY

The proposed CAP provides a GHG reduction strategy framework based on the City's jurisdictional influence, public input, and other best practices. The GHG reduction strategy framework consists of strategies, measures, target year, goals, and GHG reduction potential. The proposed CAP would be consistent with State legislation and executive orders that are aimed at reducing Statewide GHG emissions. This includes:

- ▶ AB 32, which established a target of reducing Statewide GHG levels to 1990 levels by 2020;
- ▶ SB 32, which established a mid-term target of reducing Statewide GHG levels to 40 percent below 1990 levels by 2030; and
- ▶ Executive Order S-3-05, which recommends a longer-term Statewide GHG reduction goal of reducing emissions to 80 percent below 1990 levels by 2050.

To develop the GHG reduction strategies, the City analyzed its baseline 2012 GHG emissions and determined future scenarios for emissions to estimate how emissions can be reduced through climate action strategies. Based on the City's 2012 inventory, achieving the City's targets would require that annual communitywide emissions not exceed 575,000 carbon dioxide equivalent (MTCO<sub>2</sub>e) in 2020 and 347,000 MTCO<sub>2</sub>e in 2030. The City has set its 2030 target based upon the trajectory necessary to meet the Statewide 2050 goal. To achieve these GHG reduction targets, the proposed CAP accounts for actions taken by State and federal agencies that will reduce emissions in the city (also known as "legislative reductions") and identifies several sector-based strategies and 22 GHG reduction measures that can be adopted and implemented locally by the City or others. The proposed CAP also includes implementation and monitoring procedures to ensure progress is being made towards achieving the objectives and specific GHG reduction measures. As climate change science and policy continues to advance, the City may be able to apply new strategies to assist in achieving the State's long-term 2050 GHG emissions reduction goal in future CAP updates.

### FINDINGS

An Initial Study has been prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the Initial Study, it has been determined that the project would have either no impact or a less-than-significant impact on the environment. The conclusion is supported by the following findings:

1. The project would have no impacts or less than significant impacts related to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services or recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire.
2. The project would not result in any potentially significant impacts and therefore mitigation is not required to reduce any potentially significant impacts to less-than-significant levels.

Pursuant to Section 21082.1 of the California Environmental Quality Act, The City of San Marcos has independently reviewed and analyzed the Initial Study and Negative Declaration for the project and finds that the Initial Study and Negative Declaration reflects the independent judgment of the City of San Marcos.

I hereby approve this project:

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Saima Qureshy, Principal Planner

City of San Marcos

(to be signed upon approval of the project after the public review period is complete)

Initial Study/Negative Declaration  
for the  
**San Marcos Climate Action Plan Update**

Prepared for:

City of San Marcos  
1 Civic Center Drive  
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Prepared By:

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August 2020

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# LIST OF ABBREVIATIONS

2013 CAP	Climate Action Plan in 2013
2017 Scoping Plan	<i>2017 Climate Change Scoping Plan</i>
AB	Assembly Bill
asl	above sea level
BAU	business-as-usual
BCLA	Biological Core and Linkage Areas
BMP	best management practice
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	State of California/Office of Emergency Services
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan Update
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH <sub>4</sub>	methane
City	City of San Marcos
CNEL	community noise equivalent level
CO	carbon monoxide
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CWPP	community wildfire protection plan

dB	decibels
diesel PM	diesel particulate matter
draft IS/ND	draft Initial Study/ Negative Declaration
EAP	California Energy Action Plan
EIR	Environmental Impact Report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EV	electric vehicle
F-gases	fluorinated gases
FHSZ	Fire Hazard Severity Zone
GHG	greenhouse gas
GWP	Global Warming Potential
HFC	hydrofluorocarbon
I-15	Interstate 15
I-5	Interstate 5
IPCC	Intergovernmental Panel on Climate Change
lbs./day	pounds per day
L <sub>dn</sub>	Day-Night Noise Level
L <sub>eq</sub>	Equivalent Noise Level
L <sub>max</sub>	Maximum Noise Level
MHCP	Multiple Habitat Conservation Program
MND	mitigated negative declaration
MTCO <sub>2e</sub>	metric ton of carbon dioxide equivalent
N <sub>2</sub> O	nitrogen dioxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Commission
ND	negative declaration



NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
OIMP	odor impact minimization plan
OPR	Governor's Office of Planning and Research
Pechanga	Temecula Band of Luiseno Mission Indians
PFC	perfluorocarbon
PM <sub>10</sub>	Respirable particulate matter
PM <sub>2.5</sub>	Fine particulate matter
PPV	peak particle velocity
PRC	Public Resource Code
proposed CAP	Climate Action Plan Update
PV	photovoltaic
Rincon	Rincon Band of Mission Indians
RMS	root-mean-square
RPS	Renewable Portfolio Standard
SANDAG	San Diego Association of Governments
SB	Senate Bill
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas & Electric
SF <sub>6</sub>	hexafluoride
SLT	screening level threshold
SMFD	San Marcos Fire Department
SMMC	City of San Marcos Municipal Code
SMUSD	San Marcos Unified School District
SO <sub>2</sub>	sulfur dioxide
SOI	Sphere of Influence
SO <sub>x</sub>	oxides of sulfur
SR	State Route
SWPPP	storm water pollution prevention plan

TAC	toxic air contaminant
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compound
WUI	wildland urban interface

# 1 INTRODUCTION

## 1.1 INTRODUCTION AND REGULATORY GUIDANCE

This draft Initial Study/Negative Declaration (draft IS/ND) has been prepared by the City of San Marcos (City) to evaluate potential environmental effects resulting from implementation of the City's proposed Climate Action Plan Update (proposed CAP). Chapter 2, "Project Description," presents a detailed description of the proposed CAP.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An Initial Study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare...a proposed negative declaration (ND) or mitigated negative declaration (MND)...when: (a) The Initial Study shows that there is no substantial evidence...that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." When preparing an ND or MND, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have one or more significant environmental impacts that cannot clearly be reduced to a less-than-significant level by adoption of mitigation or by revisions to the project.

## 1.2 PURPOSE OF THIS DOCUMENT

As described in Chapter 3, "Environmental Checklist," the proposed CAP would not result in any significant environmental impacts. Therefore, an IS/ND is the appropriate document for compliance with the requirements of CEQA. This draft IS/ND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. The City of San Marcos is the CEQA lead agency because they are responsible for adopting and implementing the proposed CAP. This draft IS/ND will be circulated for a 30-day public review period, from August 7, 2020 to September 7, 2020. Comments on this draft IS/ND must be received by 5:00 PM on September 7, 2020. Comments can be emailed to [SQureshy@san-marcos.net](mailto:SQureshy@san-marcos.net) or sent to the following address:

Saima Qureshy, Principal Planner  
City of San Marcos  
Planning Division  
1 Civic Center Drive  
San Marcos, CA 92069

Comments received on the draft IS/ND will be considered and responded to before consideration of adoption of the draft IS/ND. The draft IS/ND, along with comments received by the date provided above, will be considered by the City in conjunction with consideration of adoption of the proposed CAP.

## 1.3 SUMMARY OF FINDINGS

Chapter 3, “Environmental Checklist,” contains the analysis and discussion of potential environmental impacts of the proposed CAP. The Environmental Checklist for this draft IS/ND includes the checklist questions from Appendix G of the State CEQA Guidelines. The analysis of Chapter 3 demonstrates that the proposed CAP would have either no impact or a less-than-significant impact for the following environmental topics:

- ▶ Aesthetics
- ▶ Agriculture and Forestry Resources
- ▶ Air Quality
- ▶ Biological Resources
- ▶ Cultural Resources
- ▶ Energy
- ▶ Geology and Soils
- ▶ Greenhouse Gas Emissions
- ▶ Hazards and Hazardous Materials
- ▶ Hydrology and Water Quality
- ▶ Land Use and Planning
- ▶ Mineral Resources
- ▶ Noise
- ▶ Population and Housing
- ▶ Public Services
- ▶ Recreation
- ▶ Transportation
- ▶ Tribal Cultural Resources
- ▶ Utilities and Service Systems
- ▶ Wildfire

## 1.4 DOCUMENT ORGANIZATION

This draft IS/ND is organized as follows:

**Chapter 1: Introduction.** This chapter introduces the environmental review process. It describes the purpose and organization of the draft IS/ND and presents a summary of findings.

**Chapter 2: Project Description.** This chapter describes the purpose of and need for the proposed CAP, identifies objectives, and provides a detailed description of the proposed CAP.

**Chapter 3: Environmental Checklist.** This chapter presents an analysis of a range of environmental issues identified in the Environmental Checklist and determines if implementation of the proposed CAP would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any potentially significant impacts could not be reduced to less than significant, an EIR would be required. The analysis of Chapter 3 demonstrates that the proposed CAP would have either no impact or a less-than-significant impact on the environment.

**Chapter 4: References.** This chapter lists the references used in preparation of this draft IS/ND.

**Chapter 5: List of Preparers.** This chapter identifies report preparers.

## 2 PROJECT DESCRIPTION

### 2.1 PROJECT OVERVIEW

This chapter presents a detailed description of the proposed Climate Action Plan Update (proposed CAP) that would establish a comprehensive framework to reduce greenhouse gas (GHG) emissions in the City of San Marcos (City). The proposed CAP would not include any development proposals and would not directly result in physical environmental effects because of the construction or operation of facilities. The City is the lead agency for the proposed CAP under the California Environmental Quality Act (CEQA).

### 2.2 PROJECT LOCATION

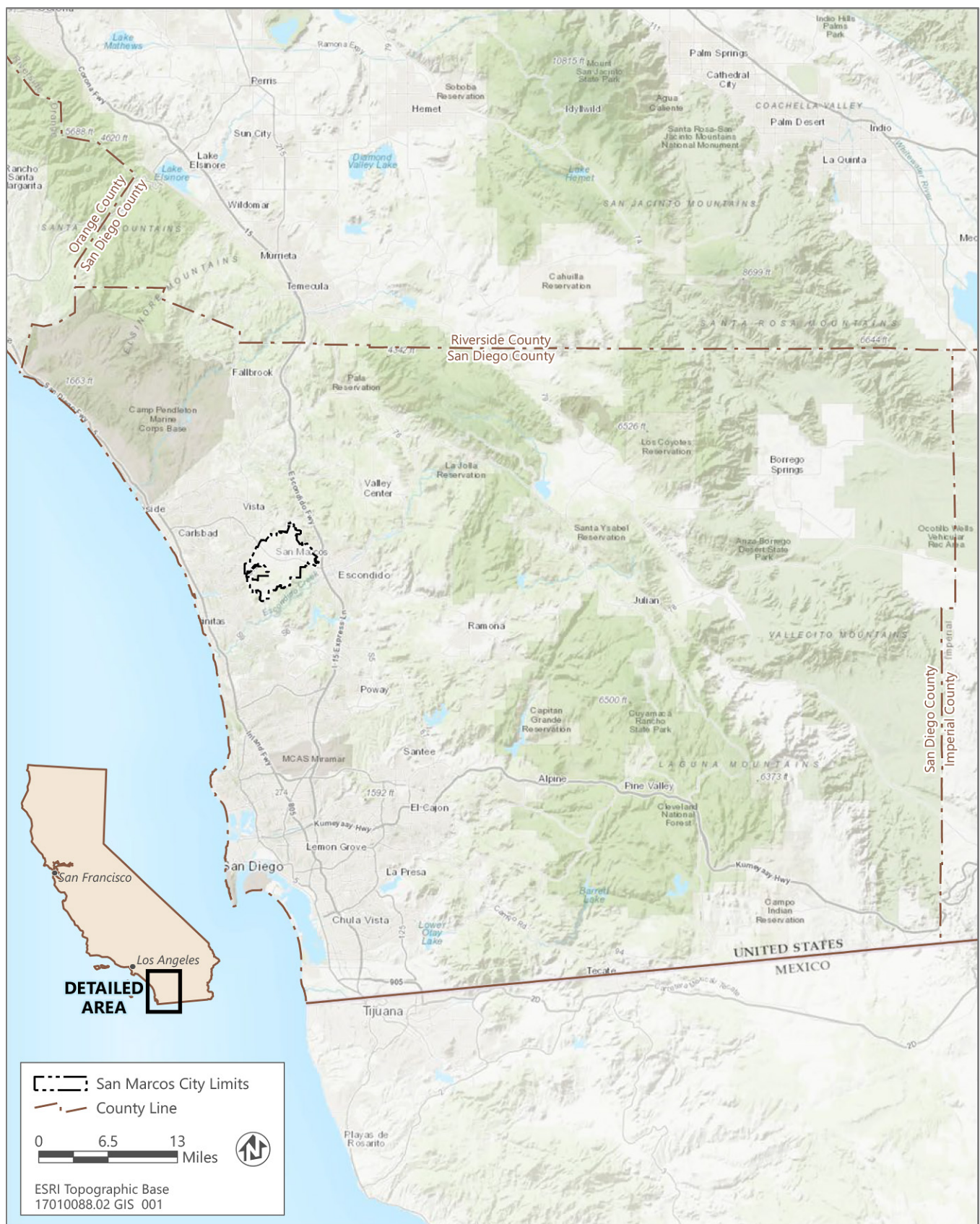
As shown in Figure 2-1, the City is in northwestern San Diego County (North County), approximately 40 miles north of Downtown San Diego. The City is bounded by unincorporated San Diego County to the north and south, the cities of Vista and Carlsbad to the west, and the City of Escondido to the east. Regional access to the City is provided by State Route 78 (SR 78), Interstate 5 (I-5), and I-15.

The plan area for the proposed CAP encompasses the approximately 24 square miles within the City limits, as shown in Figure 2-2.

### 2.3 PROJECT BACKGROUND

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2019). GHG emission targets established by State law include reducing Statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for reducing Statewide GHG emissions to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and to achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

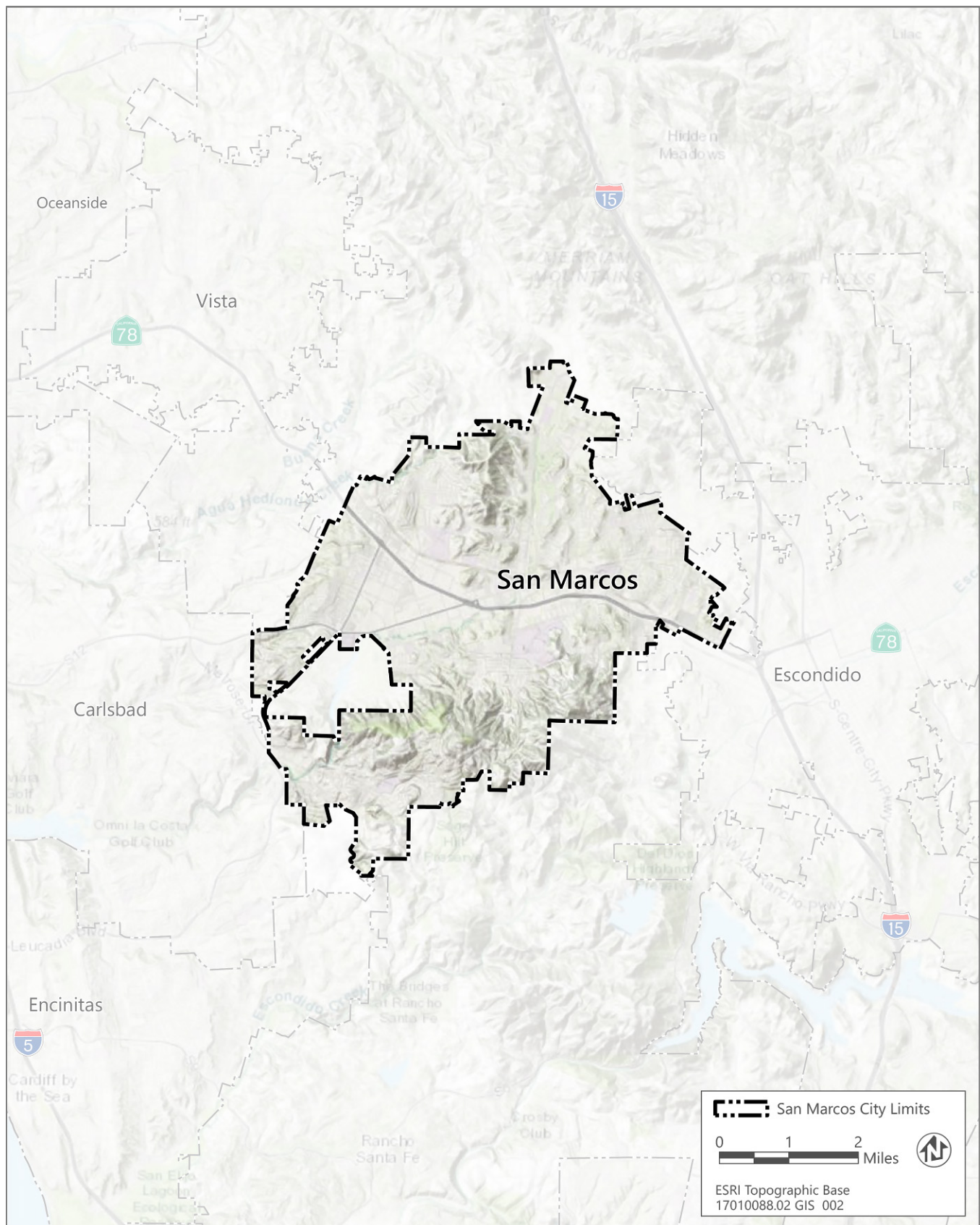
The City of San Marcos adopted a Climate Action Plan in 2013 (2013 CAP) in compliance with the adopted policies in its 2012 General Plan. The 2013 CAP established a framework for the City to reduce GHG emissions by 15 percent below 2005 levels by 2020, consistent with AB 32, and 28 percent below 2005 levels by 2030, which put the City on a GHG reduction pathway consistent with the 2050 goal identified in Executive Order S-3-05. Although the 2013 CAP helped the City achieve community-wide GHG reduction targets, it was completed before enactment of the SB 32 requirement to reduce Statewide GHG emissions to 40 percent below the 1990 levels by 2030, before adoption of the 2017 Climate Change Scoping Plan (CARB 2017), the State's strategy for achieving the 2030 target, and before issuance of Executive Order B-55-18 and its goal for Statewide carbon neutrality by 2045. Other changes in laws and regulations addressing climate change and scientific understanding also have occurred since adoption of the 2013 CAP. To address the State's 2030 target and other changes, the City initiated the process to prepare the proposed CAP in 2017 with support from the San Diego Association of Governments (SANDAG) Energy Roadmap Program. The proposed CAP builds upon the policy framework established by the 2013 CAP and will serve as a guide for reducing communitywide emissions consistent with the State's 2030 target and putting communitywide emissions on a downward trajectory consistent with the State's post-2030 emissions reduction goals.



Source: Data downloaded from San Diego Association of Governments in 2019

**Figure 2-1** Regional Location





Source: Data downloaded from San Diego Association of Governments in 2019

**Figure 2-2**      **Project Location**

## 2.3.1 Project Objectives

The fundamental purpose of the proposed CAP is to provide a detailed plan for the City to achieve its long-term goals for reducing GHG emissions. Through management, monitoring, and periodic updates, the proposed CAP will remain an effective tool to reduce emissions and help implement the City's vision for the future.

- ▶ The City has developed the following objectives for the proposed CAP:
- ▶ Implement General Plan Goal COS-4, more specifically Policy COS-4.4 regarding quantifying community-wide and municipal GHG emissions, setting a reduction goal, and implementing measures to reduce GHG emissions as required by governing legislation;
- ▶ Prepare a baseline GHG emissions inventory including municipal and community-wide sources of emissions in the City, and analyze the potential growth of these emissions over time;
- ▶ Establish communitywide GHG reduction targets for 2020 and 2030 consistent with SB 32 and the 2017 Scoping Plan;
- ▶ Identify local GHG reduction strategies and measures that reduce GHG emissions from municipal and community-wide activities in alignment with its established GHG reduction targets; and
- ▶ Meet the requirements of State CEQA Guidelines Section 15183.5(b)(2) regarding "Plans for the Reduction of Greenhouse Gas Emissions" to provide streamlining of GHG emissions analysis for future projects that are consistent with the proposed CAP.

## 2.4 PROJECT DESCRIPTION

The proposed CAP would be consistent with State legislation and executive orders that are aimed at reducing Statewide GHG emissions. This includes:

- ▶ AB 32, which established a target of reducing Statewide GHG levels to 1990 levels by 2020;
- ▶ SB 32, which established a mid-term target of reducing Statewide GHG levels to 40 percent below 1990 levels by 2030; and
- ▶ Executive Order S-3-05, which recommends a longer-term Statewide GHG reduction goal of reducing emissions to 80 percent below 1990 levels by 2050.

To develop the GHG reduction strategies, the City analyzed its baseline 2012 GHG emissions and determined future scenarios for emissions to estimate how emissions can be reduced through climate action strategies. Based on this analysis, the proposed CAP aims to achieve the following GHG reduction targets:

- ▶ 4 percent below 2012 levels by 2020 (575,000 MTCO<sub>2</sub>e), and
- ▶ 42 percent below 2012 levels by 2030 (347,000 MTCO<sub>2</sub>e).

The City has set its 2030 target based upon the trajectory necessary to meet the Statewide 2050 goal. The City's targets would require GHG emissions to be reduced to 575,000 carbon dioxide equivalent (MTCO<sub>2</sub>e) in 2020 and 347,000 MTCO<sub>2</sub>e by 2030. To achieve these GHG reduction targets, the proposed CAP accounts for actions taken by State and federal agencies that will reduce emissions in the city (also known as "legislative reductions") and identifies several sector-based strategies and GHG reduction measures that can be adopted and implemented locally by the City or others. The proposed CAP also includes implementation and monitoring procedures to ensure progress is being made towards achieving the objectives and specific GHG reduction measures. As climate change science and policy continues to advance, the City may be able to apply new strategies to assist in achieving the State's long-term 2050 GHG emissions reduction goal in future CAP updates.



