



# Hayward Climate Action Plan



*prepared by*

**City of Hayward**

777 B Street

Hayward, California 94541

*prepared with assistance of*

**Rincon Consultants, Inc.**

449 15th Street, Suite 303

Oakland, California 94612

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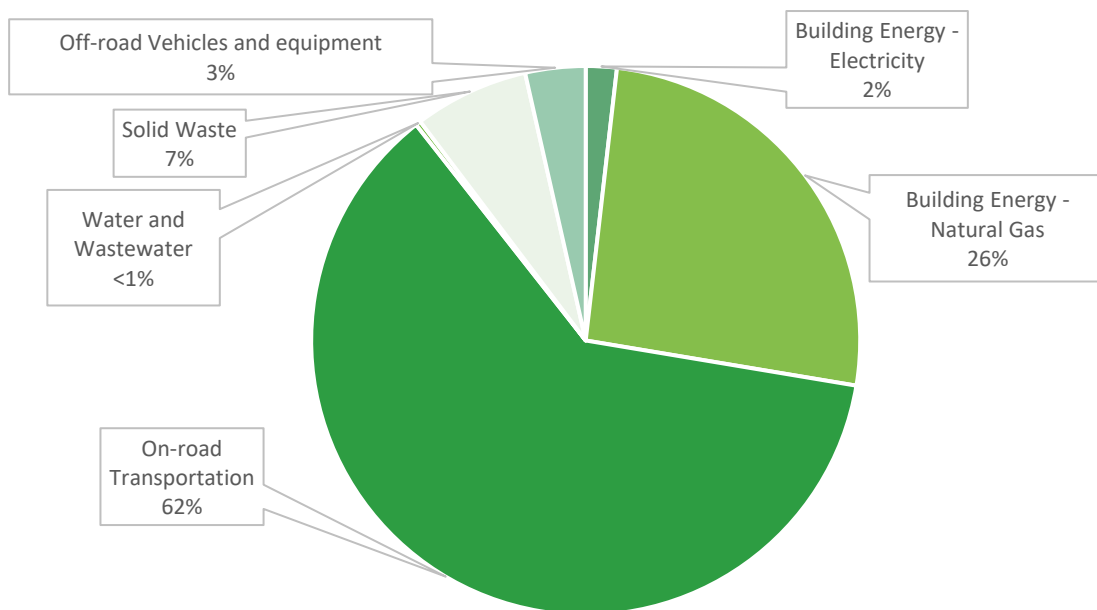
# Hayward CAP Executive Summary

Hayward is taking action to reduce greenhouse gas (GHG) emissions and minimize the impacts of climate change. Through the development and implementation of this Climate Action Plan (CAP), Hayward will enhance the community's wellbeing and continue taking actions intended to limit the impacts of climate change. The following is a high-level executive summary of GHG emissions levels, projected GHG emissions levels, established emissions targets, and GHG reduction measures for Hayward to achieve the City's adopted targets.

## Hayward Current GHG Emissions Inventory

The 2019 Community GHG Emissions Inventory for Hayward indicates that total community GHG emissions were 684,399 metric tons of carbon dioxide equivalents (MT CO<sub>2</sub>e). Figure ES-1 shows the share of total emissions for each sector of the community.

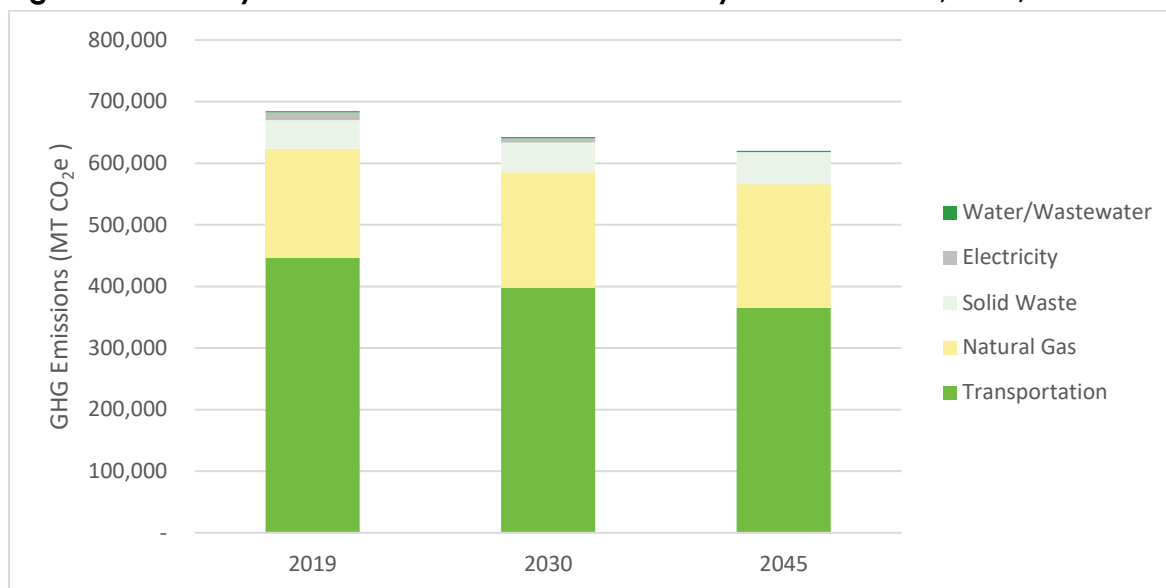
**Figure ES-1 Hayward GHG Emissions by Sector for 2019**



## Hayward Projected GHG Emissions Forecasts

Future Hayward GHG emissions levels are projected based on the 2019 GHG emissions, job growth, and estimated population growth trends. Enacted State policies and legislation that will take effect in the future and will reduce the expected emissions and are incorporated into the projections. Hayward's future emissions are projected to be 642,486 MT CO<sub>2</sub>e (or 3.84 MT CO<sub>2</sub>e/person) in 2030 and 620,134 MT CO<sub>2</sub>e (or 3.36 MT CO<sub>2</sub>e/person) in 2045. Forecasted emissions by community sector for both the 2030 and 2045 target years are shown in Figure ES-2.

**Figure ES-2 Hayward Forecasted GHG Emissions by Sector for 2019, 2030, and 2045**



## Hayward GHG Emissions Targets

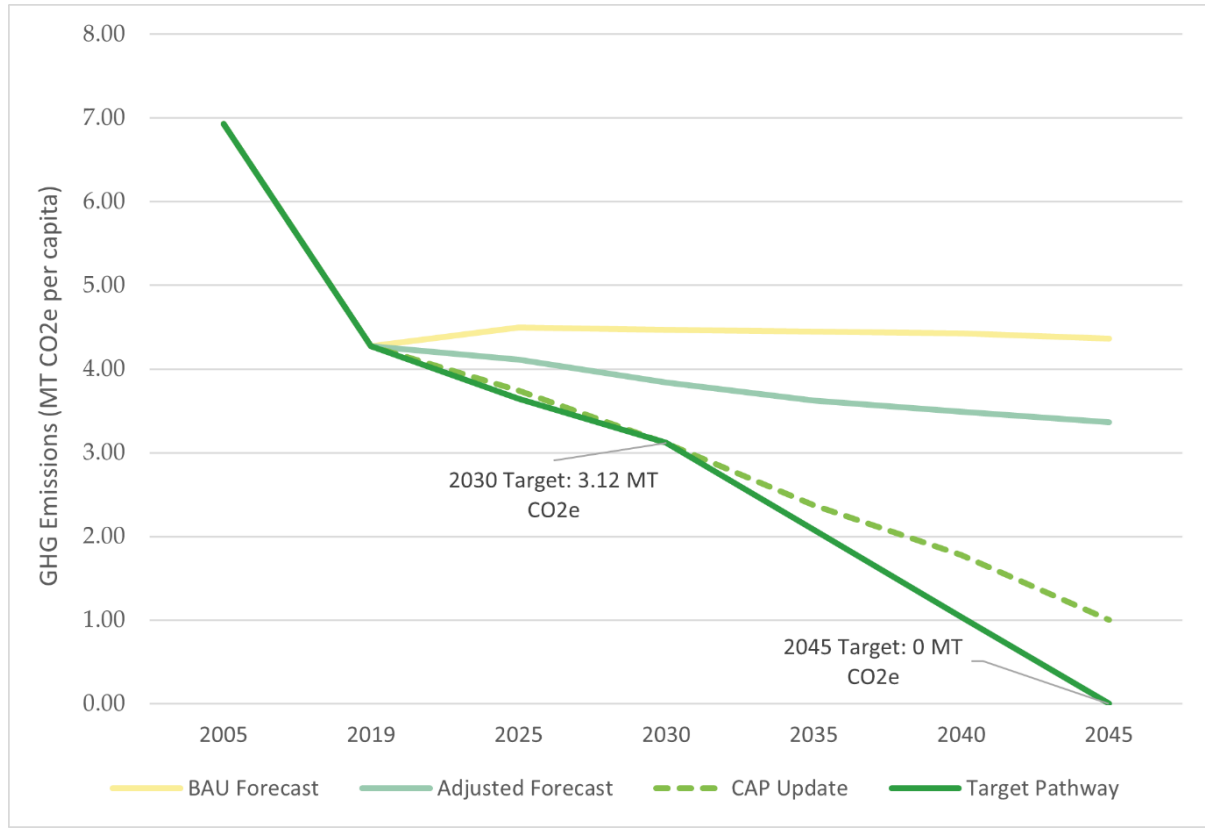
As of 2019, Hayward has reduced GHG emissions beyond the City’s 2020 GHG reduction target of 20 percent below their 2005 GHG emissions levels, thereby exceeding the State’s goal established by AB 32. In support of State and international climate goals, Hayward has adopted the following targets using the 2005 GHG inventory as the baseline:

- Reduce GHG emissions by 20 percent below 2005 levels by 2020 (equivalent to 1990 GHG emissions)
- Reduce GHG emissions by 30 percent below 2005 levels by 2025
- Reduce GHG emissions by 55 percent below 2005 levels by 2030 (equivalent to 40 percent below 1990 GHG emissions)<sup>1</sup>
- Work with the community to develop a plan that may result in the reduction of community-based GHG emissions to achieve carbon neutrality by 2045.

In alignment with State recommendations to use efficiency metrics (MT CO<sub>2</sub>e per capita) for local targets to account for population growth, the following targets have also been developed for Hayward’s future GHG emissions in this CAP: 3.12 MT CO<sub>2</sub>e per person by 2030 and 0 MT CO<sub>2</sub>e per person by 2045. The corresponding GHG emissions target pathway over the coming decades is illustrated in Figure ES-3. Together, the measures and actions in the CAP Update provide Hayward with the GHG reductions necessary to achieve Hayward’s 2030 climate action target as shown in Table ES-1 and Figure ES-3. The 2045 GHG emissions reductions quantified for their longer-term measures are not yet enough to meet the City’s 2045 climate action target of carbon neutrality. This CAP strives to institute equitable and resilient systems and make substantial progress towards eventual carbon neutrality. Further updates to the Hayward CAP beyond 2030 will also delineate new technologies, legislation, and additional measures and actions that Hayward will implement to close the remaining gap to achieve the carbon neutrality target.

