

CITY OF SAN MARCOS

Climate Action Plan Monitoring Report





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EXECUTIVE SUMMARY

The updated 2020 Climate Action Plan (CAP) is focused on reducing community-wide greenhouse gas (GHG) emissions that cause climate change in the City of San Marcos (City). This Climate Action Plan Monitoring Report (Report) provides information on CAP implementation progress and performance status to reduce community-wide emissions in alignment with State targets.

GHG emissions categories:



Transportation



Energy



Water



Solid Waste



Carbon
Sequestration

Reduction targets

The CAP sets the following emission reduction targets:

- **4 percent** below 2012 levels by 2020
- **42 percent** below 2012 levels by 2030

The City already achieved its 2020 target. To meet the 2030 target, the City will need to reduce emissions by **82,000 metric tons of carbon dioxide equivalent (MTCO₂e)** in 2030.

How much is **82,000 metric tons** of greenhouse gas?



GHG emissions from
**17,668 gasoline-powered
passenger vehicles** driven
for one year

OR



GHG emissions from
**15,955 homes' electricity
use** for one year

Source: EPA Greenhouse Gas Equivalencies Calculator

The CAP includes eight strategies and 22 measures to achieve GHG reductions. The City completed the implementation of three measures. Implementation of ten measures is on-going, and six measures are in progress. Work on three measures has not yet started. Tracking Our Progress section below provides the explanation of measure statuses and details on each measure.



Ongoing:
10 measures



Completed:
3 measures



In progress:
6 measures



Not started:
3 measures

The status of three measures from which the City expects to achieve the most significant GHG reductions is as follows:

E-3: Increase Grid-Supply Renewable and Zero-Carbon Electricity: The City has joined Clean Energy Alliance (CEA) to partner with six other North County cities to form a new Community Choice Energy Program which is scheduled to launch in San Marcos in April 2023.















S-1: Increase Citywide Waste Diversion: The Public Works Department is working with EDCO to implement organics waste recycling throughout the city. The City has also engaged a consultant to help determine city's food waste processing capacity.

T-13: Implement Transportation Demand Management Plans at Existing Employers: The City has retained a consultant and is working on establishing a Transportation Demand Management Program for employers. It will be available on the City's website in 2023 for voluntary use by interested employers.



The following table provides information on the current status of each measure. Tracking Our Progress section below provides detailed information on the progress made by the City on each measure.

Transportation

STRATEGY 1: Increase Use of Zero-Emission/Alternative Fuel Vehicles	
	T-1: Transition to a More Fuel-Efficient Municipal Fleet
	T-2: Require Electric Vehicle Charging Stations in New Development
	T-3: Install Electric Vehicle Charging Stations at Public Facilities
	T-4: Provide Grants for Residents and Businesses to Install Electric Vehicle Charging Stations
STRATEGY 2: Reduce Fossil Fuel Use	
	T-5: Synchronize Traffic Signals
	T-6: Install Roundabouts
STRATEGY 3: Reduce Vehicle Miles Traveled	
	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 Developments Near Transit
	T-13: Implement Transportation Demand Management Plans at Existing Employers
	T-14: Transition to an Online Building and Engineering Permit Submittal System

Energy

STRATEGY 4: Increase Building Energy Efficiency



E-1: Require New Residential Developments to Install Alternatively-Fueled Water Heaters

STRATEGY 5: Increase Renewable and Zero Carbon Energy



E-2: Require Installation of PV systems at New Non-Residential Developments



E-3: Increase Grid-Supply Renewable and Zero-Carbon Electricity

Water

STRATEGY 6: Reduce Water Use



W-1: Reduce Outdoor Water Use for Landscaping



W-2: Reduce Water Use in City Managed Landscape Areas

Solid Waste

STRATEGY 7: Reduce and Recycle Solid Waste



S-1: Increase Citywide Waste Diversion

Carbon Sequestration

STRATEGY 8: Increase Urban Tree Cover



C-1: Increase Tree Planting at City Parks and Public Rights-of-Way



C-2: Increase Tree Planting in New Developments



CLIMATE ACTION PLANNING IN SAN MARCOS

The CAP establishes strategies, measures, and actions to reduce GHG emissions in the city. This report provides information on CAP implementation progress and status of CAP measure performance.

