

3.0 PROJECT DESCRIPTION

This section describes the proposed *Sustainable Santee Plan: The City's Roadmap to Greenhouse Gas Reductions* ("Sustainable Santee Plan" or "proposed project") that is evaluated in this EIR. A description of the proposed project's location, goals, objectives, and required approvals is provided.

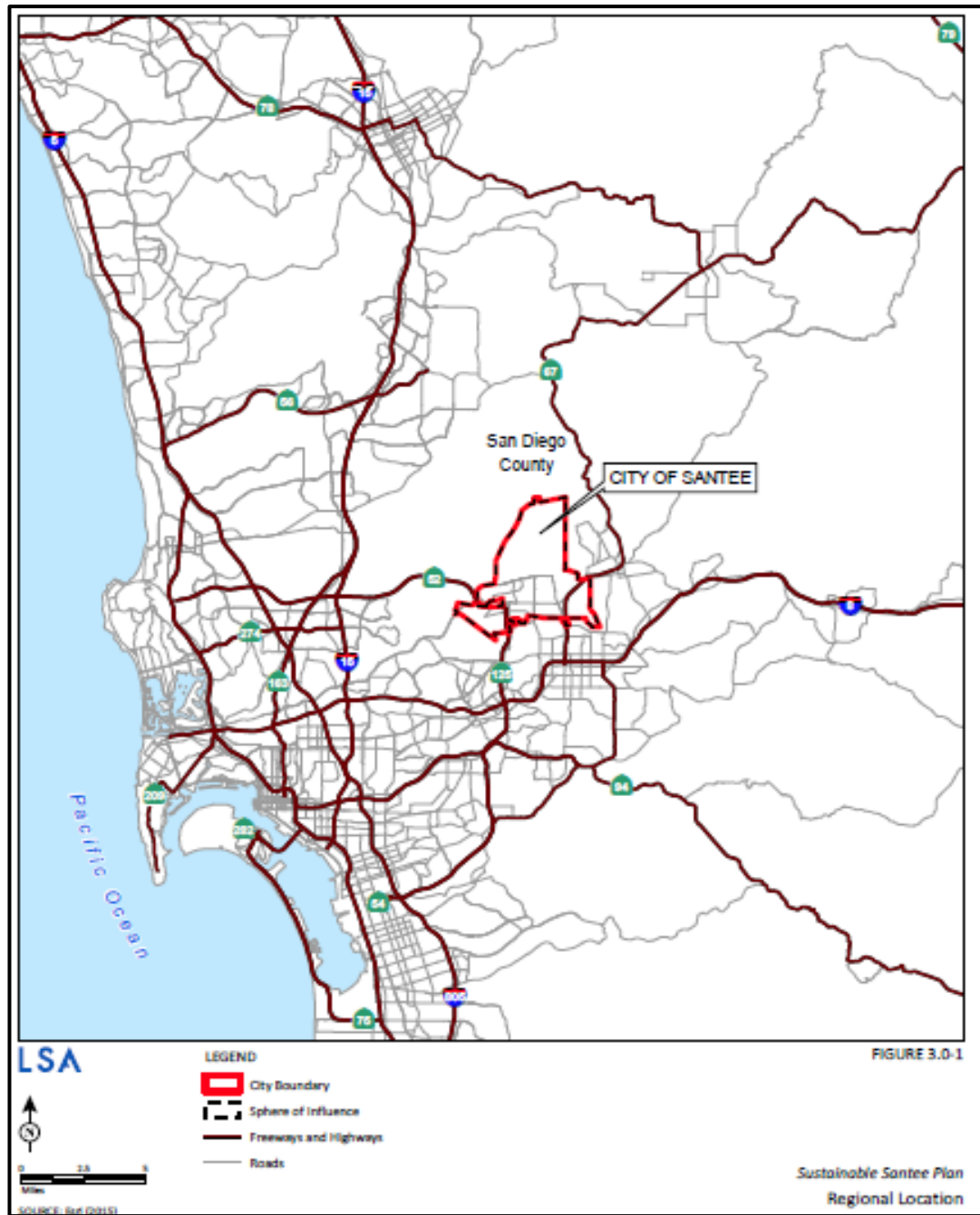
3.1 PROPOSED PROJECT

The proposed project is the Sustainable Santee Plan: The City's Roadmap to Greenhouse Gas Reductions. Although the Sustainable Santee Plan proposes measures, it does not propose any specific development. The proposed project would involve the adoption of citywide programmatic policy documents; future project-specific actions would be subject to further environmental review and the regulations contained in the adopted General Plan. As such, following approval of the proposed project by the Santee City Council, the future physical improvements associated with the Sustainable Santee Plan would be subject to further review on a project-specific basis. In other words, each future project would be subject to a project-level CEQA review at the time it is proposed for consideration by the City. Therefore, the impact analysis contained in this document addresses the potential environmental implications associated with the adoption of the Sustainable Santee Plan at a programmatic level, not for a project-specific development or for any specific proposal.

3.1.1 Project Location and Scope

The Sustainable Santee Plan encompasses the entirety of the City of Santee, which is located within eastern San Diego County, approximately 20 miles due east of the Pacific Ocean and approximately 18 miles east of downtown San Diego. The City is bordered on the west and southwest by the City of San Diego and Marine Corps Air Station Miramar; on the south by the City of El Cajon; on the north by San Diego County; and on the east by unincorporated communities of Lakeside and Eucalyptus Hills. The City is approximately 16.5 square miles and supports a population of 57,000 residents. The City is currently only partially developed, with approximately half its land undeveloped. The San Diego River flows through the central portion of the City. The major roadways that traverse the City are State Route (SR) 52, SR-125 and SR-67. Figure 3.1 shows the regional location of the City.

The proposed project provides policy direction and identifies actions the City and community can take to significantly reduce the generation of GHGs consistent with California AB 32 and EO S-3-05. The purpose of the Sustainable Santee Plan is to guide the development, enhancement, and ultimately the implementation of actions and strategies that reduce the City's GHG emissions. Overall, in accordance with State regulations, the goal of the Sustainable Santee Plan is to reduce the City's communitywide GHG emissions by 15 percent below 2005 emissions by 2020, 40 percent below 2005 emissions by 2030, and 49 percent below 2005 emissions by 2035. In addition, in compliance with the California Air Resources Board 2017 Scoping Plan Update, the City is aiming to reduce communitywide emissions below 3.8 metric tons CO₂e per capita by 2030. The Sustainable Santee Plan describes the baseline GHG emissions produced in the City and projects GHG emissions that could be expected if the Sustainable Santee Plan is not implemented.

Figure 3.1: Project Location

3.1.2 Project Purpose

The Sustainable Santee Plan has four primary purposes:

1. Present the City's plan for achieving sustainability by utilizing resources efficiently, reducing greenhouse gas emissions, and preparing for potential climate-related impacts.
2. Identify how the City will effectively implement this Sustainable Santee Plan by obtaining funding for program implementation and tracking and monitoring the progress of Plan implementation over time.
3. Allow streamlined CEQA compliance for new development by preparing an Environmental Impact Report for the Plan and developing screening tools that provide clear guidance to developers and other project proponents.
4. Maintain economic competitiveness within the region.

3.1.3 GHG Emissions Inventory, Forecast, and Targets

The Sustainable Santee Plan provides a summary of the City's historic and estimated future GHG emissions in order to understand the local context of GHG emissions, and determine the reduction targets appropriate for the City.

The first step in completing the Sustainable Santee Plan was to update the City's GHG emissions inventory. In 2015, the City completed the 2005, 2008, 2012 and 2013 emissions inventories for community-wide sectors. The results of the 2005 and 2013 inventories are shown in FIGURE 3.2. Sector-level emissions for 2005 and 2013 are also shown in TABLE 3.1.