## 2.4.1 Proposed CAP Contents

The proposed CAP contains four chapters which are briefly summarized below:

- ▶ Executive Summary: Summarizes the key information contained in the proposed CAP.
- ▶ Chapter 1 - Introduction: This chapter introduces the document, describes the purpose and context of the plan, and identifies the regulatory framework related to global GHG emissions.
- ▶ Chapter 2 - Greenhouse Gas Emissions Inventory, Projections, and Targets: This chapter provides detailed accounting of GHG emissions from municipal operations and community-wide activities within the City. It establishes a baseline inventory with 2012 GHG emissions from all sectors. Projections of GHG emissions and reduction targets are described and the resultant emissions gap between projected emissions and reduction targets is calculated.
- ▶ Chapter 3 - Greenhouse Gas Reduction Strategies and Measures: This chapter outlines GHG reduction strategies and measures to be implemented by the City to achieve its GHG reduction targets. The strategies and measures focus on locally-based actions to reduce GHG emissions in various categories as a complement to legislative actions taken by the State or federal government.
- ▶ Chapter 4 - Implementation and Monitoring: This chapter outlines how the City will implement and monitor the strategies and measures identified in the proposed CAP.

The key components included in the chapters listed above are described in more detail below.

## 2.4.2 GHG Emissions Inventory

A community GHG emissions inventory is an estimate of a defined set of gases emitted to the atmosphere from local or regional sources that contribute to climate change. The proposed CAP is based on the inventory of these GHG emissions, which identifies and quantifies the sources and amounts of GHG emissions that are generated from activities within the City in one calendar year (i.e., annual emissions). Conducting an inventory of emissions provides a baseline of GHG emissions to be established from which future changes in emissions can be forecasted, along with calculation of GHG reduction targets from which GHG reduction measures can then be quantified.

The inventory was prepared for the year 2012 and serves as the baseline year from which the City determined its GHG reduction targets. The 2012 baseline year was chosen as it was the most recent calendar year for which complete source and activity data was available when the planning process began in 2017. The inventory is organized into GHG Emissions Sectors, which represent a distinct subset of a market, society, industry, or economy whose components share similar characteristics. The seven major GHG emissions sectors are shown in order of contribution, which include the following (refer to proposed CAP Appendix A for a more detailed discussion of the 2012 emissions inventory methods, data sources, and assumptions).

1. On-Road Transportation: On-road transportation emissions associated with gasoline and diesel consumption from motor vehicles on local and regional roadways.
2. Electricity: Building energy use emissions associated with electricity in residential and non-residential buildings.
3. Natural Gas: Building energy use emissions associated with combustion of natural gas in residential and non-residential buildings.
4. Off-Road Transportation: Off-road transportation emissions associated with gasoline and diesel fuel use for recreational vehicles, construction equipment, and residential and commercial equipment.
5. Solid Waste: Waste emissions associated with waste generated by residents and businesses of the city and disposal of mixed and organic waste in landfills.
6. Water: Emissions associated with the water supplied, treated, conveyed, and distributed to residents and businesses within the city.

7. Wastewater: Wastewater treatment emissions associated with both the energy consumed during treatment and fugitive emissions resulting from combustion during treatment process for domestic sewage.

Carbon dioxide (CO<sub>2</sub>) is the largest contributor to global warming and the most recognized GHG; however, there are five other primary GHGs that must be addressed to meet State-mandated reduction targets, including: methane (CH<sub>4</sub>); nitrogen dioxide (N<sub>2</sub>O); and, three types of fluorinated gases (F-gases), which are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and hexafluoride (SF<sub>6</sub>). To simplify discussion of these emissions collectively, climate action plans use a measurement known as carbon dioxide equivalent (CO<sub>2</sub>e). The CO<sub>2</sub>e measurement translates each GHG to CO<sub>2</sub> by weighting it by its relative Global Warming Potential (GWP). For example, according to the Intergovernmental Panel on Climate Change (IPCC), CH<sub>4</sub> and N<sub>2</sub>O are 25 and 298 times more potent, respectively, than CO<sub>2</sub> in their ability to trap heat in the atmosphere (IPCC 2007). Converting these gases into CO<sub>2</sub>e allows consideration of all the gases in comparable terms and makes it easier to communicate how various sources and types of GHG emissions contribute to global warming. A metric ton of MTCO<sub>2</sub>e is the standard measurement of the amount of GHG emissions produced and released into the atmosphere.

Table 2-1 summarizes the City's 2012 GHG emissions inventory results by sector.

**Table 2-1 City of San Marcos 2012 Greenhouse Gas Emissions Inventory**

Emission Sector	2012 <sup>1</sup> (MTCO <sub>2</sub> e/year)	Percent
On-Road Transportation	322,000	54
Electricity	162,000	27
Natural Gas	75,000	12
Solid Waste	15,000	3
Off Road Transportation	14,000	2
Water	9,000	1
Wastewater	3,000	<1
<b>Total</b>	<b>599,000</b>	<b>100</b>

Notes: Columns may not add to totals due to rounding.

MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalent; GWP = Global Warming Potential; IPCC = Intergovernmental Panel on Climate Change

<sup>1</sup> Uses GWP Factors from IPCC's Fourth Assessment Report.

<sup>2</sup> Based on SANDAG Series 13 vehicle miles traveled (VMT) estimates. 2012 is the Base Year.

Source: Data provided by EPIC in 2020.

As illustrated in Table 2-1 above, in 2012, community activities accounted for approximately 599,000 MTCO<sub>2</sub>e. Fifty-four percent of the emissions were due to on-road transportation. Electricity and natural gas emissions, collectively referred to as the "energy" category, are the second largest contributors with 27 and 12 percent of total emissions in 2012, respectively. Emissions calculations for the energy category include electricity and natural gas used for non-renewable building energy consumption and water heating and cooling.

## 2.4.3 GHG Emissions Projections

GHG emissions projections provide an estimate of future emissions levels in the absence of climate action measures. The proposed CAP uses two projections, referred to as the "business-as-usual" (BAU) and Legislatively-Adjusted BAU. Emissions projections were prepared for the "business-as-usual" (BAU) scenarios based on the 2012 baseline. Since 2012, the City has experienced an overall reduction in citywide annual GHG emissions. This observed decrease in BAU emissions could reflect existing community and regional choices that result in fewer emissions, including use of improved regionwide renewable energy portfolios, decreased residential and commercial water usage, improved vehicle standards and turnover of vehicle fleets, and implementation of the 2013 CAP. Based on these projections, the City's GHG emissions would slowly increase under BAU conditions until 2030, as a result of growth in population and employment.

The City prepared both BAU and legislatively-adjusted BAU scenarios for 2020 and 2030. The BAU emissions scenario is based on projected population, housing, and employment growth anticipated in the City as provided by SANDAG, assuming no actions would be taken to reduce emissions by federal, State or local agencies pursuant to AB 32 or other legislation. The BAU scenario represents theoretical “worst-case” future conditions while the “BAU with legislative adjustments” forecast accounts for future emissions reductions pursuant to AB 32 and other legislation in California from a variety of regulations and programs, including the Renewable Portfolio Standard (RPS), improving vehicle fuel economy standards because of the Advanced Clean Cars Program, and other State and federal policies that reduce the level of GHG emissions associated with communitywide activities in the City. A detailed description and analysis of how specific legislative reductions are included in the City’s BAU GHG emissions inventory and forecast can be found in Appendix A of the proposed CAP.

As shown in Table 2-2, under the legislatively-adjusted BAU forecast scenario, community-wide GHG emissions are forecasted to decrease by approximately 12 percent by 2020 and 28 percent by 2030 compared to 2012 emissions.

**Table 2-2 City of San Marcos Projections (MTCO<sub>2</sub>e/year)**

Emissions Category	2012	2020		2030	
		BAU	Legislatively-Adjusted BAU	BAU	Legislatively-Adjusted BAU
On-Road Transportation	322,000	307,000	296,000	317,000	252,000
Electricity	162,000	121,000	110,000	136,000	49,000
Natural Gas	75,000	79,000	77,000	88,000	79,000
Solid Waste	15,000	15,000	15,000	17,000	17,000
Off-Road Transportation	14,000	14,000	14,000	18,000	18,000
Water	9,000	10,000	10,000	11,000	11,000
Wastewater	3,000	3,000	3,000	3,000	3,000
<b>Total</b>	<b>599,000</b>	<b>549,000</b>	<b>526,000</b>	<b>591,000</b>	<b>429,000</b>
<b>Percent change from 2012 (%)</b>	<b>---</b>	<b>-8%</b>	<b>-12%</b>	<b>-1%</b>	<b>-28%</b>

Notes: Columns may not add to totals due to rounding.

BAU = Business as usual; GHG = greenhouse gas emissions; MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalent

Source: Data provided by EPIC in 2020.

## 2.4.4 GHG Emissions Reduction Targets

The proposed CAP provides a course of action for the City to reduce GHG emissions consistent with AB 32, SB 32, and Executive Order S-3-05. The State aims to reduce annual Statewide GHG emissions to:

- ▶ 1990 levels by 2020,
- ▶ 40 percent below 1990 levels by 2030, and
- ▶ 80 percent below 1990 levels by 2050.

To determine an equivalent reduction target at the local level, California’s 2017 Climate Change Scoping recommends community-wide GHG reduction goals for local climate action plans that are aligned with and contribute to helping the State achieve its 2030 and 2050 goals (CARB 2017). The State’s goals are expressed as reducing emissions to 6 MTCO<sub>2</sub>e per capita and 2 MTCO<sub>2</sub>e per capita by 2030 and 2050, respectively. The City plans to achieve the following 2020 and 2030 targets to reduce annual municipal and community-wide GHG emissions in the City consistent with CARB’s recommended goals:

- ▶ 4 percent below 2012 levels (575,000 MTCO<sub>2</sub>e) by 2020, and
- ▶ 42 percent below 2012 levels (347,000 MTCO<sub>2</sub>e) by 2030.

Table 2-3 includes a summary of the recommended targets, along with estimated reductions required to achieve the targets.

**Table 2-3 Recommended Greenhouse Gas Emissions Reduction Targets: 2020 and 2030**

Scenario or Target	2012	2020	2030
<b>Baseline and Projections</b>			
2012 Baseline GHG Inventory and BAU Projections (MTCO <sub>2</sub> e)	599,000	549,000	591,000
Legislatively-Adjusted BAU Forecast (MTCO <sub>2</sub> e)	NA	526,000	429,000
Legislatively-Adjusted BAU Forecast: Percent below 2012 Baseline (%)	NA	12	28
<b>Targets</b>			
Target Percent Reduction below 2012 Baseline (%)	NA	4	42
Target Annual Emissions (MTCO <sub>2</sub> e)	NA	575,000	347,000
<b>Gap Analysis</b>			
Reduction from 2012 Baseline needed to meet Target (MTCO <sub>2</sub> e)	NA	24,000	252,000
Reduction from Legislatively-Adjusted BAU needed to meet Target (MTCO <sub>2</sub> e)	NA	No additional reductions needed to meet the 2020 target.	82,000
Additional Percent Reduction below Legislatively-Adjusted BAU needed to meet Target (%)	NA		19

Notes: BAU = Business as usual, MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalent, GHG = greenhouse gas, NA = Not Applicable

Source: Data provided by EPIC 2020.

As shown in Table 2-3, the City would achieve its 2020 emissions reduction target under BAU conditions. Therefore, this CAP focuses on reducing emissions in 2030 through local actions. While setting goals beyond 2030 is important to provide long-term objectives, it is difficult to establish longer-term targets for which defensible reduction assumptions can be made. This is primarily because of uncertainty around future technological advances and future changes in State and federal law beyond 2030. Though framed to reduce emissions to meet the State's near-term requirements, these targets are intended to provide a pathway for reductions beyond 2030. As climate change science and policy continues to advance, the City may be able to apply new strategies to assist in achieving the State's long-term 2050 GHG emissions reduction goal in future CAP updates.

## 2.4.5 GHG Emissions Reductions Strategies, Measures, and Actions

Based on the City's 2012 inventory and as shown in Table 2-3, achieving the City's targets would require that annual communitywide emissions not exceed 575,000 MTCO<sub>2</sub>e in 2020 and 347,000 MTCO<sub>2</sub>e in 2030. While existing activities would be adequate to meet the City's 2020 target, these activities, along with federal and State legislative actions, would not be adequate to achieve the City's 2030 GHG reduction target of 42 percent below 2012 levels. With State and federal adjustments applied, the City's 2030 emissions under Legislatively-Adjusted BAU conditions were estimated to be 429,000 MTCO<sub>2</sub>e, or approximately 82,000 MTCO<sub>2</sub>e greater than the City's 2030 target. To achieve further reductions towards meeting the 2030 target, the City would need to implement additional actions. This additional reduction needed at the local level to meet the reduction targets for each year is referred to as the "local emissions gap." To close this gap, the City would need to implement actions that would result in reductions of approximately 82,000 MTCO<sub>2</sub>e in 2030. The methodology used for calculating each projection and City reduction targets are discussed in more detail in Chapter 2 of the proposed CAP.

There are numerous actions within the direct control or influence of the City that could further reduce GHG emissions. It can adopt or update land use plans, enforce or update City ordinances, adjust municipal operations, encourage or influence City residents and business by partnering with local organizations, and work with local and regional transportation planning or other agencies that provide services or maintain infrastructure that is not directly in the City's control. The City can effectively reduce emissions in some sectors where the City has jurisdictional control

(e.g., municipal operations, land use change), but in some cases the City has limited ability to influence reductions because the City has limited jurisdictional control (e.g., on-road transportation).

The City has developed a GHG reduction strategy framework based on the City's jurisdictional influence, public input, and other best practices. The GHG reduction strategy framework consists of strategies, measures, target year, goals, and GHG reduction potential. The City also has identified supporting activities that will assist in achieving identified goals for each strategy but were not directly quantified towards meeting the City's 2030 GHG reduction target.

The reduction measures of the proposed CAP were developed based on a combination of factors, including:

- ▶ the feasibility of the measure to be implemented by the City;
- ▶ existing policies, actions, or programs that can be expanded or proposed policies yet to be adopted;
- ▶ feedback from community workshops;
- ▶ review of measures included in the 2013 CAP; and
- ▶ technological innovations.

To meet the City's 2030 target, the proposed CAP identifies strategies and measures to reduce GHG emissions citywide from a variety of emissions categories. In total, the City would implement eight strategies, listed below in Table 2-4, and 22 associated measures.

**Table 2-4 Strategies for Reducing Greenhouse Gas Emissions**

Strategy	Description
Strategy 1	Increase Use of Zero-Emission/Alternative Fuel Vehicles
Strategy 2	Reduce Fossil Fuel Use
Strategy 3	Reduce Vehicle Miles Traveled
Strategy 4	Increase Building Energy Efficiency
Strategy 5	Increase Renewable and Zero-Carbon Energy
Strategy 6	Reduce Water Use
Strategy 7	Reduce and Recycle Solid Waste
Strategy 8	Increase Urban Tree Cover

Source: EPIC 2020

Detailed measures are identified within each strategy as well as specific actions the City would implement to achieve GHG emissions reductions. The proposed CAP includes measures aimed at reducing GHG emissions from five emissions categories: transportation, energy (electricity and natural gas consumption), water, solid waste, and carbon sequestration. The three measures included in this proposed CAP that would result in the most significant GHG reductions include:

**Measure E-3:** The City will join a program to further increase grid-supply renewables and zero-carbon electricity to 95 percent of the City's electricity supply, reducing citywide emissions by 34,336 MTCO<sub>2e</sub> by 2030.

**Measure S-1:** The City will work with its franchise waste hauler to prepare a waste diversion plan that achieves an 85 percent waste diversion rate, reducing citywide emissions by 11,585 MTCO<sub>2e</sub> by 2030.

**Measure T-13:** The City will work with existing major employers to reduce commute and work-related vehicle miles traveled (VMT) through employee shuttle bus services, vanpool programs, parking cash-out or other transportation demand management activities to reduce commute VMT citywide by 3.7 percent. This measure would reduce citywide emissions by approximately 8,786 MTCO<sub>2e</sub> by 2030.

**Table 2-5 Greenhouse Gas Reduction Strategies and Measures**

Strategies and Measures	GHG Reduction Potential in 2030 (MTCO <sub>2</sub> e)
<b>Transportation</b>	
<b>Strategy 1: Increase Use of Zero-Emission/Alternative Fuel Vehicles</b>	
T-1: Transition to a More Fuel-Efficient Municipal Fleet	32
T-2: Require Electric Vehicle Charging Stations in New Development	2,493
T-3: Install Electric Vehicle Charging Stations at Public Facilities	759
T-4: Provide Grants for Residents and Businesses to Install Electric Vehicle Charging Stations	8,282
<b>Strategy 2: Reduce Fossil Fuel Use</b>	
T-5: Synchronize Traffic Signals	263
T-6: Install Roundabouts	687
<b>Strategy 3: Reduce Vehicle Miles Traveled</b>	
T-7: Participate in the San Diego Association of Government's iCommute Vanpool Program	149
T-8: Develop Bicycle Infrastructure Identified in the City's General Plan Mobility Element	692
T-9: Adopt Citywide Transportation Demand Management Ordinance	262
T-10: Implement the Intra-City Shuttle System	4,932
T-11: Increase Transit Ridership	4,415
T-12: Reduce Parking Requirements for New Residential Developments Near Transit	2,017
T-13: Implement Transportation Demand Management Plans at Existing Employers	8,786
T-14: Transition to an Online Building and Engineering Permit Submittal System	13
<b>Energy</b>	
<b>Strategy 4: Increase Building Energy Efficiency</b>	
E-1: Require New Residential Developments to Install Alternately-Fueled Water Heaters	1,275
<b>Strategy 5: Increase Renewable and Zero Carbon Energy</b>	
E-2: Require Installation of PV systems at New Non-Residential Developments	773
E-3: Increase Grid-Supply Renewable and Zero-Carbon Electricity	34,336
<b>Water</b>	
<b>Strategy 6: Reduce Water Use</b>	
W-1: Reduce Outdoor Water Use for Landscaping	91
W-2: Reduce Water Use in City Managed Landscape Areas	67
<b>Solid Waste</b>	
<b>Strategy 7: Reduce and Recycle Solid Waste</b>	
S-1: Increase Citywide Waste Diversion	11,585
<b>Carbon Sequestration</b>	
<b>Strategy 8: Increase Urban Tree Cover</b>	
C-1: Increase Tree Planting at City Parks and Public Rights-of-Way	148
C-2: Increase Tree Planting in New Developments	97

Notes: City = City of San Marcos; GHG = greenhouse gas; MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalent

Source: EPIC 2020.

## 2.4.6 Implementation and Monitoring Approach

Implementation of the proposed CAP would require ongoing management, oversight, and collaboration, ensuring that measures translate to real GHG emissions reductions. Successful implementation requires investment, long-term commitments, and widespread community participation. Monitoring the implementation of GHG reduction measures is an important part of achieving the City's 2030 reduction target. The City would monitor progress towards the 2030 goal by participating in SANDAG's biennial update of its local GHG inventory. City staff would provide periodic updates to the City Council and Planning Commissions on CAP implementation and efforts. Just as this proposed CAP serves as an update to the City's 2013 CAP, the City would update the proposed CAP in the future to ensure strategies and measures remain implementable and feasible, adjusting measures based on changing conditions or demands, and incorporating new technology not considered in previous CAPs. A detailed description of the City's implementation and monitoring efforts and the importance of continued community engagement and outreach is outlined in Chapter 4, "Implementation and Monitoring," of the proposed CAP.

## 2.4.7 Public Outreach and Engagement

In support of the update process for the proposed CAP, the City implemented an outreach and engagement strategy to provide residents, stakeholders, interested parties, and other agencies the opportunity to participate in the climate action planning process. This strategy included hosting community workshops to educate the public and other organizations about the proposed CAP and administering surveys to solicit input from workshop attendees and the general public on potential greenhouse gas (GHG) reduction strategies. Feedback provided at the workshops and through the survey guided the City in preparing the proposed CAP in alignment with the goals and values of the community.

The City hosted three community workshops in May 2019. These meetings were open to and attended by the general public, key stakeholders, City staff, and consultants. Each workshop was designed to allow attendees to provide an opportunity to ask questions, learn more about the process to prepare the proposed CAP, and provide input and feedback on its development, on the development of strategies to reduce GHG emissions. Workshop attendees had the opportunity to complete a survey to provide input on development of the proposed CAP, including the development of GHG reduction strategies. In addition to the surveys administered at each workshop, comment cards were provided to workshop attendees to note additional comments or questions related to the proposed CAP. Outside of the workshops, interested parties and community members who were not in attendance at one of the three workshops were also provided the opportunity to submit comments and questions to the City and complete the workshop survey via the City's CAP web page. A survey identical to the surveys administered at the workshops was made available for completion on the City's CAP webpage. This survey, referred to as the "online survey," was provided in the same format and included the same questions as the workshops survey described previously. The online survey was available in English and in Spanish.

## 2.5 POTENTIAL PERMITS AND APPROVALS REQUIRED

The City of San Marcos is the CEQA lead agency responsible for considering adoption and implementation of the proposed CAP (Table 2-4). As the lead agency, the City is responsible for considering the adequacy of the Initial Study/ Negative Declaration before determining if the overall project should be adopted.

**Table 2-6 Required Project Approvals**

Project Approval	Approving Authority
Adopt Initial Study/ Negative Declaration	San Marcos City Council
Adopt Climate Action Plan	San Marcos City Council

The draft IS/ND is intended to apply to all listed project approvals as well as to any other approvals necessary or desirable to implement the proposed CAP.