<sup>1</sup> Hayward does not have a 1990 GHG inventory, and the targets developed by the City are instead compared to its 2005 GHG inventory baseline. In the 2006 AB 32 Scoping Plan, the recommended target for local governments to meet 1990 levels was 15 percent below “current” levels by 2020, where “current” levels were construed as baseline years between 2005-2008.

**Figure ES-3 Per Capita Emissions Compared to Forecast Scenario and Target Pathway**



**Table ES-1 2030 and 2045 Emissions Levels Compared to Targets**

Target/Forecast	2030 GHG Emissions (MT CO <sub>2</sub> e/person)	2045 GHG Emissions (MT CO <sub>2</sub> e/person)
Business-as-usual Forecast	4.47	4.36
Adjusted Forecast	3.84	3.36
Reductions from Full Implementation of Measures	0.73	2.36
GHG Emissions after Measure Reductions	3.11	1.01
Climate Action Targets	3.12	0.00
Target Anticipated to be Met?	Yes	Substantial progress demonstrated

## Hayward CAP Measures to be Implemented by 2030

Through full implementation of the suite of measures included in this CAP, Hayward will achieve its 2030 target of 3.12 MT CO<sub>2</sub>e per person. In addition to new technologies and State legislation, new measures will likely be required as part of future CAP updates to attain the longer-term goal of carbon neutrality by 2045. Each measure is supported by a set of actions that will help to achieve the full benefits of that measure. The measures and actions are supported by substantial evidence and have been designed using principles called key pillars that support changes that are robust, effective, and inclusive. Key pillars include structural change, feasibility studies, funding, equity, education, and partnerships. The measures and actions have been reviewed and co-developed by the community throughout the CAP process (Table ES-2).

**Table ES-2 CAP GHG Emissions Reduction Measures Overview**

No.	Measure	MT CO <sub>2</sub> e Reduction
BE-1	Continue the all-electric requirement for new residential construction. Adopt an all-electric requirement for new non-residential construction to take effect by 2026.	2030: 5,392 2045: 18,761
BE-2	Electrify existing single-family residential buildings in order to achieve 100 therms/person/year by 2030 and 0 therms/person in 2045.	2030: 13,872 2045: 68,020
BE-3	Decarbonize existing commercial and multi-family buildings in order to achieve 53 therms per service person in 2030 and 0 therms per service person in 2045.	2030: 20,667 2045:114,200
BE-4	Support Ava Community Energy in providing 100% carbon-free electricity by 2030.	2030: 4,802 2045: 0
BE-5	Continue to promote energy efficiency improvement, in alignment with the 2014 Climate Action Plan.	Supportive
BE-6	Generate carbon-neutral electricity on City facilities meeting 80% of the municipal operational electricity needs by 2030.	Supportive
T-1	Increase active transportation mode share to 15% by 2030 and to 20% by 2045.	2030: 6,485 2045: 8,755
T-2	Implement public and shared transit programs to increase mode shift to public and shared transit mode to 15% by 2030 and 30% by 2045.	2030: 7,585 2045: 25,092
T-3	Develop disincentives for driving single passenger vehicles to support the bicycle/pedestrian and public transit mode share goals of Measures T-1 and T-2.	Supportive
T-4	Increase passenger zero-emission vehicle (ZEV) adoption to 15% by 2030 and 50% by 2045.	2030: 16,014 2045: 88,718
T-5	Increase zero-emission vehicle (ZEV) adoption by businesses to 10% by 2030 and 80% by 2045.	2030: 3,161 2045: 37,461
T-6	Transition 15% of off-road equipment to zero-emission by 2030 and 80% by 2045.	2030: 4,312 2045: 22,542
T-7	Increase municipal passenger zero-emission vehicle (ZEV) adoption to 75% by 2030 and 100% by 2045 and decarbonize emergency and heavy-duty vehicles as feasible.	Supportive
SW-1	Implement and enforce SB 1383 requirements to reduce community-wide landfilled organics by 75% by 2025 and 90% by 2045.	2030: 35,925 2045: 47,101
SW-2	Increase communitywide overall landfill diversion of waste to 75% by 2030 and 85% by 2045.	Supportive
WW-1	Reduce water consumption by 15% by 2030 and maintain it through 2045.	2030: 35 2045: 0
CS-1	Increase carbon sequestration by planting and maintaining 1,000 new trees annually through 2030 to sequester carbon and create urban shade to reduce heat island effect.	2030: 212 2045: 743
CS-2	Increase carbon sequestration by applying 0.08 tons of compost per capita annually in the community through 2030 and 2045.	2030: 3,081 2045: 3,392
<b>Total GHG Emissions Reduction</b>		<b>2030: 121,543 2045: 434,784</b>
<b>Total GHG Emissions Reductions – per capita (MT CO<sub>2</sub>e/person)</b>		<b>2030: 0.73 2045: 2.36</b>
<b>Percent Reductions from 1990 Baseline Levels – Per Capita</b>		<b>2030: 46% 2045: 81%</b>

\* Measures and actions marked as “supportive” may also be quantifiable and have substantial evidence to support their overall contribution to GHG reduction, but they are not quantified for one of several factors. Refer to Section 6 for more information.

# Table of Contents

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Hayward CAP Executive Summary.....	ES-1
1 Public Review and Adoption .....	1
2 Vision and Purpose .....	2
2.1 Hayward CAP Update Vision Statement .....	2
2.2 Hayward Climate Emergency Declaration .....	4
3 Scientific Context and Impacts .....	5
3.1 Climate Change Science .....	5
3.2 Climate Change Impacts .....	9
4 Climate Action History .....	11
4.1 Progress to Date.....	11
5 Current and Projected GHG Emissions .....	14
5.1 Hayward GHG Emissions Inventory .....	14
5.2 Hayward GHG Emissions Forecasts.....	17
5.3 International and State Context and Timeline/ Emissions Targets .....	22
5.4 Hayward Context and Timeline/Emissions Targets .....	23
6 Equity and Outreach .....	26
6.1 Climate Equity .....	26
6.2 Equitable Engagement Approach .....	26
6.3 Equitable Climate Action Planning.....	32
6.4 Hayward Equity Guardrails .....	32
7 GHG Reduction Measures Framework .....	34
7.1 Structure of GHG Reduction Measures.....	34
7.2 Type of GHG Reduction Measures.....	34
7.3 CAP Measures Cost Ranges.....	35
7.4 Key Pillars of GHG Reduction Measures .....	36
7.5 Co-Benefits of GHG Reduction Measures .....	37
8 Building Energy Sector Measures .....	38
8.1 Context.....	38
8.2 Measures and Actions Detail .....	39
9 Transportation Sector Measures .....	48
9.1 Context.....	48
9.2 Measures and Actions Detail .....	49
10 Solid Waste Sector Measures .....	59
10.1 Context.....	59
10.2 Measures and Actions Detail .....	60

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**Hayward Climate Action Plan**

11 Water and Wastewater Measures.....64  
    11.1 Context.....64  
    11.2 Measures and Actions Detail .....64  
12 Carbon Sequestration Measures .....66  
    12.1 Context.....66  
    12.2 Measures and Actions Detail .....66  
13 CAP Implementation.....70  
    13.1 Tracking, Monitoring, and Reporting.....70  
    13.2 Funding Considerations .....96  
    13.3 Looking Forward .....97  
14 Conclusion.....98  
15 Acknowledgements .....99

**Tables**

Table ES-1 2030 and 2045 Emissions Levels Compared to Targets .....3  
Table ES-2 CAP GHG Emissions Reduction Measures Overview .....4  
Table 1 CEQA Guidelines Section 15183.5(b) Criteria Addressed in CAP .....3  
Table 2 Hayward 2019 GHG Emissions Inventory Summary.....16  
Table 4 BAU Emissions Forecast (MT CO<sub>2</sub>e).....18  
Table 5 Adjusted Forecast (MT CO<sub>2</sub>e) .....20  
Table 6 Per Capita GHG Reduction Target Pathway (MT CO<sub>2</sub>e/person) .....23  
Table 7 Targets Versus GHG Reductions .....25  
Table 8 CAP Engagement Summary .....28  
Table 9 Hayward Equity Guardrails.....32  
Table 10 Cost Categories.....35  
Table 11 Measure BE-1 Actions.....39  
Table 12 Measure BE-2 Actions.....40  
Table 13 Measure BE-3 Actions.....42  
Table 14 Measure BE-4 Actions.....44  
Table 15 Measure BE-5 Actions.....45  
Table 16 Measure BE-6 Actions.....46  
Table 17 Measure T-1 Actions.....49  
Table 18 Measure T-2 Actions.....51  
Table 19 Measure T-3 Actions.....52  
Table 20 Measure T-4 Actions.....55  
Table 21 Measure T-5 Actions.....56  
Table 22 Measure T-6 Actions.....57  
Table 23 Measure T-7 Actions.....58  
Table 24 Measure SW-1 Actions .....60



Table 25 Measure SW-2 Actions .....62

Table 26 Measure WW-1 Actions.....64

Table 27 Measure CS-1 Actions.....66

Table 28 Measure CS-2 Actions.....68

Table 29 CAP Update Implementation and Monitoring .....71

**Figures**

Figure ES-1 Hayward GHG Emissions by Sector for 2019.....1

Figure ES-2 Hayward Forecasted GHG Emissions by Sector for 2019, 2030, and 2045 .....2

Figure ES-3 Per Capita Emissions Compared to Forecast Scenario and Target Pathway.....3

Figure 1 Hayward Climate Change Exposure and Impacts.....10

Figure 3 Hayward Greenhouse Gas Emissions by Sector, 2019 .....15

Figure 4 Baseline Emissions per Capita Compared to Forecast Scenarios and Target Pathway to Carbon Neutrality.....24

Figure 5 Emissions Reduction Gap Between Forecasted Emissions and State Targets .....25

**Appendices**

Appendix A Climate Regulatory Context

Appendix B GHG Inventory Methodology and Modeling

Appendix C GHG Emissions Forecasts and Gap Analysis

Appendix D GHG Reduction Measures Quantification and Evidence

Appendix E GHG Reduction Measures Cost Ranges

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# 1 Public Review and Adoption

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The Hayward Draft CAP was published for public review and comment on October 5, 2023. It was available for public review for a 40-day period until November 14, 2023.

This Final CAP, in conjunction with the CEQA review document for the CAP, was adopted by the Hayward City Council on January 31, 2024, by Resolution 24-023.

## 2 Vision and Purpose

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### 2.1 Hayward CAP Update Vision Statement

#### Vision

The City of Hayward is focused on creating a more sustainable, equitable and healthy community while maintaining a strong economy, building resilient homes and businesses, and reducing greenhouse gas (GHG) emissions to mitigate climate change. Climate change poses a challenge to that vision and the effects of climate change are already impacting Hayward and other California communities.