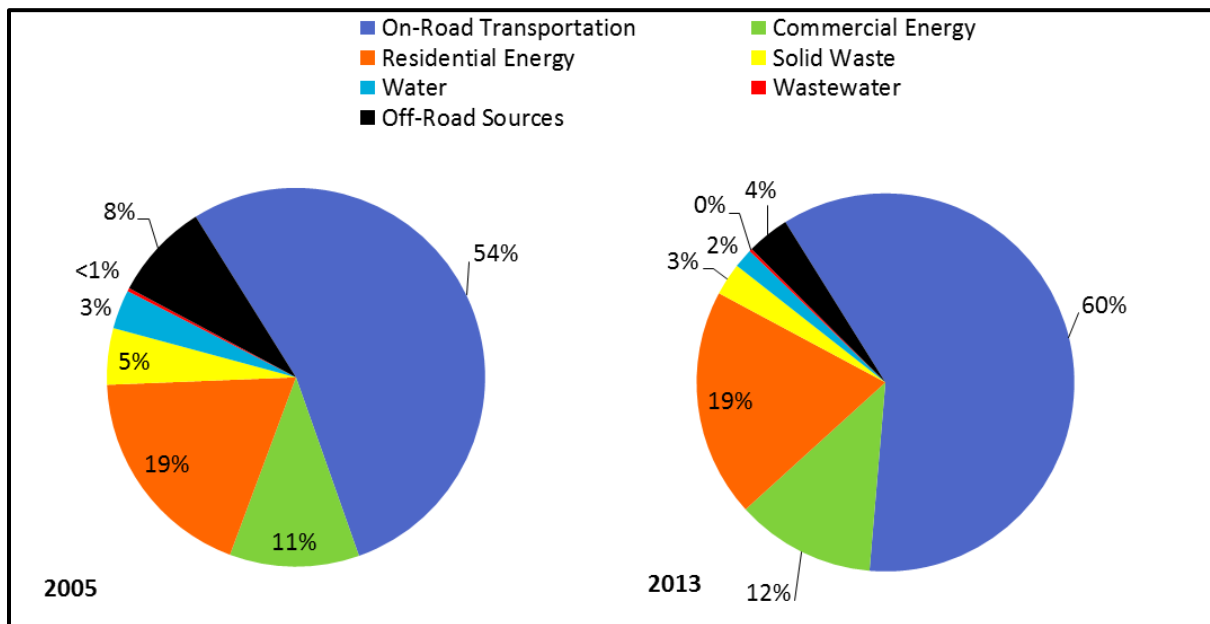


FIGURE 3.2 Community GHG Emissions by Sector for 2005 and 2013

TABLE 3.1 Community-Wide GHG Emissions by Sector for 2005 and 2013

Sector	2005 (MT CO ₂ e)	2013 (MT CO ₂ e)	% Change 2005–2013
On-Road Transportation	181,812	242,499	33.4%
Residential Energy	63,544	78,651	23.8%
Commercial Energy	37,697	48,025	27.4%
Solid Waste	16,376	11,151	-31.9%
Water	11,354	6,578	-42.1%
Off-Road Sources	28,230	14,699	-47.9%
Wastewater	959	971	1.3%
Total	339,972	402,574	18.4%

Similarly, the City's municipal operations were inventoried for 2005 and 2013. FIGURE 3.3 shows the municipal emissions. Municipal emissions are a subset of community emissions and account for less than 1 percent of community emissions. Sector-level details for 2005 and 2013 are shown in Figure 3.3 and Table 3.2.

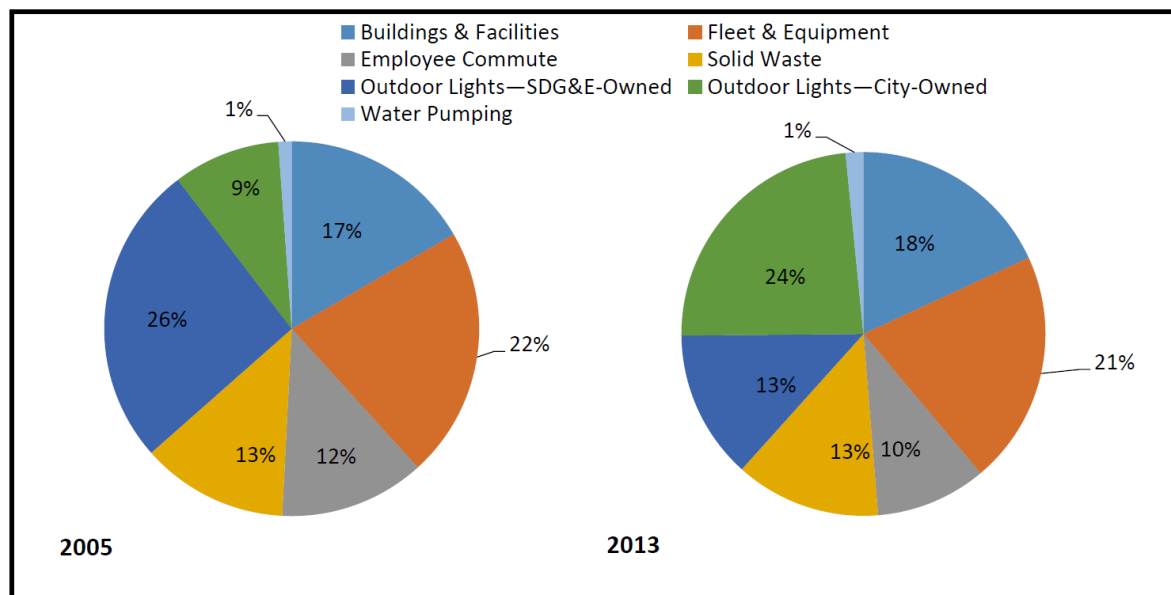


FIGURE 3.3 Municipal GHG Emissions by Sector for 2005 and 2013

TABLE 3.2 Municipal GHG Emissions by Sector for 2005 and 2013

Sector	2005 (MT CO ₂ e)	% of Total	2013 (MT CO ₂ e)	% of Total	% Change 2005–2013
Outdoor Lights–SDG&E-Owned	433	26%	252	13%	-42%
Fleet & Equipment	359	22%	396	21%	10%
Buildings & Facilities	275	17%	346	18%	10%
Solid Waste	210	13%	247	13%	18%
Employee Commute	208	13%	188	10%	-10%
Outdoor Lights–City-Owned	153	9%	450	24%	194%
Water Pumping	19.0	1%	30.0	2%	58%
Total	1,657		1,909		15%

3.1.4 GHG Emissions Forecasts

The City’s future emissions were estimated using demographic indicators such as population and jobs growth. Emissions for the City’s municipal operations were estimated using the number of staff anticipated in future years. Growth indicators used are shown by sector in TABLE 3.3.

TABLE 3.3 Growth Indicators for 2013, 2020, and 2035

Sector	Demographic Indicator	2013	2020	2035
Solid Waste, Water, Wastewater, Off-Road Sources	Service Population (Population + Jobs)	71,663	76,437	84,200
Population ¹	Population	55,033	59,488	63,518
Residential Energy	Households	19,725	20,995	24,165
Commercial/Industrial Energy	Jobs	16,630	16,949	20,682
Transportation ²	VMT – Gas	458,785,827	493,494,150	576,966,520
	VMT – Diesel	27,822,637	32,536,348	45,500,895
Municipal Jobs (FTE)	Municipal Emissions ³	112.8	115	120

SOURCE: SANDAG

FTE = Full-time equivalent employees

¹ Population data are shown for informational purposes but are not used for forecasting any sector.