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### 3 ENVIRONMENTAL CHECKLIST

#### PROJECT INFORMATION

1. **Project Title:** San Marcos Climate Action Plan Update
2. **Lead Agency Name and Address:** City of San Marcos  
Planning Division  
1 Civic Center Drive  
San Marcos, CA 92069
3. **Contact Person and Phone Number:** Saima Qureshy, Principal Planner  
(760) 744-1050, Extension 3222
4. **Project Location:** The plan area for the City of San Marcos Climate Action Plan Update encompasses approximately 24.3 square miles within the City limits. See Chapter 2, "Project Description," for more detailed information.
5. **Project Sponsor's Name and Address:** City of San Marcos  
Development Services Department, Planning Division  
1 Civic Center Drive  
San Marcos, CA 92069
6. **General Plan Designation:** Various, see Chapter 2, "Project Description," for more detailed information.
7. **Zoning:** Various, see Chapter 2, "Project Description," for more detailed information.

**8. Description of Project:**

The Climate Action Plan Update (proposed CAP) would provide a comprehensive roadmap to reduce greenhouse gas (GHG) emissions in the City of San Marcos (City). The proposed CAP would build upon the policy framework established by 2013 CAP and establish greenhouse gas (GHG) emission targets and identify achievable, locally-based actions to reduce GHG emissions from municipal and community activities. See Chapter 2, "Project Description," for more detailed information.

**9. Surrounding Land Uses and Setting:**

The City is located in the northern San Diego County (North County), approximately 40 miles north of Downtown San Diego. The City is bounded by unincorporated San Diego County to the north and south, the cities of Vista and Carlsbad to the west, and the City of Escondido to the east.

- 10. Other public agencies whose approval is required:** (e.g., permits, financing approval, or participation agreement)  
None.

- 11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

There are four California Native American tribes that have requested to be informed of proposed projects by the City. In compliance with PRC section 21080.3.1, the City provided formal written notification of the proposed CAP to each of the four Native American tribes on January 16, 2020. In response to this notification, Rincon Band of Luiseño Indians, San Luis Rey Band of Mission Indians, and the Temecula Band of Luiseño Mission Indians (Pechanga) have

requested consultation. The ongoing consultation details are discussed further in the Tribal Cultural Resources Section 3.18 of this document.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

Any environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as demonstrated by the analysis presented in the checklist on the following pages. If checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                  | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources        | <input type="checkbox"/> Cultural Resources               | <input type="checkbox"/> Energy                             |
| <input type="checkbox"/> Geology / Soils             | <input type="checkbox"/> Greenhouse Gas Emissions         | <input type="checkbox"/> Hazards / Hazardous Materials      |
| <input type="checkbox"/> Hydrology / Water Quality   | <input type="checkbox"/> Land Use / Planning              | <input type="checkbox"/> Mineral Resources                  |
| <input type="checkbox"/> Noise                       | <input type="checkbox"/> Population / Housing             | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Recreation                  | <input type="checkbox"/> Transportation                   | <input type="checkbox"/> Tribal Cultural Resources          |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire                         | <input type="checkbox"/> Mandatory Findings of Significance |
|  | <input checked="" type="checkbox"/> None                  | <input type="checkbox"/> None with Mitigation Incorporated  |

## DETERMINATION

On the basis of this initial evaluation:

- ☒ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- ☐ I find that although the proposed project **COULD** have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

*Saima Qureshy*

Signature

7/28/20

Date

Saima Qureshy

Printed Name

Principal Planner

Title

City of San Marcos

Agency

### 3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>I. Aesthetics.</b>				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.1.1 Environmental Setting

The City of San Marcos has varied topography that includes developed land, creeks, lakes, and hillsides. Elevation ranges from 590 feet above sea level (asl) along State Route (SR) 78, to 1,600 feet asl along prominent ridgelines in the northern and southern areas of the City. The varied topography and range in elevations affords the community with long-range views of prominent landforms including Mount Whitney, Double Peak, Owens Peak, San Marcos Mountains, Merriam Mountains, Cerro de Las Posas, and Franks Peak. Public viewsheds of these prominent landforms are visible from overlook points, trails, and roads throughout the plan area. Other scenic resources within the plan area include, but are not limited to, creek corridors, eucalyptus stands, rock outcroppings, landmark or historic buildings, and ocean views (City of San Marcos 2012a).

There are no State designated scenic highways or corridors within the plan area (Caltrans 2020). However, SR 78, is designated by the City as a view corridor and eligible as a State scenic highway outside of the plan area within other areas of San Diego County. This highway corridor provides highway users with views of the Merriam Mountains, Mount Whitney, Double Peak, California State University San Marcos, and Palomar Community College (City of San Marcos 2012a).

Light and glare conditions within developed portions of the plan area are typical of those associated with urban uses. The main sources of daytime glare in the plan area are from sunlight reflecting from structures with reflective surfaces such as windows, and from vehicles on major roadways. Nighttime lighting is prevalent throughout the plan area along roadways, parking lots, building perimeters and within residential areas. Areas with substantially less night-lighting include residential development in Questhaven/La Costa Meadows, Twin Oaks Valley and College Area neighborhoods, and outlying agricultural areas (City of San Marcos 2012b).

### 3.1.2 Discussion

- a) Have a substantial adverse effect on a scenic vista?
- c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

**Less than significant.** The implementation of GHG reduction measures would result in short-term and long-term changes to the physical environment. For example, GHG reduction measures T-6 and T-8 would result in the construction of new roundabouts and bicycle infrastructure. GHG reduction measures T-2 through T-4 would result in installation of electric vehicle (EV) charging infrastructure. GHG reduction measures E-1 and E-2 would result in installation of alternatively-fueled water heaters and solar photovoltaic (PV) systems. GHG reduction measures C-1 and C-2 would result in tree planting at new development, city parks, and along public rights-of-way. There is potential for short-term and long-term changes to degrade visual character and alter public views of scenic vistas. However, long-term changes would include improvements at or near grade level of existing roadways, would involve minor changes to the exterior of existing buildings including roof lines, planting of new trees, and would not otherwise involve features with substantial height, bulk, or massing that could block or impede existing scenic vistas. During the short-term, temporary construction activities such as equipment use, staging of materials, and installation of fencing that would typically not involve height, bulk, or massing that would alter existing scenic vistas. There would be limited circumstances in which construction could involve activities or equipment, such as use of a tall crane, that would temporarily introduce substantial height, bulk, or mass within a scenic vista. Because these circumstances would be limited, and their duration would be limited to relatively short periods of the overall construction phase, their temporary effect on scenic vistas would not be substantial. In addition, given the nature of the GHG reduction measures, construction activities associated with their implementation would occur in already disturbed, urbanized developed areas such as roadways and parking lots and would not occur within non-urbanized areas.

Implementation of Measure E-3 would increase the proportion of grid electricity serving the City that is generated and supplied by eligible renewable and carbon-free resources through participation in a community choice energy program. At this time, it is unknown what program the City would join. Further, once it joins a program, it is unknown at this time how the program would source its renewable and carbon-free electricity. It could be sourced through power purchase agreements with one or more third party electric providers such as power marketers, public agencies, generators, other CCAs, or utilities, or through the program's independent development of electricity generation resources. At this point in time, it is not possible to predict what projects might be proposed in response to future renewable energy solicitations administered by the program, unsolicited proposals or discussions with other agencies. Renewable projects that are located anywhere in the Western Interconnection can be considered as long as the electricity is deliverable to the CCE control area. Therefore, it would be speculative to analyze whether implementation of Measure E-3 would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could affect scenic vistas and existing visual character.

In addition, enforcement of the City of San Marcos Municipal Code (SMMC) would avoid substantial adverse effects on scenic vistas and degradation of public views. For example, SMMC Section 20.300.020(D), requires that all mechanical and electrical equipment, including solar panels, and accessory structures, be architecturally integrated with associated structures and appropriately screened from view, especially from SR 78. SMMC Section 20.450.040 requires solar panels be limited to a maximum height of five (5) feet from the base mount of the unit and any accessory structures to be treated to blend with the existing surroundings. Pursuant to SMMC Section 14.20.060, any person desiring to plant a tree within any City highway or public property is required to file an application for a permit with the City's Planning Director. Prior to the issuance of the permit the Director must approve the species of tree and enforce terms and conditions as appropriate to protect persons and property. Further, SMMC Chapter

20.260 establishes an overlay zone to preserve ridgelines in their natural state and minimize visual impacts in undeveloped natural viewsheds. All future projects with the potential to result in construction activities within the ridgeline overlay would be required to apply for a ridgeline development permit intended to protect visual aesthetics of ridgelines within the plan area. For all the foregoing reasons, GHG reduction measures would not result in a substantial adverse effect on a scenic vista and would not substantially degrade the visual character or quality of public views in non-urbanized areas. This impact would be **less than significant**.

**b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**Less than significant.** There are no State designated scenic highways or corridors within the plan area. However, SR 78, is designated by the City as a view corridor and eligible as a State scenic highway, outside of the City of San Marcos within San Diego County. The implementation of GHG reduction measures would result in short-term and long-term changes to the physical environment. For example, installation of EV charging infrastructure (T-2 through T-4), PV solar panels (E-2), alternatively-fueled water heaters (E-1), and new tree planting (C-1 and C-2). CAP implementation could result in short-term and long-term changes to scenic resources along SR 78. However, long-term changes would include improvements at or near grade level of existing roadways, would involve minor changes to the exterior of existing buildings including roof lines, planting of new trees, and would not otherwise involve features with substantial height, bulk, or massing that could substantially damage scenic resources. During the short-term, temporary construction activities associated with the implementation of GHG reduction measures such as equipment use, staging of materials, and installation of fencing that would typically not result in permanent impacts to scenic resources. Because duration of these activities would be limited to relatively short periods of the overall construction phase, their temporary effect on scenic resources would not be substantial.

As described in Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could substantially damage scenic resources. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could damage scenic resources within a State designated scenic highway.

In addition, enforcement of the SMMC would avoid substantial damage to scenic resources. For example, SMMC Section 20.300.020(D), requires that all mechanical and electrical equipment, including solar panels, and accessory structures, be architecturally integrated with associated structures and appropriately screened from view, especially from SR 78. SMMC Section 20.450.040, requires solar panels to be limited to a maximum height of five (5) feet from the base mount of the unit and any accessory structures to be treated to blend with the existing surroundings. Pursuant to SMMC Section 14.20.060, any person desiring to plant a tree within any City highway or public property is required to file an application for a permit with the City's Planning Director. Prior to the issuance of the permit, the Director must approve the species of tree and enforce terms and conditions as appropriate to protect persons and property. For all of the foregoing reasons, the GHG reduction measures would not substantially damage scenic resources and the impact would be **less than significant**.

**d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Less than significant.** The implementation of GHG reduction measures would result in the use of temporary lighting sources during construction of roadway improvement projects (T-6 and T-8) and installation of PV solar systems (E-2). Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in new substantial sources of light and glare.

During the short-term, temporary construction activities would not result in the installation of permanent lighting structures. Enforcement of the SMMC would regulate new sources of light and glare to avoid affecting day or nighttime views in the plan area. For example, PV solar facilities, renewable energy systems, including solar and non-solar, are regulated under the City's renewable energy development and design guidelines established by SMMC

Chapter 20.450. Pursuant to Section 20.450. 040 (E), renewable energy systems are required to be non-reflective in all areas possible to blend with the surroundings. For all the foregoing reasons, PV solar facilities facilitated by CAP implementation would not create new sources of substantial light or glare. The impact would be **less than significant**.

## 3.2 AGRICULTURE AND FORESTRY RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>II. Agriculture and Forestry Resources.</b>				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 3.2.1 Environmental Setting

The majority of the plan area is urbanized, specifically areas adjacent to and nearby SR 78. The northern portion of the plan area supports a broad range of agricultural uses including nurseries, horse farms, and produce production. Smaller areas of grazing land, Farmland of Local Importance, and Unique Farmland are located south of SR 78. The plan area contains Prime Farmland, Farmland of Statewide Importance, and Unique Farmlands (City of San Marcos 2012b).



### 3.2.2 Discussion

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

**Less than significant.** The implementation of GHG reduction measures that involve ground disturbing activities, including grading and excavation, could, depending on their location result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), rooftop or ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, implementation of GHG reduction measures would not involve changes to policies or regulations related to land use or zoning for agricultural uses. Given the nature of the GHG reduction measures, construction activities associated with their implementation would occur in already disturbed, developed areas such as roadways and parking lots that are not designated for Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Further, future projects would be required to comply with General Plan Policy COS-2.3 which directs the City to protect existing agricultural areas.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

For all the foregoing reasons, implementation of GHG reduction measures would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use and the impact would be **less than significant**.

- b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

**Less than significant.** The implementation of GHG reduction measures would not involve changes to policies or regulations related to land use or zoning for land under Williamson Act contract. Given the nature of the GHG reduction measures, construction activities associated with their implementation would occur in already disturbed, developed areas that are not in agricultural use nor under Williamson Act contract. Further, future projects would be required to comply with General Plan Policy COS-2.3 which directs the City to protect existing agricultural areas. Therefore, implementation of GHG reduction measures would not conflict with existing zoning for agricultural use or a Williamson Act contract and the impact would be **less than significant**.

- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

**No impact.** The plan area does not contain any forest land, timberland, or timberland zoned for timberland production. Therefore, implementation of GHG reduction measures would not conflict or rezone any forest land, timberland, or timber land zoned for timberland production. **No impact** would occur.

- d) Result in the loss of forest land or conversion of forest land to non-forest use?

**No impact.** The plan area does not contain any forest land. Therefore, implementation of GHG reduction measures would not result in the loss of forest land. **No impact** would occur.

### 3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>III. Air Quality.</b>				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.3.1 Environmental Setting

The City of San Marcos is in the San Diego Air Basin (SDAB), which includes all of San Diego County and is under the jurisdiction of San Diego Air Pollution Control District (SDAPCD). Regional and local air quality in the SDAB is affected by topography, dominant airflows, location, and season. The SDAB is bounded by the Pacific Ocean to the west and high mountain ranges to the east, which inhibit the dispersal of pollutants to the east. The region is characterized by warm dry summers and mild winters, and rainfall averages approximately 9 to 14 inches annually. During fall, the region often experiences dry, warm easterly winds, called the Santa Ana winds, which raise temperatures and lower humidity. Atmospheric conditions called inversions affect air quality in the SDAB and inhibit the dispersion of pollutants, resulting in temporary degradation of air quality (City of San Marcos 2012b).

#### CRITERIA AIR POLLUTANTS

Concentrations of emissions from criteria air pollutants (the most prevalent air pollutants known to be harmful to human health) are used to indicate the quality of the ambient air. Criteria air pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), respirable and fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead. The sources of criteria air pollutants and their respective acute and chronic health impacts are described in Table 3.3-1.

**Table 3.3-1 Sources and Health Effects of Criteria Air Pollutants**

Pollutant	Sources	Acute <sup>1</sup> Health Effects	Chronic <sup>2</sup> Health Effects
Ozone	secondary pollutant resulting from reaction of ROG and NO <sub>x</sub> in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO <sub>x</sub> results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO <sub>2</sub> )	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO <sub>2</sub> )	coal and oil combustion, steel mills, refineries, and pulp and paper mills	irritation of upper respiratory tract, increased asthma symptoms	insufficient evidence linking SO <sub>2</sub> exposure to chronic health impacts
Respirable particulate matter (PM <sub>10</sub> ), Fine particulate matter (PM <sub>2.5</sub> )	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO <sub>2</sub> and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

<sup>1</sup> "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

<sup>2</sup> "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Notes: NO<sub>x</sub> = oxides of nitrogen; ROG = reactive organic gases.

Sources: EPA 2018

## TOXIC AIR CONTAMINANTS

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), the majority of the estimated health risks from toxic air contaminants (TACs) can be attributed to relatively few compounds, the most important being diesel particulate matter (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

## ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Odor sources of concern include wastewater treatment plants, landfill and composting facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, and food processing facilities.

## SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants.

## FEDERAL AND STATE AIR QUALITY PLANNING

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970 and most recently amended by Congress in 1990. The CAA required EPA to establish the National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. CAA also requires each State to prepare a State implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for States with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Individual SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish its own California Ambient Air Quality Standards (CAAQS). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS.

The SDAB is currently designated as nonattainment for ozone with respect to the NAAQS and for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> with respect to the CAAQS (SDAPCD n.d.).

The California Department of Resources Recycling and Recovery (CalRecycle) regulates solid waste disposal and composting facilities. All compostable material handling facilities and operations are required to comply with the State minimum standards set forth in California Code of Regulations (CCR) Title 14, Division 7, Chapter 3.1, Articles 5, 6, 7, 8, and 9. An odor impact minimization plan (OIMP) is required for facilities and operations as specified in 14 CCR section 17863.4. The CalRecycle minimum standard (14 CCR section 17867(a)(2)) for odor requires that "All handling activities shall be conducted in a manner that minimizes vectors, odor impacts, litter, hazards, nuisances, and noise impacts; and minimizes human contact with, inhalation, ingestion, and transportation of dust, particulates, and pathogenic organisms."

## SAN DIEGO AIR POLLUTION CONTROL DISTRICT

SDAPCD is the agency responsible for regulating sources of air pollution within San Diego County and the SDAB, to protect public health and welfare through the administration of federal and State air quality laws and policies. SDAPCD is responsible for monitoring air pollution, preparing the San Diego County portion of the SIP, and publicizing rules and regulations.

SDAPCD also develops air quality plans to identify the pollution control measures needed to expeditiously attain and maintain air quality standards. In response to the federal nonattainment designation for the 8-hour ozone standard, SDAPCD prepared the *2008 Eight-Hour Ozone Attainment Plan for San Diego County* and the *2008 Eight-Hour Ozone Reasonably Available Control Technology Demonstration for San Diego County*, which identify control measures and rules implementing "reasonably available control technology" necessary to bring the air basin into attainment (SDAPCD 2016a, b). These documents are submitted to the EPA through CARB for approval as part of the San Diego County portion of the SIP for attaining and maintaining the 2008 eight-hour ozone standard. In compliance with the CCAA, SDAPCD has also developed the *2016 Revision of the Regional Air Quality Strategy for San Diego County* to address ozone (SDAPCD 2016c).

## SAN DIEGO COUNTY

Neither the City of San Marcos nor SDAPCD have adopted air quality significance thresholds. However, the County Planning & Development Services department has prepared the *Guidelines for Determining Significance, Air Quality*, which present screening level thresholds (SLTs) of significance for regional air pollutant emissions. A project with emissions rates below these thresholds, shown in Table 3.3-2, is considered to have a less-than-significant impact on regional and local air quality throughout the SDAB.

**Table 3.3-2 County of San Diego Screening-Level Thresholds for Air Quality Impact Analysis**

Pollutant	Mass Daily Thresholds (lb./day)
Respirable Particulate Matter (PM <sub>10</sub> )	100
Fine Particulate Matter (PM <sub>2.5</sub> )	55
Oxides of Nitrogen (NO <sub>x</sub> )	250
Oxides of Sulfur (SO <sub>x</sub> )	250
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	75

Source: County of San Diego 2007

### 3.3.2 Discussion

#### a) Conflict with or obstruct implementation of the applicable air quality plan?

**Less than significant.** The emission inventories used to develop the applicable air quality attainment plans (i.e., *2008 Eight-Hour Ozone Attainment Plan for San Diego County*, *2008 Eight-Hour Ozone Reasonably Available Control Technology Demonstration for San Diego County*, and *2016 Revision of the Regional Air Quality Strategy for San Diego County*) are based primarily on projected population and employment growth and vehicle miles traveled (VMT) for the SDAB, which are based, in part, on the planned growth identified in regional and local plans. Therefore, projects that would result in increases in population or employment growth beyond that projected in regional or local plans could result in increases in VMT above that planned in the attainment plan, further resulting in mobile source emissions that could conflict with or obstruct implementation of air quality planning efforts for the SDAB. Increases in VMT beyond that projected in applicable air quality plans generally would be considered to have a significant adverse incremental effect on the SDAB's ability to attain or maintain State and federal ambient air quality standards. The analysis below focuses on whether GHG reduction measures would increase population, employment, or VMT above planned levels.

Implementation of the proposed CAP would not induce population growth directly or indirectly, because the GHG reduction measures do not propose new housing nor do they propose changes to policies or regulations related to land use or residential zoning. GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting (T-2, T-3, T-4, T-6, T-6, E-2, C-1 and C-2), could require a temporary increase in the number of construction workers. These types of projects are small construction projects, which would not require a large construction crew. Furthermore, construction workers would likely be from the San Diego region and permanent, substantial relocation of workers would not be required. Therefore, implementation of these measures would not result in substantial population growth, employment growth, or increase in VMT.

Measure S-1 would result in increased waste diversion, which could lead to increased haul truck trips to and from composting and recycling facilities; however, it is anticipated that these trips would displace the haul truck trips that would be diverted from the landfill. Therefore, a substantial net increase in the number of haul truck trips in the SDAB would not be anticipated.

As described in Section 3.1.1(a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could obstruct implementation of the applicable air quality plans. Additionally, the proposed CAP includes several GHG reduction measures (T-7, T-8, T-9, T-10, T-11, T-12, T-13, and T-14) that would reduce VMT such as implementing an intra-city shuttle system, increasing transit ridership, and encouraging employers to implement Transportation Demand Management Plans. Therefore, implementation of the proposed CAP would not result in a substantial increase in VMT but would result in a reduction in the rate of VMT relative to projections included in applicable air quality plans.