Climate change impacts are projected to worsen through the century if there is not a concerted global effort to address the root cause of climate change through reducing the release of GHG emissions. Hayward understands the need for ambitious climate action through GHG emissions reduction. On January 15, 2019, the city passed Resolution No. 19-007, declaring a climate emergency. This resolution calls for an emergency mobilization effort to stop the burning of fossil fuels and release of GHG emissions as soon as possible while educating and engaging residents and businesses about climate change. This Climate Action Plan (CAP) supports that resolution and builds on the progress achieved in Hayward's 2014 CAP by providing an updated blueprint for reducing GHG emissions, increasing equitable community resilience, and supporting state and global climate goals through achieving the City's 2030 and 2045 climate action targets.



By achieving carbon neutrality, Hayward will contribute its fair share to address the climate crisis and support international climate goals, limiting global temperature rise. This target is consistent with the United Nations International Panel on Climate Change (IPCC) analysis on what is necessary to reduce the likelihood of catastrophic global climate change.

#### Purpose

##### *Climate Action*

This CAP is intended to set forth new measures and actions to build upon the GHG emissions reductions that have been achieved in recent years. The CAP will guide Hayward towards reducing GHG emissions 55 percent below 2005 per capita levels by 2030, which is consistent with the California 2030 target of 40 percent below 1990 per capita levels, established by California Senate

Bill (SB) 32. This CAP will also put the City on a trajectory to meet the State goal of achieving carbon neutrality by 2045, established by California Assembly Bill (AB) 1279. See Appendix A for a written description and a timeline of relevant climate action planning regulations.

*CEQA GHG Emissions Analysis Streamlining*

This CAP fulfills the requirements of California Environmental Quality Act (CEQA) Guidelines Section 15183.5(b) to be considered a “qualified” GHG reduction plan.<sup>2</sup> In compliance with CEQA and State CEQA Guidelines, local agencies must evaluate the environmental impacts of new development projects or plans, including impacts related to GHG emissions associated with the construction and operation of projects or plans. This process can be cumbersome for local agencies and developers alike and can result in project delays. The CEQA Guidelines provide an option for new projects to streamline the CEQA analysis of GHG emissions by tiering from a qualified GHG reduction plan.

This CAP and its associated CEQA environmental assessment documentation are consistent with the criteria set forth in CEQA Guidelines Section 15183.5(b) as summarized in Table 1. As such, this CAP is considered a qualified GHG reduction plan.

**Table 1 CEQA Guidelines Section 15183.5(b) Criteria Addressed in CAP**

CEQA Criteria	CAP Chapter Addressing Criteria
1. Quantify existing and projected GHG emissions within the plan area	Chapter 4
2. Establish a reduction target consistent with State targets	Chapter 4
3. Identify and analyze sector specific GHG emissions from specific actions or categories of actions anticipated within the geographic area	Chapter 4 Appendix B
4. Specify measures and actions that substantial evidence demonstrates would collectively achieve the specified reduction target	Chapters 7, 8,9,10,11
5. Establish a mechanism to monitor progress and amend the plan if it is not achieving specified emissions levels	Chapter 12
6. Adopt in a public process following environmental review	See associated CEQA environmental assessment documentation

If future projects are consistent with this CAP, future CEQA GHG emissions impact analyses can be streamlined according to the City’s direction.

<sup>2</sup> Governor’s Office of Planning and Research (OPR), “General Plan Guidelines - Chapter 8: Climate Change,” Available: [https://opr.ca.gov/docs/OPR\\_C8\\_final.pdf](https://opr.ca.gov/docs/OPR_C8_final.pdf).

## 2.2 Hayward Climate Emergency Declaration

Acknowledging the pressing and life-threatening nature of climate change, the City of Hayward officially proclaimed a climate crisis through the adoption of Resolution No. 19-007 on January 15<sup>th</sup>, 2019. Alongside calling for an emergency mobilization effort to cease GHG emissions at the local level, the resolution appeals to the State of California, the United States, and all global governments to launch urgent mobilization campaigns aimed at mitigating climate change, halting the rise of GHG emissions, and safely reducing atmospheric carbon levels.

As part of the resolution the City of Hayward committed to keeping equity central to the climate mobilization planning process by encouraging inclusive community engagement and diverse participation. The development process for this CAP and the measures are aligned with this mission. Please refer to Section 5 for more detail about the planning process and how public input was incorporated into this CAP.

## 3 Scientific Context and Impacts

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### 3.1 Climate Change Science

#### The Greenhouse Gas Effect and Climate Change

Earth's climate is largely driven by energy that comes from the sun. When solar radiation reaches the Earth's atmosphere, some of it is reflected into space and a portion is absorbed by the Earth's surface. As the Earth absorbs solar radiation, its surface heats up and re-radiates heat back out into the atmosphere.<sup>3</sup> While some of the heat escapes past the atmosphere into space, gases in the atmosphere prevent the loss of some of the heat. The gases trapping the heat are known as greenhouse gases (GHG).<sup>4</sup> Without some GHGs in the atmosphere, the Earth would not be warm enough to sustain life as we know it. This heat trapping quality of gases in Earth's atmosphere is known as the greenhouse effect. Increased levels of specific GHGs in the atmosphere means that less heat escapes to space. More heat trapped in the atmosphere leads to much hotter than average temperatures also known as global warming, which in turn contributes to more intense storms, drought, extreme heat events, and sea level rise.<sup>5</sup> These effects are considered climate change.

Human-caused climate change is well understood and widely accepted by the scientific community, with over 97 percent of climate scientists agreeing that the planet is warming and human activities are the root cause.<sup>6</sup> Human activities have raised the levels of GHGs in the atmosphere from 280 parts per million to over 410 parts per million in the last 150 years.<sup>7</sup> Although many changes to climate are governed by natural processes, human activities have added GHGs to the atmosphere at a rate that is unprecedented in Earth's history, leading to CO<sub>2</sub> levels that are now higher than they have been any time in the past 800,000 years.<sup>8</sup>

Globally, climate change is already impacting both human and natural systems. Scientists have measured shrinking ice sheets, warming, and acidifying oceans, increasing global temperatures, less snow cover, sea level rise, and species extinction. The potential consequences of these climate change related impacts include the flooding of low-lying areas, reduction of fresh-water supply, adverse changes to biological resources and public health, as well as many other adverse environmental consequences.<sup>9</sup>

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<sup>3</sup> NASA. "The Causes of Climate Change," *Climate Change: Vital Signs of the Planet*. Available: <https://climate.nasa.gov/causes>.

<sup>4</sup> UCAR. "The Greenhouse Effect | Center for Science Education," Available: <https://scied.ucar.edu/learning-zone/how-climate-works/greenhouse-effect>.

<sup>5</sup> IPCC. "Summary for Policymakers — Global Warming of 1.5 °C." Available: <https://www.ipcc.ch/sr15/chapter/spm/>.

<sup>6</sup> NASA. "Scientific Consensus: Earth's Climate Is Warming," *Climate Change: Vital Signs of the Planet*. Available: <https://climate.nasa.gov/scientific-consensus>.

<sup>7</sup> J. Blunden and T. Boyer, "State of the Climate in 2020," *Bulletin of the American Meteorological Society* 102, no. 8. 2021. Available: <https://doi.org/10.1175/2021BAMSStateoftheClimate.1>.

<sup>8</sup> *Ibid.*

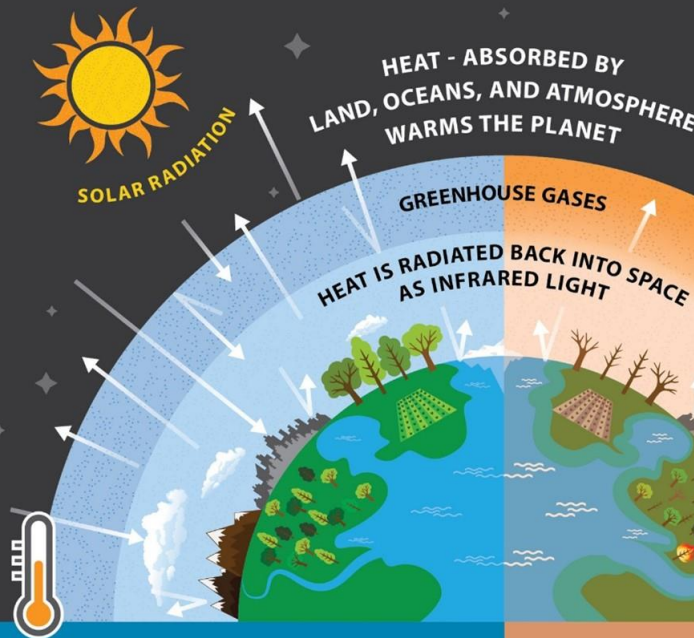
<sup>9</sup> IPCC. "Impacts of 1.5°C of Global Warming on Natural and Human Systems," *Assessment Report 5*. 2018. Available: <https://www.ipcc.ch/sr15/chapter/chapter-3/>

# GREENHOUSE GAS EFFECT

Since the advent of the industrial revolution human activities such as burning fossil fuels and deforestation have caused a substantial increase in the concentration of greenhouse gases in the atmosphere.

**THE RESULT: EXTRA TRAPPED HEAT AND HIGHER GLOBAL TEMPERATURES.**

## WITH NORMAL GREENHOUSE GASES



Some heat continues into space while the rest, trapped by greenhouse gases, help maintain the planet's relatively comfortable temperatures.

**LESS GHG = LESS HEAT TRAPPED IN THE ATMOSPHERE**

Retain more reliable:

- Weather
- Temperature
- Rainfall
- Sea Level

## WITH INCREASED GREENHOUSE GASES



Increased greenhouse gases means less heat escapes to space. Between preindustrial times and now, the earth's average temperature has risen by 1.8°F (1.0°C).