² 2020 VMT is derived from the compound annual growth rate between 2013 and 2035.

³ The number of jobs in the City is used as an indicator for all municipal operation emissions.

Future emissions estimates also included reductions that would happen with implementation of legislation adopted at the State level. That is, some level of emission reduction is anticipated within the City as a result of policies implemented at the State level, including:

- Low Carbon Fuel Standard
- Assembly Bill (AB) 1493 and Advanced Clean Cars
- California Building Code Title 24
- Renewable Portfolio Standard
- Senate Bill X7-7

The resulting projected emissions are considered an “adjusted” business-as-usual (Adjusted BAU) forecast. Historic emissions, and Adjusted BAU forecasts are shown in FIGURE 3.3 (community) and FIGURE 3.5 (municipal).

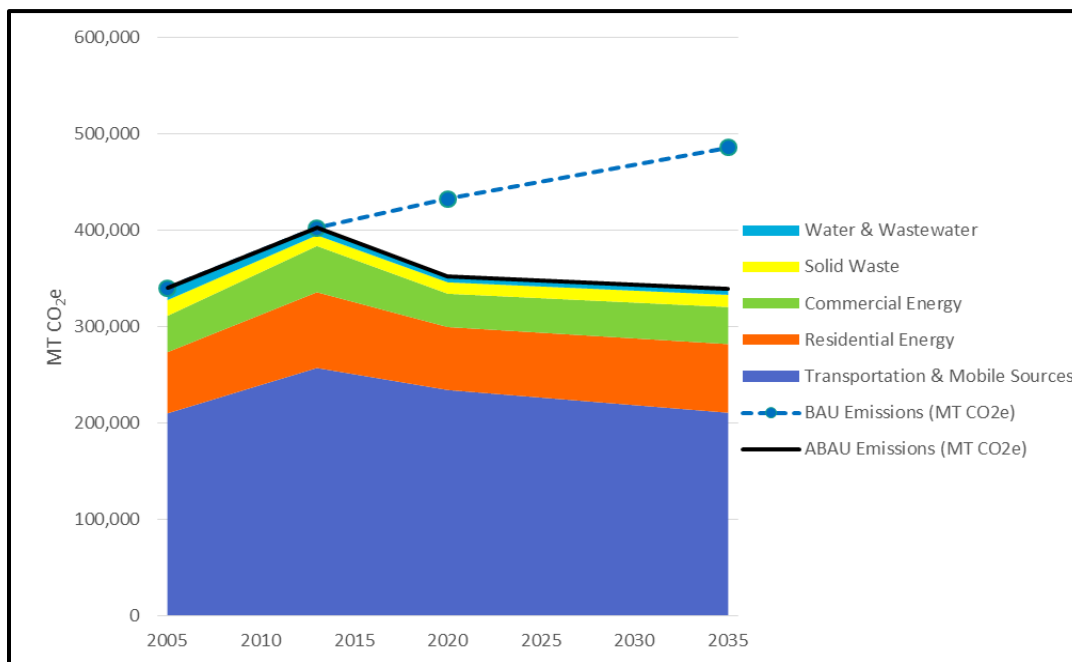


FIGURE 3.4 Community BAU and ABAU Emissions Forecast

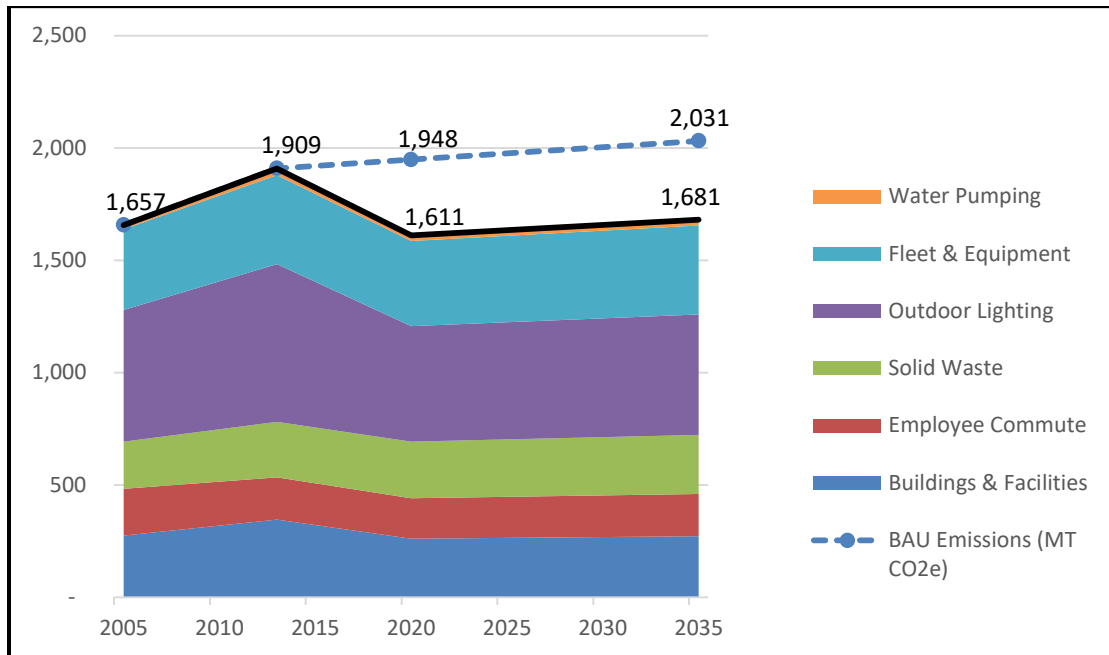


FIGURE 3.5 Municipal BAU and ABAU Emissions Forecast

3.1.5 GHG Emissions Targets

Consistent with the State's adopted AB 32 GHG reduction target, the City has set a goal to reduce emissions to 1990 levels by the year 2020. This target was calculated as a 15 percent decrease from 2005 levels, as recommended in the AB 32 Scoping Plan. An interim goal for the City was created for 2030, which was to reduce emissions to 40 percent below 2005 levels. A longer-term goal was established for 2035, which was to reduce emissions to 49 percent below 2005 levels. The interim and longer-term goal would put the City on a path toward the State's long-term goal to reduce emissions 80 percent below 1990 levels by 2050 (TABLE 3.4).

TABLE 3.4 Mass GHG Reduction Targets for Community Emissions

	Community Target
2020 Target	15% below 2005 levels
2020 Emissions Goal (MT CO ₂ e)	288,976
2030 Target	40% below 2005 levels
2030 Emissions Goal (MT CO ₂ e)	203,983
2035 Target	49% below 2005 levels
2035 Emissions Goal (MT CO ₂ e)	173,386

Notes and Acronyms:

MT CO₂e = Metric tons of carbon dioxide equivalent

FIGURE 3.6 shows how the Mass Emissions Reduction Targets for the City of Santee community emissions aligns with the statewide goals of reducing GHG emissions.