How much is **82,000 metric tons** of greenhouse gas?



GHG emissions from **17,668 gasoline-powered passenger vehicles** driven for one year

OR



GHG emissions from **15,955 homes' electricity use** for one year

OR



Carbon sequestered by **1,355,877 tree seedlings** grown for 10 years

Source: EPA Greenhouse Gas Equivalencies Calculator

Greenhouse Gas Reduction

The CAP uses a 2012 baseline inventory to forecast emissions and set targets for emissions reductions based on State targets. The inventory estimated annual community-wide emissions to be 599,000 metric tons of carbon dioxide equivalent (MTCO₂e) in 2012. With State and federal adjustments applied, the City's 2030 emissions were estimated to be 429,000 MTCO₂e. The CAP sets the following targets to reduce community-wide emissions in alignment with State targets:

- **4 percent** below 2012 levels by 2020
- **42 percent** below 2012 levels by 2030

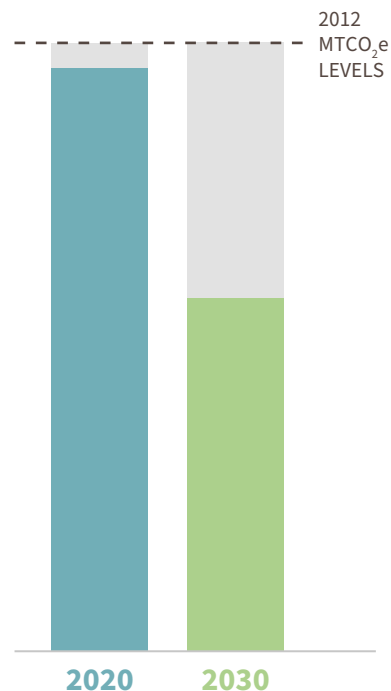
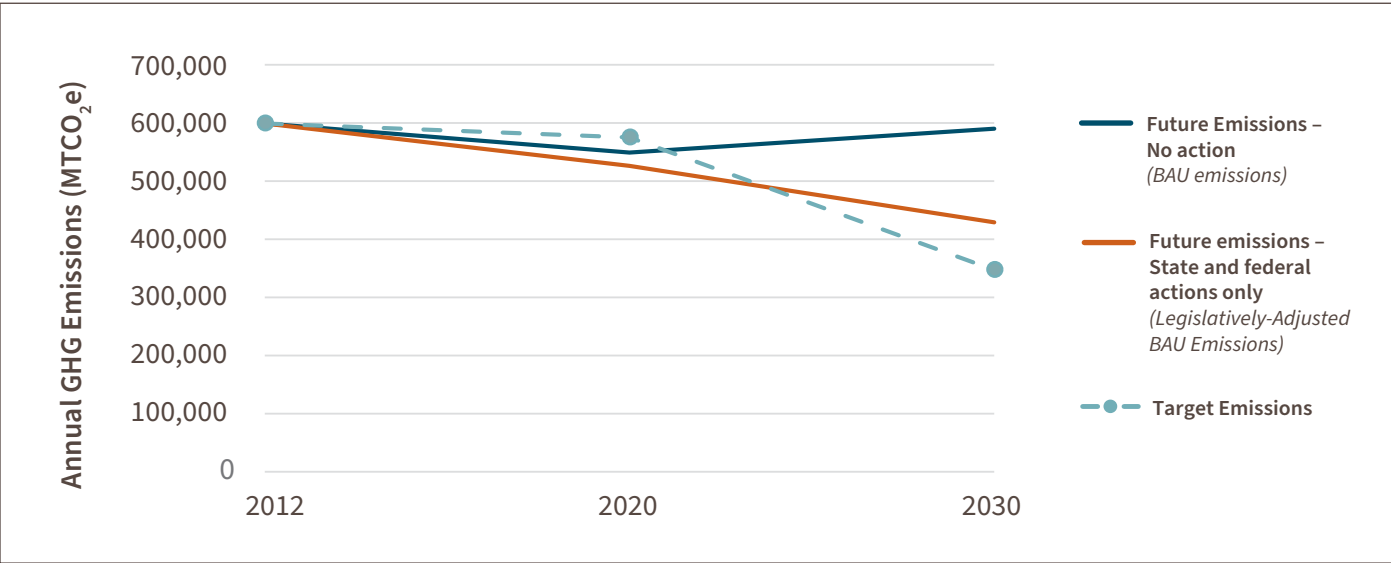