**MORE GHG = MORE HEAT TRAPPED IN THE ATMOSPHERE**

Results in more intense:

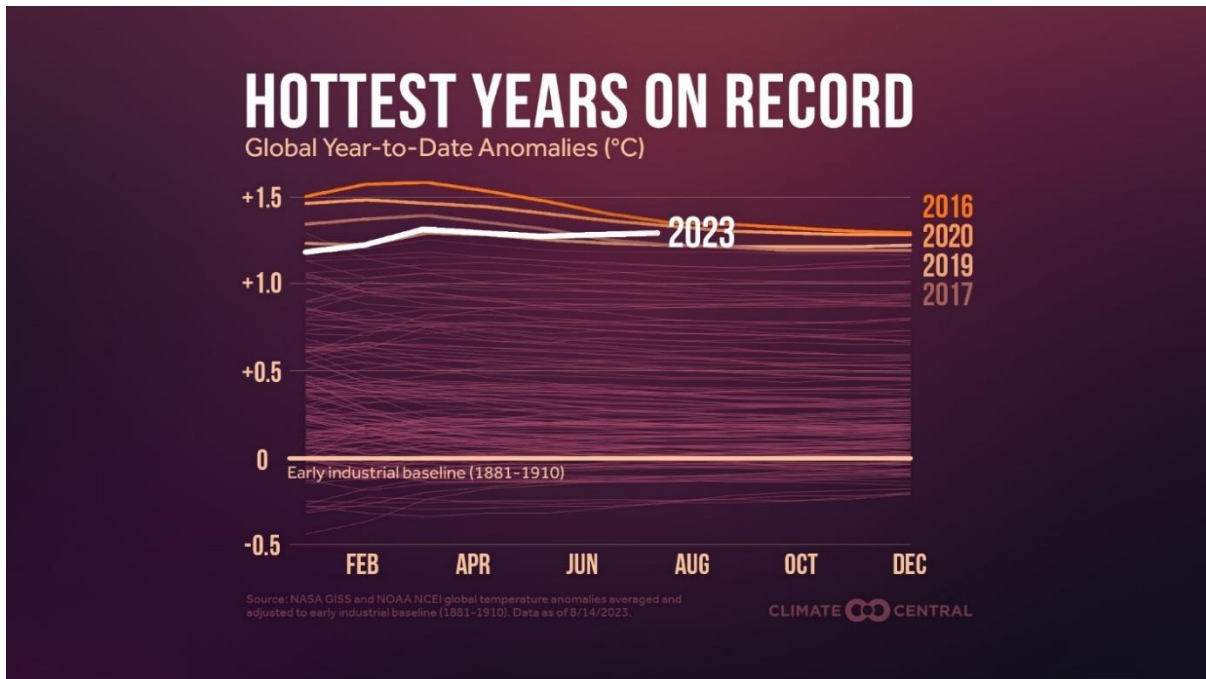
- Storms
- Heat
- Drought
- Sea Level Rise

Source: National Resources Defense Council, <https://www.nrdc.org/stories/greenhouse-effect-101>



Globally, a warming trend is abundantly clear, with nineteen of the hottest years on record occurring since 2000.<sup>10</sup> The year 2020 tied with 2016 for the hottest year on record since record-keeping began in 1880, and these trends are consistent across numerous monitoring agencies and data sets.<sup>11</sup> NASA recorded July 2023 as the hottest month on record since 1880.<sup>12</sup>

Though climate change is a global phenomenon it has the potential to impact facets of society on the local level including health outcomes, natural resource access, infrastructure, emergency response, tourism, and frequency of disasters. The United Nations Intergovernmental Panel on Climate Change (IPCC) projections show that a reduction in GHG emission to carbon neutrality by mid-century is required to limit warming trends to 1.5 degrees Celsius and avoid the worst impacts of climate change.<sup>13</sup> In order to do this, action must be taken at all levels of society to reduce emissions of GHGs.



Source: Climate Central, <https://www.climatecentral.org/graphic/summer-heat-pushes-2023-temperatures-near-record?graphicSet=2023+Global+Temperatures+Near+Hottest+on+Record>

<sup>10</sup> NASA-GISS. "Land-Ocean Temperature Index (C): Global Mean Estimates Based on Land and Ocean Data". Available: [https://data.giss.nasa.gov/gistemp/graphs/graph\\_data/Global\\_Mean\\_Estimates\\_based\\_on\\_Land\\_and\\_Ocean\\_Data/graph.txt](https://data.giss.nasa.gov/gistemp/graphs/graph_data/Global_Mean_Estimates_based_on_Land_and_Ocean_Data/graph.txt).

<sup>11</sup> NASA. "Global Surface Temperature | NASA Global Climate Change," Climate Change: Vital Signs of the Planet. Available: <https://climate.nasa.gov/vital-signs/global-temperature>. Climatic Research Unit (CRU). "Land Surface Air Temperature Variations Across the Globe Updated to 2019: The CRUTEM5 Data Set," *Journal of Geophysical Research: Atmospheres* 126, no. 2. 2021. <https://doi.org/10.1029/2019JD032352> Accessed:

<sup>12</sup> <https://www.nasa.gov/news-release/nasa-clocks-july-2023-as-hottest-month-on-record-ever-since-1880/>

<sup>13</sup> IPCC. "Summary for Policymakers — Global Warming of 1.5 °C". Available: <https://www.ipcc.ch/sr15/chapter/spm/>.

## Types of GHG Emissions

The IPCC lists the following GHGs: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), as well as chlorofluorocarbons, hydrochlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which are collectively called fluorinated gases.<sup>14</sup> Almost all the GHGs emitted in the United States each year consist of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, while fluorinated gases make up the remaining emissions<sup>15</sup>. Because CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O comprise a large majority of GHG emissions at the community level, these are the gases considered in this analysis.

Each GHG has a different propensity for trapping heat in the atmosphere, known as its global warming potential (GWP). GHGs also last for different periods of time in the atmosphere, ranging from a decade to several thousand years. Because all the GHGs have different characteristics, a standard unit is needed to compare the potential impact of different GHGs and allow them to be added up in an analysis. This is achieved by converting all GHGs into the standard unit known as a carbon dioxide equivalent (CO<sub>2</sub>e), based on the amount of heat one metric ton (MT) of CO<sub>2</sub> traps in the atmosphere. GWP for each GHG was drawn from the IPCC fifth Assessment Report<sup>16</sup>, which represents the best available scientific consensus and is consistent with the methodology outlined in the California Air Resources Board (CARB) Scoping Plan. Since CO<sub>2</sub> is used as the reference point for trapping heat, CO<sub>2</sub> has a GWP of 1. Methane has a GWP of 28, meaning that each metric ton (MT) of methane causes 28 times more warming than 1 MT of CO<sub>2</sub>. Nitrous oxide has a GWP of 265, meaning 265 times the GWP of 1 MT of CO<sub>2</sub>.<sup>17</sup>

## Sources of GHG Emissions

The combustion of fossil fuels is the primary source of GHG emissions, decomposition of waste, and land use change are also major contributors. It can be helpful to understand how different sectors contribute to total emissions. The top sources of GHGs Statewide are transportation (37 percent), industrial processes (20 percent), and electric power (16 percent). The magnitude of total California GHG emissions is due in part to its large size and large population compared to other states. However, a factor that reduces California per capita fuel use and GHG emissions as compared to other states is its relatively mild climate.<sup>18</sup>

The main sources of GHG emissions in Hayward are from transportation, buildings, and waste. Transportation emissions are generated by fuels used to power cars, trucks, public transit, and off-road vehicles. Building emissions are associated with electricity and natural gas used by commercial, residential, and municipal buildings. Waste from residential, commercial, and municipal sources

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<sup>14</sup> Note: Fluorinated gases, which includes four main types: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>), are man-made gases that can stay in the atmosphere for centuries and contribute to the GHG effect. Center for Climate and Energy Solutions. "Main Greenhouse Gases". 2021. Available: <https://www.c2es.org/content/main-greenhouse-gases/>. Accessed December 2021

<sup>15</sup> Note: Ninety-seven percent of the annual GHG emissions consist of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O and fluorinated gases make up the remaining three percent of GHG emissions. US EPA. "Inventory of U.S. Greenhouse Gas Emissions and Sinks". 2021. Available: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>. Accessed: December 2021; World Resources Institute. "4 Charts Explain Greenhouse Gas Emissions by Countries and Sectors". 2021. Available: <https://www.wri.org/insights/4-charts-explain-greenhouse-gas-emissions-countries-and-sectors>.

<sup>16</sup> IPCC. *Climate Change 2014: Synthesis Report*. Available: [https://www.ipcc.ch/site/assets/uploads/2018/02/SYR\\_AR5\\_FINAL\\_full.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf). Accessed December 2021; and California Air Resources Board (CARB). "California's 2022 Climate Change Scoping Plan". Available: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents..>

<sup>17</sup> IPCC. *Climate Change 2014: Synthesis Report*. Available: [https://www.ipcc.ch/site/assets/uploads/2018/02/SYR\\_AR5\\_FINAL\\_full.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf).

<sup>18</sup> U.S. EPA. 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2021. Available at: <https://www.epa.gov/system/files/documents/2023-04/US-GHG-Inventory-2023-Main-Text.pdf>

generates methane emissions as material (especially organics like food scraps and yard waste) decomposes in the landfill.

### **Opportunities to Reduce GHG Emissions**

Cities play a crucial role in reducing GHG emissions in California. The policies and initiatives implemented by local governments have the capability to influence activities that can affect high-emissions behaviors, mitigate the consequences of climate change, and equip the community to better withstand its effects. Cities hold the potential to drive climate action and emission reduction through strategic land use planning, the revision of building codes and standards, and developing partnerships between public and private entities that promote shifts in behavior. They can enact various measures to decrease emissions, including enhancing building regulations to curtail energy consumption, offering incentives for alternative transportation methods to reduce fuel usage, broadening options for diverting waste and utilizing renewable energy sources, as well as educating residents about their roles as both citizens and consumers.

## **3.2 Climate Change Impacts**

Climate change already has impacted and will continue to impact the Hayward community, including its residents, businesses, and visitors. In the past few years, Hayward has experienced severe droughts, poor air quality from regional wildfire smoke, local flooding from extreme precipitation events, extreme heat events, and rising sea levels. As the climate continues to change, many climate hazards may become more frequent and intense. In 2016, the California legislature adopted Senate Bill (SB) 1000 requiring local jurisdictions to review and update Safety Elements of the General Plan to address and update hazards related to flooding, fires and to include climate adaptation and resilience strategies. The Hayward General Plan includes a Hazards Element that addresses State requirements for a Safety Element. As such, in support of the update to the Hayward General Plan Hazards Element, the City prepared a climate change vulnerability assessment to evaluate the potential impacts of climate change on community assets and populations. The climate change vulnerability assessment describes the community's vulnerabilities to climate change and provides a foundation to develop strategies to increase community resilience. A summary of climate exposures and potential impacts within Hayward as identified in the Hayward Hazards Element is summarized in Figure 1.

Figure 1 Hayward Climate Change Exposure and Impacts

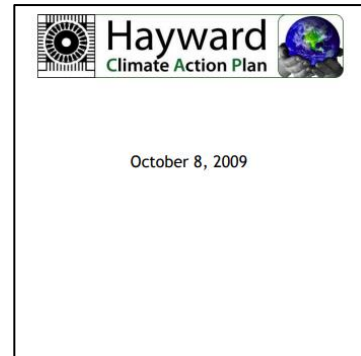


## 4 Climate Action History

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### 4.1 Progress to Date

The City of Hayward has conducted a GHG emissions inventory of communitywide GHG emissions for 2005, 2010, 2015, 2017, 2018, and 2019. In addition to these inventories, the City adopted its first CAP in 2009 and updated the CAP in 2014 and incorporated it in the City's General Plan. See Appendix B for more information about the data used and how GHG emissions were calculated for Hayward's 2019 GHG emissions inventory. Figure 2 shows some of the major milestones from recent history in Hayward's climate actions.