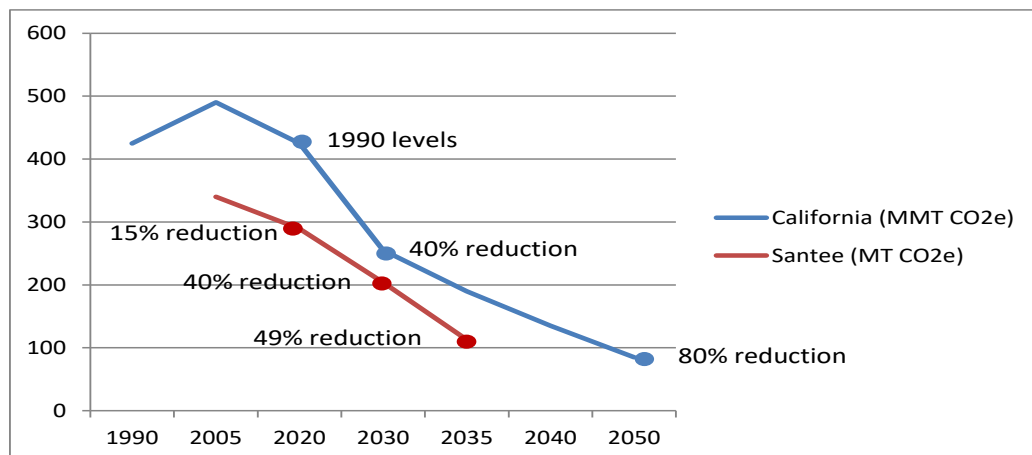


FIGURE 3.6 Comparison of State Reduction Targets with Santee Reduction Targets

Achievement of these reduction targets is a combination of reductions induced by State policies along with reductions to be generated by City actions. This is shown graphically in Figure 3.7 and Table 3.5.

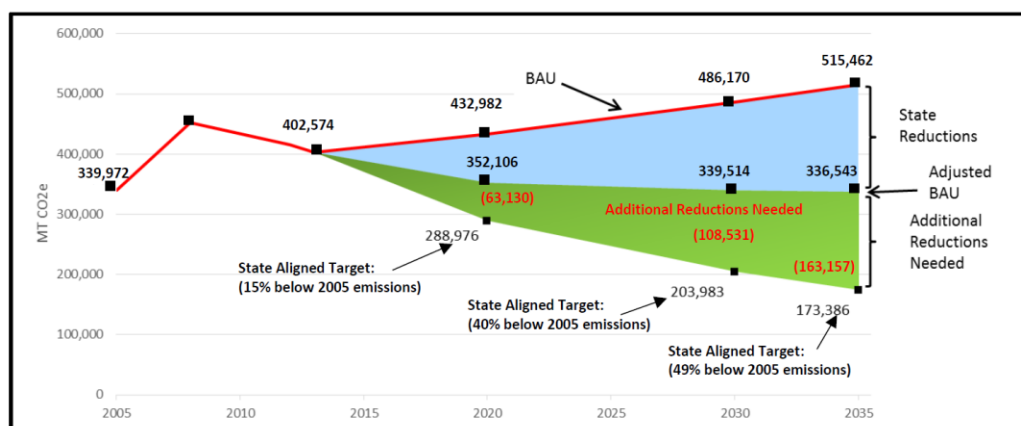


FIGURE 3.7 Community BAU and ABAU Emissions Forecasts and Targets

Per Capita Emissions Targets

The 2017 Scoping Plan Update recommends local plan level GHG emissions reduction goals of no more than 6 metric tons CO₂e per capita by 2030 and no more than 2 metric tons carbon dioxide equivalent (CO₂e) per capita by 2050. These goals consider all statewide emission sources; however, some of the emission sources are not included in the City's GHG inventories, such as industrial and aviation, and the City has no control over these emissions. By comparing the statewide most recent year (2015) GHG inventory and the City's 2013 inventory, it was determined that the City had control over 63 percent of total statewide emission sources. Therefore, the state-aligned emissions goals were proportioned to 3.8 MT CO₂e per capita by 2030, and 1.27 MT CO₂e per capita by 2050. The 2020 and 2035 goals were interpolated from the 2030 and 2050 goals, assuming same rate of reduction of the emission goals each year (TABLE 3.6).

TABLE 3.5 State-Aligned GHG Reduction Targets for Community Emissions

Sector	2005	2013	2020	2030	2035
BAU Emissions (MT CO ₂ e)	339,972	402,574	432,982	486,170	515,462
Adjusted BAU Mass Emissions (MT CO ₂ e)	339,972	402,574	352,106	339,514	336,543
Service Population (Population + Jobs)	70,152	71,663	76,437	81,499	84,200
Adjusted BAU Per Capita Emissions (MT CO ₂ e/SP)			4.61	4.17	4.00
State-Aligned Performance Target (% change from 2005)			-15%	-40%	-49%
State-Aligned Performance Target (MT CO ₂ e)			288,976	203,983	173,386
Reductions from Adjusted BAU needed to meet the Performance Target (MT CO ₂ e)			63,130	108,531	163,157
State-Aligned Efficiency Target (MT CO ₂ e/SP)			5.06	3.80	3.16
Reductions from Adjusted BAU needed to meet the Efficiency Target (MT CO ₂ e/SP)			Target Met	29,816	70,471

Notes and Acronyms:

MT CO₂e = Metric tons of carbon dioxide equivalent

SP = service population = population + jobs

TABLE 3.6 Per Capita GHG Reduction Targets for Community Emissions

	Community Target
2020 State Target (MT CO ₂ e/SP)	8
2020 Emissions Goal (MT CO ₂ e/SP)	5.06
2030 State Target (MT CO ₂ e/SP)	6
2030 Emissions Goal (MT CO ₂ e/SP)	3.80
2035 State Target (MT CO ₂ e/SP)	5
2035 Emissions Goal (MT CO ₂ e/SP)	3.16

Notes and Acronyms:

MT CO₂e = Metric tons of carbon dioxide equivalent per capita

SP = Service Population

3.1.6 GHG Reduction Measures

The Sustainable Santee Plan details how the City will meet its GHG reduction targets by using goals, measures, and actions at the community and municipal levels. Community Measures are reduction measures to be implemented by the City to reduce its community GHG emissions associated with electricity, natural gas, water, transportation, solid waste, and new development. Municipal Measures are reduction measures to be implemented by the City to further reduce its GHG emissions associated with energy consumption, water use, and transportation. Since City operations make up a small percentage of the total communitywide GHG emissions, the majority of the GHG reductions would result from the measures that are applied to the communitywide energy usage.

In addition to GHG reduction measures, the Sustainable Santee Plan also provides both GHG reduction measures and supportive measures that have no direct GHG reduction, but are able to

boost other GHG reduction measures by increasing the participation levels. For example, Measure 1.1: Energy Efficiency Training, Education, and Recognition in the Residential Sector is a measure that provides education to inform people of the behavioral and technological changes that can increase energy efficiency.

As previously discussed, GHG reduction strategies involve the combined effort of State and City actions. State actions alone are not sufficient to achieve State targets in the years 2030 and 2035. Additional local reductions will be needed. Quantified community and municipal reduction strategies are listed in Tables 3.7 and 3.8 respectively.

TABLE 3.7 Summary of Community GHG Reduction Strategies and Emission Reductions

Goals and Measures	2020 Emission Reductions (MT CO ₂ e)	2030 Emission Reductions (MT CO ₂ e)	2035 Emission Reductions (MT CO ₂ e)
Goal 1: Increase Energy Efficiency in Existing Residential Units			
1.1: Energy Efficiency Education and Best Practices	Supporting Measure		
1.2: Increase Community Participation in Existing Energy Efficiency Opportunities	45	45	45
1.3: Home Energy Evaluations	Supporting Measure		
1.4: Residential Home Energy Renovations	7,811	7,811	7,811
Goal 2: Increase Energy Efficiency in New Residential Units			
2.1: Exceed Energy Efficiency Standards	5,102	13,534	17,750
Goal 3: Increase Energy Efficiency in Existing Commercial Units			
3.1: Energy Efficiency Training, Education, and Recognition in the Commercial Sector	Supporting Measure		
3.2: Increase Business Participation in Existing Energy Efficiency Programs	660	660	660
3.3: Non-Residential Energy Audits	Supporting Measure		
3.4: Non-Residential Retrofits	8,010	8,010	8,010
Goal 4: Increase Energy Efficiency in New Commercial Units			
4.1: Exceed Energy Efficiency Standards	1,442	8,705	12,337
Goal 5: Increase Energy Efficiency through Water Efficiency			
5.1: Water Efficiency through Enhanced Implementation of SB X7-7	1,279	1,366	1,409
5.2: Exceed Water Efficiency Standards	22	24	25
Goal 6: Decrease Energy Demand through Reducing Urban Heat Island Effect			
6.1: Tree Planting for Shading and Energy Efficiency	330	352	363

