

THE CITY OF



PLEASANTON®

# CLIMATE ACTION PLAN SUMMARY

## 2.0

March 2022

## Why does Pleasanton need a Climate Action Plan?

In recognition of escalating climate threats and the latest Intergovernmental Panel on Climate Change (IPCC) report, this climate action plan update (CAP 2.0) reaffirms Pleasanton's commitment to help slow climate change.

The City of Pleasanton completed its first greenhouse gas (GHG) emissions inventory in 2007 and its first climate action plan (CAP 1.0) in 2012. Pleasanton surpassed the CAP 1.0 target of reducing emissions 15% below 2005 levels by 2020, ahead of schedule. Since then, extreme heat, water uncertainty, wildfire smoke, and flooding have become more frequent and intense, putting vital systems at risk.

**Pleasanton surpassed the CAP 1.0 target of reducing emissions 15% below 2005 levels by 2020 ahead of schedule.**

As Pleasanton continues to grow and thrive, the City and community must reduce greenhouse gas emissions while building resilience to climate change within our community to maintain a vibrant, healthy, and sustainable home, now and for decades to come.



## Why update the plan?

- CAP 1.0 has a horizon year of 2020. Updating the CAP was a City Council priority to continue building on CAP 1.0.
- Climate science has evolved, as have state, regional, and local policies and initiatives. Pleasanton must continue to take an evidence-based approach to climate action that aligns with the latest science and current and anticipated policies.
- The City needs a clear path forward that continues to respond to climate change.

## CAP 2.0 objectives

- Create a plan with evidence-based, actionable, and achievable local policies.
- Reduce Pleasanton's greenhouse gas emissions.
- Enhance local environmental sustainability and improve resilience and vulnerability to climate change.
- Create a qualified CAP under the California Environmental Quality Act (CEQA) that complies with current regulations.

# Balancing Adaptation and Mitigation

## Adapting to climate change

Pleasanton, like many communities, faces vulnerabilities to climate change. The CAP 2.0 addresses threats that are most likely to affect the city's most vital public and natural systems.



### Increased heat

Summers are expected to warm in Alameda County, with the number of extreme heat days and heat waves at least doubling by mid-century.<sup>1</sup> Rising temperatures will exacerbate drought, wildfire, and water uncertainty.



### Extreme weather

Climate change will cause rain events to be less frequent but more intense.<sup>2</sup> In the Bay Area, these heavy rain events are likely to increase flooding, landslides, and mudslides.



### Wildfire

Climate change is causing more frequent, intense wildfires in the Bay Area, straining what the fire-prone landscape can handle. Rising temperatures, drought, and expanding wildland development increases wildfire risk for parts of the inland Bay Area.<sup>3</sup>



### Water uncertainty

Pleasanton is particularly vulnerable to future water shortages. Warmer temperatures, an 80% decline in snowpack by 2100, and changing seasonal precipitation patterns will worsen summer water shortages and lead to more frequent, severe droughts.

<sup>1</sup> An extreme heat day is defined as a maximum air temperature of at least 95°F, a heat wave is defined as three to nine days with maximum air temperature of at least 95°F, and an extreme heat wave is defined as ten or more days with maximum air temperature of at least 95°F. Warm months are defined as June through October. Source: Vahmani, P., Jones, A.D., and Patricola, C.M. (2019). Interacting implications of climate change, population dynamics, and urban heat mitigation for future exposure to heat extremes. *Environ. Res. Lett.* 14(0840851). DOI: doi.org/10.1088/1748-9326/ab28b0

<sup>2</sup> Cannon, S.H. and J.E. Gartner. (2005). Ch. 15 Wildfire-related debris flow from a hazards perspective. In: *Debris-flow Hazards and Related Phenomena* [eds. M. Jakob and O. Hungr]. Springer Praxis Books. Springer, Berlin, Heidelberg.

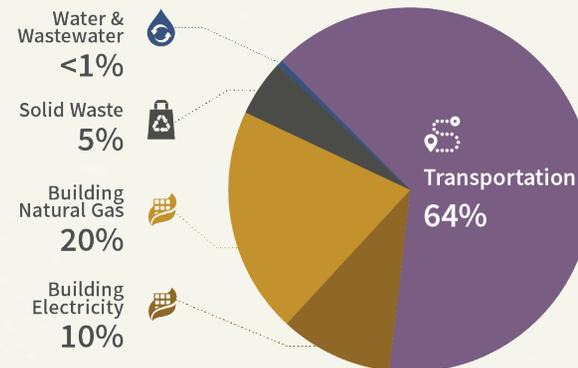
<sup>3</sup> Ackerly, David, Andrew Jones, Mark Stacey, Bruce Riordan. (University of California, Berkeley). (2018). San Francisco Bay Area Summary Report. California's Fourth Climate Change Assessment. Publication number: CCCA4-SUM-2018-005.