#### Trends from Hayward GHG Emissions Inventories

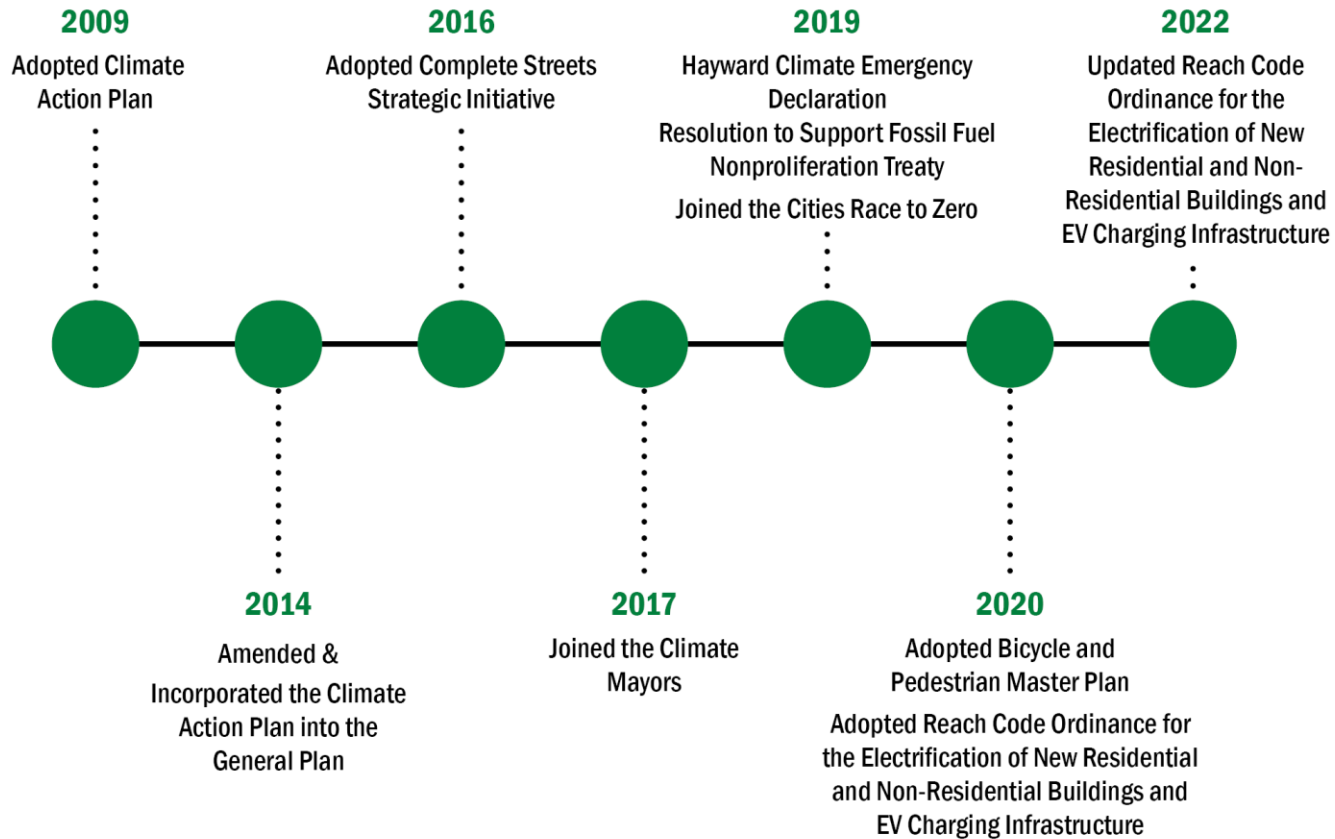
In the 2014 CAP, the City of Hayward set a target to reduce GHG emissions 20 percent below 2005 baseline levels by 2020. The City achieved this goal in large part to the community's enrollment in the Ava Community Energy's<sup>19</sup> Brilliant 100 electricity product, which provided 100 percent carbon free electricity. Community emissions are driven by both residential and commercial activity occurring within Hayward. Thus, changes in population and jobs in the City can result in increases or decreases in community emissions. For example, Hayward has experienced an estimated 11 percent increase in population, 8 percent increase in jobs, and a 6 percent increase in housing units since 2010. During this growth the City's climate actions and other systemic changes resulted in an overall 30 percent decrease in emissions compared to 2005 and 22 percent decrease in emissions compared to 2010. However, there is an additional opportunity for continued progress.




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<sup>19</sup> Beginning in October 2023, East Bay Community Energy (EBCE) began transitioning to Ava Community Energy.

Figure 2 Milestones in Hayward's Climate Action History



## Climate Action Leadership

The City of Hayward stands out as a notable leader in climate action in California and the nation. In 2022, the City was recognized as one of 122 local governments worldwide on the 2022 CDP Cities A List for its leadership in environmental action. This makes the fourth time in five years that Hayward has received this recognition.<sup>20</sup> Achievements have been made possible through the diligent efforts of the City's Environmental Services Division, Council Sustainability Committee, and other key City departments.

### *Environmental Services Division*

The Environmental Services Division leads Hayward's sustainability, climate action, and climate adaptation efforts. The team implements the City's Climate Action Plan and provides staff support to the Council Sustainability Committee. The team also provides solid waste and recycling services and programs to minimize stormwater pollution. The team focuses on implementing various climate action programs around solar and energy efficiency, composting, electric vehicles, and building electrification.

### *City Council Sustainability Committee*

The Hayward Council Sustainability Committee, as established by the City Council in 2007, provides expertise and guidance on policy areas related to the City's ongoing climate action planning efforts. The Council Sustainability Committee provides policy recommendations related to renewable energy, energy efficiency and conservation, green buildings, and other efforts to mitigate the impacts of climate change on the local level. The Council Sustainability Committee meets bi-monthly to discuss policy issues related to Hayward's sustainability goals and provide critical input during the CAP Update.

## Future Progress

The measures and actions in this CAP provide Hayward with the GHG reductions necessary to achieve the City's 2030 climate action target. However, the City's climate action target of carbon neutrality by 2045 requires significant reductions in emissions that depend on critical changes to the technology, legislation, and systems currently in place.

As these measures and actions are put into effect, the City will acquire increased insights, novel technologies will be explored, and ongoing pilot projects and programs will grow to the size needed to reach carbon neutrality. Additionally, it is anticipated that state-level regulations will be revised, and added assistance will be extended in the future to aid in achieving carbon neutrality. The City has established a future CAP update schedule, as described in Section 13. Future CAP updates beyond 2030 will outline new measures and actions that Hayward will implement to close the remaining gap to achieve the target of carbon neutrality by 2045.

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<sup>20</sup> City of Hayward. 2022. Hayward Earns Fourth Recognition for Environmental Leadership Among Cities Worldwide. <https://www.hayward-ca.gov/discover/news/nov22/hayward-earns-fourth-recognition-environmental-leadership-among-cities-worldwide>

## 5 Current and Projected GHG Emissions

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### 5.1 Hayward GHG Emissions Inventory

Community GHG inventories measure the GHG emissions generated by residents and businesses operating in the community, as well as municipal operations. The process of creating a GHG inventory includes first identifying activities that are major sources of emissions and collecting summary data on those activities for a calendar year. Then, the City uses science-based GHG emissions factors to convert the collected activity data into GHG emissions produced. Inventories measure GHG emissions in units of metric tons of carbon dioxide equivalent, or MT CO<sub>2</sub>e.

#### GHG Inventory Protocols

Emissions estimates were calculated using the International Council for Local Environmental Initiatives (ICLEI) methodologies, specifically, the United States Community Protocol for Accounting and Reporting Greenhouse Gas Emissions Version 1.2 (Community Protocol) is used for communitywide emission. The Community Protocol is an authoritative guide for best practices in calculating community-scale GHG inventories. The protocol separates a city's GHG-generating activities into categories known as emissions sectors. Large emissions sectors for cities include the transportation sector (such as combustion emissions from cars and other vehicles operating within the city), the building sector (including emissions from electricity and natural gas usage), and the waste sector (capturing emissions from sending solid waste to the landfill).

Not all activities within a city that generate GHGs are included in a GHG emissions inventory. Activities that cannot be controlled or influenced by city policies are generally excluded as they have little bearing on city planning. For example, emissions from cars traveling through a city, whose origins and destinations are both outside of city limits, are typically excluded because a local government cannot reasonably influence this pass-through travel activity.<sup>21</sup>

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<sup>21</sup> The Regional Targets Advisory Committee (RTAC) established under SB 375 recommends the following accounting of various trip types for VMT purposes<sup>23</sup>: Include 100% of internal-internal (I-I) trips Exclude external-external (X-X) trips Count 50% of internal-external (I-X) and external-internal (X-I) trips. Recommendations of the Regional Targets Advisory Committee (RTAC) Pursuant to Senate Bill 375. September 2009. <http://www.arb.ca.gov/cc/sb375/rtac/report/092909/finalreport.pdf>

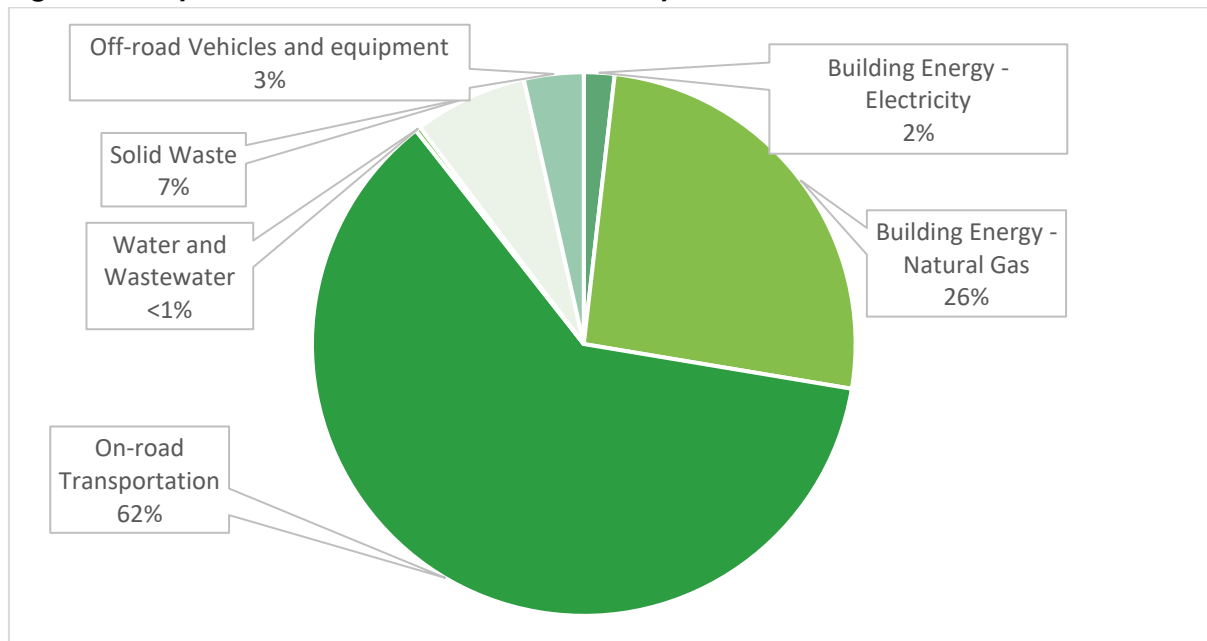


### Current Inventory

The CAP Update includes a 2019 inventory of GHG emissions from Hayward’s communitywide activities. The inventory includes sources that are within some degree of the City of Hayward’s jurisdictional control, in accordance with established GHG accounting protocols and State guidance. In 2019, Hayward’s GHG emissions totaled 684,399 MT CO<sub>2</sub>e. This represents a 22 percent decrease in emissions compared to 2010 emissions levels (882,196 MT CO<sub>2</sub>e) and a 30 percent reduction in emissions relative to 2005 emissions levels (973,244 MT CO<sub>2</sub>e).

