

2022 Climate Mitigation and Adaptation Plan Annual Report

INTRODUCTION

The San Carlos City Council adopted the Climate Mitigation and Adaptation Plan (CMAP) in September 2021. The CMAP serves as the City's blueprint for addressing climate change by mitigating its impacts through reductions in local greenhouse gas (GHG) emissions and adapting to climate related hazards. The CMAP establishes the target of reducing emissions 40% by 2030 and 80% by 2050 relative to 1990 levels and identifies 33 GHG reduction strategies and 12 adaptation strategies to achieve these goals.

While tracking and reporting on implementation of the CMAP falls under the responsibility of the City Manager's Office, carrying out the strategies contained within the CMAP is a collaborative effort across different City departments, community groups, and regional agencies. To ensure the success of the CMAP it calls for monitoring and reporting on progress on an annual basis.

Contained within this 2022 CMAP Annual Report is a summary of activities undertaken during the 2022 calendar year that make meaningful contributions towards San Carlos' climate goals. Each action is included within the 10 Goals identified in the CMAP. Also included are performance metrics that can be used over time to convey trends and indicate progress made. These performance metrics are included for years where data is available. At the end of this report is a full community GHG inventory with the most recent data included from 2019.

GOAL 1. REDUCE ENERGY USE

- **Sustainability Outreach.** Continuing in 2022, the City engaged with community members to raise awareness of sustainable practices and connect residents, property owners, and businesses with incentive programs and resources.
 - Good Living Newsletter – Regional incentive programs and rebates highlighted in Good Living Newsletter.
 - E-notify – Sustainability and Climate Action e-notify group has over 800 subscribers where information and resources are frequently shared.
 - Earth Day Photo Contest – The City held an Earth Day Photo Contest on social media. Participants posted photos showing how they were celebrating Earth Day with #CityofGoodLiving.
 - Central Middle School Environmental Club – As part of the City's Earth Day efforts staff presented to the Central Middle School Environmental Club on the City's efforts to mitigate the impacts of climate change.
 - Farmers Market – Staff tabled at the Farmers Market to spread information about rebate programs and gather feedback on the opportunities and challenges associated with various sustainability activities.
- **City Facility Energy Audits.** City staff leveraged BayREN's Municipal Zero Net Energy Technical Assistance Program to conduct energy efficiency audits of four different City facilities. These

audits led to recommendations for possible energy efficiency measures, rooftop solar and battery storage, and electrification opportunities.

- **BayREN Programs.** The City continues to promote programs and incentives to the community offered by the Bay Area Regional Energy Network that provide technical assistance and rebates for home energy efficiency upgrades. Residents can take advantage of rebates for upgrades such as new efficient appliances, lighting, weatherization, and duct sealing.

	2005	2010	2015	2017	2019
Total Electricity Consumed Citywide (kWh)	203,990,520	198,401,471	201,395,488	187,678,077	190,952,656
Gas Consumed Citywide (therms)	9,421,049	9,581,115	8,030,935	8,555,150	9,390,770

	2022
BayREN Energy Funded Projects	43
Peninsula Clean Energy Funded Projects	18

	2015	2017	2018	2021	2022
Electricity Consumed in City Facilities (kWh)	1,725,911	1,392,341	1,459,848	1,505,436	1,685,735
Gas Consumed in City facilities (therms)	50,438	27,987	28,013	29,201	29,702

GOAL 2. TRANSITION TO CARBON-FREE ENERGY SOURCES

- **All-Electric New Construction.** The City continues to implement the all-electric new construction reach code adopted by the City Council in 2021. The local energy standards require newly constructed buildings to be all-electric with rooftop solar and added electric vehicle charging requirements.
- **Youth Center Rooftop Solar.** The City continues to move forward with Peninsula Clean Energy to install rooftop solar on the Youth Center. Once installed, the 30 kW solar system will provide an estimated \$160,000 in savings on energy bills over the 20-year agreement.
- **Heat Pump Water Heater Project.** The City used grant funding from PG&E to replace a gas water heater at Fire Station 13 with a high efficiency electric heat pump water heater alternative.
- **Home Electrification Workshop.** The City hosted a Home Electrification Community Workshop in December where attendees learned about resources to help them electrify their own homes and provide feedback on possible policy approaches towards electrifying buildings.