### Impact Summary

Overall, the proposed CAP is intended to reduce GHG emissions generated within the City by using alternatively fueled vehicles, reducing VMT, using renewable energy, increasing energy efficiency, improving waste diversion, and increasing carbon sequestration. While these reduction measures were formulated to reduce GHGs, they would also improve overall air quality in the SDAB by reducing the emission of criteria air pollutants. In addition, renewable energy generation and increased energy efficiency would reduce both GHG emissions and air pollutants at power plants generating electricity in the SDAB. Increased energy efficiency would also reduce natural gas combustion at residential and commercial land uses within the plan area, which would reduce local criteria air pollution. The effects associated with the reduction of air pollutant emissions in the plan area and SDAB would be beneficial. Given that GHG reduction measures would not induce substantial population growth, employment growth, or increase VMT, and given the beneficial air quality effects, the project would not conflict with or obstruct implementation of any applicable air quality plans. This impact would be **less than significant**.

#### b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

**Less than significant.** The SDAB is designated as a nonattainment for ozone with respect to the CAAQS and NAAQS and nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub> with respect to the CAAQS. Impacts would be cumulative in nature if the project, in combination with cumulative development, leads to violation of any air quality standard or contributes substantially to an existing or projected air quality violation. In developing thresholds of significance for air pollutants, San Diego County considered the emission levels for which a project's individual emissions would be cumulatively considerable. Thus, the proposed CAP would result in a significant cumulative impact if it would cause construction-generated or operational criteria air pollutant or precursor emissions to exceed the County's SLTs, as shown in Table 3.3-2. As discussed in Criterion (c) below, implementation of the proposed CAP would not result in the violation of any air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulative air quality impact such that human health would be adversely affected. This impact would be **less than significant**.

#### c) Expose sensitive receptors to substantial pollutant concentrations?

**Less than significant.** Provided below are analysis CO emissions, criteria air pollutant emissions, and TAC emissions.

##### Carbon Monoxide

The single largest source of CO is motor vehicle engines. CO concentration near roadways is a direct function of vehicle idling time and, thus, traffic flow conditions. The proposed CAP does not include new or modified land use designations that would increase traffic or have the potential to result in CO hotspots. The proposed CAP does not induce or otherwise result in any residential development that would result in regional population increases. The goal of the proposed CAP is to reduce GHG emissions in the plan area, including from passenger vehicles by measures that would increase the use of zero emission and alternative fuel vehicles and decrease the rate of VMT, that would also have the co-benefit of reducing air pollutant emissions. Although there would be a temporary increase in vehicle trips related to construction worker commute and equipment delivery, implementation of the proposed CAP would

not result in substantial long- or short-term vehicle trip generation at levels that could cause unhealthy concentrations of CO on nearby roadways. Additionally, the proposed CAP includes several GHG reduction measures (T-7, T-8, T-9, T-10, T-11, T-12, T-13, and T-14) that would reduce VMT such as implementing an intra-city shuttle system, increasing transit ridership, and encouraging employers to implement Transportation Demand Management Plans. Measure T-5 would reduce pollutant concentrations associated with vehicle idling by implementing traffic signal synchronization. Therefore, the proposed CAP would not create or contribute to a CO hotspot.

### **Criteria Air Pollutants**

For the purposes of this analysis, the proposed CAP would result in a significant localized and/or regional air quality impact such that human health would be adversely affected if it would cause construction-generated or operational criteria air pollutant or precursor emissions to exceed the County's SLTs of 100 pounds per day (lbs./day) for PM<sub>10</sub>, 55 lbs./day for PM<sub>2.5</sub>, 250 lbs./day for oxides of nitrogen (NO<sub>x</sub>) and oxides of sulfur (SO<sub>x</sub>), 550 lbs./day for CO, and 75 lbs./day for volatile organic compounds (VOCs).

The proposed CAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development; however, construction and operation of GHG reduction measures identified in the proposed CAP have the potential to directly or indirectly emit air pollutants. Emissions of PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, SO<sub>x</sub>, CO, and VOCs would result from the use of construction equipment, construction worker vehicle trips, and truck hauling trips. Emissions of fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) are largely associated with ground-disturbing activities, such as site preparation.

GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting (T-2, T-3, T-4, T-6, T-8, E-2, C-1 and C-2), would not involve substantial numbers of workers, ground disturbance, or extensive use of construction equipment. Some air districts have established screening level sizes for the types of projects that would be expected to generate significant levels of criteria air pollutants during construction, such as a 114 dwelling unit single-family development, or a 277 thousand square foot office park, which are much larger projects than would be implemented under the CAP (BAAQMD 2017). Occasional maintenance activities for these facilities and operational vehicle trips would be minimal; thus, associated operational criteria air pollutant emissions would also be minimal.

Measure S-1 would result in increased waste diversion, which could lead to increased haul truck trips to and from composting and recycling facilities; however, it is anticipated that these trips would displace the haul truck trips that would be diverted from the landfill. A substantial net increase in the number of haul truck trips and associated criteria air pollutant emissions within the plan area would not be anticipated.

As described in Section 3.1.1(a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in criteria air pollutant emissions. Additionally, the proposed CAP includes several GHG reduction measures (T-7, T-8, T-9, T-10, T-11, T-12, T-13, and T-14) that would reduce VMT such as implementing an intra-city shuttle system, increasing transit ridership, and encouraging employers to implement Transportation Demand Management Plans. Therefore, the GHG reduction measures would not be expected to result in construction-phase or operational air pollutant emissions in exceedance of the County's SLTs.

### **Toxic Air Contaminants**

The proposed CAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development; however, construction and operation of GHG reduction measures that would be implemented with CAP adoption have the potential to directly or indirectly emit TACs. For projects that do not propose stationary sources of emissions, diesel PM is the primary TAC of concern. CAP measures would result in short-term diesel exhaust emissions from construction equipment and heavy-duty trips during construction. Diesel PM dissipates rapidly from the source, and exposure concentrations would decline with distance from construction activities (Zhu et al. 2002). The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the

concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70- or 30-year exposure period. However, such assessments should be limited to the period/duration of activities that generate TAC emissions (OEHHA 2015).

GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting (T-2, T-3, T-4, T-6, T-8, E-2, C-1 and C-2), could result in diesel PM emissions from the use of construction equipment and from the use of haul trucks to deliver materials. These types of construction activities would occur in residential and commercial areas, which include sensitive receptors such as residences, schools, and hospitals. However, these activities would involve minimal use of heavy-duty diesel equipment and thus, diesel PM emissions would be minimal and temporary as well. Furthermore, it is unlikely that construction of such projects involving use of heavy-duty diesel equipment or vehicles would last for longer than one year, which is a short exposure period relative to the 30- or 70-year exposure timeframe recommended for health risk assessments.

In regard to Measure S-1, although a substantial net increase in the number of haul truck trips would not be anticipated, new haul truck routes or additional haul truck traffic in some areas may subject sensitive receptors to new or increased diesel PM emissions. The City achieved a diversion rate of 71 percent in 2016, which equates to 101,002 tons of waste disposed at landfills per year, according to CalRecycle's per capita disposal measurement system (EPIC 2020). To achieve an 85 percent waste diversion rate by 2030, the City would need to reduce waste disposed at landfills to 53,027 tons per year, (EPIC 2020). Assuming a compost load of 10 tons per truck and two trips (one for pick-up and one for drop-off), this would result in the potential rerouting of approximately 41 truck trips per business day by 2030 (See Appendix B for detailed calculations). Using CARB's guidance for siting sensitive receptors near TAC sources, a truck distribution center with activity of 100 or more trucks per day would be considered a major source of TACs (CARB 2005). Thus, the project-generated increase of 41 truck trips per day would not be considered a substantial increase in TAC emissions. Further, these truck haul routes and related emissions would likely be distributed across multiple roads throughout the plan area, reducing the level of TAC emissions at any one receptor along future potential haul routes. Nonetheless, even if the redirection of haul truck trips would occur on a single route, an increase in 41 truck trips per day would not result in substantial TAC emissions. Thus, increases in mobile-related TAC emissions would not result in the exposure of sensitive receptors to substantial TAC concentrations.

As described in Section 3.1.1(a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in TAC emissions.

## Impact Summary

The proposed CAP would not create or change land use designations that would increase the number of vehicle trips or have the potential to result in CO hotspots. Additionally, the proposed CAP includes several GHG reduction measures (T-7, T-8, T-9, T-10, T-11, T-12, T-13, and T-14) that would reduce VMT such as implementing an intra-city shuttle system, increasing transit ridership, and encouraging employers to implement Transportation Demand Management Plans. Although there would be a temporary increase in vehicle trips related to construction worker commute and equipment delivery, the proposed CAP would not result in substantial long- or short-term vehicle trip generation at levels that could cause unhealthy concentrations of CO on nearby roadways. Impacts regarding CO emissions would be less than significant.

GHG reduction measures that would result in new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting, would result in minor criteria air pollutant and TAC emissions during construction and beneficial long-term air quality impacts. It is unlikely that these types of activities would be of the size, intensity, or duration to exceed County's SLTs or to emit substantial TAC concentrations. The County has adopted these thresholds in consideration of achieving attainment for the NAAQS and CAAQS, which



represent concentration limits of criteria air pollutants needed to adequately protect human health. Therefore, these measures would not contribute to the exceedance of the NAAQS or CAAQS in the SDAB nor result in greater acute or chronic health impacts compared to existing conditions.

Measure S-1 could result in new haul truck routes or additional haul truck traffic in some areas, which may subject sensitive receptors to new or increased diesel PM emissions. The measure could result in the rerouting of up to 41 truck trips per day, which would not be considered a substantial increase in TAC emissions per CARB's guidance for siting sensitive receptors near TAC sources. Thus, increases in mobile-related TAC emissions would not result in substantial TAC exposure to any single receptor. Therefore, the proposed CAP would not result in the violation of any air quality standard, exposing sensitive receptors to substantial pollutant concentrations such that human health would be adversely affected. This impact would be **less than significant**.

**d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**Less than significant.** The proposed CAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development. However, implementation of some GHG reduction measures would result in temporary emissions of odors from construction activities such as asphalt paving and use of diesel-powered construction vehicles and equipment.

GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting (T-2, T-3, T-4, T-6, T-8, E-2, C-1 and C-2), would result in odorous emissions from construction equipment. Measure T-6, install roundabouts, would result in asphalt paving. Measure T-8 would result in the development of bicycle infrastructure identified in the City's General Plan, including new Class I bikeways, which could involve asphalt paving. Although locations for some of these improvements have not been identified, these types of activities would generally occur in populated residential and commercial areas. However, these activities would involve minimal use of heavy-duty diesel equipment and thus, diesel PM emissions would be minimal, temporary, and highly localized. Furthermore, these emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of construction. Because odors would be temporary and would disperse rapidly with distance from source, construction-generated odors would not adversely affect a substantial number of people.

Measure S-1 would generate odors through the anaerobic decomposition of composted waste that the City would divert from landfills and through increased haul truck trips to composting facilities. Compostable materials handling operations and facilities that would receive increased volumes of compostable waste from the plan area under implementation of Measure S-1 are regulated by CalRecycle (e.g. landfill, composting, etc.) and required by State regulation (Title 14, California Code of Regulations, Section 17863.4) to have OIMPs in place to prevent odors from occurring and to identify the measures that should be taken if odors do occur. The hauling of increase volumes of compostable waste to facilities via truck would result in some odors associated with diesel exhaust but would not adversely affect substantial numbers of people.

As described in Section 3.1.1(a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in odor emissions.

## **Impact Summary**

Construction activities associated with implementation of GHG reduction measures would result in temporary generation of odorous emissions. The specific locations and emissions of possible future projects implemented under the proposed CAP are not known at this time. Therefore, the precise odor impacts cannot be identified at this time. Factors necessary to identify specific impacts include location, operational characteristics, frequency and duration, and the location of sensitive receptors. However, given the temporary and intermittent nature of the impacts, and dissipation of odor, construction odor impacts would be less than significant.

Measure S-1 would result in increased odors from the anaerobic decomposition of composted waste and haul truck trips to composting facilities. These impacts would be avoided through implementation of an OIMP, as required by State regulation. Therefore, the proposed CAP would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. This impact would be **less than significant**.

### 3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IV. Biological Resources.</b>				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.4.1 Environmental Setting

Land cover within the plan area is comprised of developed land, upland vegetation communities, and riparian and wetland communities. Developed land makes up the urban core of the plan area and is comprised of nonnative and ornamental vegetation. Upland vegetation communities occur in the northern and southern portions of the plan area and primarily consist of Diegan coastal sage brush and southern mixed chaparral. Riparian and wetland vegetation communities occur along water bodies within the plan area. Wetlands include areas where emergent vegetation is present within the drainage, as well as active springs and seeps where surface water is sufficient to support hydrophytic vegetation. Vernal pools, a wetland associated habitat type, are concentrated within the industrial district of the plan area and are known to support several federally listed plant and wildlife species (City of San Marcos 2012b).

Undeveloped areas within the plan area support an array of reptiles, amphibians, birds, and small mammals. The plan area supports 15 special-status plant species and 24 special-status wildlife species, including a large population of the federally threatened coastal California gnatcatcher that is associated with Diegan coastal sage scrub habitats. In addition, the US Fish and Wildlife Service has identified Critical Habitat in the plan area to protect four species: thread-leaved brodiaea, spreading navarretia, San Diego fairy shrimp, and coastal California gnatcatcher (City of San Marcos 2012b).

Wildlife movement primarily occurs within undeveloped northern and southern portions of the plan area. However, wildlife movement also occurs within the developed core of the plan area along riparian creeks and drainage corridors including San Marcos Creek, Las Posas Creek, Twin Oaks Valley Creek, Buena Creek, Agua Hedionda Creek, and some tributaries (City of San Marcos 2012b).

The Multiple Habitat Conservation Program (MHCP), adopted by San Diego Association of Governments (SANDAG) in 2003, is a comprehensive, multiple jurisdictional sub-regional habitat planning program designed for north western San Diego County. The City of San Marcos is included in the MHCP study area for which SANDAG, in cooperation with the City of San Marcos, created a Draft San Marcos Subarea Plan. The subarea plans describe specific biological conservation policies each city agrees to institute to implement the MHCP (City of San Marcos 2012b). The Draft San Marcos Subarea Plan has not been adopted, and the City is no longer an active participant in the NCCP program and the subregional MHCP conservation planning effort. However, pursuant to General Plan policy, the City complies with the conservation policies identified in the MHCP through use of the Draft San Marcos Subarea Plan as an implementation tool, including areas identified as Biological Core and Linkage Areas (BCLA), which are areas of undisturbed native vegetation, and Focused Planning Areas, which were designed to conserve as much of the BCLA as possible, minimize preserve fragmentation, maximize use of existing public lands and open space, and maintain private property rights and economic viability.

### 3.4.2 Discussion

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, result in a substantial adverse direct and indirect effects to special-status species, including injury, mortality, habitat modification, and disturbance. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), rooftop or ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of the GHG reduction measures construction activities associated with their implementation would occur in already disturbed, developed areas such as roadways and parking lots where candidate, sensitive, or special-status species or their habitats are not present. EV charging stations and PV solar facilities would be installed in new and existing developments, and roadway improvements such as roundabouts and bicycle infrastructure would occur along existing developed roadways. In addition, tree planting would occur within City parks, public rights-of-way, and new development projects. Further, future projects would be required to comply with General Plan Policy COS-1.1, which directs the City to support the protection of biological resources, and Policy COS-1.2 which directs the City to ensure that development maintains the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive biological habitats. Further, Policy COS-1.3 directs the City to work with federal, State, regional, and local agencies to implement SANDAG's MHCP which identifies conservation areas and protected species.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could cause a substantial adverse direct and indirect effects to special-status species.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to special-status species and their habitat to the extent feasible in compliance with CEQA Guidelines section 15126.4. Impacts would be minimized through implementation of the City's General Plan policies described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve special-status species and their habitat. For all of the foregoing reasons implementation of the GHG reduction measures would not cause a substantial adverse direct and indirect effects to special-status species. Impacts would be **less than significant**.

**b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, result in a substantial adverse direct and indirect effects to riparian habitat or other sensitive natural community. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of GHG reduction measures, construction activities associated with their implementation would occur in already disturbed areas, developed areas such as roadways and parking lots where riparian habitat or other sensitive natural communities are not present. EV charging stations and PV solar facilities would likely be installed in new and existing developments, and roadway improvements would occur along already paved roadways. In addition, tree planting would occur within City parks, public rights-of-way and new development projects. Further, future projects would be required to comply with General Plan Policy COS-1.1 which directs the City to support the protection of biological resources, and Policy COS-1.2 which directs the city to ensure that development maintains the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive biological habitats. Further, SMMC Section 14.15.050(d) requires development projects within the plan area to preserve riparian buffers and corridors.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could cause a substantial adverse direct and indirect effects to special-status species.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to riparian habitat or other sensitive natural community to the extent feasible in compliance with CEQA Guidelines section 15126.4. Impacts would be minimized through implementation of the City's General Plan policies and SMMC described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve riparian habitat and sensitive natural communities. For all of the foregoing reasons, implementation of the GHG reduction measures would not cause a substantial adverse direct and indirect effects to riparian habitat or other sensitive natural community. Impacts would be **less than significant**.

**c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, result in a substantial adverse direct and indirect effects to wetlands. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2

through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of GHG reduction measures, construction activities associated with their implementation would occur in already disturbed areas, developed areas such as roadways and parking lots where protected wetlands are not present. EV charging stations and PV solar facilities would likely be installed in new and existing developments, and roadway improvements would occur along already paved roadways. In addition, tree planting would occur within City parks, public rights-of-way and new development projects. Further, future projects would be required to comply with General Plan Policy COS-1.1 which directs the City to support the protection of biological resources, and Policy COS-1.2 which directs the city to ensure that development maintains the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive biological habitats. Further, SMMC Section 17.32.040(i)(3) states that a grading permit shall not be issued for areas containing a wetland unless the City's Planning Commission has found such grading is necessary.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could cause a substantial adverse effect to protected wetlands.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to protected wetlands to the extent feasible in compliance with CEQA Guidelines section 15126.4. Impacts would be minimized through implementation of the City's General Plan policies and SMMC described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve wetlands. For all of the foregoing reasons, implementation of the GHG reduction measures would not cause a substantial adverse direct and indirect effects to wetlands. Impacts would be **less than significant**.

**d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, result in a substantial adverse direct and indirect effects to wildlife corridors. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of GHG reduction measures, construction activities associated with their implementation would occur in already disturbed areas, developed areas such as roadways and parking lots where wildlife corridors are not present. EV charging stations and PV solar facilities would likely be installed in new and existing developments, and roadway improvements would occur along already paved roadways. In addition, tree planting would occur within City parks, public rights-of-way and new development projects. Further, future projects would be required to comply with General Plan Policy COS-1.1 which directs the City to support the protection of biological resources, and Policy COS-1.2 which directs the city to ensure that development maintains the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive biological habitats. Further, Policy COS-1.3 directs the City to work with federal, State, regional, and local agencies to implement SANDAG's MHCP which identifies conservation areas and protected species.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could cause a substantial interference with wildlife corridors.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific

mitigation would be required to minimize or avoid impacts to wildlife corridors to the extent feasible in compliance with CEQA Guidelines section 15126.4. Impacts would be minimized through implementation of the City's General Plan policies and SMMC described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve wildlife corridors. For all of the foregoing reasons, implementation of the GHG reduction measures would not cause a substantial adverse direct and indirect effects to wildlife corridors. Impacts would be **less than significant**.

**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, disturb protection biological resources and conflict with local policies or ordinances. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of GHG reduction measures, construction activities associated with their implementation would occur in already disturbed areas, developed areas such as roadways and parking lots where protecting biological resources are not present. EV charging stations and PV solar facilities would likely be installed in new and existing developments, and roadway improvements would occur along already paved roadways. In addition, tree planting would occur within City parks, public rights-of-way and new development projects. Future projects would be required to comply with General Plan Policy COS-1.1 which directs the City to support the protection of biological resources, and Policy COS-1.2 which directs the City to ensure that development maintains the biotic habitat value of riparian areas, oak woodlands, habitat linkages, and other sensitive biological habitats. Pursuant to SMMC 14.20.030, any person desiring to remove a tree is required to file an application with the City's Planning Director.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could cause substantial adverse effects to protected biological resources.

All future projects with the potential to result in environmental impacts would generally require discretionary review and would be required to evaluate project-specific impacts under CEQA at the time of application. Project-specific mitigation would be required to minimize or avoid impacts to protected biological resources to the extent feasible in compliance with CEQA Guidelines section 15126.4. Impacts would be minimized through implementation of the City's General Plan policies and SMMC described above. In addition, federal and State requirements would be adhered to, and project-specific measures implemented to conserve, protect, and preserve riparian habitat and sensitive natural communities. For all of the foregoing reasons, implementation of the GHG reduction measures would not conflict with local policies or ordinances protecting biological resources. Impacts would be **less than significant**.

**f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**Less than significant.** The Draft San Marcos Subarea Plan has not been adopted, and the City is no longer an active participant in the NCCP program or the subregional MHCP conservation planning effort. However, pursuant to General Plan Policy COS-1.3, the City complies with the conservation policies identified in the MHCP through use of the Draft San Marcos Subarea Plan as an implementation tool. Further, implementation of GHG reductions measures that would involve ground disturbing activities, including grading and excavation, would occur in already disturbed, developed areas such as roadways and parking lots. Therefore, GHG reduction measures would not conflict with provisions of SANDAG's MHCP. Impacts would be **less than significant**.

### 3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>V. Cultural Resources.</b>				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.5.1 Environmental Setting

CEQA defines historic resources as those that are listed on, or determined to be eligible for listing on, the California Register of Historical Resources (CRHR) or a local register, or are otherwise determined to be historical pursuant to CEQA (PRC Section 21084.1) or CEQA Guidelines (CCR Title 14, Section 15064.5). The CRHR also includes properties formally determined eligible or listed in the National Register of Historic Places (PRC Section 5024.1). A historic resource may be an object, building, structure, site, area, place, record, or manuscript that is historically significant or significant in terms of California's architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural records (PRC Section 5020.1(j)). Typically, historic resources are more than 50 years old. There are 25 historic architectural resources within the plan area, including six residential complexes, eight residences, an industrial building, a commercial building, an adobe house, a cement silo, a farmhouse, and a historic cemetery (City of San Marcos 2012b).