## Mitigating Pleasanton's impacts

Like many cities, Pleasanton's major emissions sources are on-road transportation, especially from commercial and passenger vehicles, and building energy, especially natural gas consumption. In 2017, most of Pleasanton's GHG emissions came from three sources:

- **Transportation** (on-road and off-road transportation)
- **Building natural gas use** (residential and non-residential buildings)
- **Building electricity use** (residential and non-residential buildings)

**Pleasanton community GHG emissions by sector**  
(2017 Total: 588,553 MTCO<sub>2e</sub> | Per Capita: 7.67 MTCO<sub>2e</sub><sup>1</sup>)



<sup>1</sup> MTCO<sub>2e</sub> refers to metric tons of carbon dioxide equivalence, which expresses the global warming potential of GHGs in terms of carbon dioxide.

Between 2005 and 2017, Pleasanton's GHG emissions declined 28%, exceeding the GHG emissions reduction target established in the CAP 1.0. Even as Pleasanton has continued to experience a growing population and economy, the community achieved a per capita emissions reduction of 37%.

## What you can do today

### Act locally

- Join and support local non-profits such as the [GoGreen Initiative](#) and/or [Tri-Valley Citizens Climate Education](#) to support local climate and sustainability action.
- Calculate your [household carbon footprint](#) and build an action plan for reducing your household's carbon pollution (e.g., how you get to work, what you buy and throw away, what you eat). The calculator will also offer funding and cost-saving resources!
- Increase your civic engagement to ensure your concerns, priorities, and values are heard and reflected, such as participating in the Pleasanton Committee on Energy and the Environment.
- Stay informed about recent climate science. For example, read parts of the most recent [IPCC report](#).
- Shop locally, supporting local businesses and clean manufacturing, and keeping transportation emissions down" or similar - it's really a great way to support the local economy while reducing your footprint!

### Travel more sustainably and improve air quality

- Reduce your travel by minimizing flights and cutting down on driving.
- Enjoy alternative transportation modes, including walking, biking, and public transit—replacing just one car trip per week can really add up!
- If you purchase a car, go electric!
- Replace gas-powered landscaping equipment with electric plug-in or battery equipment.

### Embrace zero waste

- Reduce consumption of high-emissions foods such as meat and dairy—replacing just one portion of meat per week with a plant-based alternative can really add up! Seasonal fruits and vegetables, grains, and unprocessed foods generally have a lower impact than out-of-season alternatives.
- Avoid unnecessary food waste by planning meals, right-sizing your grocery and restaurant purchases, and bring reusable containers when you shop or eat out.
- Avoid single-use plastic food wraps, utensils, or bags and instead use reusable storage containers, jars, beeswax, and shower caps.
- When purchasing clothing, electronics or household goods, look for items that are high quality, repairable, and long lasting.

### Be water-wise, energy-smart, and nature-friendly

- Switch off and unplug appliances when not in use (computers, phone chargers, TVs, etc.).
- Install water- and energy-efficient appliances, such as WaterSense toilets and showerheads and Energy Star washing machines.
- Plant summer-dry native trees and vegetation in your backyard or garden.
- [Sheet mulch your yard](#) and practice xeriscaping, a process that reduces or eliminates the need for additional water in landscaping and gardening.
- Use mulch and compost to retain soil moisture, control weeds and build resilient soil.
- Organize a community group to help restore a local stream or park.
- Sign up for [automatic leak detection](#).
- Avoid pesticides, herbicides, and insecticide use and instead practice [Integrated Pest Management](#).