Table 3.7 (Continued) Goals and Measures	2020 Emission Reductions (MT CO ₂ e)	2030 Emission Reductions (MT CO ₂ e)	2035 Emission Reductions (MT CO ₂ e)
6.2: Light-reflecting Surfaces for Energy Efficiency	4	4	4
6.3: Carbon Sequestration through Preservation of Natural Lands	Supporting Measure		
Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled			
7.1: Non-Motorized Transportation Options	438	395	373
7.2: Implement Bicycle Master Plan to Expand Bike Routes around the City	14,788	13,329	12,600
7.3: Ride Sharing Programs within Businesses	19,761	17,812	16,838
7.4: Electrify the Fleet	3,341	21,723	47,414
7.5: Complete Streets and Safe Routes to Schools Programs	5,477	4,937	4,667
7.6: Reduce Vehicle Trips To/From School	16,431	14,811	14,000
Goal 8: Decrease Greenhouse Gas Emissions through Reducing Solid Waste Generation			
8.1: Reduce Waste to Landfills	7,233	7,903	8,238
Goal 9: Decrease Greenhouse Gas Emissions through Increasing Clean Energy Use			
9.1: Clean Energy	Supporting Measure		
9.2: Community Choice Aggregation Program ¹	38,701	46,322	50,132
Goal 10: Decrease GHG Emissions from New Development through Performance Standards			
10.1: Screening Tables	393	1,003	1,308
Total Community Measures			
Total of All Measures Excluding CCA	92,569	133,135	155,605
Total of All Measures Including CCA	131,270	179,456	203,549

¹ CCA is separated from total of other reduction measures.

BAU = Business as Usual

CCA = Community Choice Aggregation

MT CO₂e = metric tons of carbon dioxide equivalent

SB = Senate Bill

TABLE 3.8 Summary of Municipal GHG Reduction Strategies and Emission Reductions

Goal and Measure	2020 Emission Reductions (MT CO ₂ e)	2035 Emission Reductions (MT CO ₂ e)
Goal M-1: Participate in Education, Outreach, and Planning Efforts for Energy Efficiency		
M-1.1: Increase Energy Savings through the SDG&E Energy Efficiency Partnership	Supporting Measure	
Goal M-2: Increase Energy Efficiency in Municipal Buildings		
M-2.1: Conduct Municipal Energy Audit	Supporting Measure	

M-2.2: Procurement Policy for Energy Efficient Equipment	19	19
M-2.3: Install Cool Roofs	Tracking Data	
M-2.4: Retrofit HVAC and Water Pump Equipment	12	12
Goal M-3: Increase Energy Efficiency in Community Buildings and Infrastructure		
M-3.1: Traffic Signal and Outdoor Lighting Retrofits	212	421
M-3.2: Upgrade or Incorporate Water-Conserving Landscape	Supporting Measure	
M-3.3: Plant Trees for Shade and Carbon Sequestration	Supporting Measure	
Goal M-4: On-Road Energy Efficiency Enhancements; Employee Commute and Vehicle Fleet		
M-4.1: Encourage or Incentivize Employee Carpools	6	14
M-4.2: Encourage or Incentivize Purchase of Hybrid or Electric Vehicles	5	11
M-4.3: Replace or Supplement Vehicle Fleet with Hybrid/Electric Vehicles	7	16
M-4.4: Install E-Vehicle Chargers	Supporting Measure	
Goal M-5: Reduce Energy Consumption in the Long Term		
M-5.1: Ongoing Actions and Projected Reductions	-	558
Total Municipal Measures		
Total of all Measures listed above	260	1,050

BAU = Business as Usual

MT CO_{2e} = metric tons of carbon dioxide equivalent

SDG&E = San Diego Gas & Electric

As shown in Table 3.9 below, the projected emission reductions from all measures, other than CCA, would have the City of Santee meeting the GHG reduction targets in 2020 and 2030, but not 2035. The 2035 GHG reduction target could be met in 2035 with the implementation of a CCA.

TABLE 3.9 Community Emissions and Targets Comparison

	2005 MT CO _{2e}	2020 MT CO _{2e}	2030 MT CO _{2e}	2035 MT CO _{2e}
BAU Emissions	402,574	432,982	486,170	515,462
Reduction Target	--	288,976	249,596	173,386
State and Federal Reductions	--	80,876	146,656	178,919
Local Measures Reductions Excluding CCA	--	92,569	133,135	155,605
Total Adjusted Emissions Without CCA	--	259,537	206,379	183,125
Additional Reductions Needed	--	Target Met	Target Met	9,739
CCA Reductions	--	38,701	46,322	50,132
Total Adjusted Emissions With CCA	--	220,836	160,057	132,993
Additional Reductions Needed	--	Target Met	Target Met	Target Met

Notes and Acronyms:

BAU = Business as Usual

CCA = Community Choice Aggregation

MT CO₂e = metric tons of carbon dioxide equivalent

3.1.7 Adaptation

Studies show that California will experience warmer temperatures, increased drought, and more extreme weather events.¹ The impacts to the city will be similar.

The City may expect:

- **Increased temperatures**—By the end of this century, the average United States temperatures are predicted to increase by 3 °F to 12 °F, depending upon the amount of future emissions and how the earth responds to those emissions.² For California, the average annual temperature is expected to rise by 2.7 °F by 2050 and 4.1 to 8.6 °F by the end of the century.³ For the city, average temperatures are expected to increase between about 5 °F and 10 °F by the end of the century, depending on the emission scenario.⁴
- **Variable precipitation**— Globally, future precipitation is highly variable, and California is no exception. Annual precipitation in California is expected to increase by more than 12 percent through the end of the 21st century. Most of this increase is expected in Northern and Central California; precipitation in Southern California is expected to decrease by 3.3 percent. All regions of California are expected experience wetter winters, with Southern California rain increasing by 11 percent during the rainy months of December, January, and February.⁵
- **Increase in extreme weather events**—The historical number of extreme heat days (days over 99.9 °F) has been about four in Santee. By 2050, the number of extreme heat days in the city could increase to more than 12 per year, and by the end of the century, the number of extreme heat days could exceed 40 per year. In addition the length of extremely hot days will increase. Historically, the maximum duration of heat waves in the city has been four, but may increase to 10 by mid-century and 20 to 45 by the end of the century.

¹ California Natural Resources Agency and California Energy Commission, *Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. CEC-500-2012-007. July 2012.

² U.S. Global Change Research Program. 2014. Melillo, Jerry M., Terese (T.C.) Richmond, and Gary W. Yohe, Eds., 2014: *Climate Change Impacts in the United States: The Third National Climate Assessment*.

³ California Natural Resources Agency and California Energy Commission. 2012. *Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. CEC-500-2012-007. July.