Archaeological resources may be considered historic resources or, if not, they may be determined to be "unique" as defined by CEQA (PRC Section 21083.2(g)). A "unique archaeological resource" is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person. There are 103 prehistoric archaeological sites within the plan area that contain lithic scatters, artifacts, bedrock milling sites, habitation sites, and prehistoric rock shelters. Four multi-component archaeological sites containing both prehistoric and historic artifacts are also located within the plan area. In addition, there are 13 historic archaeological sites containing, historic foundations, chicken coop foundations, homestead sites, historic refuse scatters, mining site, rock alignment, rock cairn, and a historic water storage reservoir (City of San Marcos 2012b).



## 3.5.2 Discussion

### a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

**Less than significant.** The implementation of GHG reduction measures that would involve structural improvements could depending on their location, result in direct or indirect changes to listed or eligible historical resources. For example, installation of EV charging infrastructure (T-2 through T-4), PV solar panels, if not rooftop mounted, (E-2), and installation of alternatively-fueled water heaters (E-1). However, given the nature of GHG reduction measures installation would occur in already disturbed areas, developed areas such as roadways and parking lots where historic resources are not present. Installation of EV charging stations would occur in already developed areas near or adjacent to existing parking spaces. Energy efficiency improvements would involve minor changes to the exterior of existing buildings including roof lines, and would not otherwise involve features with substantial height, bulk, or massing that could substantially cause an adverse change to a historic resource.

Projects would be required to comply with existing federal, State, and local regulations that protect historical resources and undergo the City's discretionary review process, where applicable, including completion of subsequent project-level planning and environmental review under CEQA that would ensure that identified resources are appropriately protected. For example, following the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings would ensure that implementation of any GHG reduction measures involving historical resources, such as installation of solar PV systems or new equipment would not adversely change the historical resource. Compliance with the California State Historical Building Code (SMMC Chapter 17.27) would protect from substantial adverse change historic structures included on the national or State registers of historic places. Renewable energy systems, including solar and non-solar, are regulated under the City's renewable energy development and design guidelines established by SMMC Chapter 20.450 and are permitted on rooftops in all land uses. SMMC Section 20.300.020(D) requires all mechanical and electrical equipment, including solar panels, and accessory structures to be architecturally integrated with associated structures.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could cause a substantial adverse change in the significance of a historical resource.

For all of the foregoing reasons, implementation of the GHG reduction measures would not cause a substantial adverse change in the significant of a historical resource. Impacts would be **less than significant**.

### b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, impact archaeological resources. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), PV solar panels, if ground mounted, (E-2), and tree planting (C-1 and C-2). However, given the nature of the GHG reduction measures construction activities associated with their implementation would occur in already disturbed developed areas such as roadways and parking lots. EV charging stations and PV solar facilities would be installed in new and existing developments, and roadway improvements such as roundabouts and bicycle infrastructure would occur along existing developed roadways. In addition, tree planting would occur within City parks, public rights-of-way and new development projects.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical

construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could cause a substantial adverse direct and indirect effects to special-status species.

The exact locations of future projects are unknown at this time; however, future projects would be required to comply with General Plan Policy COS-2.5 which directs the City to review future development proposals to ensure that cultural resources (including prehistoric, historic, paleontological, and Senate Bill 18 Tribal resources) are analyzed and conserved in compliance with CEQA requirements, and Policy COS-11.1 which directs the City to identify and protect historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) in compliance with CEQA. In addition, enforcement of General Plan EIR (State Clearinghouse No. 2011071028) mitigation measures would reduce impacts to archaeological resources. Specifically, General Plan Mitigation Measure CR-1 which directs the City to require the preparation of a literature study and records search prior to any ground disturbing activity to determine whether the project area has been previously surveyed and whether cultural resources were identified. General Plan Mitigation Measure CR-2 directs the City to require the project implementer to incorporate design measures in engineering documents to provide avoidance or minimization of impacts to significant archaeological or cultural resources. General Plan Mitigation Measure CR-3 directs the City to require monitoring of grading, ground-disturbing, and other major earth-moving activities in previously undisturbed areas or in areas with known archaeological resources projects by a qualified archeologist and Tribal monitor during activities in areas with cultural resources of interest to local Native American Tribes. Further, General Plan Mitigation Measure CR-4 directs the City to require a qualified archaeologist to evaluate any cultural resources discovered during site construction activities, and a Tribal monitor will accompany a qualified archeologist to identify, and determine the significance of, cultural resources and/or sacred lands. For all the foregoing reasons, the implementation of GHG reduction measures would not result in substantial adverse change in the significance of an archaeological resource. Therefore, the impact would be **less than significant**.

### c) Disturb any human remains, including those interred outside of formal cemeteries?

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, disturb human remains interred outside formal cemeteries. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). As described in Section 3.1.1(a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could disturb human remains.

Location of grave sites and Native American remains can occur outside identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within future project sites and could be uncovered during construction activities.

California recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Codes Sections 7050.5 and 7052 and Public Resource Code (PRC) Section 5097.

These statutes require that, if human remains are discovered during construction activities, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the County coroner and Native American Commission (NAHC) shall be notified immediately, in accordance with PRC Section 5097.98 and California Health and Safety Code Section 7050.5. If the remains are determined by NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94. Compliance with California Health and Safety Code Sections 7050.5 and 7052, and PRC Section 5097 would avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. In addition,

future projects would be required to comply with General Plan Policy COS-2.5 which directs the City to review future development proposals to ensure that cultural resources (including prehistoric, historic, paleontological, and Senate Bill 18 Tribal resources) are analyzed and conserved in compliance with CEQA requirements. Therefore, GHG reduction measures would not disturb humans remains, including those interred outside of formal cemeteries, and impacts would be **less than significant**.

## 3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VI. Energy.</b>				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 3.6.1 Environmental Setting

San Diego Gas & Electric (SDG&E) is a regulated public utility that provides energy service to 3.6 million people within a 4,100-square-mile service area that encompasses 25 cities throughout San Diego and southern Orange counties, including the City of San Marcos (SDG&E 2018a). SDG&E obtains electricity from a variety of sources, including SDG&E-owned facilities and other private and publicly owned facilities that provide electricity through contracts and agreements. Electricity is generated from a variety of energy sources, including coal, natural gas, nuclear, hydroelectric, and a mix of other renewable resources (City of San Marcos 2012b). In 2017, SDG&E achieved a renewable energy procurement rate of 44 percent (SDG&E 2018b).

## FEDERAL REGULATIONS

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Under this act, the National Highway Traffic and Safety Administration, is responsible for revising existing fuel economy standards and establishing new vehicle economy standards. The Corporate Average Fuel Economy program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Three Energy Policy Acts have been passed, in 1992, 2005, and 2007, to reduce dependence on foreign petroleum, provide tax incentives for alternative fuels, and support energy conservation.

## STATE REGULATIONS

### Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established State policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the energy, rail, telecommunications, and water fields.

### State of California Energy Action Plan

The CEC, CPUC, and now defunct Consumer Power and Conservation Financing Authority prepared the first State of California Energy Action Plan (EAP) in 2003 to establish shared goals and specific actions to ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers.

The plan was updated in 2005 and 2008 to address policy the emerging importance of climate change, transportation-related energy issues, and research and development activities (CEC and CPUC 2008).

### **Executive Order B-18-12**

Executive Order (EO) B-18-12, which was signed by Governor Brown in 2012, proclaims that State agencies take actions to reduce entity-wide GHG emissions by at least 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline. This order also directed State agencies to use clean onsite power generation to the extent feasible and to obtain LEED "Silver" certification or higher for any new or substantially renovated structure larger than 10,000 square feet.

### **California Green Building Standards**

Title 24 CCR Part 6, is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. Title 24 was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. In 2016, CEC updated Title 24 standards, effective January 1, 2017. For each year of construction activity (in both newly constructed buildings and alterations to existing buildings) the standards are estimated to reduce the growth in electricity by 385 GWh and to reduce natural gas use by 26.86 million therms (CEC 2015).

### **Transportation-Related Regulations**

Various regulatory and planning efforts are aimed at reducing dependency on fossil fuels, increasing the use of alternative fuels, and improving California's vehicle fleet. Senate Bill (SB) 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. CARB, in consultation with the metropolitan planning organizations, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and the CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003).

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare the State Alternative Fuels Plan to increase the use of alternative fuels in California.

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

### **GHG Reduction Regulations**

Several regulatory measures such as AB 32 and the Climate Change Scoping Plan, EO B-30-15, SB 32, and AB 197 were enacted to reduce GHGs and have the co-benefit of reducing California's dependency on fossil fuels and making land use development and transportation systems more energy efficient.

### **Renewable Energy Regulations**

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

SB 100, signed in September 2018, requires that all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, supply 44 percent of retail sales from renewable resources by

December 31, 2024, 50 percent of all electricity sold by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

### 3.6.2 Discussion

#### a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

**Less than significant.** Implementation of the GHG reduction measures would result in the consumption of energy resources during construction and operation. GHG reduction measures that would result in new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting (T-2, T-3, T-4, T-6, T-8, E-2, C-1 and C-2), would consume energy resources such as electricity, fuels, and non-renewable resources during construction. These types of projects would not involve large amounts of labor or extensive use of construction equipment. Some worker trips and construction equipment may be required during installation of these facilities and features, resulting in the short-term consumption of diesel fuel and gasoline. Demand for energy resources during construction would vary throughout the construction period and would generally cease upon completion of construction. Occasional maintenance activities for these facilities and operational vehicle trips would be minimal; thus, associated operational fuel consumption would also be minimal. Furthermore, these types of projects would improve energy efficiency and reduce reliance on fossil fuels, which are beneficial impacts.

Measure S-1 would result in increased waste diversion, which could lead to increased haul truck trips to and from composting and recycling facilities; however, it is anticipated that these trips would displace the haul truck trips that would be diverted from the landfill. Therefore, no net change in energy consumption is anticipated.

Measure C-1 would increase tree planting in City parks, public rights-of-way, and new developments. These activities would not require heavy equipment but could result in a small amount of fuel consumption when delivering trees and from electricity use for watering. However, these measures are intended to reduce the urban heat island effect, improve air quality, and reduce the amount of energy consumed for cooling in the summer. Therefore, these projects would be considered necessary and beneficial uses of energy resources.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in energy consumption. Overall, the goal of the proposed CAP is to reduce GHG emissions generated within the plan area by using alternatively fueled vehicles, reducing VMT, using renewable energy, reducing waste generation, and increasing carbon sequestration. Although some GHG reduction measures would result in temporary construction activities that would consume energy resources, standard best management practices would discourage unnecessary idling and the operation of poorly maintained equipment during construction. Moreover, while GHG reduction measures were formulated to reduce GHGs, many would improve energy efficiency and decrease reliance on fossil fuels. Thus, implementation of the proposed CAP would not result in wasteful, inefficient, or unnecessary consumption of energy, during project construction or operation. This impact would be **less than significant**.

#### b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

**No impact.** Relevant plans that pertain to the efficient use of energy include the EAP, which focuses on energy efficiency; demand response; renewable energy; the supply and reliability of electricity, natural gas, and transportation fuels; and achieving GHG reduction targets (CEC and CPUC 2008). As discussed above in Criterion (a) although implementation of the GHG reduction measures would consume energy resources during construction and

operation, overall the measures would increase energy efficiency and use of renewable energy and therefore would not constitute the wasteful, inefficient, or unnecessary consumption of energy. Furthermore, although the GHG reduction measures were formulated to reduce GHGs, they also act to conserve energy and reduce reliance on fossil fuels. Measures to increase energy efficiency, support the conversion from gasoline or diesel to electricity or alternative fuels, and increase the supply of renewable energy would directly support EAP goals and strategies. Lastly, all GHG reduction measures proposed would support the EAP's goal of achieving GHG reduction targets because the proposed CAP is intended to reduce GHG emissions generated within the plan area. Therefore, the proposed CAP would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. **No impact** would occur.

### 3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VII. Geology and Soils.</b>				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.7.1 Environmental Setting

The City of San Marcos is located within the Peninsular Ranges geomorphic province which is characterized by north-west trending mountains and valleys. Elevations range from approximately 1,715 feet above mean sea level south of the City at Mt. Whitney, to above 325 feet on the southwest. Underlying geologic formations include alluvium, sedimentary and crystalline rocks, and metavolcanic/crystalline rocks. Central portions of the plan area are underlain with young alluvium tonalite "hard" bedrock, eastern portions of the plan area are underlain with older alluvium deposits, and western portions of the plan area are underlain with poorly bedded sandstone, siltstone and claystone



with conglomerate. The Cerro de las Posas Mountains and the surrounding hills around Twin Oaks Valley, are underlain with “hard” metavolcanics rocks with some plutonic crystalline rocks.

There are no known active fault lines within the plan area and the potential for surface fault displacements is considered low. The plan area is not located within an Alquist-Priolo Fault Zone, liquefaction zone, or landslide zone (DOC 2020).

Expansive soils are deposited in a loose, highly porous State, then harden and remain dry after deposition. Upon contact with moisture, the weak cementation between the loose soil particles softens and can result in settlement or collapse. Expansive soils are known to occur within the plan area (City of San Marcos 2012b).

The plan area is located within the western foothills of the Peninsular ranges. The geologic units that underlie the area consist of younger sedimentary deposits that range from 11,000 years to 45 million years. Paleontological resources are not known to occur within these geologic units; however fossil localities have been identified in the nearby cities of Vista, Carlsbad, and Oceanside (City of San Marcos 2012b).

### 3.7.2 Discussion

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
  - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

**No impact.** There are no delineated Alquist-Priolo Earthquake Fault Zones within the plan area. **No impact** would occur.

- ii) **Strong seismic ground shaking?**

**No impact.** There are no delineated Alquist-Priolo Earthquake Fault Zones or other potentially active faults that have been mapped within the plan area. Furthermore, CAP implementation would not include the construction of habitable structures. **No impact** would occur.

- iii) **Seismic-related ground failure, including liquefaction?**

**No impact.** There are no liquefaction zones identified within the plan area. Furthermore, liquefaction and other seismic-related ground failure events primarily affect structures. Because CAP implementation would not result in construction of habitable structures, **no impact** would occur.

- iv) **Landslides?**

**No impact.** There are no landside zones identified within the plan area. Furthermore, CAP implementation would not include the construction of habitable structures or substantial ground disturbance activities that could cause a landslide. **No impact** would occur.

- b) **Result in substantial soil erosion or the loss of topsoil?**

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, cause soil erosion and loss of topsoil. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of GHG reduction measures construction activities associated with their implementation would occur in already disturbed, developed

areas such as roadways and parking lots. EV charging stations and PV solar facilities would be installed in new and existing developments, and roadway improvements such as roundabouts and bicycle infrastructure would occur along existing developed roadways. In addition, tree planting would occur within City parks, public rights-of-way and new development projects. Further, future projects would be required to comply with the SMMC Chapter 17.32 which contains design standards and performance requirements to avoid or reduce excessive erosion.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in soil erosion. For all the foregoing reasons, implementation of the GHG reduction measures would not result in substantial soil erosion or the loss of topsoil. Impacts would be **less than significant**.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

**No impact.** There are no delineated Alquist-Priolo Earthquake Fault Zones, landslide zones, or liquefaction zones identified within the plan area. Furthermore, CAP implementation does not include construction of habitable structures that would exacerbate the risk of lateral spreading, subsidence, liquefaction, or collapse. **No impact** would occur.

- d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?**

**No impact.** Expansive soils are known to occur within the plan area; however, CAP implementation does not include construction of habitable structures that could be affected by soil expansion. **No impact** would occur.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

**No impact.** CAP implementation does not include installation of any septic system or other form of waste water disposal. **No impact** would occur.

- f) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**No impact.** The plan area is located within the western foothills of the Peninsular ranges. The geologic units that underlie the area consist of younger sedimentary deposits that range from 11,000 years to 45 million years. Paleontological resources are not known to occur within these geologic units. Therefore, the potential to disturb paleontological or unique geologic features is low. Accordingly, CAP implementation would not be expected to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. **No impact** would occur.

### 3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VIII. Greenhouse Gas Emissions.</b>				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. Emissions of GHGs contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. Emissions of CO<sub>2</sub> are, largely, byproducts of fossil fuel combustion.

The quantity of GHGs in the atmosphere that ultimately result in climate change is not precisely known, but is enormous; no single project alone would measurably contribute to an incremental change in the global average temperature, or to global, local, or micro climates. From the standpoint of the CEQA, GHG impacts relative to global climate change are inherently cumulative.

Although there is strong scientific consensus that global climate change is occurring and is influenced by human activity, there is less certainty as to the timing, severity, and potential consequences of the climate phenomena. Scientists have identified several ways in which global climate change is anticipated to alter the physical environment in California (CNRA 2012, DWR 2006, IPCC 2007). These include:

- ▶ increased average temperatures;
- ▶ modifications to the timing, amount, and form (rain vs. snow) of precipitation;
- ▶ changes in the timing and amount of runoff;
- ▶ reduced water supply;
- ▶ deterioration of water quality; and
- ▶ elevated sea level.

## FEDERAL REGULATIONS

The EPA is the federal agency responsible for implementing the federal CAA and its amendments. EPA has taken steps to regulate GHG emissions and lent support for State and local agencies' efforts to reduce GHG emissions. In October 2012, EPA and the National Highway Traffic Safety Administration, issued rules to reduce GHG emissions and improve corporate average fuel economy standards for light-duty vehicles for model years 2017 and beyond (77 FR 62624).

## STATE REGULATIONS

### Executive Order S-3-05

EO S-3-05, signed by Governor Arnold Schwarzenegger in 2005, establishes total GHG emission targets for the State. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

### Assembly Bill 32, the California Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006, AB 32. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that these reductions "shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the Statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020. (c) The [Air Resources Board] shall make recommendations to the Governor and the Legislature on how to continue reductions of GHG emissions beyond 2020." [California Health and Safety Code, Division 25.5, Part 3, Section 38551]

On December 14, 2017, CARB approved the *2017 Climate Change Scoping Plan* (2017 Scoping Plan). The 2017 Scoping Plan lays out the framework for achieving the mandate of SB 32 of 2016 to reduce Statewide GHG emissions to at least 40 percent below 1990 levels by the end of 2030 (CARB 2017). On July 11, 2018, CARB announced that California has met its target of reducing GHG emissions to below 1990 levels by 2020 (CARB 2018).

### Executive Order B-30-15

On April 20, 2015 Governor Brown signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030.

### Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a Statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

### Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

## LOCAL

### San Diego Air Pollution Control District

SDAPCD administers EPA's Prevention of Significant Deterioration and Title V GHG Tailoring Rule through Rule 20.3(d)(3) and Regulation XIV (Title V Operating Permits), respectively. SDAPCD has not developed thresholds of significance or guidance for analysis of GHGs under CEQA.

### City of San Marcos General Plan

The City of San Marcos General Plan includes the following goal and policies that pertain to GHG emissions and are relevant to this analysis (City of San Marcos 2012a).

**GOAL COS-4:** Improve regional air quality and reduce GHG emissions that contribute to climate change.

- ▶ **Policy COS-4.3:** Participate in regional efforts to reduce GHG emissions.
- ▶ **Policy COS-4.4:** Quantify community-wide and municipal GHG emissions, set a reduction goal, identify and implement measures to reduce GHG emissions as required by governing legislation.
- ▶ **Policy COS-4.5:** Encourage energy conservation and the use of alternative energy sources within the community.
- ▶ **Policy COS-4.6:** Promote efficient use of energy and conservation of available resources in the design, construction, maintenance, and operation of public and private facilities, infrastructure, and equipment.
- ▶ **Policy COS-4.7:** As City facilities and services are constructed or upgraded, incorporate energy and resource conservation standards and practices by:
  - Taking a leadership role in implementing programs for energy and water conservation, waste reduction, recycling and reuse and increased reliance on renewable energy.
  - Upgrading City buildings and infrastructure facilities to comply with State of California green building standards.
  - Implementing landscaping that reduces demands on potable water; this may include the use of drought tolerant landscaping and/ or use of well water for irrigation, favoring recycling and energy-efficient products and practices when issuing City purchase agreements.
- ▶ **Policy COS-4.8:** Encourage and support the generation, transmission and use of renewable energy.
- ▶ **Policy COS-4.9:** Encourage use and retrofitting of existing buildings under Title 24 of the California Building Energy Code.

## 3.8.2 Discussion

### a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

**Less than significant.** The proposed CAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development; however, construction and operation of GHG reduction measures that would be implemented with CAP adoption have the potential to directly or indirectly emit GHG emissions.

GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting (T-2, T-3, T-4, T-6, T-8, E-2, C-1 and C-2), would generate GHG-emissions from the operation of construction equipment, construction worker vehicle trips, and truck hauling trips. These types of projects would not involve substantial numbers of workers or extensive use of construction equipment. Occasional maintenance activities for these facilities and operational vehicle trips would be minimal; thus, associated operational GHG emissions would also be minimal.

Measure S-1 would result in increased waste diversion, which could lead to increased haul truck trips to and from composting and recycling facilities; however, it is anticipated that these trips would displace the haul truck trips that would be diverted from the landfill. A net increase in the number of haul truck trips and associated GHG emissions within the plan area would not be anticipated. Thus, construction and operational activities associated with implementation of these GHG reduction measures would not be expected to result in substantial GHG emissions.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in GHG emissions.