- **CMAP Incorporated into Planning Review.** Staff have incorporated CMAP strategies and reach code requirements into a checklist for assessment during planning review. This acts to engage with developers early in the planning process on the ways projects can be consistent with the City's climate goals.
- **Peninsula Clean Energy ECO 100.** The City continues to promote the Peninsula Clean Energy ECO100 program that promotes renewable energy and decarbonizes the electric grid. By opting into this program, the City ensures that 100% of the electricity used for municipal functions comes from renewable sources like wind and solar.
- **Sunshares Program.** The City participates in the Bay Area SunShares program. SunShares is a group-buying program that offers discounts to residents for rooftop solar and battery installations from pre-vetted installers.
- **Instant Solar Permitting.** City staff have taken steps to secure grant funding from the California Energy Commission to implement an instant solar permitting software that will enable faster permit approvals for rooftop solar.

	2022
Single-Family Homes, Duplexes, and ADUs permitted under all-electric reach code	32
Multifamily homes permitted under all-electric reach code	0
Non-residential buildings permitted under all-electric reach code	2
Solar installations	159
Percentage of electricity accounts with Peninsula Clean Energy	97%

GOAL 3. PROMOTE ENERGY RESILIENCE

- **Support back-up battery installations.** The City continues to promote the installation of small-scale onsite battery energy storage systems as a means of increasing community resilience to power shutoffs.
- **Power Shutoff Preparedness.** The City maintains and distributes the Public Safety Power Shutoff Community Guide to inform residents and businesses how to prepare and navigate possible power outages.

	2022
Number of battery installations	50

GOAL 4. PROMOTE SUSTAINABLE DEVELOPMENT THAT REDUCES VEHICLE MILES TRAVELED

- **Transportation Demand Management.** The City continues to implement transportation demand management requirements for new and existing multi-family and commercial developments.

- **Active Transportation.** The City incorporates bicycle and pedestrian friendly features into street design as directed by the Bicycle and Pedestrian Master Plan. Promoting walking and bicycling through the creation of safe, comfortable, and connected networks encourages alternative transportation to single occupancy motor vehicle trips and reduces overall vehicle miles traveled.
 - San Carlos Avenue Project. This year the City completed numerous pedestrian and bike improvements along San Carlos Avenue including replacing new sidewalks, curbs, and pedestrian beacons.
 - Pedestrian Lead Intervals. The City implemented 5-second pedestrian lead intervals at all crossings along San Carlos Avenue. This signal change provides pedestrians the opportunity to enter the crosswalk prior to vehicles getting a green light to enter the intersection.
 - Belmont Ave and El Camino Traffic Calming. The City replaced the existing pedestrian beacon system with a new hybrid actuated crosswalk in addition to traffic striping and pavement marking improvements.
 - Holy St & 101 Overpass. Staff has been seeking funding opportunities to advance the Holy Street & 101 Overpass project including applying for funding and conducting outreach in order to provide community members with an opportunity to learn more about the proposed project.
 - Pedestrian Beacons. The City added flashing pedestrian beacons at Woodland & Brittan, Tamarack & Brittan, and Crestview Drive at Crestview Park with more under construction at Kenton and San Carlos Ave and Prospect and San Carlos Ave.
- **Safe Routes to School.** In 2022 the City worked extensively with local school districts to support safe routes to school to encourage students to bike, walk, or bus to school reducing vehicle miles traveled associated with school related trips.
 - Carlmont High School Bike to School Day. City staff coordinated with the Carlmont's Scots eBike Club to create a temporary bike lane on San Carlos Avenue for Carlmont High School Bike to School Day and deployed pylons and "No Parking" signs along the bike lane.
 - San Carlos Crossing Guards. The City continued its partnership with the San Carlos School District to fund crossing guards that allow for the safe crossing of pedestrians and cyclists at certain intersections close to schools.
 - School Walk Audit Recommendations & Route Maps. The City partnered with the San Carlos School District to complete walk audits and create route maps for six school sites. Significant inputs and observations were made, culminating in a set of improvement recommendations and a suggested route to school map for every site.
 - 15 Miles per Hour School Zone. The speed limit for 15 streets adjacent to school sites were lowered to 15 miles per hour to improve safety and minimizes the risk of severe or fatal conflicts between vehicles and pedestrians and bicyclists.
 - Alameda de las Pulgas Corridor Improvement Project. The City continues to participate in the multi-agency regional transportation improvement project to improve traffic safety and operations along Alameda de las Pulgas and San Carlos Avenue with a focus on complete streets and safe routes to school principles.