# Setting the Stage for Emissions Reductions

## What is Pleasanton already doing?

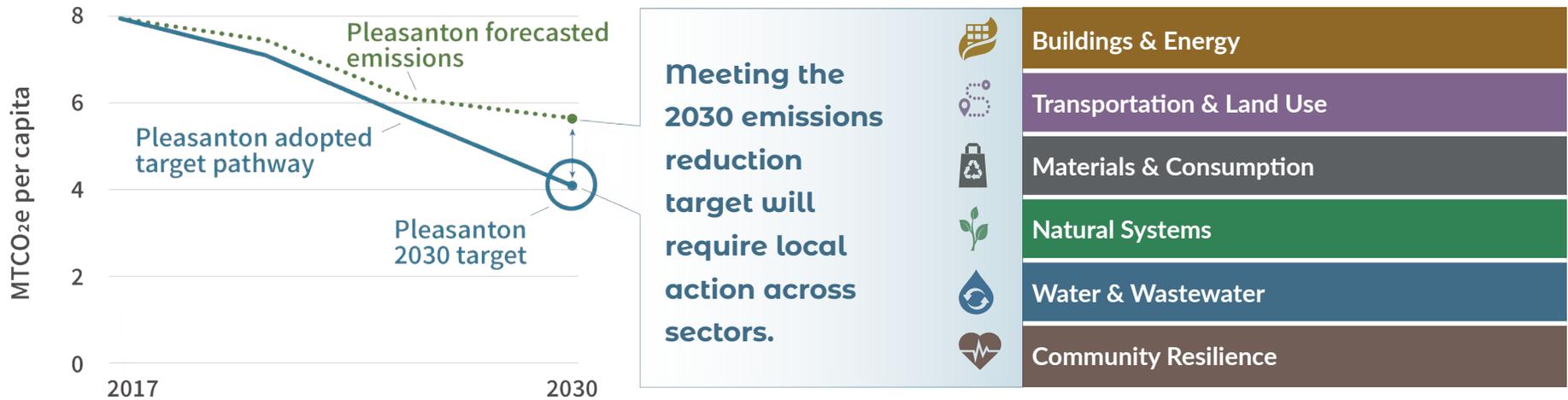
In addition to state and federal regulations that affect local emissions, the City is already taking several actions that are anticipated to continue through the life of this plan. These existing ongoing actions that were quantified for emission reduction potential are listed in the table at right.

## What will it take to reach the target?

Several federal and state policies—including vehicle fuel economy standards, building standards, and renewable portfolio standards—will help lower Pleasanton's forecasted greenhouse gas emissions over time. The gap between the 2030 reduction target set by the City and the city's projected emissions is the policy focus of the new actions in the CAP 2.0.

GHG emission reduction estimates for local existing ongoing actions

Existing Ongoing Actions	Cumulative 2030 Emissions Reduced (MTCO <sub>2</sub> e)
E1. Maintain zero-emissions energy as the default choice for municipal operations	2,200
E2. Maintain zero-emissions energy as the default choice for the community	255,700
E3. Bicycle & Pedestrian Master Plan and Trails Master Plan	6,400
E4. Regional transit support	5,300
E5. Complete Streets implementation	1,000
E6. Housing Element	18,800
E7. SB 1383 implementation	135,100





# Buildings & Energy

Reduce GHG emissions from buildings and associated energy consumption and increase buildings and energy resilience which will result in cost savings, improved public health, and improved infrastructure.

Strategy BE-1. Advance the decarbonization of buildings				284,500 MTCO <sub>2</sub> e reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
E1. Maintain zero-emissions energy as the default choice for municipal operations	N/A	N/A	Ongoing	2,200
E2. Maintain zero-emissions energy as the default choice for the community	N/A	N/A	Ongoing	255,700
P1. Implement an all-electric reach code for new construction	\$49k	(\$2.7M)	2022-24 (I)	10,100
P2. Develop and implement an Existing Building Electrification Plan	\$138k	\$137k	2025-28 (II)	16,500
S1. Require low-impact refrigerants in new construction	\$43k	(\$262k)	2029-31 (III)	

Strategy BE-2. Improve energy consumption and efficiency				9,200 MTCO <sub>2</sub> e reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
P3. Modify Municipal Code Green Building chapter to include more buildings	(\$0)	\$287k	2022-24 (I)	1,300
S2. Promote community energy efficiency upgrades	\$958k	(\$1.9M)	2025-28 (II)	7,500
S3. Conduct City facility energy benchmarking and retrofits	(\$3.1M)	(\$0)	2022-24 (I)	400

Strategy BE-3. Expand use of renewable energy				2,300 MTCO <sub>2</sub> e reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
P4. Require solar power and storage on new construction, if feasible	(\$0)	(\$0)	2022-24 (I)	2,300

\*Cumulative emissions reductions through 2030



# Transportation & Land Use

Reduce GHG emissions from transportation and land use which will enhance community mobility, improve public health, and result in cost savings.

