City of Walnut Creek

Climate Action Plan Summary Report 2012-2020

Introduction

In 2012, the City of Walnut Creek adopted its first Climate Action Plan (CAP), a strategic plan to reduce greenhouse gas (GHG) emissions to address climate change. The CAP uses GHG levels in 2005 as our baseline for emissions. The CAP organizes implementation under two broad categories: Municipal and Community. Municipal covers projects and work completed to reduce greenhouse gas emissions specifically from City facilities and operations, such as at City Hall or the City's vehicle fleet. Community covers projects and work completed to reduce greenhouse gas emissions across the entire Walnut Creek community, including residents, businesses, and government. The CAP established two overarching GHG reduction goals and outlined the strategies and specific actions needed to reach those goals. For example, one Community strategy is to increase the use of renewable energy. Under this strategy, a specific implementation action is to create an online permitting process for solar, and to expedite the submittal review and approval process. When the CAP was drafted, it included estimates of how much each strategy would reduce GHG emissions if fully implemented by the year 2020.

Table 1. Comparison of Municipal and Community Sections of CAP

	Municipal	Community
GHG Reduction Goal	39% reduction from 2005 levels by 2020	15% reduction from 2005 levels by 2020
Total strategies to implement to reach goal	11 strategies	10 strategies
Total actions to implement to reach goal	62 actions	95 actions

The City tracks its progress against our baseline emissions from 2005 in two different ways. About every five years, it is recommended that the City complete a full Greenhouse Gas Inventory, which is a technical analysis that more accurately measures GHG emissions across relevant sectors, such as energy and transportation. The City recently completed a Greenhouse Gas Inventory that measured emissions in the year 2017 to show the City's Municipal and Community progress. Municipal GHG emission levels have declined by 4% from 2005 to 2017 due to new data categories being included in 2017. If comparing only the sectors that are included in both the 2005 and 2017 inventories, total GHG emissions from these sectors have decreased by 35%, which would be on track to meet the City's 2020 goal of a 39% reduction in Municipal emissions. Based on 2017 data, the City is on track to exceed our 2020 Community emissions reduction goal of a 15% reduction, with an estimated 27% reduction from 2005 to 2017.

Since Greenhouse Gas Inventories can be time intensive and costly, the City also tracks the implementation of CAP strategies and actions on an annual basis using key performance metrics. This annual tracking provides a rougher estimate of quantitative and qualitative progress. For example, the City tracks key performance metrics, like the number of residential and commercial solar permits, to estimate progress toward the overall strategy of increasing renewable energy and reducing GHGs. The City also tracks whether specific actions are completed or not. The City succeeded in implementing about 82% of all Municipal Actions and about 78% of all Community Actions.

2012-2020 Highlights

The following 2012-2020 Municipal and Community Highlights show the City's achievements in implementing key strategies and actions that contributed to GHG reductions. The City also implemented actions that were not included in the original CAP, such as participating in MCE and piloting a bikeshare program, but that were aligned with the overarching strategies and helped to achieve GHG reductions.

2012-2020 Municipal and Community Status Reports

The Municipal and Community Status Reports (Tables 1 and 2) show the status for CAP strategies and actions, and compares what the original, projected GHG savings were by strategy with the results by sector from the 2017 Greenhouse Gas Inventories. These two different ways of estimating emissions reductions are not completely aligned, but help to give a sense of how significantly different strategies and actions contributed to GHG reductions. The Municipal and Community Status Reports show the following statuses for CAP actions:

- **Completed:** The action is complete. For example, the City revised the bicycle parking standards in the zoning ordinance to include bicycle parking for multi-family residential uses.
- **In Progress:** The action is still being implemented. Although the action was not completed by the end of 2020, staff expects the action to be completed in the near future. For example, the City was awarded a grant to improve traffic signal timing along certain roads, but staff are waiting for post-COVID traffic volumes to emerge before completing implementation of this action.
- **Ongoing:** The action is being implemented on an ongoing basis. For example, the City regularly promotes energy efficiency, waste reduction, renewable energy, and water conservation programs to the public.
- **Not Completed:** The action was not initiated or not completed. There are many reasons an action may be categorized as Not Completed, such as being infeasible, too expensive, or deprioritized in favor of actions with greater impact. For example, the CAP includes actions to install solar water heaters at City facilities. This technology was explored and found to be a bad fit for facilities as well as having a poor financial payback. The solar water heater action was deprioritized, and the City chose to participate in MCE's Deep Green program to receive 100% renewable electricity instead, fulfilling the overarching strategy of increasing renewable energy use at City facilities.

Climate Action Plan

2012-2020 Highlights

Municipal Actions

100% Deep Green Facilities

In 2018, all City facilities switched to MCE's 100% renewable electricity

96% Streetlight Conversion

96% of City owned street-lights converted to energy efficient LEDs

785,955 kWh saved per year

HVAC and lighting energy efficiency upgrades completed at City buildings

18 Acres Converted

to drought tolerant or native landscaping since 2012

20,000 Gallons

of renewable diesel used annually, reducing fleet emissions by more than 60%. The City was the first in the nation to switch

747 kW Solar

The City has installed solar at City Hall, Heather Farm Park, and Boundary Oak Golf Course, saving more than $2.8 M over 20 years

Silver Beacon Spotlight Award

in 2018 for achieving 9% energy savings at facilities

118,410 sq. ft.

of reflective roof material installed on City facilities since 2012 to increase energy efficiency

