

South Pasadena CAP Executive Summary

Climate Action Vision

The effects of climate change are already felt and are projected to worsen over the next century without a concerted global effort to address the sources of greenhouse gas (GHG) emissions. South Pasadena’s Climate Action Plan (CAP) details a set of strategies for South Pasadena to reduce its emissions, prepare for and mitigate approaching risks, and chart the course towards a sustainable future. Key components of that future include:

- ✓ **Vibrant Communities**
- ✓ **Engaged Citizens**
- ✓ **Social Equity**
- ✓ **Resilient Economy**
- ✓ **Environmental Stewardship**
- ✓ **Regional Leader in Sustainability**

Background

The CAP is a long-range planning document that guides the City towards long-term

emissions reductions in accordance with State of California goals. The CAP analyzes emission sources within the City, forecasts future emissions, and establishes emission reduction targets (See The Playing Field and Appendix C). This CAP is the City of South Pasadena’s roadmap to achieving the City’s 2030 target and state mandated goal of 40% below 1990 levels by 2030 and demonstrates substantial progress towards achieving carbon neutrality by 2045. The CAP also establishes a framework for implementation and monitoring of reduction activities, and further promotes adaptation and preparedness actions. This CAP has been developed as a qualified GHG Reduction Plan and meets the requirements of CEQA 15183.5(b).

Potential Impacts to the Community

The City of South Pasadena may experience a variety of impacts due to climate change including an increase in average temperature and changes in precipitation, as outlined in Figure 1

Figure 1 Impacts of Climate Change in the City of South Pasadena (~2100)

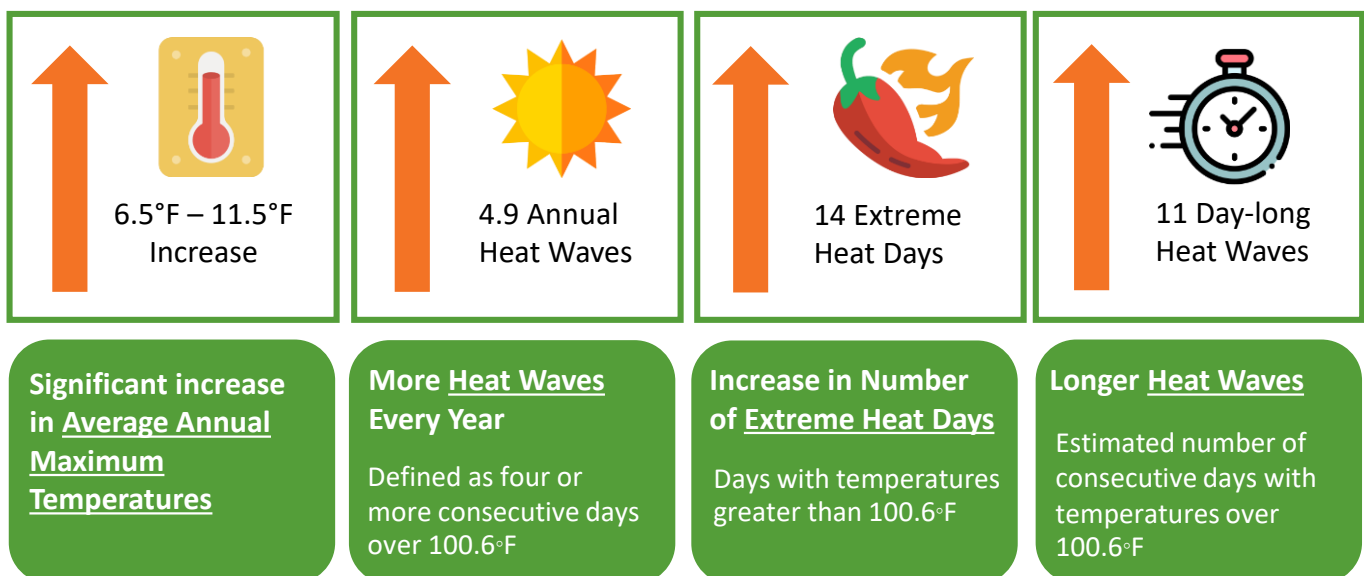
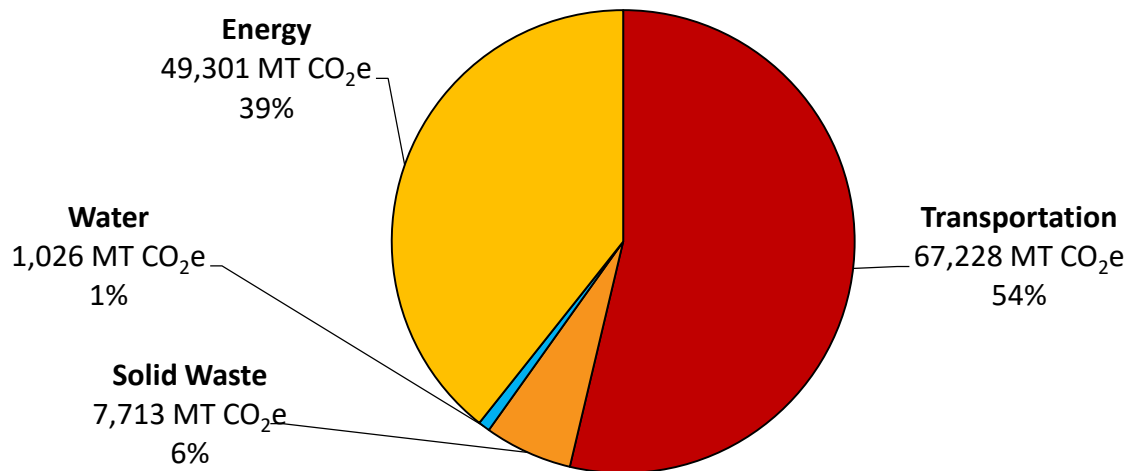