Figure 1. Comparison of Forecast Annual GHG Emissions without Local Action to the CAP’s 2020 and 2030 GHG Reduction Targets





Community Engagement

The CAP measures will require efforts from all community members to achieve reduction targets. Changes in everyday habits such as consuming less energy, producing less waste through recycling, conserving water, composting, and driving less by choosing to carpool, taking transit, or walking and biking more frequently, can lead to better outcomes for the environment and the City.

As Figure 1 shows, the City already achieved its 2020 target (without any additional climate action). To meet the 2030 target, the City will need to reduce emissions by 82,000 MTCO₂e in 2030.

To close the gap between the forecast future emissions and the 2030 CAP target, the CAP proposes eight strategies and 22 GHG reduction measures organized under five GHG emissions categories:

-  **Transportation**
-  **Water**
-  **Energy**
-  **Solid Waste**
-  **Carbon Sequestration**

Co-benefits



Improved
Air Quality



Improved
Water Quality



Improved
Public Health



Improved Access
to Low-Cost
Transportation
Options



Reduced Traffic
Congestion



Reduced
Energy Use



Enhanced
Safety



Enhanced
Community
Character



Increased Local
Green Jobs



Reduced Heat
Island Effect



Monitoring and Reporting

Periodically, City staff will present a summary of CAP implementation progress to the Planning Commission and City Council. Each GHG emissions reduction measures' environmental or economic co-benefits will also be evaluated. City staff will prepare monitoring reports that provide updates to the public on CAP implementation progress every two years.

IMPLEMENTATION AND MONITORING SCHEDULE

2020	CAP adopted
2022 & 2024	Biennial Monitoring Report



TRACKING OUR PROGRESS

This section provides the City’s progress on each measure with updates on the status of implementation, key indicators, progress made, and milestones achieved.

The following icons depict the implementation status of each measure:



Ongoing – City will continue to implement this measure on an on-going basis by requiring projects subjected to the CAP checklist to comply with specific requirements.



Complete – This measure has been completed as stipulated in the CAP.



In Progress – Work on this measure has started and is expected to be complete at a future date.







Not Started – Work on this measure has not yet started.





Transportation

Transportation strategies include increasing zero-emission or alternative fuel vehicle use, increasing transportation system efficiency for existing and future travel patterns, and increasing the use of alternative travel modes.