As shown in Figure 3 and Table 2, in 2019 GHG emissions from transportation made up the largest sector (422,717 MT CO<sub>2</sub>e, or 62 percent of total emissions). The second largest source was building energy use from electricity and natural gas consumption (189,116 MT CO<sub>2</sub>e, or 28 percent of total emissions). 54 percent of building energy emissions were attributed to the residential sector while 46 percent were attributed to the commercial/industrial sector. The remaining community emissions were from solid waste (46,187 MT CO<sub>2</sub>e, 7 percent of emissions), and water and wastewater (2,092 MT CO<sub>2</sub>e, 0.3 percent of emissions).

**Figure 3 Hayward Greenhouse Gas Emissions by Sector, 2019**



**Table 2 Hayward 2019 GHG Emissions Inventory Summary**

GHG Emissions Sector/Source	CO <sub>2</sub> e (MT)	% of Total Emissions
<b>Transportation</b>		
Passenger On-Road Transportation	298,256	44%
Commercial On-Road Transportation	111,329	16%
Buses On-Road Transportation	8,277	1%
BART	547	0.1%
AC Transit	4,308	1%
Off Road - Diesel	14,661	2%
Off Road - Gasoline	4,940	1%
Off Road - Natural Gas (LPG)	4,687	1%
<b>Electricity</b>		
Residential Electricity – PG&E	1,144	0.2%
Residential Electricity – Ava Community Energy	5,182	1%
Commercial/Industrial Electricity – PG&E	3,032	0.4%
Commercial/Industrial Electricity - Ava Community Energy	3,108	0.5%
<b>Natural Gas</b>		
Residential Natural Gas	95,291	14%
Commercial/Industrial Natural Gas	81,358	12%
<b>Water and Wastewater</b>		
Wastewater - Direct	1,702	0.2%
Wastewater – Indirect	380	0.1%
Water - Indirect	10	0.001%
<b>Solid Waste</b>		
Solid Waste Generated/Disposal	46,187	7%

CO<sub>2</sub>e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric

## 5.2 Hayward GHG Emissions Forecasts

GHG emissions forecasts provide an estimate of Hayward’s GHG emissions in the future. Forecasting helps to track trends and progress for Hayward and allows the City to see how much it needs to reduce communitywide emissions in order to meet its future GHG emissions reduction targets. GHG emissions forecasts for Hayward were developed using the 2019 inventory for 2025, 2030, 2035, 2040 and 2045.

The City developed two forecasts to contextualize how emissions will change and better understand the reduction actions that Hayward must take. The first forecast is a business-as-usual (BAU) forecast, which is developed using the 2019 inventory and projected changes in population and job growth in the City. The second is an adjusted forecast that accounts for State regulations that require the reduction of future GHG emissions within the State.

### Business-as-Usual Forecast

The BAU forecast assumes that emission factors and activity remain constant over time. Under this assumption, population, and job growth are the main drivers for GHG generating activities. The BAU forecast provides a basis of comparison by assuming there are no changes to technology, behaviors, or legislation, and population and job growth trends continue as projected. Another forecast that accounts for the impacts from state regulations is discussed in the sections below.

To develop a GHG emissions forecast, growth metrics (e.g., population, housing, and employment projections) are multiplied by BAU growth indicators, which represent a baseline metric developed from the GHG emissions inventory (Table 3). Appendix C includes more details on the growth metrics, demographics, and methodologies used to develop the BAU forecast. This process allows the City to convert growth projections into GHG emissions estimates using specific GHG emissions factors, which are assumed to be the same in the future as in the 2019 GHG emissions inventory. This methodology is used for all GHG emissions sectors and sources included in the 2019 GHG emissions inventory, apart from the off-road emissions sector. To forecast off-road emissions, the OFFROAD2021 off-road emissions database was used to project fuel use since no significant GHG emission reduction legislation is included in the model. Table 4 summarizes the BAU forecast for each forecast year.

**Table 3 Growth Metrics for Hayward BAU GHG Emissions Forecast**

Growth Metric <sup>1,2</sup>	2019 <sup>1</sup>	2025	2030	2035	2040	2045 <sup>3</sup>
Population	160,197	161,781	167,425	173,069	178,713	184,358
Employment	70,739	70,326	72,073	73,821	75,568	77,315
Service Population	230,936	232,107	239,498	246,890	254,281	261,673
Housing	47,987	51,788	53,108	54,427	55,747	57,066

Note: Service Population = Population + Employment

<sup>1</sup> Previous inventory demographic data was obtained from MTC, including years 2005, 2010, 2015, 2017, 2018, and 2019.

<sup>2</sup> Forecasted demographic data for Hayward is based on the Alameda CTC Zone from plan Bay Area 2040 and is consistent with the projections used for the Housing Element and traffic analysis conducted by Kittleson & Associates, Inc. Data was provided for year 2020 and 2040, therefore interim years were linearly interpolated.

<sup>3</sup> To estimate demographic growth past 2040, the annual compound growth rate between 2020 and 2040 was applied to the demographic data to estimate demographic projections in 2045.

**Table 4 BAU Emissions Forecast (MT CO<sub>2</sub>e)**

GHG Emissions Source	2025	2030	2035	2040	2045
<b>Transportation</b>					
Passenger On-Road Transportation	321,882	330,084	338,285	346,486	354,687
Commercial On-Road Transportation	120,212	124,041	127,869	131,697	135,525
Buses On-Road Transportation	8,319	8,584	8,849	9,114	9,379
BART	550	568	585	603	620
AC Transit	4,330	4,468	4,605	4,743	4,881
Off Road Transportation & Equipment	26,818	29,084	31,274	33,662	28,177
<b>Electricity</b>					
Residential Electricity	6,828	7,001	7,175	7,349	7,523
Commercial/Industrial Electricity	6,104	6,256	6,408	6,560	6,711
<b>Natural Gas</b>					
Residential Natural Gas	102,840	105,460	108,080	110,701	113,321
Commercial/Industrial Natural Gas	80,883	82,893	84,903	86,912	88,922
<b>Water and Wastewater</b>					
Wastewater - Direct	1,719	1,779	1,839	1,899	1,959
Wastewater – Indirect	384	397	410	424	437
Water - Indirect	6	6	7	7	7
<b>Solid Waste</b>					
Solid Waste Generated/Disposal	46,421	47,899	49,377	50,856	52,334
<b>Total</b>	<b>727,297</b>	<b>748,520</b>	<b>769,667</b>	<b>791,012</b>	<b>804,484</b>
<b>Per Capita Total</b>	<b>4.50</b>	<b>4.47</b>	<b>4.45</b>	<b>4.43</b>	<b>4.36</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

CO<sub>2</sub>e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric;

## Adjusted Forecast

The adjusted forecast adjusts the BAU forecast to account for state-level legislation, policies, and programs (e.g., SB 100, Title 24 Energy Efficiency Standards, Advanced Clean Truck Rule) that are expected to reduce GHG emissions. As it takes into account the influence of enacted laws, the revised projection is deemed a more authentic representation of Hayward's future emissions scenario. Contrasting the BAU and adjusted forecast can show the magnitude of anticipated reductions in Hayward's GHG emissions, which are expected to stem from state-level policies and initiatives.

## State-Level Policies Included in the Adjusted Forecast

Numerous regulations and policies at the State level have been put into effect and are anticipated to lower Hayward's future emissions. These pieces of legislation are incorporated into the adjusted forecast to provide a more accurate depiction of Hayward's future emissions. The pertinent policies and initiatives are outlined below:

- **Advanced Clean Cars Program.** A comprehensive car emissions control program which regulates smog, soot-causing pollutants, and GHG emissions into a single coordinated package of requirements.
- **Innovative Clean Transit.** A regulation focused on long-term goal of full transition of the heavy-duty transportation sector to zero-emission technologies. It requires all public transit agencies to gradually transition to a 100 percent zero-emission bus fleet and encourages them to provide innovative first and last-mile connectivity and improved mobility for transit riders.
- **Title 24 Building Energy Efficiency Standards.** Building standards that regulate new residential and commercial development in California by requiring increased efficiency related to space heating and cooling, lighting, and water heating.
- **California Renewable Portfolio Standard (RPS).** Requires investor-owned utilities, publicly owned utilities, electric service providers, and community choice aggregators to increase procurement from renewable energy resources. Adopted in 2018, SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 60 percent by 2030 and 100 percent by 2045. SB 1020 builds upon SB 100 by advancing the State trajectory to 100 percent clean energy procurement by 2045 by creating clean energy targets of 90 percent by 2035 and 95 percent by 2040.
- See Appendix A for more information on these and a suite of other programs and policies that are intended to reduce emissions, including SB 1383 and AB 341, that are not included in the adjusted forecast because they are emphasized in the measures.

**Table 5 Adjusted Forecast (MT CO<sub>2</sub>e)**

GHG Emissions Source	2025	2030	2035	2040	2045
<b>Transportation</b>					
Passenger On-Road Transportation	281,963	264,018	256,013	254,427	256,924
Commercial On-Road Transportation	103,620	94,404	83,586	77,090	74,698
Buses On-Road Transportation	7,703	6,398	4,975	3,964	2,922
BART	550	568	585	603	620
AC Transit	4,010	3,324	2,581	2,056	1,519
Off Road Transportation & Equipment	26,818	29,084	31,274	33,662	28,177
<b>Electricity</b>					
Residential Electricity	4,771	3,586	2,401	1,210	0
Commercial/Industrial Electricity	4,670	3,548	2,370	1,190	0
<b>Natural Gas</b>					
Residential Natural Gas	102,311	104,748	107,185	109,622	112,059
Commercial/Industrial Natural Gas	80,883	82,893	84,903	86,912	88,922
<b>Water and Wastewater</b>					
Wastewater - Direct	1,719	1,779	1,839	1,899	1,959
Wastewater – Indirect	297	232	160	83	0
Water - Indirect	5	4	3	1	0
<b>Solid Waste</b>					
Solid Waste Generated/Disposal	46,421	47,899	49,377	50,856	52,334
<b>Total</b>	<b>665,743</b>	<b>642,486</b>	<b>627,251</b>	<b>623,574</b>	<b>620,134</b>
<b>Per Capita Total</b>	<b>4.12</b>	<b>3.84</b>	<b>3.62</b>	<b>3.49</b>	<b>3.36</b>

Notes: Values in this table may not add up to totals due to rounding  
 All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)  
 CO<sub>2</sub>e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric;

## Comparing Forecast Scenarios

The BAU forecast for Hayward projects an increase in GHG emissions above the 2019 GHG emissions inventory from all GHG emissions sources through 2045 based on projected job and population growth. Hayward’s BAU GHG emissions are projected to increase to 4.36 MT CO<sub>2</sub>e per person or 804,484 MT CO<sub>2</sub>e in 2045, see Table 4.