Strategy TLU-1. Advance vehicle decarbonization				124,500 MTCO <sub>2</sub> e reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
P5. Develop and implement a Zero Emissions Vehicle Infrastructure Plan	\$218k	(\$31k)	2025-28 (II)	118,200
P6. Electrify municipal small engine equipment and reduce emissions of off-road equipment upon replacement	(\$0)	(\$0)	2025-28 (II)	1,000
P7. Electrify community small engine equipment	(\$0)	(\$2.4M)	2022-24 (I)	6,300

Strategy TLU-2. Advance active, shared, and public transportation				34,200 MTCO <sub>2</sub> e reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
E3. Implement Bicycle & Pedestrian Master Plan and Trails Master Plan	N/A	N/A	Ongoing	6,400
E4. Support regional transit	N/A	N/A	Ongoing	5,300
E5. Implement Complete Streets program	N/A	N/A	Ongoing	1,000
P8. Require bicycle amenities for some new buildings	(\$0)	\$2.4M	2022-24 (I)	1,900
P9. Develop and implement a bicycle rack incentive program	\$8k	(\$777k)	2025-28 (II)	1,800
P10. Increase transit ridership	\$75k	(\$585k)	2029-31 (III)	5,100
S4. Reduce VMT for K-12 activities	\$571k	(\$6.3M)	2022-24 (I)	12,700

Strategy TLU-3. Advance sustainable land use				35,400 MTCO <sub>2</sub> e reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
E6. Implement General Plan Housing Element	N/A	N/A	Ongoing	18,800
P11. Promote LEED Neighborhood Development	\$1k	(\$850k)	2022-24 (I)	16,600

\*Cumulative emissions reductions through 2030



# Materials & Consumption

Reduce GHG emissions from materials management and consumption which will support regional waste reduction efforts.

Strategy MC-1. Increase waste diversion and optimize collection and disposal systems				135,100 MTCO <sub>2e</sub> reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2e</sub> )*
E7. Continue to implement SB 1383 requirements	N/A	N/A	Ongoing	135,100
E8. Conduct waste-related outreach and education	N/A	N/A	Ongoing	
P12. Explore paths to reduce single-use plastic	(\$0)	(\$0)	2025-28 (II)	

Strategy MC-2. Enhance sustainable production and reduce consumption				Supports emissions reduction
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2e</sub> )*
E9. Promote local purchasing	N/A	N/A	Ongoing	
E10. Implement textile recovery drop-off service	N/A	N/A	Ongoing	
S5. Adopt an environmentally preferable purchasing policy	(\$0)	(\$0)	2022-24 (II)	
S6. Support a regional Embodied Carbon Reduction Plan	(\$0)	(\$89k)	2029-31 (III)	

\*Cumulative emissions reductions through 2030



# Natural Systems

Offset GHG emissions by fostering resilient natural landscapes that improve habitats, ecosystems, and public health.

Strategy NS-1. Increase and optimize carbon sequestration, improve ecosystem resilience				370,100 MTCO <sub>2</sub> e reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
E11. Continue to implement the Pesticide Posting Program	N/A	N/A	Ongoing	
E12. Manage municipal landscapes using sustainable soil practices	N/A	N/A	Ongoing	
E13. Expand sustainable land management education	N/A	N/A	Ongoing	
P13. Develop and implement an Urban Forest Master Plan	\$486k	\$470k	2022-24 (I)	366,200 <sup>1</sup>
P14. Implement soil management carbon sequestration projects	\$35k	\$2.8M	2022-24 (I)	3,900 <sup>1</sup>
S7. Work with partners to conduct carbon sequestration research and tracking	(\$0)	(\$0)	2025-28 (II)	

\*Cumulative emissions reductions through 2030

<sup>1</sup> Represents carbon sequestration



# Water Resources

Reduce GHG emissions from water usage (including conveyance) and prepare community water resources for a changing climate which will result in cost savings, enhance water quality and availability, improve infrastructure, and increase resiliency.