STRATEGY 1: Increase Use of Zero-Emission/Alternative Fuel Vehicles   	
 T-1: Transition to a More Fuel-Efficient Municipal Fleet	
Status Summary: <i>In Progress.</i> The City plans on engaging a consultant to determine infrastructure needs, charging station recommendations, and develop a timeline. As vehicles turn over, they will be replaced with more fuel-efficient vehicles, electric vehicles (EVs) and other types of zero emission vehicles where possible. The City is working with a vendor for vehicle leases to determine the availability of zero emission vehicles. Staff will also be soliciting information on the feasibility of upgrading of City sites to install EV chargers for the fleet.	
CAP Goal: Reduce City fleet gasoline use by 4,000 gallons in 2030.	Performance Status: Data not available.
 T-2: Require Electric Vehicle Charging Stations in New Developments	
Status Summary: <i>Ongoing.</i> The City is implementing this measure on an on-going basis by requiring new multi-family and commercial development to provide EV charging at at least 5% of parking spaces.	
CAP Goal: Install 220 EV charging stations in new multi-family developments by 2030. Install 230 EV charging stations in new commercial developments by 2030.	Performance Status: The City has approved 4 new development projects that are required to install 131 EV charging stations.
 T-3: Install Electric Vehicle Charging Stations at Public Facilities*	
Status Summary: <i>In Progress.</i> One project is complete and operational. Additional potential sites are identified, and research is ongoing to find other possible sites.	
CAP Goal: Install 45 EV charging stations by 2030.	Performance Status: 7 EV chargers installed at Sunset Park, 909 Puesta Del Sol, San Marcos. State funding administered through SDG&E was used for this project.

*The City entered into agreements with Tesla in 2020 to install 20 EV chargers at Creekside Marketplace Shopping Center.

STRATEGY 1 (CONT'D):

Increase Use of Zero-Emission/Alternative Fuel Vehicles



T-4: Provide Grants for Residents and Businesses to Install Electric Vehicle Charging Stations

Status Summary: *In Progress.* The City launched the rebate program on its website in October, 2022.

CAP Goal: Fund the installation of 900 EV charging stations at residences by 2030.

Fund the installation of 900 EV charging stations at businesses by 2030.

Performance Status: From 2021 to 2030, the City will provide a total of \$240,000 annually to residents and businesses as rebates to incentivize installation of EV Chargers. In 2021, the City allocated \$1,278,635 to fund the EV Charging Station (EVCS) Grant Program. The City launched this program in October, 2022. Rebate process and application to request the funds are available on the City's website.

STRATEGY 2:

Reduce Fossil Fuel Use



T-5: Synchronize Traffic Signals

Status Summary: *Complete.* The City will continue to review traffic signal timing as needed over the next two years.

CAP Goal: Synchronize traffic signals at 13 intersections by 2020 Synchronize traffic signals at an additional nine intersections by 2030.

Performance Status: In addition to what is specifically required in the CAP, 137 intersections were re-evaluated and synchronized during the 2020-2021 timeframe. The City uses Synchro Software for this work. Evaluation of signal retiming is part of continuous operations of the City.



T-6: Install Roundabouts

Status Summary: *Complete.* The City continues to look for opportunities to install additional roundabouts with new development projects. The City has conducted feasibility studies on roundabouts at the intersection of Oleander Avenue and Alamos Way and at the intersection of Mulberry Drive and Rose Ranch Road. City staff are currently reviewing the two feasibility studies.

CAP Goal: Install two additional roundabouts by 2020 (for a total of seven after 2012).

Performance Status: The roundabouts identified in the CAP have all been installed in the North City area.

STRATEGY 3: Reduce Vehicle Miles Traveled



T-7: Participate in the San Diego Association of Government's iCommute Vanpool Program

Status Summary: *Not started.*

CAP Goal: Maintain 12 SANDAG vanpools that start or end in the City in 2030.

Performance Status: Data not available



T-8: Develop Bicycle Infrastructure Identified in the City's General Plan Mobility Element*

Status Summary: *Ongoing.* The City is implementing this measure on an on-going basis by requiring projects subject to the CAP checklist to develop bicycle infrastructure as the City implements the bicycle network identified in the General Plan Mobility Element. To further the goals of establishing a bike network, the City has recently retained a consultant to work on an Active Transportation Plan (ATP). This will be a high level policy document to identify current resources and future needs for alternatives to driving in the City, inclusive of biking facilities.

CAP Goal: Install an additional 18 miles of two-way bicycle lanes (Class II or better) by 2030.