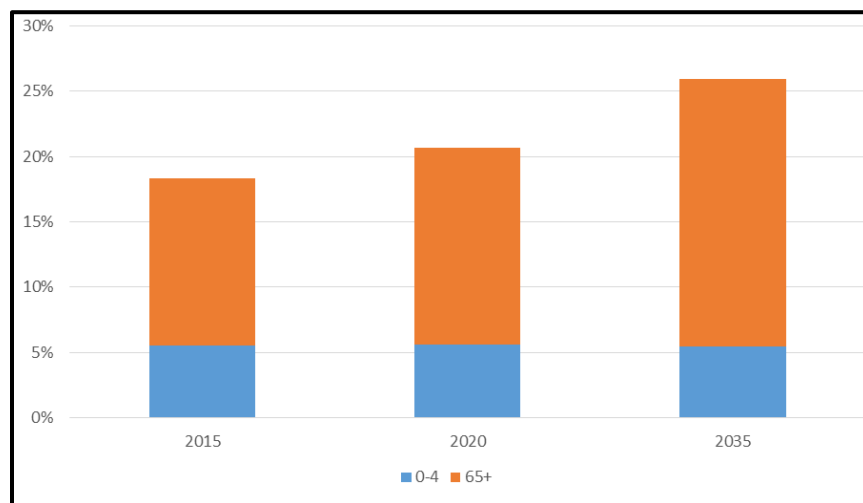
⁴ Scripps Institution of Oceanography. 2017. Projected Temperatures Data Set (2017). Website: <http://cal-adapt.org/tools/annual-averages/#climatevar=tasmax&scenario=rcp85&lat=32.84375&lng=->.

⁵ Allen, Robert J., and Rainer Luptowitz. 2017. "El Niño-like Teleconnection Increases California Precipitation in Response to Warming." *Nature Communications* 8 (July): 16055. doi:10.1038/ncomms16055.

The Sustainable Santee Plan includes strategies for preparing Santee for changes in climate. These strategies are classified into six (6) categories:

Public Health and Safety: Periods of increased high temperatures or extended high temperatures can lead to increased heat-related, cardiovascular-related, and respiratory illnesses and diseases, and other health impacts. Emergency medical services and hospital visits also increase during heat waves. Changes in temperature are also expected to worsen air quality by increasing ozone and particulate matter concentrations, which can cause or exacerbate respiratory symptoms such as asthma attacks. The City recognizes that climate change will not impact all populations equally. Especially sensitive populations include the young (under 5 years of age) and the elderly (over 65), which constitute 19 percent of the 2015 population and will increase to more than 35 percent of the population by 2035 (FIGURE 3.9). Other populations that could be affected by extreme temperatures include outdoor workers such as construction and maintenance employees. This places limits on work hours and may require additional training for workers to expand their understanding of heat-related illnesses. Adaptation strategies in the Sustainable Santee Plan are:

- Map neighborhoods that could be more vulnerable to the effects of climate change, such as flooding, fire, and the urban heat island effect is important in identifying high risk areas of the City.
- Create cooling centers at public spaces, such as libraries, for populations without air conditioning.
- Implement cooling technologies such as cool roofs and cool pavements.
- Strategically place shade trees near buildings, in parking lots, and along bike and pedestrian pathways.



SOURCE: SANDAG Data Warehouse

FIGURE 3.8 Percentage of Santee's Population Considered Sensitive

Electrical Demand: In addition to the health and public safety risks, the City may face challenges to its energy supply due to warmer temperatures. Peak demand for electricity may increase due to the increased use of air conditioners in the City and other regions of SDG&E territory, which may cause brownouts or blackouts. Additionally, efficiencies of electricity generation and transmission decrease as air temperatures increase, which further inhibit the ability of electric providers to meet increased demand. Adaptation strategies in the Sustainable Santee Plan are:

- Educate the public to become more energy efficient and reduce demand.
- Solar-based or other renewable energy sources to supplement the grid and to reduce peak demand on the grid.
- Improve building envelopes by adding insulation and placing trees to provide shade.
- Encourage cooling technologies.
- Increase the use of smart-meter devices to allow appliances to run on off-peak hours.

Water Availability: Water availability is and has been a vital economic, natural resource, and public health issue in California. Governor Jerry Brown declared a drought State of Emergency in January 2015 and the State Water Resources Control Board (SWRCB) announced in March 2015 water suppliers were encouraged to go beyond the minimum requirements to safeguard remaining water supplies. In April 2015, the Governor issued Executive Order B-29-15 that directs the SWRCB to implement mandatory water reductions to reduce water usage by 25 percent. Multiyear droughts decrease water supplies, while population growth exacerbates the problem by increasing demand. Supply limitations will only intensify as climate change causes reduced rainfall and increased temperatures. The San Diego County Water Authority, the wholesale supplier to San Diego County, expects demand to increase 22 percent between 2009 and 2035.⁶ Adaptation strategies in the Sustainable Santee Plan are:

- Educate the public about water conservation.
- Encourage low-impact development.
- Expand water recycling and grey-water systems.
- Promote sub-metering in multifamily housing units.
- Promote conversion of turf grass to xeriscaping

Infrastructure Damage: Cities, including Santee, rely on infrastructure for commuting, working, and other basic services. Roadways and buildings are built for long-term use; however, infrastructure is also susceptible to the impacts of climate change as it is generally built to meet historic climate conditions. Therefore, infrastructure is also vulnerable to climate change impacts. Much of the roadways and railways are dark or metal-based, conducting heat and raising temperatures well beyond the observed air temperature. Increased temperatures can cause pavement to soften and to expand, causing potholes. Railways can buckle under extreme heat, requiring trains to go slower to navigate the buckle or stop service for repairs. Flooding can also shorten the life of roadway infrastructure, require more maintenance, and cause traffic delays. Building infrastructure likewise may have shortened lifetimes due to flooding. Adaptation strategies in the Sustainable Santee Plan are:

- Evaluate infrastructure vulnerability based on current degradation and expected climate-related impacts.
- Prioritize and plan for infrastructure improvements.
- Identify alternative routes where infrastructure damage may occur.

Wildfire: Because California is expected to experience increased temperatures and reduced precipitation, there will likely be more frequent and intense wildfires and longer fire seasons. About

⁶ San Diego County Water Authority. 2014. *San Diego County Water Authority Climate Action Plan*. p. 28. March.

one-third of the City of Santee is covered by open space, which is the type of land most vulnerable to wildfire. Effects from wildfire can include eye and respiratory illness, worsening asthma, allergies, chronic obstructive pulmonary disease, and other cardiovascular and respiratory diseases.

Homes and buildings near open space areas could also be threatened by future wildfires. All new buildings within a State Responsibility Area, Local Agency Very-High Fire Hazard Severity Zone, or Wildland-Urban Interface Fire Area designated by the enforcing agency must comply with all sections of the Wildland-Urban Interface Fire Area Building Standards. These standards provide a reasonable level of exterior wildfire exposure protection for buildings within these hazard areas and establish minimum standards for materials and material assemblies to lessen the vulnerability of a building to resist the intrusion of flames and burning embers projected during a conflagration or wildfire.⁷ Additional resources may be needed to combat additional wildfires in the region, including already-scarce water. Adaptation strategies in the Sustainable Santee Plan include:

- Educate the public on the importance of fire safety.
- Buffer zones between vegetation and structures and infrastructure.
- Identify fire-prone habitats, evaluate and plan for increased risk of larger and more frequent wildfires.

Social Equity: The City recognizes that some disadvantage populations (e.g., youth, elderly, low-income) may need special assistance in adapting to future climate changes. Disadvantage populations are more likely to be without air conditioning and may need assistance in accessing cooling locations, especially if they do not have cars or cannot drive. Disadvantaged populations may also face increased financial hardships with increased energy use. Some adaptation strategies to ensure the safety of disadvantaged communities include:

- Increase public outreach and educational programs to inform the public of health and safety resources.
- Assist in facilitating access to cooling centers for the public.
- Provide information about available low-income weatherization programs and identify other outreach methods to increase visibility and familiarity with these programs.