Figure 2 2016 Community-wide Emissions Summary by Sector



Baseline GHG Emissions

This CAP includes a 2016 baseline inventory of GHG emissions from municipal operations and community-wide activities within the City. It is important to note that the municipal operations inventory is a subset of the community inventory, meaning that the municipal emissions are included within the community-wide inventory. See Figure 2 for a per sector community emissions summary.

Emissions Forecast

Emissions forecasts (what we predict GHG emissions to be in the future) are generated from the 2016 baseline inventory to help identify actions that must be taken now in order to meet future targets. This CAP identifies GHG emissions reduction targets for the years 2020 (AB 32 target year), 2030 (SB 32 target year), 2040 (City of South Pasadena’s General Plan horizon year), and 2045 (EO B-55-18 target year).

Emissions Targets

After analyzing the City’s baseline inventory and forecast scenarios, emission targets were set to create quantitative goals that will further the City’s ability to measure emission reduction progress from the baseline scenarios. The 2016 baseline emissions were reduced by 40 percent to establish a 2030 target of 75,161 MT CO₂e for the City. In

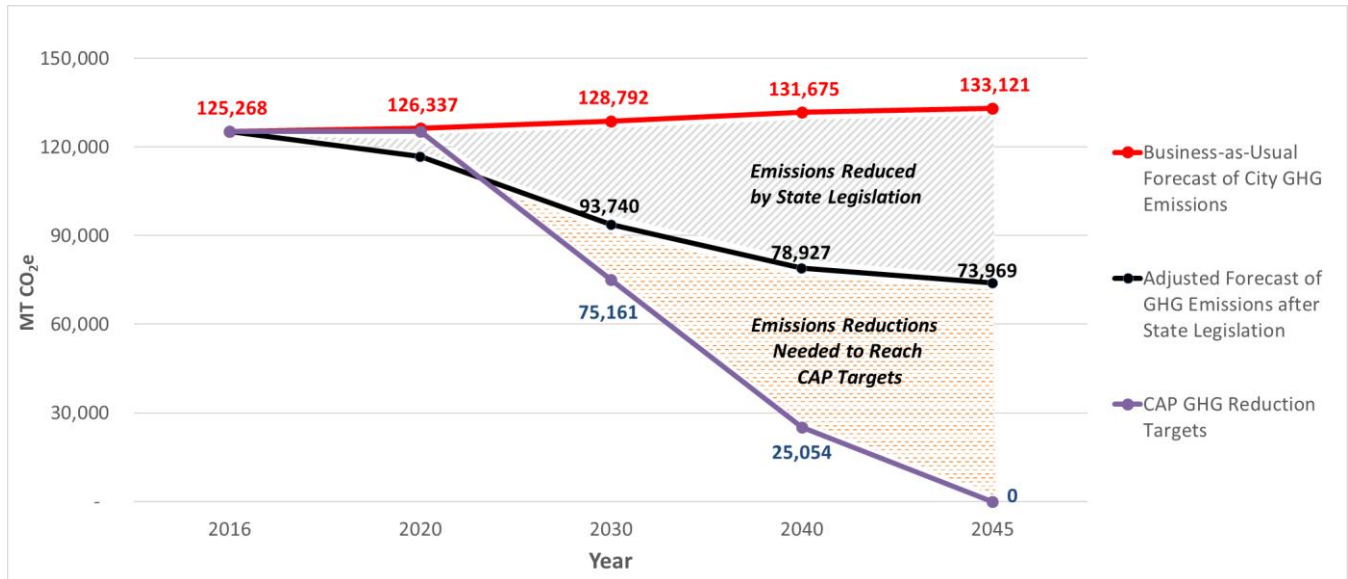
accordance with the new California Air Resource Board (CARB) methodology and the statewide goal established in SB 32, this absolute emissions target was then translated into a 2030 per capita emission target of 2.9 MT CO₂e per year by dividing the 2030 absolute target by South Pasadena’s projected population in 2030.

As shown in Figure 3, South Pasadena would require implementing local reduction measures to meet the state targets established for 2030 and 2045 even after accounting for reductions that will result from state regulations.

Reducing Emissions in South Pasadena

At its core, the CAP aims to reduce GHG emissions in the City through equitable, achievable, and implementable actions that benefit all South Pasadenans. The Plays (measures) and Moves (actions) included in the CAP were established and refined to meet the City’s GHG emission reduction target for 2030 and provide substantial progress towards meeting the longer-term target of carbon neutrality by 2045, which align with the state’s goals and is the City’s fair share towards achieving the state’s overall climate goals (see Table 1 for a summary of the Plays included in the CAP).

Figure 3 Community Emissions, Targets, and Reductions Needed to Meet Targets



Cornerstones of Climate Action Planning

The City of South Pasadena acknowledges that long-term sustainable change must occur to reduce our GHG emissions and limit our impact on climate change. This change will come from a collective commitment to reduce emissions through implementation of effective and equitable emission reduction strategies, such as the Plays and Moves outlined in this CAP. High-quality climate action planning is built on six essential components that result in implementable and effective GHG emission reduction strategies.

These six essential components, **education, structural change, GHG reductions, equity, connectivity, and economical design**, are the cornerstones that lay the foundation for transformational change and are essential to engage the community and fulfill the emissions reductions goals laid out in the Plan.

South Pasadena’s CAP includes 15 specific Plays designed to reduce GHG emissions associated with Energy, Transportation, Water, Waste, Sequestration, and Municipal Operations. Each Play is supported by Moves that were designed to incorporate the cornerstone components of climate action planning and create unique solutions to

climate change, which are summarized in Table 1.