Performance Status: 0.4 miles (1,995 feet) of bike lanes installed; 1.6 miles of new trails installed.



T-9: Adopt Citywide Transportation Demand Management Ordinance

Status Summary: *Ongoing.* The City is implementing this measure on an on-going basis by requiring projects subject to the CAP checklist to implement Transportation Demand Management measures. The City is also working with its consultant to establish and adopt a Citywide TDM Ordinance. It is anticipated that the Ordinance will be presented to the City Council for consideration by early 2023.

CAP Goal: Increase the alternative transportation mode share for new development projects by seven percent annually through 2030.

Performance Status: The City has approved 4 development projects that are implementing project-specific Transportation Demand Management measures from the CAP Checklist.



T-10: Implement the Intra-City Shuttle System

Status Summary: *Not started.* The City has not identified a critical need to launch the shuttle program at this time due to low/medium density patterns. It is anticipated that with the adoption and implementation of the updated General Plan in the next five years, there may be sizable population growth in identified growth corridors. The future population and employment growth may result in critical mass needed to run a successful shuttle program.

CAP Goal: Fully implement the intra-city shuttle system with electric shuttles running at 10-minute headways by 2030.

Performance Status: Implementation not started.

**In response to the General Plan Mobility Element, the City has also developed sidewalks (5.7 miles added, 0.6 miles upgraded or replaced), ADA ramps (54 added, 11 replaced or upgraded), and Crosswalk Striping (0.1 mile).*

STRATEGY 3 (CONT'D): Reduce Vehicle Miles Traveled



T-11: Increase Transit Ridership

Status Summary: *Not started.* The City is currently updating its General Plan and anticipates its adoption by 2024. The blueprint for future growth in the City, as envisioned in the draft General Plan update, is to allow for and incentivize medium to high density residential and mixed use projects along Mission Road, Rancho Santa Fe, and San Marcos Boulevard corridors. Among other considerations, availability of transit along these corridors guided the City's vision of growth. It is anticipated that increase in transit ridership may occur with additional population along these corridors in the future.

CAP Goal: Increase the number of commuters taking transit to or from the City to 7,000 in 2030.

Performance Status: Implementation not started.



T-12: Reduce Parking Requirements for New Residential Developments Near Transit

Status Summary: *Ongoing.* The City is implementing this measure on an on-going basis by requiring projects subject to the CAP checklist to add new residential units near transit with at least 27 percent fewer parking spaces than required by the City's Municipal Code.

CAP Goal: Approve at least 3,700 new residential units near transit that provide at least 27 percent fewer parking spaces than required by City Code.

Performance Status: 557 new residential units approved within half mile of the Cal State San Marcos SPRINTER Station with 1 parking space per unit (27 percent fewer parking spaces than required by the City Code).



T-13: Implement Transportation Demand Management Plans at Existing Employers

Status Summary: *In Progress.* The City has retained a consultant and is working on establishing a Transportation Demand Management Program for employers that will be available on the City's website for voluntary use by interested employers.

CAP Goal: Reduce commute VMT to 3.7 percent below projected VMT in 2030, or approximately 30.6 million VMT by 2030.

Performance Status: The Transportation Demand Management Program will be available on the City's website in 2023.



T-14: Transition to an Online Building and Engineering Permit Submittal System

Status Summary: *Complete.* All engineering permits, building permits, planning applications and pre-applications are now taken in by the City electronically. Over the next two years, the City will continue to improve its public-facing forms, applications, and written procedures to further assist the public with the transition to online submittals.

The City used SB 2 Grant funds for this project which included expenses for Bluebeam plan review software, purchases of computer hardware for staff, and a public computer available at the Development Services counter.

CAP Goal: Completely transition to an online permitting submittal system by 2021.

Performance Status: An Online Building and Engineering Permit Submittal System has been established.



Energy

The strategies include improving energy efficiency of new development projects, both increasing the amount of renewable energy generated locally, and reducing the amount of non-renewable energy consumed locally.