Overall, the proposed CAP would reduce GHG emissions generated within the plan area by using alternatively fueled vehicles, reducing VMT, using renewable energy, reducing waste generation, and increasing carbon sequestration. In addition, GHG reduction measures that support energy efficiency and renewable energy generation would reduce GHG emissions at power plants generating electricity that serves the plan area. Thus, any temporary GHG emissions would be offset by the overall net benefit of GHG emissions reduction after implementation of the proposed CAP. Therefore, implementation of the GHG reduction measures would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be **less than significant**.

**b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**Less than significant.** Based on Appendix G of the CEQA Guidelines, a project would have a significant impact if it would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Applicable plans, policies, or regulations include Statewide GHG emission targets established by AB 32, SB 32, and EO S-3-05; the 2017 Scoping Plan; regulations regarding increased use of renewables for electricity production (SB X1-2 and SB 100); and the City of San Marcos General Plan (2012a).

As discussed in Chapter 2.4, "Reduction Targets," of the proposed CAP, the proposed CAP primarily focuses on reducing emissions by 2020 and 2030, consistent with State mandates including SB 32 and the 2017 Scoping Plan. California's GHG reduction targets have been legislatively adopted for 2020 and 2030, while the 2050 goal is expressed in an EO. While setting goals beyond 2030 is important to provide long-term objectives, it is difficult to establish targets beyond a 15-year time frame for which defensible reduction assumptions can be made. Meeting the long-term 2050 goal would require significant improvements in the availability and/or cost of near-zero and zero-emissions technology, as well as potential increased reductions from ongoing State and Federal legislative actions that are currently unknown. New methods may become available to quantify measures that are currently unquantifiable, and new State and federal regulations may further reduce emissions in sectors currently addressed primarily by local City measures. In addition, CARB's Scoping Plan is focused on meeting the 2030 reduction target, as directed in SB 32. As discussed in the Environmental Setting, the State's 2030 target is an interim target needed to meet the longer-term 2050 target. By meeting its 2030 target, the City would not be in conflict with its 2050 goal. Therefore, the City's proposed CAP aligns with the State in setting a 2030 target.

Section 2.3, "Emissions Projections," of the proposed CAP provides an assessment of how the City's GHG emissions would change over time without further action from the City. In addition to accounting for the City's growth, a legislatively-adjusted business as usual (BAU) forecast accounts for legislative actions at the State and federal levels that would affect emissions, such as the California Renewable Portfolio Standard, and federal and State vehicle efficiency standards. The selected future milestone years of 2020 and 2030 are based on the State's GHG reduction target years established in key State legislation and policies, including AB 32, SB 32, and EO S-3-05.

Based on the City's 2012 inventory, shown in Table 2-2, "2012 City of San Marcos Greenhouse Gas Emissions Inventory" the proposed CAP, the targets and long-term goals above aim to reduce annual plan area emissions to 575,000 and 347,000 metric tons of carbon dioxide equivalents (MTCO<sub>2</sub>e) by 2020 and 2030 respectively. As shown in Figure 2-2, "City of San Marcos Projections and Targets Without Climate Action Plan Actions" of the proposed CAP,

the City is already meeting the 2020 target due to existing legislative actions but would require additional GHG reductions to meet the 2030 target. Federal and State legislative actions would not be adequate to achieve the City's 2030 GHG reduction goals. The City would need to reduce annual legislative-adjusted BAU 2030 emissions by 82,000 MTCO<sub>2</sub>e to meet its 2030 GHG reduction target.

The proposed CAP would reduce emissions by 2020 and 2030, consistent with legislatively-adopted State targets. After adoption of the proposed CAP, GHG reduction measures would be implemented and monitored periodically, to reduce emissions. GHG reduction measures that would install new small-scale renewable energy systems and result in participation in a community choice energy program (E-3 and E-3) would support regulations regarding increased use renewables for electricity production, and are consistent with the City's General Plan policies COS-4.3, COS-4.5, COS-4.7, and COS-4.8. GHG reduction measures that improve the energy efficiency of buildings by installing alternatively-fueled water heaters (E-1) would be consistent with the City's General Plan policies CO-4.6, CO-4.7, and CO-4.9. GHG reduction measures that encourage alternatively fueled vehicles and reducing VMT (T-1 through T-14) would be consistent with the City's General Plan policies CO-4.5 and CO-4.6. GHG reduction measures that conserve water (W-1 and W-2) would be consistent with the City's General Plan policies CO-4.6 and COS-4.7.

Implementation of the proposed CAP would be consistent with the City's overall goal to reduce GHG emissions, consistent with Statewide targets, and would support a variety of other State and local plans, policies, and regulations. Therefore, this impact would be **less than significant**.

### 3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IX. Hazards and Hazardous Materials.</b>				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.9.1 Environmental Setting

This section describes the environmental setting and impacts related to hazards and hazardous materials. For the purposes of this analysis, the term "hazards" refers to risk associated with such issues as fires, explosions, exposure to hazardous materials, and interference with emergency response plans. The term "hazardous material" is defined in different ways for different regulatory programs. For this analysis, "hazardous material" is defined by the California Health and Safety Code, Section 25501: "because of their quantity, concentration, or physical or chemical characteristics, (they) pose a significant present or potential hazard to human health and safety or to the environment if release into the workplace or the environment."



"Hazardous waste" is a subset of hazardous materials. For this analysis, "hazardous waste" is defined by the California Health and Safety Code, Section 25517, and in the California Code of Regulations, Title 22, Section 66261.2: "because of their quantity, concentration, or physical or chemical characteristics, may either cause, or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed." California Government Code Section 65962.5 requires the California Environmental Protection Agency to compile, maintain, and updated specified lists of hazardous material release sites. Table 3.9-1 includes a summary of known hazardous materials release sites located within the plan area (SWRCB 2020).

**Table 3.9-1 Hazardous Material Release Sites within the Plan Area**

Site Type	Site Count	Site Status
Leaky Underground Storage Tank (LUST) Cleanup Site	74	Case Closed
	4	Open Remediation
	2	Open Site Assessment
Other Cleanup Program	125	Case Closed
	1	Open Remediation
	3	Open Site Assessment

Source: State Water Resources Control Board GeoTracker Case List, 2020.

There are no public airports or private airstrips within the plan area. The nearest airport is the McClellan-Palomar Airport located approximately 2 miles west of the plan area (City of San Marcos 2012a).

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped Fire Hazard Severity Zones (FHSZs) for the entire State. FHSZs are based on an evaluation of fuels, fire history, terrain, housing density, and occurrence of severe fire weather and are intended to identify areas where urban fires could result in catastrophic losses. FHSZs are categorized as: Moderate, High, and Very High. According to CAL FIRE's Fire Resource Assessment Program FHSZ Geographic Information System data, the City of San Marcos is located within a Very High FHSZs (ArcGIS 2019).

## 3.9.2 Discussion

### a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

**Less than significant.** The implementation of GHG reduction measures would involve the use of hazardous materials during construction and routine maintenance. However, all future projects would be required to comply with relevant federal, State, and local regulations that require strict adherence to guidelines regarding the safe use, transportation, and disposal of hazardous materials as well as ensuring the reduction of the potential for humans or the environment to be affected by an accidental release of hazardous materials. Regulations that would be required of those transporting, using or disposing of hazardous materials include the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation, and Liability Act; the Hazardous Materials Transportation Act; Title 22; CCR Title 27, and California Fire Code, adopted by reference in SMMC Chapter 17.64.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could involve the use of hazardous materials.

For all the foregoing reasons, implementation of GHG would not create a significant hazard through the routine transport, use, or disposal of hazardous materials. Impacts would be **less than significant**.

- b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?**

**Less than significant.** As discussed in Criterion (a) above, all future projects would be required to comply with relevant federal, State, and local regulations that require strict adherence to guidelines regarding the safe use, transportation, and disposal of hazardous materials as well as ensuring the reduction of the potential for humans or the environment to be affected by an accidental release of hazardous materials. Enforcement of these regulatory standards would ensure that GHG reduction measures facilitated by CAP implementation would not create a significant hazard through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment. Impacts would be **less than significant**.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**Less than significant.** All future projects facilitated by implementation of GHG reduction measures would be required to comply with relevant federal, State, and local regulations that require strict adherence to guidelines regarding the safe use, transportation, and disposal of hazardous materials as well as ensuring the reduction of the potential for humans or the environment to be affected by an accidental release of hazardous materials. Because such laws are established to be protective of human health and the environment, compliance with applicable regulations is sufficient to ensure that any hazardous materials used during CAP implementation would not result in hazardous emissions within one-quarter mile of an existing or proposed school. Enforcement of General Plan policies would prevent hazardous emissions within a quarter mile of an existing school. For example, General Plan Policy S-4.3 directs the City to require land uses using hazardous materials to be located and designed to ensure that sensitive uses, including schools, are protected. Impacts would be **less than significant**.

- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

**Less than significant.** Sites with the potential to contain soil and/or groundwater contamination are located throughout the plan area. GHG reduction measures would involve ground disturbing activities, including grading and excavation, could, depending on their location, be located on a hazardous materials site. Enforcement of General Plan policies would prevent siting future projects on hazardous materials sites. For example, General Plan Policy S-4.1 directs the city to require the assessment of known contaminated sites prior to reuse or development. For this reason, the GHG reduction measures facilitated by CAP implementation would not create a significant hazard to the public or the environment. Impacts would be **less than significant**.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

**No impact.** The implementation of GHG reductions measures would not result in new or relocated residential land uses, other types of noise-sensitive receptors, or new places of permanent employment where residents or workers could be exposed to a safety hazard or excessive noise. The nearest airport, McClellan-Palomar Airport, is located approximately 2 miles west of the plan area. Therefore, GHG reduction measures would not expose residents or workers to a safety hazard or excessive noise levels. **No impact** would occur.

**f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Less than significant.** The GHG reduction measures would result in construction of new roundabouts and bicycle infrastructure (T-6 and T-8) which could alter existing roadways that serve as emergency access routes. However, all future roadway improvements would be required to comply with the California Fire Code, adopted by reference in SMMC Chapter 17.64, and SMMC Section 17.64.120 which requires the width of an unobstructed roadway to measure no less than 24 feet in order to provide adequate access for fire and emergency responders. Therefore, implementation of GHG reduction measures would not physically interfere with an adopted emergency response plan or evacuation plan. The impact would be **less than significant**.

**g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?**

**Less than significant.** The plan area is located within a Very High FHSZ. The implementation of GHG reduction measures would involve ground disturbing activities, including grading and excavation, could, depending on their location, require the temporary and periodic use of construction vehicles and equipment. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4) and ground mounted PV solar panels (E-2). However, given the nature of the GHG reduction measures, construction activities associated with their implementation would occur in already disturbed, developed areas such as roadways and parking lots where wildfire risk is low. In addition, enforcement of the SMMC would avoid exposing people or structures to wildland fires. For example, the community wildfire protection plan (CWPP) and SMMC Section 20.260.060 require all new development in identified community hazard areas requires preparation of a Fuel Management Plan. Further, spark arresters are required on all portable gasoline powered equipment in wildland areas (SMFD 2020). For all the foregoing reasons, implementation of the GHG reduction measures would not exacerbate wildfire risks. Impacts would be **less than significant**.

### 3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>X. Hydrology and Water Quality.</b>				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.10.1 Environmental Setting

The plan area is located within the Carlsbad watershed which covers approximately 210 square miles and contains six hydrologic areas: San Marcos, Agua Hedionda, Loma Alta, Encinas, Buena Vista Creek, and Escondido Creek. Major surface water bodies within the plan area include Lake San Marcos, South Lake Reservoir, Discovery Lake, and Jack's Pond (City of San Marcos 2012b). According to the California Department of Water Resources, there is one ground water basin located beneath San Marcos. Basin 9-32 is the only formally recognized basin within the planning area (DWR 2003:147).

Flooding hazards within the plan area are due to the potential for surface water bodies to overflow. In addition, the Federal Emergency Management Agency has identified 100-year floodplains along San Marcos Creek, Twin Oaks Valley drainage, and San Marcos Lake (FEMA 2020).

### 3.10.2 Discussion

a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

**Less than significant.** The GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, cause soil erosion and contaminate nearby surface water. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of future projects it is likely that construction activities would occur in already disturbed areas developed with impervious surfaces. EV charging stations and PV solar facilities would likely be installed in new and existing developments, such as within paved parking lots and on existing buildings, and roadway improvements would occur along already paved roadways. Implementation of the GHG reduction measures would not substantially increase the area of impervious surfaces in the plan area. In addition, tree planting would occur within City parks, public rights-of-way and new development projects. Further, future projects would be required to comply with the SMMC Chapter 17.32 which contains design standards and performance requirements to avoid or reduce excessive erosion. Construction and post-construction activities would be required to adhere to various federal, State, and regional water quality standards, such as the Municipal Permit and Construction General Permit. As such, runoff volumes and pollutants leaving sites during construction and post-construction operations would be substantially reduced through source control, site design, and/or treatment-control best management practices (BMPs) mandated by these permits. Erosion and sediment controls identified in project-specific storm water pollution prevention plans (SWPPPs) would substantially reduce the amount of soil disturbance, erosion and sediment transport into receiving waters, and pollutants in site runoff during construction. For all of the foregoing reasons implementation of the GHG reduction measures would not result in substantial soil erosion that could degrade surface or groundwater quality. The impact would be **less than significant**.

b) **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could require the use of water for dust abatement as needed via a water truck. These activities would be temporary and intermittent and would not involve the substantial use of groundwater or otherwise affect recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Furthermore, implementation of GHG reduction measures would not involve development of residential communities or other similar types of development or induce population growth in an area that would increase water demand. Measures W-1 and W-2 would reduce outdoor water use for landscaping and water use in existing City parks. Therefore, implementation of GHG reduction measures would not decrease groundwater supplies or interfere with groundwater recharge. The impact would be **less than significant**.

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

- i) **Result in substantial on- or offsite erosion or siltation;**

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, cause soil erosion. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of future projects it is likely that construction activities would occur in already disturbed areas developed with impervious surfaces. EV charging stations and PV solar facilities would likely be installed in new and existing developments, including within paved parking lots and on buildings, and roadway improvements would occur along already paved roadways. In addition, tree planting would occur within City parks, public rights-of-way and new development projects. Further, future projects would be required to comply with the SMMC Chapter 17.32, which contains design standards and performance requirements to avoid or reduce excessive erosion. For all of the foregoing reasons, implementation of GHG reduction measures would not result in substantial soil erosion. The impact would be **less than significant**.

- ii) **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;**

**Less than significant.** The implementation GHG reduction measures that would involve construction activities, could, depending on their location, increase the amount of impervious surface that could result in an increase of surface runoff. Given the nature of future projects it is likely that construction activities would occur in already disturbed areas developed with impervious surfaces. EV charging stations and PV solar facilities would likely be installed in new and existing developments, such as within paved parking lots and on existing buildings, and roadway improvements would occur along already paved roadways. Implementation of the GHG reduction measures would not substantially increase the amount of impervious surfaces in the plan area. Further, future projects would be required to comply with General Plan Policy COS-8.4 which directs the City to require development to protect natural drainage systems through site design, runoff reduction measures, and BMPs consistent with the San Diego Regional Water Quality Control Board Municipal Stormwater National. Construction and post-construction activities would be required to adhere to various federal, State, and regional water quality standards, such as the Municipal Permit and Construction General Permit. As such, runoff volumes and pollutants leaving sites during construction and post-construction operations would be substantially reduced through source control, site design, and/or treatment-control BMPs mandated by these permits. Erosion and sediment controls identified in project-specific SWPPPs would substantially reduce the amount of soil disturbance, erosion and sediment transport into receiving waters, and pollutants in site runoff during construction. For all of the foregoing reasons, implementation of the GHG reduction measures would not increase the rate or amount of surface runoff. The impact would be **less than significant**.

- iii) **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

**No impact.** The implementation of GHG reduction measures that would result in ground disturbing activities, including grading and excavation, could, depending on their location, require the use of water for dust abatement as needed via a water truck. These activities would be temporary and intermittent and would not generate permanent water drainage flows. Therefore, implementation of GHG reduction measures could not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. **No impact** would occur.

**iv) Impede or redirect flood flows?**

**No impact.** Flooding hazards within the plan area are located along San Marcos Creek, Twin Oaks Valley drainage, and San Marcos Lake. The implementation of GHG reduction measures would not place any structures in or adjacent to San Marcos Creek, Twin Oaks Valley drainage, and San Marcos Lake. Further, future projects would be required to comply with SMMC Section 17.32.150 which directs the City to deny grading permits within flood hazard areas. Therefore, implementation of GHG reduction measures could not impede or redirect flood flows. **No impact** would occur.

**d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

**No impact.** Flooding hazards within the plan area are located along San Marcos Creek, Twin Oaks Valley drainage, and San Marcos Lake. The implementation of GHG reduction measures would not place any structures in or adjacent to San Marcos Creek, Twin Oaks Valley drainage, and San Marcos Lake. In addition, implementation of GHG reduction measures would not result in construction of buildings or other facilities or store materials on site where they could be inundated by tsunami, floodwater, or seiche. Further, future projects would be required to comply with SMMC Section 17.32.150 which directs the City to deny grading permits with flood hazard areas. Therefore, implementation of GHG reduction measures could not impede or redirect flood flows. **No impact** would occur.

**e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

**Less than significant.** As discussed in Criterion (a) above, future projects would be required to comply with the SMMC Chapter 17.32 which contains design standards and performance requirements to avoid or reduce excessive erosion what could impact water quality. In addition, construction projects that disturb 1 acre would be required to prepare a SWPPP that demonstrates conformance with applicable best management practices that would be implemented to reduce the amount of surface runoff. Further, implementation of GHG reduction measures would not involve development of residential communities or other similar types of development or induce population growth in an area that would increase water demand. Therefore, implementation of GHG reduction measures would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The impact would be **less than significant**.

## 3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XI. Land Use and Planning.</b>				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 3.11.1 Environmental Setting

Land uses within the plan area primarily consist of residential uses with distinct residential neighborhoods and supporting businesses, industrial employment, and commercial services. The City recognizes eight unique residential neighborhoods throughout the plan area, each with distinct character and identity. Vacant land is the second most prevalent land use pattern and accounts for approximately 5,000 acres of land within the plan area. Parks, open space, and recreational uses provide substantial acreage for general recreation in the plan area. The plan area includes land designated for agricultural, the majority of which is located along the periphery of the City. Public/Quasi-Public uses include Palomar Community College and California State University, San Marcos. Industrial land uses include extractive industrial and light industrial which includes warehousing and wholesale trade. Commercial uses are located throughout the plan area by main commercial corridors are located along San Marcos Boulevard, Mission Road, and Rancho Santa Fe Road (City of San Marcos 2012b).

### 3.11.2 Discussion

#### a) Physically divide an established community?

**Less than significant.** The GHG reduction measures would not result in development that could physically divide a community. Typically, division of an established community could result from the construction of a physical feature, such as a wall, interstate highway, airport, roadway, or railroad tracks, or the removal of a means of access, such as a local road or bridge that could impair mobility or constrain travel within an existing community, or between a community and outlying areas. Construction of new roundabouts and bicycle infrastructure (T-6 and T-8) would reduce vehicle congestion and encourage bicycle trips, which would increase community connectivity and access. Further, all future improvements to roadways would be required to comply with the City's Street Design Standards which requires streets to be designed to current City standards and final pavement approval by the Public Works Directory prior to installation (City of San Marcos 2020). Therefore, implementation of GHG reduction measures would not result in construction of physical barriers that would change the connectivity between developed areas or physically divide an established community. The impact would be **less than significant**.



b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

**No impact.** Implementation of the proposed CAP would achieve the City's 2030 GHG reduction target of 42 percent below 2012 levels consistent with Senate Bill 32. The proposed CAP is consistent with General Plan Policy COS-4.4, which requires that the City quantify community-wide GHG emissions, set a reduction goal, and identify and implement GHG reduction measures as required by governing legislation. Therefore, the proposed CAP is consistent with the General Plan and CAP implementation would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigation an environmental effect. There would be **no impact**.

## 3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XII. Mineral Resources.</b>				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 3.12.1 Environmental Setting

Two historical mining/quarry locations exist within the City limits; Meadowlark Ranch Quarry located in the Questhaven/La Costa Meadows Neighborhood and the former mine near Village Drive at Twin Oaks Valley Road (City of San Marcos 2012a). The Twin Oaks Valley contains a quarry operated by National Quarries which has been commercially mined since 1940 and are currently mined for aggregates, decomposed granite, boulders, rip-rap, and dimension stone (County of San Diego 2007). Limited portions of the plan area contains land designated as MRZ-2 locations, or areas where there are known mineral resources. MRZ-2 areas are limited to small portions between Double Peak, Mount Whitney, and Franks Peak. In addition, no known mineral resource recovery sites of local importance are included in the General Plan or any other specific land use plan associated with the plan area (City of San Marcos 2012b).

### 3.12.2 Discussion

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**Less than significant.** The plan area contains a quarry and a small portion of land designated as MRZ-2. The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, impact mineral resources. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of the GHG reduction measures, construction activities associated with their implementation would occur in already disturbed, developed areas such as roadways and parking lots where known mineral resources are not present. Areas designated as MRZ-2 that have or have a high likelihood of containing valuable mineral deposits are protected by the City from premature or incompatible development with mining per the California Surface Mining and Reclamation Act. Future projects would be required to comply with General Plan Policy COS-2.4 which directs the City to protect known mineral resources, prevent the unnecessary loss of mineral resources, and comply with State of California requirements for mineral resources contained in the State Surface Mining and Reclamation Act.

As described in Section 3.1, "Aesthetics," Criterion (a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction

measures in the proposed CAP would not involve short- or long-term physical changes that could cause a loss of availability of known mineral resources.

For all these foregoing reasons, implementation of GHG reduction measures would not result in the loss of availability of a known mineral resource and the impact would be **less than significant**.