22 Miles of Bike Facility Improvements

added from 2013-2020

Climate Action Plan

2012-2020 Highlights

Community Actions

MCE reduces 15,774 MT CO2

89% of residents and business participate in MCE. The City joined in 2016

1,683,584 kWh

and 7,075 MT CO2 reduced by businesses through energy efficiency programs. City provided $81,000 for rebates

2.6% MCE Deep Green

2.6% of all residential and business accounts chose 100% renewable electricity

EV Building Code Adopted

Local building code requiring electric vehicle charger installation effective 2020

Gold Beacon Spotlight Award

in 2018 for community greenhouse gas reductions

Gold Beacon Spotlight Award

in 2018 for Sustainability Best Practices

SolSmart Gold Award

from the US Department of Energy in 2019 for streamlining solar permits

49 EV Charging Stations

available to the public throughout Walnut Creek

3 Subsidized Bus Routes

The City has helped to subsidize Routes 4, 5, and 7 for riders

Table 1. CLIMATE ACTION PLAN: MUNICIPAL OPERATIONS STATUS REPORT 2012-2020

Inventory Sectors	CAP Goal	Description	2020 Status	2020 Targeted GHG Reductions (MT CO2e)	2017 Inventory: Actual GHG Reductions Since 2005 (MT CO2e)
Buildings and Facilities	B 1	Integrate energy efficiency and other green building practices into new City facilities	3/3 Actions Completed	-93	-1210*
	B 2	Conduct energy efficiency audits and implement energy/water efficiency retrofits to existing City facilities	3/10 Actions Completed 7/10 Actions Ongoing	-152	
	B 3	Establish energy and water management and operations policies and practices for City facilities	3/14 Actions Completed 4/14 Actions Ongoing 7/14 Actions Not Completed	-961	
	B 4	Consider clean energy alternatives for City facilities and operations	2/4 Actions Completed 2/4 Actions Not Completed	-246	
Public Lighting	S 1	Implement energy management and operations practices for City-owned street lights	1/2 Actions Completed 1/2 Actions In Progress	-134	-590
Solid Waste	MWR 1	Waste Prevention	2/3 Actions Completed 1/3 Actions Ongoing	-6	+250
	MWR 2	Encourage recycling of used materials whenever feasible at City facilities	2/2 Actions Completed	-1	
Government Fleet	MT 1	Increase the number of fuel-efficient vehicles in the City's fleet	3/3 Actions Ongoing	-158	-300
	MT 2	Establish energy-efficiency fleet management and operation practices	6/12 Actions Completed 5/12 Actions Ongoing 1/12 Action Not Completed	-172	
Employee Commutes	MT 3	Provide alternative transportation options for all City employees	1/5 Actions Completed 3/5 Actions Ongoing 1/5 Actions Not Completed	-3	NA
None	MEO 1	Inform City employees of sustainability initiatives/ upgrades to City facilities and engage employees in behavior-based programming to complement these efforts	2/2 Actions Ongoing	-36	NA
None	MEPP 1	Create and implement environmentally preferable purchasing (EPP) categories and practices in City facilities	1/2 Actions Completed 1/2 Actions Ongoing	NA	NA
		TOTAL	**24/62 Actions Completed** **1/62 Actions In Progress** **26/62 Actions Ongoing** **11/62 Actions Not Completed**	**-1962**	**-1850**

** Includes an estimate of reductions for all City facilities using MCE Deep Green, which began in 2018*

Table 2. CLIMATE ACTION PLAN: COMMUNITY STATUS REPORT FOR 2012-2020

Inventory Sectors	CAP Goal	Description	2020 Status	2020 Targeted GHG Reductions (MT CO2e)	2017 Inventory: Actual GHG Reductions Since 2005 (MT CO2e)
Energy	EU 1	Increase energy efficiency and conservation efforts	2/14 Actions Completed 9/14 Actions Ongoing 3/14 Actions Not Completed	-16,506	-79,495
	EU 2	Promote and support renewable energy generation and use	6/6 Actions Completed	-10,572	
	EU 3	Facilitate green building and design	2/6 Actions Completed 1/6 Actions Ongoing 3/6 Actions Not Completed	-1,001	
	EU 4	Reduce energy use through increased water conservation	3/4 Actions Ongoing 1/4 Actions Not Completed	-2,179	
Transportation	TLU 1	Reduce GHG emissions through use of alternative vehicles, trip reduction and consolidation, & efficient traffic flow	3/12 Actions Completed 1/12 Actions Ongoing 2/12 Actions In Progress 6/12 Actions Not Completed	-14,555	-60,266
	TLU 2	Reduce vehicle miles traveled through smart land use and design	3/13 Actions Completed 10/13 Actions Ongoing	-38,276	
	TLU 3	Convert vehicular trips to non-vehicular or transit trips	7/24 Actions Completed 13/24 Actions Ongoing 4/24 Actions Not Completed	-13,544	
Waste	WR 1	Implement a zero waste policy to reduce waste sent to the landfill	4/9 Actions Completed 3/9 Actions Ongoing 2/9 Actions Not Completed	-6,512	-7189
None	EPP 1	Investigate promoting the purchase of local goods and services	1/4 Actions Completed 1/4 Actions Ongoing 2/4 Actions Not Completetd	0	NA
None	EPP 2	Encourage residents in green lifestyles. Municipal Reductions (See Municipal section)	3/3 Actions Ongoing	-313	NA
		TOTAL	**28/95 Actions Completed** **2/95 Actions In Progress** **44/95 Actions Ongoing** **21/95 Actions Not Completed**	**-103,458**	**-146,950**