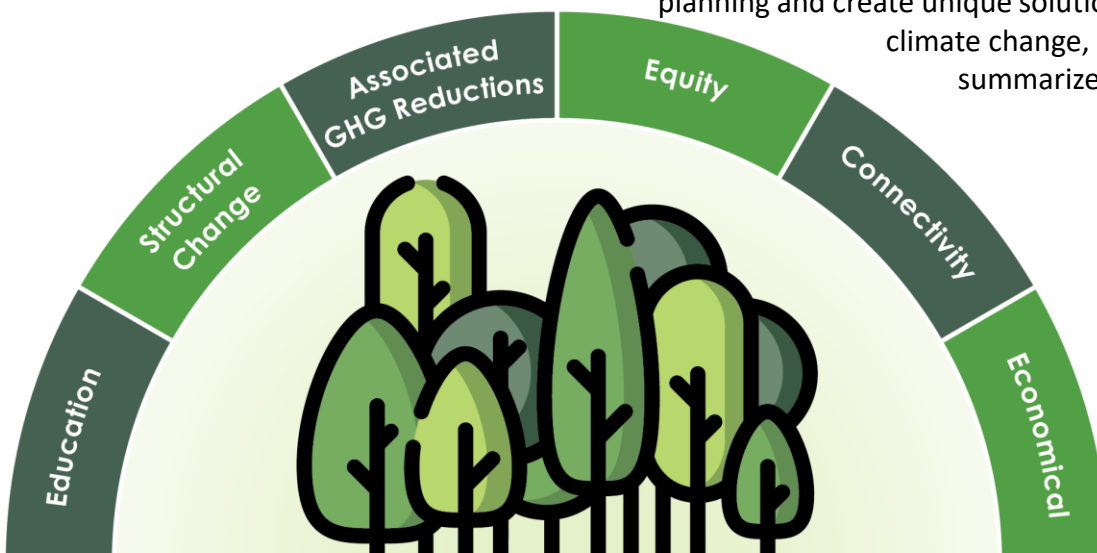


Table 1 Emission Reduction Plays and Moves Summary

Sector	Play	GHG Emissions Reduction Contribution
Cornerstone	C.1	Engage South Pasadena youth in climate change action and provide education on ways to live a sustainable lifestyle. 2030: 25 MT CO ₂ e 2045: 78 MT CO ₂ e
Energy	E.1	Maximize the usage of renewable power within the community, by continuing to achieve an opt-out rate lower than 4% for the Clean Power Alliance. 2030: 13,408 MT CO ₂ e 2045: 0 MT CO ₂ e
	E.2	Require electrification of 100% of newly constructed buildings. 2030: 240 MT CO ₂ e 2045: 984 MT CO ₂ e
	E.3	Electrify 5% of existing buildings by 2030 and 80% by 2045. 2030: 1,184 MT CO ₂ e 2045: 19,355 MT CO ₂ e
	E.4	Develop and promote reduced reliance on natural gas through increased clean energy systems that build off of renewable energy development, production, and storage. Supportive of 2030 and 2045 Goals
Transportation	T.1	Increase use of zero-emission vehicle and equipment 13% by 2030 and 25% by 2045. 2030: 3,774 MT CO ₂ e 2045: 6,629 MT CO ₂ e
	T.2	Implement programs for public and shared transit that decrease passenger car vehicle miles traveled 2% by 2030 and 4% by 2045. 2030: 807 MT CO ₂ e 2045: 1,399 MT CO ₂ e
	T.3	Develop and implement an Active Transportation Plan to shift 3% of passenger car vehicle miles traveled to active transportation by 2030, and 6% by 2045. 2030: 1,186 MT CO ₂ e 2045: 2,015 MT CO ₂ e
Water and Wastewater	W.1	Reduce per capita water consumption by 10% by 2030 and 35% by 2045. 2030: 414 MT CO ₂ e 2045: 0 MT CO ₂ e
Solid Waste	SW.1	Implement and enforce SB 1383 organics and recycling requirements to reduce landfilled organics waste emissions 50% by 2022 and 75% by 2025. 2030: 1,702 MT CO ₂ e 2045: 1,764 MT CO ₂ e
	SW.2	Reduce residential and commercial waste sent to landfills by 50% by 2030 and 100% by 2045. 2030: 415 MT CO ₂ e 2045: 859 MT CO ₂ e
Carbon Sequestration	CS.1	Increase carbon sequestration through increased tree planting and green space. 2030: 19 MT CO ₂ e 2045: 39 MT CO ₂ e
Municipal	M.1	Reduce carbon intensity of City operations. 2030: 188 MT CO ₂ e 2045: 188 MT CO ₂ e
	M.2	Electrify the municipal vehicle fleet and mobile equipment. 2030: 23 MT CO ₂ e 2045: 23 MT CO ₂ e
	M.3	Increase City's renewable energy production and energy resilience. Supportive of 2030 and 2045 Goals
Total		2030: 23,386 MT CO₂e 2045: 33,333 MT CO₂e

Note: South Pasadena would be required to reduce 18,578 MT CO₂e by 2030, 53,874 MT CO₂e by 2040, and 73,969 MT CO₂e by 2045 to meet the City's targets and state goals.