**b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

**Less than significant.** As discussed in Criterion (a), construction activities associated with implementation of GHG reduction measures would occur in already disturbed, developed areas such as roadways and parking lots where known mineral resources are not present. Further, future projects would be required to comply with General Plan Policy COS-2.4 which directs the City to protect known mineral resources, prevent the unnecessary loss of mineral resources, and comply with State of California requirements for mineral resources contained in the State Surface Mining and Reclamation Act. Therefore, implementation of GHG reduction measures would not result in the loss of availability of a locally important mineral resource recovery site and the impact would be **less than significant**.

### 3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIII.Noise.</b>				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.13.1 Environmental Setting

Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Noise is typically expressed in decibels (dB), which is a common measurement of sound energy. Definitions of acoustical terms used in this section are provided in Table 3.12-1.

**Table 3.13-1 Acoustic Term Definitions**

Term	Definition
Noise	Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted.
Decibel (dB)	Sound levels are measured using the decibel scale, developed to relate to the range of human hearing. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy.
Equivalent Noise Level ( $L_{eq}$ )	The average noise level during a specified time period; that is, the equivalent steady-State noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level).
Maximum Noise Level ( $L_{max}$ )	The highest instantaneous noise level during a specified time period.
Day-Night Noise Level ( $L_{dn}$ )	The 24-hour $L_{eq}$ with a 10-dB penalty applied during the noise-sensitive hours from 10 p.m. to 7 a.m., which are typically reserved for sleeping.
Community Noise Equivalent Level (CNEL)	Similar to the $L_{dn}$ described above with an additional 5-dB penalty applied during the noise-sensitive hours from 7 p.m. to 10 p.m., which are typically reserved for evening relaxation activities.

Source: Caltrans 2013

Noise can be generated by many sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers.

In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Major sources of noise within the plan area are vehicular traffic along major roadways (i.e., SR 78, Rancho Santa Fe Road, San Marcos Boulevard, Las Posas Road, Mission Road, and Twin Oaks Valley Road) and rail traffic along the North County Transit District Sprinter rail line. The plan area also experiences noises common in urban environments such as construction, police and fire department sirens, landscaping equipment, barking dogs, high altitude aircraft, and car alarms (City of San Marcos 2012a). A community noise survey found average daytime ambient noise levels ranged from 57 dB to 72 dB  $L_{eq}$ , with maximum noise levels that ranged from 71 dB to 90 dB  $L_{max}$  (City of San Marcos 2012b).

## GROUND VIBRATION

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient in nature, such as explosions.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2006; Caltrans 2013b). PPV and RMS vibration velocity are normally described in inches per second (in/sec). Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006).

The typical background vibration-velocity level in residential areas such as the project area is approximately 50 VdB. Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2006).

## SENSITIVE RECEPTORS

Noise- and vibration-sensitive land uses are generally considered to include those uses for which noise exposure could result in health-related risks to individuals, as well as uses for which quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. Schools, health care facilities, places of worship, hotels, libraries, and other places where low interior noise levels are essential are also considered noise- and vibration-sensitive land uses.

## AIRPORTS AND PRIVATE AIRSTRIPS

The McClellan-Palomar Airport is roughly 2 miles due west of the City. The plan area is located entirely outside of the present and future 60 dBA CNEL noise contour for McClellan-Palomar Airport, and therefore, airport operations do not substantially affect the ambient noise environment of San Marcos (City of San Marcos 2012a).

## CITY OF SAN MARCOS GENERAL PLAN

The City of San Marcos General Plan Noise Element utilizes San Diego County's interior and exterior noise standards (City of San Marcos 2012a). Land use compatibility noise exposure limits are generally established as:

- ▶ 60 dBA CNEL/L<sub>dn</sub> for exterior spaces at a majority of land use designations throughout the City.
- ▶ 65 dBA CNEL/L<sub>dn</sub> are permitted for multiple-family housing and housing in mixed-use contexts.

Relevant goals and policies include the following:

**GOAL N-1:** Promote a pattern of land uses compatible with current and future noise levels.

- ▶ **Policy N-1.2:** Ensure that acceptable noise levels are maintained near noise-sensitive uses.
- ▶ **Policy N-1.7:** Through site planning techniques, noise reduction features, and enforcement, minimize nonresidential noise impacts on residential uses.

**GOAL N-2:** Control transportation-related noise from traffic, rail, and aviation sources near noise sensitive land uses.

- ▶ **Policy N-2.2:** Promote coordinated site planning and traffic control measures that reduce traffic noise on noise-sensitive land uses.
- ▶ **Policy N-2.3:** Advocate the use of alternative transportation modes such as walking, bicycling, mass transit, and non-combustible engine vehicles to reduce traffic noise.

**GOAL N-3:** Control non-transportation-related noise from commercial, industrial, construction, and other sources on noise sensitive land uses.

- ▶ **Policy N-3.1:** When adjacent to noise sensitive receptors, require developers and contractors to employ noise reduction techniques during construction and maintenance operations.
- ▶ **Policy N-3.2:** Limit the hours of construction and maintenance operations located adjacent to noise-sensitive land uses.
- ▶ **Policy N-3.3:** Limit the allowable hours of operations and deliveries for commercial, mixed-use, and industrial uses located adjacent to residential areas.
- ▶ **Policy N-3.4:** Avoid excessive noise of commercial and industrial land uses through site and building design features.
- ▶ **Policy N-3.5:** Require industrial land uses to locate vehicular traffic and operations away from adjacent residential areas as much as possible.

## CITY OF SAN MARCOS MUNICIPAL CODE

The City's Noise Ordinance (Chapter 10.24 of the San Marcos Municipal Code) prohibits loud, annoying, or unnecessary noises. It provides definition for and examples of prohibited noise sources but does not establish numeric noise thresholds for transportation related (e.g., vehicle, railroad, aircraft traffic) or non-transportation related (e.g., air conditioner units, loading docks, construction) noise sources. Construction activities are limited to Monday through Friday; 7:00 a.m. to 6:00 p.m., or on Saturdays from 8:00 a.m. to 5:00 p.m. Section 20.450.040, Development Standards, of the City's municipal code requires all non-solar, non-public renewable energy systems be operated in such a manner that they do not exceed the City's noise standards established in Section 20.300.070.F and Chapter 10.24 Noise of the San Marcos Municipal Code.

### 3.13.2 Discussion

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?**

**Less than significant.** The proposed CAP is a policy-level document that does not include any site-specific designs or proposals or grant any entitlements for development. However, GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting (T-2, T-3, T-4, T-6, T-8, E-2, C-1 and C-2), could require the use of heavy equipment and could result in temporary vehicle trips that generate noise. Depending on the type and model of equipment used for construction, typical noise levels for construction equipment such as excavators, graders, scrapers, bulldozers, backhoes, and concrete mixing trucks range from 80 to 95 dB  $L_{max}$  at 50 feet (FTA 2006). Actual exposure levels would depend on the intensity of the construction activity, the distance of sensitive receptors to the noise source, and any intervening structures or topography that might affect noise attenuation. Because of the scale and nature of proposed improvements, which are generally small, localized, and because the project would require little use of heavy-duty construction equipment, excessive construction-related noise would not be anticipated. Furthermore, the City's Noise Ordinance limits construction activities to Monday through Friday from 7:00 a.m. to 6:00 p.m., or on Saturdays from 8:00 a.m. to 5:00 p.m. but does not restrict construction noise levels. Construction of infrastructure associated with implementation of the proposed CAP within the plan area would comply with the City's Noise Ordinance.

The GHG reduction measures do not propose any new stationary sources of noise nor would they require substantial long-term maintenance activities and associated vehicle trips which would generate noise. As discussed in Section 3.3, "Air Quality," Criterion (c), Measure S-1 could result in the rerouting of up to 41 haul truck trips per day. These trips would likely be distributed across multiple roads throughout the plan area, reducing the noise level at any one receptor along future potential haul routes. Nonetheless, even if the redirection of haul truck trips would occur on a single route, an increase in 41 truck trips per day would not result in a substantial increase in ambient noise levels. As discussed in Section 3.13.1, "Environmental Setting," a doubling of traffic volume on a roadway would have to occur before it would be detectable. Thus, long-term operational noise impacts would not occur.

As described in Section 3.1.1(a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in GHG emissions.

#### Impact Summary

Implementation of the proposed CAP would not result in substantial short-term noise impacts due to the scale and nature of the construction activities, which are generally small, localized, and would require little use of heavy-duty construction equipment. Additionally, the construction of infrastructure associated with implementation of the proposed CAP within the plan area would comply with the City's Noise Ordinance. GHG reduction measures would not result in future improvements that would produce substantial operational noise due to the minor nature of maintenance activities and few new operational vehicle trips. Therefore, the GHG reduction measures would not result in a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. Impacts would be **less than significant**.

- b) **Generation of excessive groundborne vibration or groundborne noise levels?**

**Less than significant.** The proposed CAP is a policy-level document that does not include any site-specific designs, or locations for future improvements. However, GHG reduction measures that would be implemented with the proposed CAP have the potential to result in groundborne vibration from the use of heavy equipment such as bulldozers and loaded haul trucks during project construction, and from haul trucks during the operational phase. These types of equipment could generate groundborne vibrations ranging from 0.035 to 0.089 in/sec PPV at 25 feet

and 79 to 87 VdB at 25 feet (FTA 2006) and could expose sensitive receptors to elevated vibration levels. Vibration levels dissipate rapidly at increasing distance from the vibration source. Applying FTA's recommended procedure for determining vibration levels at various distances from the source, the predicted most-conservative ground vibration levels would exceed the threshold of 80 VdB for human disturbance for a large bulldozer at distances within 43 feet. With regard to structural damage, the threshold of 0.2 inch/second PPV would be exceeded for large bulldozers at distances within 15 feet. Actual exposure levels would depend on equipment types, haul truck routes, and proximity to and characteristics of sensitive receptors.

GHG reduction measures that would result in the construction of new EV charging stations, roundabouts, bicycle infrastructure, new small-scale renewable energy systems, and tree planting (T-2, T-3, T-4, T-6, T-8, E-2, C-1 and C-2), could require the use of heavy equipment and haul trucks which could generate localized groundborne vibration in the vicinity of the activity. These construction activities would not involve pile driving or other pieces of equipment or activities that would produce substantial groundborne vibration or noise. Measure S-1 could result in the rerouting of up to 41 haul truck trips per day, which could generate vibration impacts on different haul routes. However, given the low likelihood that construction activities or haul truck trips would occur within 43 feet of receptors, it is unlikely that construction or operational vibration impacts would occur. Furthermore, these activities would occur during daytime hours, when people are less sensitive to vibration. Where there is the potential for impacts, it would be routinely addressed with standard mitigation identified during project-level review such as preparing vibration monitoring plans and incorporating project-specific methods for minimizing or reducing vibrational impacts on nearby vibration-sensitive structures. Future discretionary projects would be required to evaluate project-specific impacts under CEQA at the time of application and project-specific mitigation would be required to minimize or avoid vibration impacts to the extent feasible in compliance with CEQA Guidelines section 15126.4.

As described in Section 3.1.1(a), it would be speculative to analyze whether implementation of Measure E-3 to increase the supply of grid electricity from renewable or zero-carbon sources would result in physical construction or expansion of electricity generation or other facilities. Implementation of the other GHG reduction measures in the proposed CAP would not involve short- or long-term physical changes that could result in temporary or operational vibration impacts. Thus, impacts related to excessive groundborne vibration would be **less than significant**.

**c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

**No impact.** The McClellan-Palomar Airport is roughly 2 miles due west of the City. The plan area is located entirely outside of the present and future 60 dBA CNEL noise contour for McClellan-Palomar Airport, and therefore, airport operations do not substantially affect the ambient noise environment of San Marcos (City of San Marcos 2012a). The CAP does not propose any projects located within the vicinity of a private airstrip or an airport land use plan. Therefore, implementation of the proposed CAP would not expose people residing or working in the project area to excessive airport-related noise levels. **No impact** would occur.



## 3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIV. Population and Housing.</b>				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 3.14.1 Environmental Setting

The City of San Marcos and unincorporated areas have a total population of approximately 89,933 people. Between 2000 and 2010 the City's population increased from 54,977 people to 83,781 people, or by approximately 52 percent. Growth in the City between 1980 and has significantly outpaced San Diego County as a whole. Growth occurred primarily due to availability of vacant land, land constraints in other areas of the county, and the establishment of Palomar Community College and CSU San Marcos (City of San Marcos 2012b). The 2010 Census reported a total of 27,202 households, with an average household size of approximately 3 people and an average family size of approximately 3.5 people. Approximately 73 percent (19,811) of households were family households. Approximately 56 percent (15,242) of family households consisted of a husband-wife family, while approximately 11 percent (3,056) were single female households with no husband present, and approximately 6 percent (1,513) were single male households with no wife present. Approximately 27 percent (7,391) of households reported were nonfamily households (including domestic partnership) and approximately 19 percent (5,168) where householders lived alone. The average household and family size remained consistent between 2000 and 2010 (US Census 2001; 2011).

In 2010 the Census reported that the City of San Marcos had a total of 28,641 housing units with an occupancy rate of 27,202 housing units, or 95 percent. Approximately 17,094 or 63% of the occupied units were owner-occupied housing units, 607 housing units or approximately 2 percent were rented, and 361 or approximately 1 percent were for sale. Sold, not occupied housing units, seasonal, recreational, or occasional users, and miscellaneous vacancies accounted for the remaining approximately 2 percent of vacant housing units (US Census 2011).

### 3.14.2 Discussion

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

**Less than significant.** Implementation of the proposed CAP would not induce population growth directly or indirectly, because the GHG reduction measures do not propose new housing nor do they propose changes to policies or regulations related to land use or residential zoning. GHG reduction measures that would result in the construction roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), rooftop or ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2), could require a temporary increase in the number of construction workers. These types of projects are small construction projects, which would

not require a large construction crew. Furthermore, construction workers would likely be from the San Diego region and permanent, substantial relocation of workers would not be required. Therefore, implementation of these measures would not result in substantial population growth or employment growth in the plan area. The impact would be **less than significant**.

**b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

**No impact.** The implementation of the proposed CAP would not displace people or housing because the GHG reduction measures do not propose new housing nor do they propose changes to policies or regulations related to land use or residential zoning. Overall, the proposed CAP would reduce GHG emissions generated within the plan area by using alternatively fueled vehicles, reducing VMT, using renewable energy, reducing waste generation, and increasing carbon sequestration. Therefore, implementation GHG reduction measures would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **No impact** would occur.

## 3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XV. Public Services.</b>				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 3.15.1 Environmental Setting

The San Marcos Fire Department (SMFD) is the agency responsible for providing emergency services in the event of a fire emergency. The SMFD is a full-service department, operating four stations and one regional emergency services training facility. Fire Station #1 is located at 180 West Mission Road, Fire Station #2 is located at 1250 South Rancho Santa Fe Road, Fire Station #3 is located at 404 Woodland Parkway, Fire Station #4 is located at 204 San Elijo Road, and the training facility is located at 184 Santar Place. The fire department is classified as an Insurance Office Services (ISO) Class 2 rating and provides services to the City of San Marcos and the San Marcos Fire Protection District, which covers an area of 33 square miles and a population of approximately 95,000 residents. The Fire Department provides a variety of services to the community, including fire suppression; rescue; emergency medical services, including Advanced Life Support 911 response and transport services; fire prevention; vegetation management; public education; emergency preparedness; and trauma support. In addition, the San Marcos Fire Department protects and manages several thousand acres of wildland and urban wildland interface areas. The fire department maintains the following: four primary fire engines, three brush engines, one primary truck, four primary ambulances, one trail rescue vehicle, three reserve fire engines, five command vehicles, one reserve truck, and three reserve ambulances. The Department also cross-staffs three wildland fire engines and a state of California/Office of Emergency Services (Cal OES) wildland fire engine (City of San Marcos 2012b) (SMFD 2019).

The City of San Marcos contracts with the San Diego County Sheriff's Department for law enforcement services, including patrol, traffic, and investigative services. The San Diego County Sheriff's San Marcos Station is located at 182 Santar Place in San Marcos and serves approximately 100 square miles of territory, including the City and the unincorporated areas around San Marcos and Escondido under contract with the County of San Diego. The patrol deputies are responsible for all general law enforcement calls for services within the contract area, 24 hours per day, 365 days per year. The County of San Diego's Child Protective Services, Adult Protective Services, and Juvenile Probation personnel also operate out of the San Marcos Sheriff's Station. The San Marcos Sheriff's Station also has access to specialized detective units to handle specific crimes such as homicides, bomb/arson, financial crimes, child

abuse and narcotics. The San Marcos Sheriff's Station is staffed with 80 sworn officers, 10 professional staff, and approximately 30 retired senior volunteer patrol members. There are approximately 0.84 sworn officers per 1,000 residents in the project area (City of San Marcos 2012b) (SANDAG 2019) (Brown 2019).

Primary education (grades kindergarten through 12), in the City are served by the San Marcos Unified School District (SMUSD). The award-winning SMUSD includes 10 elementary schools, three middle schools, four high schools, two schools that provide transitional kindergarten through eighth grade, and one adult education school. Two charter schools are located within San Marcos, separate from the public school system, including Bayshore Prep, High Tech High, and High Tech Middle North County (SMUSD 2019 2020).

The City operates a number of other facilities which include various government buildings, a library, and parks and recreational facilities. The San Marcos Library is operated by the County of San Diego. It is located at 2 Civic Center Drive, on the campus with City Hall and the Community Center. The Library operates Monday through Thursday from 9:30 a.m. to 8 p.m.; Friday and Saturday from 9:30 a.m. to 5 p.m.; and Sunday from 12 p.m. to 5 p.m. See Section 3.16.1 of the Recreation chapter for a description of the City of San Marcos existing parks and recreational facilities.

### 3.15.2 Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

**No impact.** Implementation of the proposed CAP does not include development of new residences nor the creation of permanent jobs requiring increased fire or police services. As discussed in Section 3.14, "Population and Housing," the proposed CAP would not induce population growth that would generate new students in the community or new residents who would require school services, new or expanded park facilities, other public facilities. Therefore, **no impact** would occur.

## 3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVI. Recreation.</b>				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 3.16.1 Environmental Setting

The City of San Marcos maintains several types of parks: community parks, which serve the entire City; neighborhood parks, which are located near schools; and mini-parks, which are small public spaces. The City 340.05 acres of developed parkland, recreational facilities, and trails located within the corporate limits of the City of San Marcos. This includes approximately 149 acres of neighborhood parks, 98 acres of community parks, and 20 acres of mini-parks, and 3 acres of other recreational facilities. In addition to parks, the City maintains 14 recreational facilities and an extensive 72-mile long trail network with urban trails, multi-use trails, and soft-surface trails used for walking, hiking, biking, running, and equestrian uses. Approximately 12 percent of the City's acreage, or 2,499 acres, are designated as open space or preserves (City of San Marcos 2012a). The City of San Marcos has a parkland minimum standard of 5 acres of public parks and recreational facilities per 1,000 residents. In 2010, the City of San Marcos had an existing parkland ratio of approximately 4 acres/1,000 residents and the planning area had a ratio of approximately 3.8 acres/1,000 residents (City of San Marcos 2012b).

### 3.16.2 Discussion

- a) **Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

**No impact.** The implementation of the GHG reduction measures would not increase the use of recreational facilities to the extent that substantial deterioration would occur. Typically, this impact occurs when a project induces population growth, such as new development or a business that would necessitate a large number of new employees. Implementation of the proposed CAP would not include construction of new housing or commercial development. In addition, the number of construction workers needed to install future projects would be minimal and would not substantially increase the use of existing recreational facilities. Therefore, **no impact** would occur.

**b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

**No impact.** The proposed CAP would not include development of residential communities or other similar types of development or induce population growth that would require construction or expansion of recreational facilities. Therefore, **no impact** would occur.

## 3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVII. Transportation.</b>				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 3.17.1 Environmental Setting

The transportation system in the City consists of highways, streets, pedestrian pathways, transit routes, and bikeways. The circulation system is connected to the larger regional network which includes SR 78, Interstate 5 (I-5) and Interstate 15 (I-15). SR 78 carries west and east bound travel lanes to I-5 and I-15, and provides access to southern California destinations. SR 78 can be accessed throughout the plan area via South Rancho Santa Fe Road, Las Posas/Via Vera Cruz, San Marcos Boulevard, Twin Oaks Valley Road, East Barham Drive/Woodland Parkway, and Nordahl Road (City of San Marcos 2012b).

Public transportation services include the public bus service and SPINTER light rail service operated by North County Transit District. Bicycle facilities within the plan area are concentrated along major arterials such as Rancho Santa Fe Road, San Marcos Boulevard, Twin Oaks Valley Road, Mission Road, and Barham Drive and along the SPINTER corridor. Pedestrian facilities are primarily developed as part of the existing roadway system within the plan area and are located along major transit routes (City of San Marcos 2012b).

### 3.17.2 Discussion

#### a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

**Less than significant.** The implementation of GHG reduction measures would not result in long-term operational increases in vehicular traffic along roadways in the plan area. The GHG reduction measures would improve the operation of the circulation system in several ways, including fewer vehicle trips on roadways and highways and higher numbers of transit riders, bicyclists, and pedestrians. For example, GHG reduction measures would synchronize traffic signals (Measure T-5) and install roundabouts (Measure T-6) to reduce vehicle idling, implement new bicycle lanes (Measure T-8), the intra-city shuttle system (Measure T-10), increase transit ridership (Measure T-11), prepare a transportation demand management plan, and requirements for employers (Measure T-9 and T-13) to encourage the use of public transportation options to single occupancy vehicles. However, construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), PV solar panels (E-2), and installation of alternatively-fueled water heaters (E-1) could result in construction-related vehicle trips, and trips

associated with the workers commuting to and from construction sites. The number of haul trips and workers trips to and from construction sites would vary based on the type of future project and project location. However, the types of projects facilitated by CAP implementation are small construction projects, which would not require a large construction crew. This would result in a small number of worker related trips to and from future project sites. Construction activities would result temporary road closures which could temporarily disrupt traffic operations; however, any lane closures would be accompanied by traffic control signage and flaggers. Therefore, implementation of GHG reduction measures would not adversely affect the performance of the circulation system and would not conflict with any applicable transportation plans, ordinances, or policies. This impact would be **less than significant**.