3.1.8 Implementation

The Sustainable Santee Plan includes a baseline GHG emissions inventory and recommendations for GHG reduction strategies as a foundation for these efforts. An indicator of the success of these efforts would be a measured reduction in GHG emissions using the measures in the Sustainable Santee Plan. Implementation of the Sustainable Santee Plan could result in construction of energy-generating facilities such as photovoltaic/solar arrays or installation of cool roofs that could be installed on rooftops of new or existing buildings. It could also result in energy-efficiency retrofits in residential, commercial, and municipal buildings throughout the City. In addition to the General Plan, the Sustainable Santee Plan would be an implementation tool that can be used to guide development in the City by focusing on attaining the various goals and policies of the General Plan as well as the GHG reduction goals.

⁷ Department of Forestry and Fire Protection, Office of the State Fire Marshal. 2007. *Wildland-Urban Interface Building Standards Information Bulletin*. Website: http://www.fire.ca.gov/fire_prevention/downloads/IB_LRA_Effective_Date.pdf (accessed December 5, 2017).

The City's emission reduction efforts would coordinate with State strategies in order to accomplish emission reductions in an efficient and cost-effective manner. The goals and policies set forth in the Sustainable Santee Plan would be implemented through a variety of mechanisms, including:

- Administration and/or staffing;
- Financing and budgeting
- Timelines for measure implementation;
- Community outreach and education; and
- Monitoring, reporting, and adaptive management.

Key to the success of GHG emission reduction efforts is dedicated oversight, required reporting, and periodic revisions to the plan based on updated emissions inventories and/or changes in the regulatory environment. The City may identify one or more staff to act as the Plan Implementation Administrator(s) to guide monitoring, reporting, and dissemination of information to the public. Where possible, the City may use assistants from programs such as CivicSpark, an AmeriCorps program designed to build capacity for local governments to address climate change. This person would educate stakeholders, such as businesses, business groups, residents, developers, and property owners, about the GHG reduction measures that require their participation, encourage participation in these programs, and alert them to program requirements, incentives and/or rebate availability, depending on the measure. The staff would provide annual updates to the City Council on the status of programs within the Sustainable Santee Plan. GHG inventories will be conducted every 3 to 5 years, the exact year to be determined by funding, to ensure that progress is being made on GHG reductions.

3.2 RELATIONSHIP TO THE GENERAL PLAN

The Santee General Plan provides long-term policy guidance for the physical, economic, and environmental growth in the City. California law requires that other local government programs be consistent with the General Plan. The Sustainable Santee Plan is not part of the General Plan. However, the Sustainable Santee Plan can serve as an implementation tool of the General Plan by focusing on attaining the various goals and policies of the General Plan that relate to GHG emission reduction goals as well as adapting to the changes in the climate. Individual Elements of the General Plan have goals, objectives, and policies related to creating and maintaining a high quality and sustainable city and which can be supported by the Sustainable Santee Plan. These General Plan objectives and policies are summarized in Table 3.10.

TABLE 3.10 Relationship to the General Plan	
General Plan Objective or Policy	Sustainable Santee Plan Goal
Land Use Element Policy 3.2: The City should encourage the development and use of recycled water for appropriate land uses to encourage the conservation of, and reduce demand for, potable water.	Goal 5: Increase Energy Efficiency through Water Efficiency

TABLE 3.10 Relationship to the General Plan (Continued)

Land Use Element <u>Objective 6.0:</u> Ensure that natural and man-induced hazards are adequately addressed in the location and intensity of development in the City. <u>Policy 6.1:</u> The City shall utilize all mapped information, objectives and policies contained in the Safety and Conservation Elements during the development review process.	Adaptation Planning
Mobility Element <u>Policy 1.1:</u> The City shall provide integrated transportation and land use decisions that enhance smart growth development served by complete streets which facilitate multimodal transportation opportunities.	Goal 10: Decrease GHG Emissions from New Development through Performance Standards
Mobility Element <u>Policy 1.3:</u> The City shall ensure that the entire right of way is designed to accommodate appropriate modes of transportation.	Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled
Mobility Element <u>Policy 1.4:</u> The City should create a vibrant town center by developing a connected system of multi-modal corridors that encourage walking, biking, and riding transit. A mobility hub should be considered at the existing Santee Trolley Square providing features such as bike share, bike parking, car share, neighborhood electric vehicles real-time traveler information, demand-based shuttle service, wayfinding signage, bicycle and pedestrian improvements, urban design enhancements, etc.	Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled

<p>Mobility Element Policy 2.1: The City shall encourage an automobile Level of Service "D" on street segments and at intersections throughout the circulation network while also maintaining or improving the effectiveness of the non-automotive components of the circulation system (i.e. pedestrians, bicyclists, and public transit), especially in the Town Center area. The City may approve a lower automobile Level of Service if it finds that the effectiveness of non-automotive components of the circulation system would be maintained or improved as a result. In other cases, the City shall not approve any development that causes a drop in the level of service at a street segment or an intersection to LOS "E" or "F", after feasible mitigation, without overriding social, economic, or other benefits.</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled</p>
<p>Mobility Element Policy 2.9: The City should work with the region to develop traffic and congestion management programs to improve commute times and improve air quality.</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled</p>
<p>Mobility Element Policy 3.5: The City shall encourage the use of innovative methods for traffic control (such as roundabouts, curb extensions, and traffic circles) where appropriate that add character, slow vehicle speeds, and create opportunity for improved aesthetics while effectively managing traffic</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled</p>
<p>Mobility Element Objective 5.0: Allow parking reductions around transit and affordable housing.</p> <p>Policy 5.1: The City should consider reducing parking requirements in the town center area and at transit stations as transit ridership increases over time due to increased development intensities and a broader mix of land uses.</p> <p>Policy 5.2: The City should maximize shared parking opportunities for uses with varied peak parking periods.</p> <p>Policy 5.3: The City should exercise flexibility in the application of parking standards to support transit-oriented development.</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled</p>
<p>Mobility Element Objective 6.0: Increase the use of public transit systems.</p> <p>Policy 6.1: The City should coordinate with SANDAG and MTS to maintain and enhance transit services in the City so that they are efficient, cost-effective, and responsive to growth and redevelopment.</p> <p>Policy 6.2: The City should coordinate with SANDAG and MTS to improve bus stop and shelter facilities to increase the comfort of users.</p> <p>Policy 6.3: The City should coordinate with SANDAG and MTS to provide multi-modal support facilities and adequate access near and to/from transit stops for bicyclists and pedestrians, including children and youth, seniors, and persons with disabilities.</p> <p>Policy 6.4: The City should coordinate with SANDAG and MTS to post route maps and pick-up/drop-off times at each stop.</p> <p>Policy 6.5: The City should coordinate with MTS to encourage establishing</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled;</p> <p>Goal 10: Decrease GHG Emissions from New Development through Performance Standards</p>