Strategy WR-1. Improve water supply & increase conservation				Supports emissions reduction
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
E14. Continue to provide controller assistant program	N/A	N/A	Ongoing	
E15. Continue to monitor and support smart water meter installation	N/A	N/A	Ongoing	
E16. Continue to promote the Water Conservation Program	N/A	N/A	Ongoing	
P15. Expand water efficiency incentives and retrofits	\$1.6M	(\$4.6M)	2025-28 (II)	

Strategy WR-2. Improve stormwater resilience				Supports emissions reduction
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
E17. Continue on-site stormwater management requirements	N/A	N/A	Ongoing	
S8. Support regional green stormwater infrastructure planning	(\$0)	(\$0)	2029-31 (III)	

\*Cumulative emissions reductions through 2030



# Community Resilience & Wellbeing

Prepare for climate and non-climate emergencies and integrate climate considerations across City and community decision-making.

Strategy CRW-1. Improve community resilience & reduce vulnerability to climate change				27,400 MTCO <sub>2</sub> e reduced
Supporting Actions	City Costs or (Savings)	Community Costs or (Savings)	Phase	Emissions Reduced (MTCO <sub>2</sub> e)*
E18. Support school climate action planning	N/A	N/A	Ongoing	
E19. Increase awareness and access to green spaces	N/A	N/A	Ongoing	
E20. Continue to maintain accessible community cooling centers	N/A	N/A	Ongoing	N/A
E21. Expand and promote community gardens	N/A	N/A	Ongoing	
P16. Implement comprehensive climate awareness, education, and outreach	\$119k	(\$0)	2022-24 (I)	27,400
S9. Support wildfire preparation, prevention, and education	(\$0)	(\$0)	2022-24 (I)	

\*Cumulative emissions reductions through 2030

# Implementation

Successful implementation requires not just a plan and resources, but an awareness and attention to how the city is and will continue to change, the City’s unique role, and the vision and values that guide all decision making. To take the CAP 2.0 from vision to action will require City leadership and commitment, collaboration with the community and implementation partners, a realistic plan for funding and implementation, and strong monitoring and evaluation of progress.

## 2030 Targets for Key Performance Indicators (KPIs)

	Strategies	KPI	2017 Baseline	2030 Target	Change
<b>Buildings &amp; Energy</b>	BE-1. Advance the decarbonization of buildings	Building GHG emissions	178k	123k	-31%
		Natural gas consumption	22.4M	20.9M	-7%
	BE-2. Community energy efficiency upgrades	Energy consumption	4.13M	4.03M	-3%
		Municipal energy consumption	TBD <sup>1</sup>	TBD	Decrease
	BE-3. Expand use of renewable energy	Electricity emissions factor	0.000096	0	-100%
Solar & battery permits		TBD	TBD	Increase	
<b>Transportation &amp; Land Use</b>	TLU-1. Advance vehicle decarbonization	Average passenger vehicle carbon intensity	0.09	0.05	-44%
		EV charger permits	TBD	TBD	Increase
		EVs in municipal fleet	TBD	TBD	Increase
	TLU-2. Advance active, shared, and public transportation	VMT per capita	4.9k	4.6k	-6%
		Bike lanes & trails	TBD	TBD	Unknown
	TLU-3. Advance sustainable land use	Public transit ridership	TBD	TBD	Increase
<b>Materials &amp; Consumption</b>	MC-1. Increase waste diversion and optimize collection and disposal systems	Percent of workforce that lives in Pleasanton	TBD	TBD	Increase
		Landfilled waste	102k	93.8k	-8%
<b>Natural Systems</b>	NS-1. Increase and optimize carbon sequestration and improve ecosystem resilience	Material generated across all three streams	TBD	TBD	Decrease
		Carbon sequestration	TBD	74k	Increase
		Tree canopy	TBD	TBD	Increase
<b>Water Resources</b>	WR-1. Improve water supply and conservation	Trees planted	TBD	TBD	Increase
		Water consumption electricity usage	TBD	23	Constant
		Community water use	TBD	TBD	Decrease
		Municipal water use	TBD	TBD	Decrease
<b>Community Resilience &amp; Wellbeing</b>	CRW-1. Improve community resilience and reduce vulnerability to climate change	Water conservation programs	TBD	TBD	Increase
		Access to cooling center	100%	100%	Constant
		Community preparedness training participation	TBD	TBD	Increase

<sup>1</sup> "TBD" denotes that indicator is not currently tracked. City will collect data as part of initial CAP 2.0 implementation activities.