- **Transit-Oriented Development.** The City encourages the development of mixed-use projects, higher-density housing, and job growth within the General Plan’s recognized Transit-Oriented Development (TOD) corridor (Planning Areas 1, 2, and 3) while being mindful of surrounding uses.
 - **Housing Element Update.** This year the City continued progress towards updating the Housing Element to respond to current and near-term future housing needs in San Carlos and also provide a framework for the community’s long-term approach to addressing its housing needs. The current updated Housing Element increases height limits and densities along high-quality transit corridors to encourage alternative forms of transportation and limit vehicle miles traveled.
 - **Northeast Specific Plan.** The City launched the Northeast Specific Plan project in late 2022. As a part of the planning process, this plan will explore the possibility of introducing housing to the area and addressing environmental needs within the study area.

	2010	2015	2017	2019
Total Vehicle Miles Travelled (miles)	206,460,436	213,377,593	212,928,543	216,944,880

	2022
SamTrans Bus Passenger Boardings	151,655

	2018	2019	2020	2021
New dwelling units built	10	33	0	17

GOAL 5. TRANSITION TO LOW CARBON TRANSPORTATION

- **EV Charging in Wheeler Plaza.** The City was awarded grant funding through the California Electric Vehicle Incentive Program to fund the installation of 4 new level 2 EV charging stations in the Wheeler Plaza parking garage. With these additional stations bringing the total to 7 level 2 EV charging stations in Wheeler Plaza.
- **EV Charging Standards.** The City continues to enforce the all-electric reach code that includes increased EV charging readiness in new construction.

	2022
New Single family/duplex/ADU EV charging	EV Stations: 23 EV Ready: 15
New Multifamily EV charging	EV Stations: 5

New non-residential EV charging	EV Stations: 14 EV Ready: 8
New City owned EV charging	EV Stations: 4

	2018	2020	2021	2022
Percentage of zero emission vehicles in San Carlos	4.4%	5.9%	7.0%	7.9%

GOAL 6. SUPPORT POLLUTION-FREE OUTDOOR EQUIPMENT

- **Clean-fuel construction and landscaping.** The City encourages the use of hybrid and clean-fuel construction and landscaping equipment citywide in preparation for new State regulations that ban the sale of gas-powered lawn equipment beginning in July 2024.

GOAL 7. BECOME A ZERO-WASTE COMMUNITY

- **SB1383 Outreach and Compliance.** San Carlos continues to take the necessary steps to comply with California Senate Bill 1383 which sets the goal to reduce organic waste disposal 75% by 2025.
 - The City entered into a contract with the San Mateo County Resource Conservation District to cost-effectively meet our compost waste reduction requirements.
 - The City participates in the Countywide Edible Food Recovery Program managed by the County of San Mateo Office of Sustainability.
 - The City partners with South Bay Waste Management Authority who is leading a coordinated plan that includes organic waste product procurement planning, reporting and recordkeeping, organic waste processing and diversion planning, model tools development, and generator compliance oversight.
 - Through the South Bay Waste Management District, the City has partnered with an outside vendor, SCS Engineers, to conduct services including outreach and education, waiver management, and contamination monitoring.
- **Disposable Food Ware Ordinance.** The Disposable Food Ware Ordinance adopted by the City Council went into effect in October this year and requires restaurants and other food facilities to use compostable food ware instead of single use plastics for to-go operations. Currently staff are collaborating with the County Office of Sustainability to engage with food facilities to ensure compliance.

	2017	2018	2019	2020	2021
Commercial Waste Diversion Rate	33%	35%	37%	36%	35%
Multifamily Waste Diversion Rate	26%	26%	27%	29%	28%
Residential Curbside Waste Diversion Rate	69%	68%	69%	69%	70%
Citywide Waste Diversion Rate	53%	53%	54%	54%	53%

GOAL 8. REDUCE COMMUNITY-WIDE WATER USE

- **Water Conservation Programs.** This year the City continued to promote Calwater conservation programs such as the Lawn-to-Garden rebate that compensates homeowners to convert grassy areas into water-wise gardens and landscapes.

	2022
CalWater Rebates Issued	144
Calwater Conservation Kits Issued	25
CalWater Smart Landscape Tune Ups Completed	32

GOAL 9. BECOME A LOW-CARBON, RESILIENT COMMUNITY

- **Green Purchasing Policy.** The City continues to follow the Green Purchasing Policy that include a preference for contractors and vendors that can demonstrate corporate sustainability and commitments to incorporate best practices into its operations.