The adjusted forecast projects that state legislation will result in GHG emissions reduction from the BAU forecast in both the residential and commercial/industrial sectors. Title 24 is expected to reduce GHG emissions due to reduced electricity and natural gas consumption in new residential and non-residential construction. SB 100 and the California RPS are expected to reduce GHG emissions associated with electricity generation in both the residential and the commercial/industrial sector. State transportation regulations,



including Advanced Clean Trucks, Advanced Clean Cars, and Advanced Clean Fleet, are expected to significantly reduce transportation GHG emissions. Hayward's adjusted GHG emissions are projected to 3.36 MT CO<sub>2</sub>e per person or 620,134 MT CO<sub>2</sub>e in 2045, see Table 5.

Refer to Appendix C for a more detailed discussion related to methodology modeling, and supportive evidence for Hayward's GHG forecasts.

## 5.3 International and State Context and Timeline/ Emissions Targets

### International Context

Local climate action is guided by science and policy targets at the international level. Bodies such as the United Nations Intergovernmental Panel on Climate Change (IPCC) conduct scientific evaluations and formulate policy recommendations. International treaties such as the Paris Agreement (2016) are legally binding treaties that cover nearly every nation on earth. The goal of carbon neutrality by 2045 is consistent with IPCC findings and research-based targets for avoiding the most serious climate change impacts. The central aim of the Paris Agreement is to limit global temperature rise to 1.5 degrees Celsius above pre-industrial levels. The IPCC has found that to achieve this and reduce the likelihood of catastrophic global climate change, the world must reach carbon neutrality by mid-century (~2050) and stabilize atmospheric concentrations at 350 parts per million (or less).

California also aligns Statewide targets with these international frameworks. According to the California Air Resources Board (CARB), reducing State emissions to carbon neutral by 2045 would be consistent with the IPCC analysis, as indicated in the AR6 Synthesis Report: Climate Change 2023,<sup>22</sup> of the global emissions trajectory needed to achieve these goals.<sup>23</sup> The Paris Agreement sets a worldwide objective of improving adaptive capacity and mandates each participating entity to identify their country's contributions to the collective climate effort. Regular emissions reporting and updates on implementation progress are also required. Similar endeavors are reflected in Hayward's work to increase resilience, achieve carbon neutrality, regularly inventory emissions, report progress towards targets and ultimately to contribute a fair share towards limiting global temperature rise. Hayward's targets associated with this CAP are consistent with both State and IPCC science-based targets related to GHG emissions reduction.

### State Context

In the past two decades, California has adopted extensive legislation, policies, and programs to reduce GHG emissions across the state, establishing itself as a global leader in climate change action. The primary legislation enumerating the State climate goals and driving climate action at the State level are AB 32, SB 32, and AB 1279. Together these regulations set Statewide GHG reduction targets for 2020, 2030, and 2045 and chart a path towards a carbon neutral California, as explained below. See Appendix A for a full list of relevant state-level legislation.

- **Assembly Bill 32:** This legislation codified the Statewide goal of reducing GHG emissions to 1990 levels by 2020 and required CARB to prepare a Scoping Plan that outlines the main strategies the State will employ to meet the 2020 target.
- **Senate Bill 32:** This successor legislation to AB 32 requires a Statewide reduction in GHG emissions of 40 percent below 1990 levels by 2030. A new Scoping Plan was adopted in 2017.
- **Assembly Bill 1279:** This legislation codified the Statewide carbon neutrality goal into a legally binding requirement for California to achieve carbon neutrality no later than 2045 and ensure 85 percent GHG emissions reduction under that goal. AB 1279 builds upon Executive Order (EO) B-55-18 that originally established California's 2045 goal of carbon neutrality. The latest Scoping Plan was adopted in 2022.

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<sup>22</sup> IPCC. 2023. AR6 Synthesis Report: Climate Change 2023. <https://www.ipcc.ch/report/sixth-assessment-report-cycle/>

<sup>23</sup> CARB. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>



## 5.4 Hayward Context and Timeline/Emissions Targets

### Hayward GHG Emissions Targets

The 2022 California Climate Change Scoping Plan recommends that local agencies establish communitywide GHG reduction goals for local climate action plans that will help California achieve its 2030 target and longer-term goal. The Scoping Plan notes that it is appropriate to derive evidence-based targets or goals from local emissions sectors and population projections if this process is consistent with the framework used to develop the Statewide targets. CARB also notes that GHG goals and targets should show a downward trend consistent with Statewide objectives.<sup>24</sup>

State climate legislation compares emissions reduction targets to a 1990 baseline. However, Hayward does not have a 1990 GHG inventory, and the targets developed by the City are instead compared to their 2005 baseline. In the 2006 AB 32 Scoping Plan, CARB indicates that the 1990 GHG emission levels were 15 percent below “baseline years established between 2005-2008. Hayward’s climate action targets are to:

- Reduce GHG emissions by 30 percent below 2005 levels by 2025.
- Reduce community GHG emissions by 55 percent below 2005 levels (equivalent to 40 percent below 1990 level) by 2030, equivalent to 3.12 MT CO<sub>2</sub>e per person or 521,777 MT CO<sub>2</sub>e by 2030.
- Work with the community to develop a plan that may result in the reduction of community based GHG emissions to achieve carbon neutrality by 2045.

The Hayward climate action targets are in line with the State-level goals to reduce GHG emissions 40 percent below 1990 levels by 2030 (in compliance with SB 32) and to carbon neutrality by 2045 (in compliance with AB 1279). This CAP includes per capita emission targets to align with guidance from the Scoping Plan. Making substantial progress toward California’s 2030 and longer-term 2045 goals is important, as these targets have been established at levels that achieve California’s fair share of international emissions reductions. California’s goals are in line with those of the IPCC and Paris Agreement.

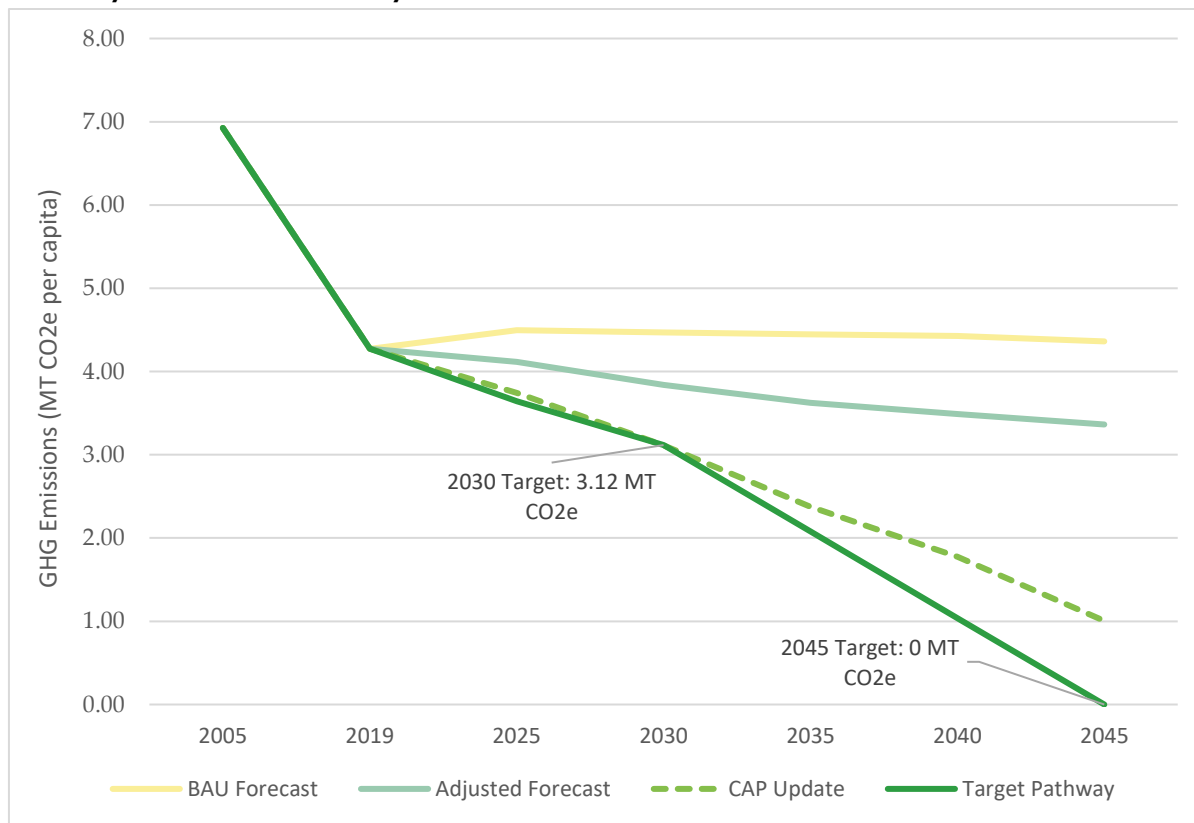
Hayward’s emissions targets are further summarized and compared to the BAU and adjusted emissions forecasts in the tables below, beginning from the 2019 baseline year through 2045. The emissions “gap,” the difference between the adjusted emissions forecast and Hayward’s GHG emissions targets, is shown for each year in the final row of Table 6. Figure 4 shows the per capita baseline emissions compared to forecast scenarios and the target pathway to carbon neutrality.

**Table 6 Per Capita GHG Reduction Target Pathway (MT CO<sub>2</sub>e/person)**

GHG Emissions Pathways	2019	2025	2030	2035	2040	2045
BAU Forecast	4.27	4.50	4.47	4.45	4.43	4.36
Adjusted Forecast	4.27	4.12	3.84	3.62	3.49	3.36
Hayward Emissions Targets	4.27	3.64	3.12	2.08	1.04	0.00
Emissions “Gap” – Per Capita	0.00	0.5	0.7	1.5	2.5	3.4
Emissions “Gap” – Mass Emissions	0	76,568	120,709	267,673	437,922	620,134

<sup>24</sup> CARB. 2022 Scoping Plan for Achieving Carbon Neutrality. <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>

**Figure 4 Baseline Emissions per Capita Compared to Forecast Scenarios and Target Pathway to Carbon Neutrality**



### Hayward Emissions Gap Analysis

The difference between Hayward’s climate action targets and the adjusted forecast for emissions can be thought of as an “emissions reduction gap,” or the amount of emissions reduction that the City and wider Hayward community must achieve.

### Meeting the GHG Emissions Targets

While state regulations and programs will contribute some emissions reductions, Hayward must implement local GHG reduction measures to meet the 2030 emissions targets and make substantial progress towards the 2045 emissions targets. Hayward would be required to reduce 0.7 MT CO<sub>2</sub>e per person by 2030, and 3.4 MT CO<sub>2</sub>e per person by 2045 to meet the chosen targets that align with state goals. Table 6 shows the remaining per capita reductions needed to meet the GHG emissions goals in MT CO<sub>2</sub>e per person.