**b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles traveled?**

**Less than significant.** Senate Bill 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. The Office of Administrative Law approved (on December 28, 2018) comprehensive updates to the CEQA Guidelines (including at Section 15064.3(b)) that included removing Level-of-Service as a measure of transportation impacts under CEQA and replacing it with VMT. A "vehicle mile traveled" is defined as one vehicle traveling on a roadway for 1 mile. Pursuant to State CEQA Guidelines Section 15064.3(c), this change in analysis may be implemented now and is required beginning July 1, 2020. According to OPR's Technical Advisory on evaluated transportation impacts in CEQA, projects that generate or attract fewer than 110 vehicle trips per day generally may be assumed to cause a less-than-significant transportation impact (OPR 2018). This section of the Initial Study relies on OPR's Technical Advisory for VMT threshold.

As described in Section 3.3.2, implementation of GHG reduction measures would not induce substantial population or employment growth in the plan area, therefore it would not generate additional VMT over the long-term. The types of projects facilitated by implementation GHG reduction measures are small construction projects, which would not require a large construction crew. This would result in a small number of construction worker related trips to and from future project sites. In addition, worker related trips would be sporadic and occur at designated times throughout implementation of GHG reduction measures. Therefore, implementation of GHG reduction measures would not generate 110 construction trips per day. Moreover, the proposed CAP includes the following GHG reduction measures that would meaningfully reduce the rate of VMT in the plan area over the long-term:

- ▶ T-7: Participate in the San Diego Association of Government's iCommute Vanpool Program
- ▶ T-8: Develop Bicycle Infrastructure Identified in the City's General Plan Mobility Element
- ▶ T-9: Adopt Citywide Transportation Demand Management Ordinance
- ▶ T-10: Implement the Intra-City Shuttle System
- ▶ T-11: Increase Transit Ridership
- ▶ T-12: Reduce Parking Requirements for New Residential Development Near Transit
- ▶ T-13: Encourage Existing Employers to Implement Transportation Demand Management Plans

Any temporary VMT increases associated with construction activities would be offset by the overall net benefit of reducing the long-term rate of VMT due to the implementation of the proposed CAP. Therefore, CAP implementation would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b) and the impact would be **less than significant**.

**c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**Less than significant.** The implementation of GHG reduction measures that would result in ground disturbing activities, including grading and excavation, could, depending on their location, result in alterations of public roadways. Specifically, the construction of new roundabouts and bicycle infrastructure (T-6 and T-8). Consistent with the General Plan, new bicycle infrastructure would be located along identified travel routes. The construction of new



roundabouts would be consistent with General Plan Policy M-23 which directs the City to consider roundabouts as appropriate intersection control devices with demonstrated safety benefits. Further, future projects would be located in areas previously identified by the City's University District Specific Plan (State Clearinghouse No. 2008101083). All future roadway improvements would be required to comply with the City's Street Design Standards which requires streets to be designed to current City standards and final pavement approval by the Public Works Directory prior to installation (City of San Marcos 2020). Therefore, implementation of GHG reduction measures would not substantially increase hazards due to a geometric design feature and the impact would be **less than significant**.

**d) Result in inadequate emergency access?**

**Less than significant.** The GHG reduction measures would not result in new development or land uses that would require installation of emergency access routes. However, construction of new roundabouts and bicycle infrastructure (T-6 and T-8) could permanently alter existing roadways that serve as emergency access routes. All future roadway improvements would be required to comply with the California Fire Code, adopted by reference in SMMC Chapter 17.64, and SMMC Section 17.64.120 which requires the width of an unobstructed roadway to measure no less than 24 feet in order to provide adequate access for fire and emergency responders. Therefore, CAP implementation would not result in inadequate emergency access and the impact would be **less than significant**.

### 3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVIII. Tribal Cultural Resources.</b>				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No	
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.18.1 Environmental Setting

Lands within the plan area were historically inhabited by Takic-speaking native groups, who were linguistically related to inhabitants of the Los Angeles Basin. The Luiseño, also known as the Juaneño, inhabited territory along the coast from Agua Hedionda to approximately Aliso Creek which extended inland to Palomar Mountain. The Luiseño moved seasonally between mountain and seashore camps to hunt, collect shellfish, and harvest plant items such as acorns and hard seeds (City of San Marcos 2012b).

AB 52, signed into law in September of 2014, established a new class of resources under CEQA: "tribal cultural resources," defined in PRC 21074. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, where one or more California Native American Tribes has requested formal written notification of proposed projects from a lead agency, the lead agency shall begin consultation with those tribes by providing them with formal written notification of proposed projects prior to the release of an environmental impact report, negative declaration, or mitigated negative declaration.

There are four California Native American tribes that have requested to be informed of proposed projects by the City. In compliance with PRC section 21080.3.1, the City provided formal written notification of the proposed CAP to each of the four Native American tribes on January 16, 2020. In response to this notification, the City received formal consultation requests from the Rincon Band of Luiseño Indians (Rincon) and the Temecula Band of Luiseño Mission Indians (Pechanga) (See Appendix C), the San Luis Rey Band of Mission Indians (SLR Band) requested additional project information that City staff provided but did not submit a formal request for AB 52 consultation. At the request of Rincon and Pechanga, the City has provided project information beyond what was included in the January 16, 2020

notification letter. In response, Rincon requested additional project details and City staff responded with additional draft CAP information for further consideration. Consultation with Rincon concluded on July 27, 2020. Consultation with Pechanga is ongoing. Based on the consultation efforts that have occurred since March 2020, the City anticipates that consultation with Pechanga will close concurrent with the end of the 30-day public review period for the draft IS/ND. During implementation of the CAP the City will comply with AB 52 tribal consultation requirements as applicable during project-level CEQA review.

### 3.18.2 Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?
- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

**Less than significant.** The implementation of GHG reduction measures that would involve ground disturbing activities, including grading and excavation, could, depending on their location, cause a substantial adverse change in the significance of a tribal cultural resource. Ground disturbing activities, including minor grading and excavation, would result from construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). PRC Section 21074 defines a tribal cultural resource as a site, feature, place, or cultural landscape that is geographically defined in terms of size and scope, sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register or a local register of historical resources. Given that Native American tribes inhabited the area, there is a potential that unidentified resources may be discovered during construction activities. The potential for disturbance may be reduced through surveying a site to determine the likelihood that tribal cultural resources are present, review of records to determine if tribal cultural resources are known to occur in the area, and then designing future projects to avoid areas where resources may be present.

Future projects would be required to comply with General Plan Policy COS-2.5 which directs the City to review future development proposals to ensure that cultural resources (including prehistoric, historic, paleontological, and Senate Bill 18 Tribal resources) are analyzed and conserved in compliance with CEQA requirements, and Policy COS-11.1 which directs the City to identify and protect historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) in compliance with CEQA. In addition, enforcement of General Plan Mitigation Measures would reduce impacts to tribal cultural resources. Although the General Plan does not address "tribal cultural resources" as specifically defined under PRC section 21074 (the General Plan was approved in 2012, prior to AB 52, signed into law September 2014), the measures were developed to protect tribal resources. The intent behind the General Plan Mitigation Measures mirror the provisions under PRC Section 21084.3 (b), which describe mitigation measures that may avoid or minimize significant adverse impacts on tribal cultural resources defined under PRC section 21074, including:

- (1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- (2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - (A) Protecting the cultural character and integrity of the resource
  - (B) Protecting the traditional use of the resource
  - (C) Protecting the confidentiality of the resource.
- (3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- (4) Protecting the resource.

Specifically, General Plan Mitigation Measure CR-1 which directs the City to request a search of NAHC's Sacred Lands Inventory to identify potential places of tribal and/or religious importance. General Plan Mitigation Measure CR-2 directs the City to require the project implementer to avoid or preserve cultural resource sites that have been identified as significant; site avoidance and preservation can include capping the site. General Plan Mitigation Measure CR-2 further requires that capping methods should be communicated to interested Tribes for their review and that Tribal recommendations be considered to the maximum extent feasible as capping plans are finalized. General Plan Mitigation Measure CR-3 directs the City to require monitoring of grading, ground-disturbing, and other major earth-moving activities in previously undisturbed areas or in areas with known archaeological resources by a qualified archeologist and Tribal monitor during activities in areas with cultural resources of interest to local Native American Tribes. General Plan Mitigation Measure CR-4 directs the City to require a qualified archaeologist to evaluate any cultural resources discovered during site construction activities, and the Tribal monitor to accompany a qualified archeologist to identify, and determine the significance of, cultural resources and/or sacred lands. In addition, local Native American Tribes shall be consulted in the identification of provisions to address inadvertent discoveries; in the event of a find, an Archaeological Data Recovery Program shall be prepared and implemented after consultation between interested Native American Tribes and the qualified archaeologist. Further, General Plan Mitigation Measure CR-6 directs the City to require consultation with the appropriate organizations and individuals (e.g., Information Centers of the California Historical Resources Information System, the NAHC, and Native American groups and individuals) to minimize potential impacts to historic and cultural resources. For all the foregoing reasons, implementation of the GHG reduction measures would not result in substantial adverse change in the significance of a tribal cultural resource. Therefore, the impact would be **less than significant**.

### 3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIX. Utilities and Service Systems.</b>				
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.19.1 Environmental Setting

Several agencies supply water and wastewater services to the City of San Marcos, including Vallecitos Water District, Olivenhain Municipal Water District, Vista Irrigation District, and Rincon del Diablo Municipal Water District. Solid waste disposal is provided by EDCO Waste and Recycling, a private franchise hauler. Waste collected by EDCO is hauled to the Escondido Resource Recovery Transfer Station where it is sorted prior to being transported to the Sycamore Sanitary Landfill. The City of San Marcos maintains the public roadway network and sidewalks, right-of-way electrical facilities, and the public storm drain conveyance system within the plan area. The primary purpose of the public storm drain conveyance system is to facilitate the conveyance of drainage water from rainfall events away from urban areas (City of San Marcos 2012b).

SDG&E, a regulated public utility, supplies electricity and natural gas to the City of San Marcos. SDG&E procures electricity generated from a variety of energy sources including coal, natural gas, nuclear, hydroelectric, and a mix of renewable resources.

### 3.19.2 Discussion

- a) **Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

**No impact.** The implementation of GHG reduction measures would not involve development of residential communities or other similar types of development or induce population growth in an area that would require the expansion or construction of water infrastructure, wastewater treatment facilities, storm drainage facilities, electric power, natural gas, or telecommunications facilities. Therefore, implementation of GHG reduction measures would have **no impact**.

- b) **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

**Less than significant.** The implementation of GHG reduction measures would not involve development of residential communities or other similar types of development or induce population growth in an area that would increase demand for water. A minimal amount of water would be required for dust control during construction and grading activities and would not contribute to an exceedance of available water supplies. In addition, GHG reductions measures would reduce outdoor water use for landscaping and water use in existing City parks (W-1 and W-2) which would contribute to a reduction in municipal water use. Therefore, CAP implementation would not result in a physical impact associated with provision of sufficient water supplies, including related infrastructure needs. The impact would be **less than significant**.

- c) **Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?**

**Less than significant.** The implementation of GHG reduction measures would not involve development of residential communities or other similar types of development or induce population growth in an area that would increase demand for wastewater treatment. Further, GHG reduction measures would not involve the construction of restroom facilities. Depending on the duration and location of future projects, the project proponent may supply portable restrooms for use by work crews. Portable restrooms are self-contained and would be cleaned periodically, and the waste would be hauled off-site to a wastewater treatment facility for disposal. This service is typically provided by an independent contractor permitted to handle, haul, and dispose of sanitary sewage. Pursuant to 40 CFR Part 403.5, hauled waste must be disposed of at a designated publicly owned treatment facility. Typically, publicly owned treatment facilities are responsible for implementing permit programs for hauled waste and ensure that adequate treatment capacity exists. Therefore, implementation of GHG reduction measures would not exceed the capacity of any wastewater treatment provider. The impact would be **less than significant**.

- d) **Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

**No impact.** GHG reduction measure S-1 would direct the City to work with franchise waste hauler and prepare a waste diversion plan that identifies interim steps toward achieving an 85 percent citywide waste diversion rate by 2030. Consistent with General Plan Policies COS 10-1 and COS 10-2, implementation of GHG reduction measure S-1 would divert solid waste from the Sycamore Sanitary Landfill. Further, the City's waste diversion goal would be consistent with Assembly Bill (AB) 939, which requires citywide 50 percent waste diversion goal, and AB 341 which requires a Statewide 75 percent waste diversion for businesses. Therefore, implementation of GHG reduction measures would not result in an increase in solid waste requiring disposal in a landfill and would not impair the attainment of solid waste reduction goals. **No impact** would occur.

e) **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

**No impact.** As discussed in Criterion (d), GHG reduction measure S-1 would direct the City to work with franchise waste hauler and prepare a waste diversion plan that identifies interim steps toward achieving an 85 percent citywide waste diversion rate by 2030. Overall, implementation of S-1 would reduce the amount of solid waste that is transported to the Sycamore Sanitary Landfill. Therefore, implementation of GHG reduction measures would not conflict with federal, State, and local statutes or regulations related to solid waste. **No impact** would occur.

## 3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XX. Wildfire.</b>				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No	
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 3.20.1 Environmental Setting

CAL FIRE has mapped FHSZs for the entire State. FHSZs are based on an evaluation of fuels, fire history, terrain, housing density, and occurrence of severe fire weather and are intended to identify areas where urban fires could result in catastrophic losses. FHSZs are categorized as: Moderate, High, and Very High. According to CAL FIRE's Fire Resource Assessment Program FHSZ Geographic Information System data, parts of the City of San Marcos are located within a Very High FHSZs (ArcGIS 2019).

SMFD prepared a CWPP for the City of San Marcos and unincorporated communities. The CWPP identifies 19 wildland urban interface (WUI) areas within the plan area of and surrounding unincorporated communities. The communities are located along the periphery of the City and have steep slopes, limited precipitation, and plenty of available fuel/combustible plant material (City of San Marcos 2007).

### 3.20.2 Discussion

- a) **Substantially impair an adopted emergency response plan or emergency evacuation plan?**

**Less than significant.** The GHG reduction measures would result in construction of new roundabouts and bicycle infrastructure (T-6 and T-8) could alter existing roadways that serves as emergency access routes. However, all future



roadway improvements would be required to comply with the California Fire Code, adopted by reference in SMMC Chapter 17.64, and SMMC Section 17.64.120 which requires the width of an unobstructed roadway to measure no less than 24 feet in order to provide adequate access for fire and emergency responders. Therefore, implementation of GHG reduction measures would not result in any reduction in the adequacy of emergency access and impacts would be **less than significant**.

**b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

**Less than significant.** The plan area is located within a Very High FHSZ. The implementation of GHG reduction measures would involve ground disturbing activities, including grading and excavation, that could, depending on their location, require the temporary and periodic use of construction vehicles and equipment. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4) and ground mounted PV solar panels (E-2). However, given the nature of the GHG reduction measures construction activities associated with their implementation would occur in already disturbed, developed areas such as roadways and parking lots where wildfire risk is low. In addition, enforcement of the SMMC would avoid exposing people or structures to wildland fires. For example, the CWPP and SMMC Section 20.260.060 all new development in identified community hazard areas requires a Fuel Management Plan. Further, spark arresters are required on all portable gasoline powered equipment in wildland areas (SMFD 2020). For all the foregoing reasons, implementation of the GHG reduction measures would not exacerbate wildfire risks. The impact would be **less than significant**.

**c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

**Less than significant.** The implementation of GHG reduction measures would result in alterations of public roadways. Specifically, the construction of new roundabouts and bicycle infrastructure (T-6 and T-8). No other infrastructure (such as roads, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment are proposed. Although the use of vehicles and construction equipment could increase the risk of an accidental wildfire ignition, future projects located within a WUI would be required to prepare a fuel management plan. However, enforcement of the SMMC would avoid exposing people or structures to wildland fires. For example, the CWPP and SMMC Section 20.260.060 require all new development in identified community hazard areas requires a Fuel Management Plan. In addition, spark arresters are required on all portable gasoline powered equipment in wildland areas (SMFD 2020). For these foregoing reasons, the implementation of GHG reduction measures would not substantially increase hazards due to a geometric design feature and the impact would be **less than significant**.

**d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**Less than significant.** There are no landslide zones identified within the plan area. The implementation of GHG reduction measures would involve ground disturbing activities, including grading and excavation, could, depending on their location, result in runoff or drainage changes. For example, minor grading, excavation, and other ground disturbance would occur during the construction of new roundabouts and bicycle infrastructure (T-6 and T-8), installation of EV charging infrastructure (T-2 through T-4), ground mounted PV solar panels (E-2), and tree planting (C-1 and C-2). However, given the nature of future projects it is likely that construction activities would occur in already disturbed areas. EV charging stations and PV solar facilities would likely be installed in new and existing developments, and roadway improvements would occur along already paved roadways. In addition, tree planting would occur within City parks, public rights-of-way and new development projects. Further, future projects would be

required to comply with the SMMC Chapter 17.32 with contains design standards and performance requirements and engineering analysis of slope stability, erosion control, and drainage. Enforcement of this City regulatory standard would ensure that GHG reduction measures would not result in flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The impact would be **less than significant**.

## 3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XX. Mandatory Findings of Significance.</b>				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 3.21.1 Environmental Setting

Environmental settings provided throughout Sections 3.1 to 3.20 were used in preparing the impact discussion for this section.

### 3.21.2 Discussion

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

**Less than significant.** The purpose of the proposed CAP is to reduce GHG emissions in the City of San Marcos through implementation of GHG reduction measures. Although the GHG reduction measures were formulated to reduce GHGs, they also act to conserve energy and water, reduce reliance on fossil fuels, improve air quality, and reduce VMT, which would lessen numerous environmental impacts. Furthermore, as discussed through this Initial Study, the proposed CAP is consistent with the City of San Marcos General Plan (City of San Marcos 2012a), which contains policies that are protective of environmental resources and environmental quality.

As discussed in Section 3.4, "Biological Resources," although GHG reduction measures would result in ground disturbing activities, most would occur in previously disturbed areas. Furthermore, adherence to the City's General Plan policies and local, State, and federal regulatory standards would ensure a less than significant impact to wildlife habitat and special-status species.

As discussed in Section 3.5, "Cultural Resources," GHG reduction measures would not cause a substantial adverse change in the significance of a historical resource. In addition, adherence to City's General Plan Policies and previously adopted General Plan mitigation measures would ensure a less than significant impact to archaeological resources. Similarly, as discussed in Section 3.18, "Tribal Cultural Resources," enforcement of General Plan Policies and previously adopted General Plan mitigation measures would ensure a less than significant impact to a tribal cultural resource. . Therefore, impacts would be **less than significant**.

- b) **Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

**Less than significant.** Implementation of the proposed CAP would result in a cumulatively considerable beneficial reduction of GHG emissions and would not facilitate any development that would make a considerable contribution to any significant cumulative impacts. Although the GHG reduction measures were formulated to reduce GHGs, they also act to conserve energy and water, reduce reliance on fossil fuels, improve air quality, and reduce VMT, which would lessen numerous environmental impacts and result in beneficial cumulative environmental effects. Additionally, as discussed throughout this Initial Study, implementation of the GHG reduction measures would be consistent with many General Plan policies that are protective of environmental resources and environmental quality. Therefore, the proposed CAP would not result in any adverse environmental impacts that are cumulatively considerable. Impacts would be **less than significant**.

- c) **Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

**Less than significant.** As identified in this Initial Study checklist, the proposed CAP would have either no impact or a less-than-significant impact. Therefore, implementation of the proposed project would not result in substantial adverse effects on human beings, either directly or indirectly. This impact would be **less than significant**.

## 4 REFERENCES

### 1 Introduction

No references were used.

### 2 Project Description

California Air Resources Board. 2017 (November). *California's 2017 Climate Change Scoping Plan*. Available: [https://www.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf). Accessed December 9, 2019.

CARB. See California Air Resources Board.

Intergovernmental Panel on Climate Change. 2007. Frequently Asked Questions: What is the Greenhouse Effect. Available: [https://wg1.ipcc.ch/publications/wg1-ar4/faq/wg1\\_faq-1.3.html](https://wg1.ipcc.ch/publications/wg1-ar4/faq/wg1_faq-1.3.html). Accessed December 9, 2019.

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State of California. 2019. The State of California, Available: <https://www.theclimategroup.org/partner/state-california>. Accessed December 9, 2019.

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### 3 Environmental Checklist

#### 3.1 Aesthetics

City of San Marcos. 2012a. *City of San Marcos General Plan*. Adopted on February 14, 2012. San Marcos, CA.

———. 2012b (February). *Final Environmental Impact Report San Marcos General Plan*. State Clearinghouse No. 2011071028. San Marcos, CA. Prepared by AECOM, San Diego CA.

California Department of Transportation. 2020. *Officially Designated County Scenic Highways*. Available <https://dot.ca.gov/-/media/dot-media/programs/design/documents/od-county-scenic-hwys-2015-a11y.pdf>. Accessed January 10, 2020.

Caltrans. See California Department of Transportation.

#### 3.2 Agriculture and Forest Resources

City of San Marcos. 2012b (February). *Final Environmental Impact Report San Marcos General Plan*. State Clearinghouse No. 2011071028. San Marcos, CA. Prepared by AECOM, San Diego CA.

#### 3.3 Air Quality

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