STRATEGY 4:

Increase Building Energy Efficiency



E-1: Require New Residential Developments to Install Alternately-Fueled Water Heaters

Status Summary: *Ongoing.* The City is implementing this measure on an on-going basis by requiring new residential development projects subject to the CAP checklist to install alternately-fueled water heaters.

CAP Goal: Install 1,800 new alternately-fueled water heaters by 2030.

Performance Status: The City has approved 3 new residential development projects with 785 units that are required to install alternately-fueled (solar, electric, and hybrid) water heaters.

STRATEGY 5:

Increase Renewable and Zero Carbon Energy



E-2: Require Installation of PV systems at New Non-Residential Developments

Status Summary: *Ongoing.* Starting January 1, 2023, all newly constructed buildings or mixed occupancy buildings with more than three habitable stories will be required to install a photovoltaic (PV) system and battery storage per the California Building Energy Code. The new Code went to the City Council in October for consideration and will be effective January 1, 2023.

CAP Goal: Install 2.1 Megawatt (MW) PV at new commercial developments by 2030.

Performance Status: The City has approved 3 new commercial development projects that are installing approximately 1 MW PV.



E-3: Increase Grid-Supply Renewable and Zero-Carbon Electricity

Status Summary: *In Progress.* The City has joined the Clean Energy Alliance (CEA) to partner with six other North County cities to form a new Community Choice Energy Program. The goal of joining the CEA is so the City can procure renewable and zero-carbon electricity for its residents and businesses in compliance with this CAP measure.

CAP Goal: Achieve 95% renewables and zero-carbon in electricity supply in 2030 with up to 3% customer opt-out rate.

Performance Status: The Community Choice Energy Program is scheduled to launch in San Marcos in April 2023.



Water

Strategies include implementing policies and plans for more efficient water usage.

STRATEGY 6: Reduce Water Use



W-1: Reduce Outdoor Water Use for Landscaping

Status Summary: *Ongoing.* The City is implementing this measure on an on-going basis by requiring projects subject to the CAP checklist to comply with the Water Efficiency Landscape Ordinance (WELo). Landscape plans for projects are reviewed for compliance, and after installation, City staff conducts inspections to confirm landscaping is installed in compliance with WELo and approves plans.

CAP Goal: Reduce outdoor water use for landscaping by 165 acre-feet in 2030.

Performance Status: The City has approved 5 new development projects of 5.76 acres of landscaped area that are in compliance with WELo.



W-2: Reduce Water Use in City Managed Landscape Areas

Status Summary: *Ongoing.* The City is implementing this measure on an on-going basis and has identified a project for Fiscal Year 2022-23 to replace irrigation controllers at some of the large community park sites, including San Elijo Park, Sunset Park, Hollandia Park, Mission Sports Park, Conners Park and a few more sites that have yet to be determined. The project has a budget of \$219,900 and will upgrade the controllers to smart, weather based controllers with the ability to provide data on water usage. These new controllers are expected to help conserve water since they utilize weather based data to determine water usage. They also have the ability to incorporate soil moisture data to help manage water use.






CAP Goal: Reduce water use in existing City managed landscaped areas by 120 acre-feet in 2030.

Performance Status: Data is currently not available, however new irrigation controllers that are expected to be installed in 11 City parks will begin collecting data on water usage in Spring, 2023.



Solid Waste

Strategies include diverting waste away from landfills and into other waste streams such as recycling or composting.