GOAL 10. PREPARE FOR, REDUCE VULNERABILITY, AND ADAPT TO CHANGING CLIMATE CONDITIONS

- **Sea Level Rise Working Group.** The City organized a group of staff from multiple departments to review the impacts and investigate possible sea level rise adaptation measures. The working group met with regional partners and other jurisdictions including Oneshoreline and the City of Burlingame to identify best practices and possible opportunities to incorporate sea level rise resiliency principles into the Northeast Plan.
- **Sea Level Rise Mapping.** City staff added the 2050 and 2100 sea level rise projections to the City's public GIS map to help raise awareness of the future impacts of sea level rise.
- **Wildfire Preparedness Community Meeting.** The City hosted the annual Wildfire Preparedness Community Meeting that included representatives from the Fire Department, Sheriff's Office, and Public Works Department to discuss how the community can prepare and keep homes and families safe during a wildfire.

- **Annual Creek Clean-Up.** In September, the City hosted the Annual Creek Clean-Up Day by inviting volunteer to clean up any trash, yard clippings or other non-natural materials that run adjacent to the property.
- **Protected Tree Ordinance.** The City Council adopted the new Protected Tree Ordinance this year to ensure a significant and thriving population of large healthy trees in San Carlos for public enjoyment and environmental sustainability.

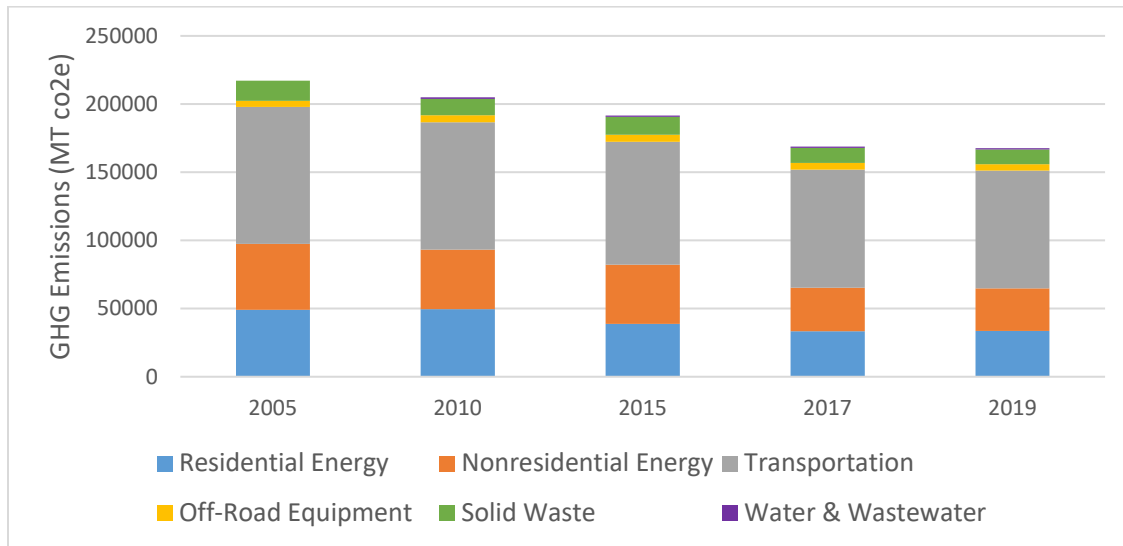
COMMUNITY GREENHOUSE GAS INVENTORY

City staff in partnership with the San Mateo County Office of Sustainability continue to update greenhouse gas emissions inventories as data becomes available. Greenhouse gas inventories quantify the emissions from various sectors and provide insight into GHG reduction strategies effectiveness over time. Below is an accounting of the most updated Community GHG Inventory including the year 2019.

Community Greenhouse Gas Emissions by Sector (MT CO₂e)

Sector	2005	2010	2015	2017	2019
Residential Energy	49,002	49,575	38,768	33,453	33,733
Nonresidential Energy	48,348	43,549	43,391	31,755	31,090
Transportation	100,661	93,415	90,155	86,731	86,329
Off-Road Equipment	4,477	5,184	5,086	4,948	4,762
Solid Waste	14,756	12,028	13,221	11,005	10,776
Water & Wastewater	0	1,151	957	994	913
Total	217,245	204,902	191,578	168,886	167,603

San Carlos Greenhouse Gas Emissions by Sector



San Carlos community GHG emissions continued to fall between 2017 to 2019 by over 1,000 MT CO₂e. The majority of the emissions reductions over the timeframe above can be attributed to cleaner electricity supplied by Peninsula Clean Energy and the adoption of more fuel efficient and electric vehicles.