<p>transit stops in areas of concentrated activity such as near senior housing projects, medical facilities, major employment centers, and mixed use areas.</p> <p><u>Policy 6.6:</u> The City should coordinate with MTS to accommodate transit centers and major stops with adequate bicycle and pedestrian access and secure bicycle storage where appropriate. Include facilities that are well designed, provide appropriate lighting and are safe, comfortable, and attractive.</p> <p><u>Policy 6.7:</u> The City should provide incentives for transit-oriented development, such as a parking reduction consistent with regional standards, for more intense development and higher density reside</p>	
<p>Mobility Element Objective 7.0: Develop, maintain, and support a safe, comprehensive and integrated bikeway system that encourages bicycling, as documented in the City's Bicycle Master Plan (BMP).</p> <p><u>Policy 7.1:</u> The City shall continue to implement and maintain a comprehensive bicycle route system, and to designate appropriate bikeways through the regular update of the City's Bicycle Master Plan.</p> <p><u>Policy 7.2:</u> The City should strive to achieve objectives and policies identified in the Bicycle Master Plan including those related to bicycle safety awareness, bicycle promotion, maintenance and monitoring. Educational awareness programs shall include an environmental component that teaches bicycle users the importance of staying on designated trails to minimize impacts to wildlife resources.</p> <p><u>Policy 7.3:</u> The City should promote the development of hiking and bicycle trails along the San Diego River in conjunction with the San Diego River Plan. Any plans for trails along the San Diego River shall be accompanied by a site-specific analysis, as required under CEQA, to confirm that such trails are consistent with the Subarea Plan (SAP) and located in the least environmentally sensitive areas.</p> <p><u>Policy 7.4:</u> The City should require new development and redevelopment to provide connections to existing and proposed bicycle routes, where appropriate.</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled</p>
<p>Mobility Element Objective 8.0: Develop and maintain an accessible, safe, complete and convenient pedestrian system that encourages walking.</p> <p><u>Policy 8.1:</u> The City should require the incorporation of pedestrian-friendly design concepts where feasible including separated sidewalks and bikeways, landscaped parkways, traffic calming measures, safe intersection designs and access to transit facilities and services into both public and private developments.</p> <p><u>Policy 8.2:</u> The City should provide for the connectivity of wide, well-lit sidewalks and environments with safety buffers between pedestrians and vehicular traffic, where feasible.</p> <p><u>Policy 8.3:</u> The City should pursue the elimination of physical barriers around public facilities and commercial centers to improve access and mobility of the elderly and disabled in a manner consistent with the Title 24 of the California Code of Regulations and the federal Americans with Disabilities Act (ADA).</p> <p><u>Policy 8.4:</u> The City shall require non-contiguous sidewalks on all streets with a residential collector classification or higher, as</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled</p>

<p>appropriate. Policy 8.5: The City should identify and implement pedestrian improvements with special emphasis on providing safe access to schools, parks, community and recreation centers, and shopping districts. Policy 8.6: The City should promote walking and improve the pedestrian experience by requiring pedestrian facilities along all classified streets designated on the Circulation Plan; by implementing streetscape improvements along pedestrian routes that incorporate such elements as shade trees, street furniture, and lighting; by orienting development toward the street; by employing traffic calming measures; and by enforcing vehicle speeds on both residential and arterial streets.</p>	
<p>Mobility Element <u>Objective 9.0</u>: Increased use of alternative modes of travel to reduce peak hour vehicular trips, save energy, and improve air quality.</p> <p><u>Policy 9.1</u>: The City shall encourage and provide for Ride Sharing, Park 'n Ride, and other similar commuter programs that eliminate vehicles from freeways and arterials.</p> <p><u>Policy 9.2</u>: The City should encourage businesses to provide flexible work schedules for employees.</p> <p><u>Policy 9.3</u>: The City should encourage employers to offer shared commute programs and/or incentives for employees to use transit.</p> <p><u>Policy 9.4</u>: The City should encourage the use of alternative transportation modes, such as walking, cycling and public transit. The City should maintain and implement the policies and recommendations of the Bicycle Master Plan and Safe Routes to School Plan to improve safe bicycle and pedestrian access to major destinations.</p> <p><u>Policy 9.5</u>: The City should improve safety of walking and biking environment around schools to reduce school-related vehicle trips.</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled</p>
<p>Housing Element <u>Policy 3.2</u>: Encourage the use of energy conservation devices such as low flush toilets and weatherization improvements. Promote design concepts that utilize technological advances in the application of alternative energy sources which make the use of the natural climate to increase energy efficiency and reduce housing costs.</p>	<p>Goal 2: Increase Energy Efficiency in New Residential Units Goal 3: Increase Energy Efficiency in Existing Commercial Units</p>
<p>Housing Element <u>Policy 5.4</u>: Encourage developments of new housing units designated for the elderly and disabled persons to be in close proximity to public transportation and community services.</p>	<p>Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled</p>
<p>Safety Element</p> <p><u>Policy 1.1</u>: The City should encourage the use of innovative site design strategies within the floodplain which ensure minimizing of flood hazards, maintaining the natural character of waterways and maximize the use of water as a design feature.</p> <p><u>Policy 1.2</u>: All development proposed within a floodplain area shall be required by the City to utilize design and site planning techniques to ensure</p>	<p>Adaptation Planning</p>

that structures are elevated at least one foot above the 100-year flood level.	
Trails Element <u>Objective 1.0</u> : Provide safe and viable regional and community trails within the City; <u>Objective 2.0</u> : Provide trails which are designed to impact the environment as little as possible and which blend in with the character of the community; <u>Objective 4.0</u> : Provide promotional material which indicates the type and location of trails in Santee; and <u>Objective 8.0</u> : Provide community trails that link with regional trail systems and facilities.	Goal 7: Decrease Greenhouse Gas Emissions through Reducing Vehicle Miles Traveled

The foundation of planning land use decisions is found in the General Plan. The Sustainable Santee Plan is consistent with and supportive of the General Plan. It would ensure that the impact of future development projects on air quality is minimized, water conserved, and that decisions made by the City and all internal operations within the City are consistent with adopted State legislation.

3.3 OTHER APPLICABLE LAND USE PLANS

The City of Santee has numerous plans that are established to implement and regulate land use and development within a specific project boundary including the Town Center Specific Plan and Gillespie Field and MCAS Miramar Airport Land Use Compatibility Plans (ALUCPs). In most instances, specific plans supersede the original zoning of the land unless otherwise specified. The Town Center Specific Plan was created to achieve the following purposes:

- Establishing a plan for the development of property in its geographic core;
- Providing guidelines for creating a people- and transit-oriented hub for commercial, civic and residential uses along the San Diego River;
- Protecting and enhancing the natural features of the Town Center site, especially the San Diego River;
- Establishing a land use and design framework, which can cohesively tie the new downtown together; and
- Establishing a river and water oriented theme with landscaped boulevards, biological preserves, and defined scale and bulk of buildings.

The ALUCPs were created to achieve the following purposes:

- Promoting airport land use compatibility;
- Providing for the orderly growth of the airport and the area surrounding the airport;
- Safeguarding the general welfare of the inhabitants within the vicinity of the airport and the public in general (Pub. Util. Code §21675(a));
- Serving as a tool for the San Diego County Regional Airport Authority to use in to review land use plans and development proposals within the Airport Influence Area (AIA) at the Airport;
- Providing compatibility policies and criteria applicable to local agencies in their preparation or amendment of general plans and to landowners in their design of new development; and

- Setting guidelines related to land use compatibility, aircraft noise impacts, height protection, and airport safety to ensure land use compatibility.

3.4 DISCRETIONARY ACTIONS, PERMITS AND OTHER APPROVALS

The following actions will be required in order to implement the Sustainable Santee Plan:

- Certification of the Program EIR for the Sustainable Santee Plan by the Santee City Council.
- Adoption of the Sustainable Santee Plan by the Santee City Council.

3.5 INTENDED USES OF THE PROGRAM EIR

One of the goals of the Sustainable Santee Plan is to allow programmatic level review and mitigation of GHG emissions that allows for the streamlining of CEQA review for subsequent development projects. To accomplish this, the Sustainable Santee Plan framework is designed to fulfill the requirements identified in *CEQA Guidelines* Section 15183.5.

Under Section 15183.5 of the CEQA Guidelines, a plan to reduce GHG emissions should:

- (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area; **(Chapter 2)**
- (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable; **(Chapter 2/3)**
- (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area; **(Chapter 2)**
- (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; **(Chapter 3)**
- (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and **(Chapter 5)**
- (F) Be adopted in a public process following environmental review.

Note – Next to each Section listed above is the Chapter number (in **bold**) of the Sustainable Santee Plan where that issue is addressed.

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