STRATEGY 7: Reduce and Recycle Solid Waste					
 S-1: Increase Citywide Waste Diversion					
<p>Status Summary: <i>In Progress.</i> Senate Bill (SB) 1383 went into effect on January 1, 2022. This law requires additional diversion of organic and edible food waste. Although enforcement of the requirements is not required until 2024, the City is already in the process of identifying capacity which can be deferred from landfills for both organic and edible food waste.</p> <p>The City has approved a Franchise Agreement Amendment with EDCO to include Organic Waste Recovery services related to SB 1383 requirements. The amendment includes requirements that EDCO would assist the City in developing a waste diversion plan to identify interim steps towards increased waste diversion.</p>					
<p>CAP Goal: Achieve 85% Citywide waste diversion by 2030.</p>		<p>Performance Status: The Public Works Department is currently working with EDCO on implementing the organics waste recycling throughout the City. The City has also engaged a new consultant (Solana Center) who is currently working on an analysis to help determine the City’s food waste processing capacity.</p>			



Carbon Sequestration

Increasing carbon sequestration strategies include expanding the urban forest canopy and protecting natural systems, which help remove carbon dioxide from the atmosphere.

STRATEGY 8:

Increase Urban Tree Cover



C-1: Increase Tree Planting at City Parks and in Public Rights-of-Way

Status Summary: *Ongoing.* The City of San Marcos partnered with Urban Corps of San Diego to participate in the Cal Fire Urban and Community Forestry Grant Program. Urban Corps was awarded \$998,390 to plant trees in four San Diego County cities, including San Marcos. San Marcos will receive 125 new trees that are expected to be planted in the first quarter of 2023 by Urban Corps team members at The Laurels, Santa Fe Hills, Discovery Hills, Buelow Park, Senior Center Park, and Hollandia Park. This measure will remain “On-Going” as the City will continue to look for opportunities to plant trees at parks and other City managed landscape areas.

CAP Goal: Plant and maintain 1,500 new trees in public spaces by 2030.

Performance Status: The City planted over 275 trees at various locations in 2021.



C-2: Increase Tree Planting in New Developments

Status Summary: *Ongoing.* The City is implementing this measure on an on-going basis by requiring new development projects to plant 1 tree for every 5 parking spaces and a minimum of 1 tree in front yard of new single-family homes. If any projects propose to remove trees, the City requires replacement of trees at a 1:1 ratio.

CAP Goal: Plant and monitor 1,200 new trees on private properties by 2030.

Performance Status: The City has approved 4 new projects including approximately 739 new trees.



LOOKING AHEAD

The City has already made significant progress implementing the CAP. Three measures have already been completed, and an additional ten are being implemented on an on-going basis. Going forward, the City will continue working on the six measures that are in progress, and begin implementing the remaining three measures. In addition, the City is looking ahead to the following plans and programs:

1. General Plan Update (GPU)

The City is currently updating its General Plan. During the next year, the City will prepare the Policy Document and initiate the Environmental Review process. Adoption of the comprehensive General Plan Update and Environmental Impact Report is anticipated in 2024.

2. Potential CAP update as a follow-up to the General Plan Update

Following the approval and adoption of the comprehensive General Plan Update and the Program Environmental Impact Report, which is anticipated in 2024, the City is anticipating updating the CAP. The CAP update is anticipated to account for updated densities and intensities of uses in the General Plan Update and its projected build-out date. Any future update to the CAP will be based on latest available data of a recent GHG emissions baseline year. The future GHG emissions projections will take into account City, State and Federal regulations and programs that are in place to reduce the GHG emissions.

3. The upcoming Transportation Demand Management (TDM) Ordinance

The City is in the process of implementing the CAP Measures T-9 and T-13 by working on the adoption of its TDM Ordinance. A consultant has been retained for this task and the City has been working in collaboration with the Consultant's team to structure this Ordinance. It is anticipated that this Ordinance will be brought forward to the Planning Commission and City Council for approval and adoption in early 2023.

APPENDICES

A. CAP Checklists

- (i) Hollandia Dairy Project
- (ii) Twin Oaks Fuel, Convenience Store, and Car Wash Project
- (iii) Mariposa II Phase II Project
- (iv) Hallmark Barham Project
- (v) University District Specific Plan Amendment and SDP

B. CAP Reporting on Bike Infrastructure (Measure T-8)