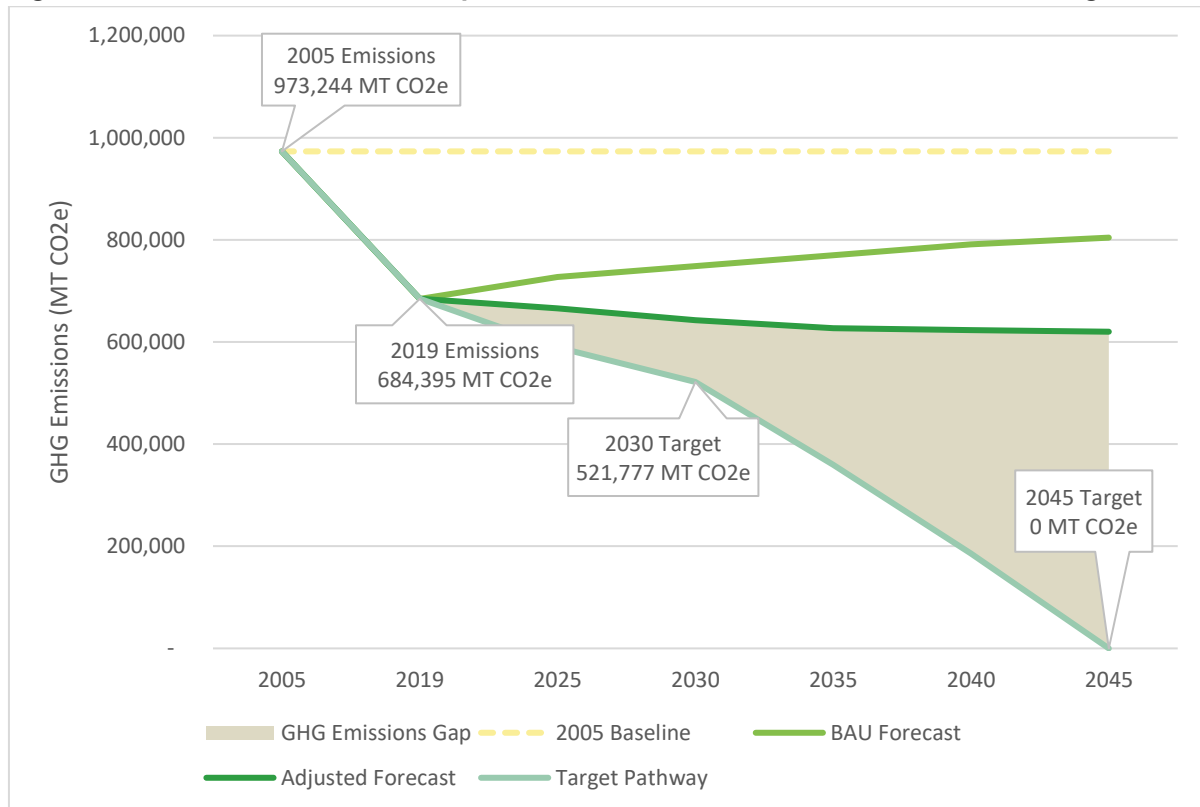
Emission reductions will be achieved by implementing specific policies and programs at the local level. These activities are referred to as “measures” and “actions” and they should be clear, attainable, measurable, equitable, and cost-effective to help achieve the desired emission reductions. The GHG emissions reductions associated with the measures in the CAP are sufficient to meet the state-level target established by SB 32 and meet the City’s 2030 climate action target. The CAP also makes substantial progress towards the City’s 2045 target, which aligns with the state-level carbon neutrality target established by AB 1279.

Additional discussion and details are provided regarding measures and actions in Chapters 6 through 11. Table 7 shows the Hayward climate action target emissions and the emissions reductions expected from implementing the measures and actions described in subsequent chapters. The table also shows that Hayward will meet the 2030 GHG reduction target and make substantial progress towards the 2045 goal of carbon neutrality. Figure 5 shows how Hayward measures would result in GHG reductions in line with the Hayward targets.

**Table 7 Targets Versus GHG Reductions**

Target/Forecast	2030 GHG Emissions (MT CO <sub>2</sub> e/person)	2045 GHG Emissions (MT CO <sub>2</sub> e/person)
Adjusted Forecast	3.84	3.36
Hayward Climate Action Targets	3.12	0.00
GHG Reductions from Full Implementation of CAP Measures	0.73	2.36
GHG Emissions after Measure Reductions (Adjusted Forecast – GHG Emissions Reductions)	3.11	1.01
Target Anticipated to be Met?	Yes	Substantial progress demonstrated

**Figure 5 Emissions Reduction Gap Between Forecasted Emissions and State Targets**



## 6 Equity and Outreach

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### 6.1 Climate Equity

Community members experience disproportionate impacts from climate change due to existing vulnerabilities, historical patterns of inequity, systemic environmental injustices, socioeconomic disparities, and historical patterns of inequity. Hayward is committed to developing and implementing equitable solutions to mitigate climate change. This includes efforts to create access to municipal services, public amenities and infrastructure, healthy environmental, and economic prosperity for all City residents and to protect all residents against the impacts of climate change and improve the quality of life for the most vulnerable members of the community. Disadvantaged communities have been marginalized and overburdened by environmental pollution exposure, underinvestment in clean energy infrastructure and programs, and lack of access to sustainable and decarbonized housing and transportation. Equitable climate action planning efforts strive to ensure that economic, health, and social benefits of climate action planning programs, projects, and infrastructure are accessible to individuals across a community, regardless of ethnicity, socioeconomic status, health, age, and physical ability.

### 6.2 Equitable Engagement Approach

As part of various planning efforts, including this Climate Action Plan, the Hayward General Plan Hazards Element, the Hayward General Plan Housing Element, and the Hayward General Plan Environmental Justice Element, the City conducted a series of public outreach efforts centered around equitable engagement.

#### **Engagement Objectives**

The CAP project team made significant efforts to communicate with and obtain input from community members. To facilitate this, the City developed a set of engagement objectives to guide the engagement process:

- To educate the community and decisionmakers on the legal requirements, timelines, and process for the various planning efforts and allow for a fully transparent updates process.
- To educate the community and decisionmakers about historical inequities in housing policy, development, and practices.
- To involve, collaborate and empower the community to act through this process.
- To implement a racial equity lens throughout the earliest phases to ensure that City staff and Rincon Consultants engage with all segments of the community.
- To emphasize engagement with hard-to-reach communities and those that have not yet established trust with the City or do not typically engage in City processes by partnering with trusted community groups and advisors.
- To engage groups including but not limited to special needs populations, communities of color, lower-income communities, communities that have limited or no access to technology, elderly communities, youth communities, and others.
- To define equity goals and guardrails for use in developing policy.

- To develop and execute a creative and innovative outreach process rather than repeating common approaches to engagement.

## Engagement Methods and Events

As part of this CAP Update process, the City utilized a multi-pronged approach engagement strategy to engage with Hayward residents, businesses, organizations, and stakeholders.

The City employed multiple engagement approaches, including:

- Public workshops
- Gallery Walks
- Website with Story Map
- Focus groups
- Online Surveys
- Tabling at community events
- Presentations for community groups
- Chabot College student interviews.
- Flyering around Hayward

This section identifies the various engagement methods the City employs to effectively engage community members, particularly Hayward’s disadvantaged communities.

### *Public Workshops and Gallery Walks*

Table 8 below shows the key engagement efforts and community input that was considered during the development of the CAP Update. Public input will continue to be received throughout the public draft comment period and through a third public workshop.



**Table 8 CAP Engagement Summary**

Engagement Event	Date of Event	Objectives
Gallery Walks	January 2022	<ul style="list-style-type: none"> <li>Build early awareness of the CAP process.</li> <li>Gather high-level ideas, priorities, and concerns.</li> <li>Build relationships with key stakeholder groups.</li> <li>Hosted at City Hall, Library, Chabot College, Hayward South Alameda County National Association for the Advancement of Colored People (NAACP), AC Transit.</li> </ul>
Flyering	February 2022	<ul style="list-style-type: none"> <li>Build early awareness of the CAP process.</li> <li>City staff flyered (English and Spanish) at: Hayward BART stop, Downtown Hayward Farmers Market, laundromats, grocery stores.</li> </ul>
Public Workshop #1	April 13, 2022	<ul style="list-style-type: none"> <li>Build early awareness of the CAP goals and process among the general public.</li> <li>Gather high-level priorities, and concerns about climate action in Hayward.</li> <li>Gather initial ideas for potential actions to include in the CAP.</li> </ul>
Tabling	April – August 2022	<ul style="list-style-type: none"> <li>Build early awareness of the CAP process.</li> <li>Gather feedback on the draft mitigation measures.</li> <li>Hosted tables at: City of Hayward’s Annual Earth Day Event, Juneteenth, Community Family Fair at Tennyson Park, August Downtown Street Party, Mariachi Festival.</li> </ul>
Presentations	May 2022	<ul style="list-style-type: none"> <li>Build early awareness of the CAP process.</li> <li>Present the draft mitigation measures.</li> <li>Gather feedback on the draft mitigation measures.</li> <li>Met with: Eden Housing staff, Sierra Club Southern Alameda County Group, Save the Bay staff, Starr King Unitarian Universalist Church.</li> </ul>
Chabot College Partnership	June-August 2022	<ul style="list-style-type: none"> <li>Chabot students interviewed 252 residents about climate change and draft mitigation measures.</li> </ul>
Online survey	June-August 2022	<ul style="list-style-type: none"> <li>Gather feedback on the draft mitigation measures</li> </ul>
Focus Groups	May-July 2022	<ul style="list-style-type: none"> <li>Build early awareness of the CAP process.</li> <li>Present the draft mitigation measures.</li> <li>Gather feedback on the draft mitigation measures.</li> <li>Hosted at Tennyson High School, Eden Housing Alta Mira, Eden Housing Tennyson Gardens, Eden Housing Montgomery Plaza, and Eden Housing Hayward Senior Facility.</li> </ul>
Public Workshop #2	July 19, 2022	<ul style="list-style-type: none"> <li>Provide updates about the Hayward CAP’s emission forecasts and GHG reduction targets.</li> <li>Present the draft mitigation measures.</li> <li>Gather feedback about the draft mitigation measures.</li> </ul>
Public Workshop #3	TBD	<ul style="list-style-type: none"> <li>Public review of the draft CAP document and to provide input.</li> </ul>

*Website with Story Map*

As part of the Hayward General Plan Housing Element, Hazards Element, and Environmental Justice Elements as well as this Climate Action Plan, the City created and hosted a website to serve as a centralized information hub and platform to collect input. The website includes a CAP Story Map with information on the CAP goals, benefits of the CAP, the CAP scope, and the City’s climate action planning steps. The Hayward Housing and Climate Update website is located here:

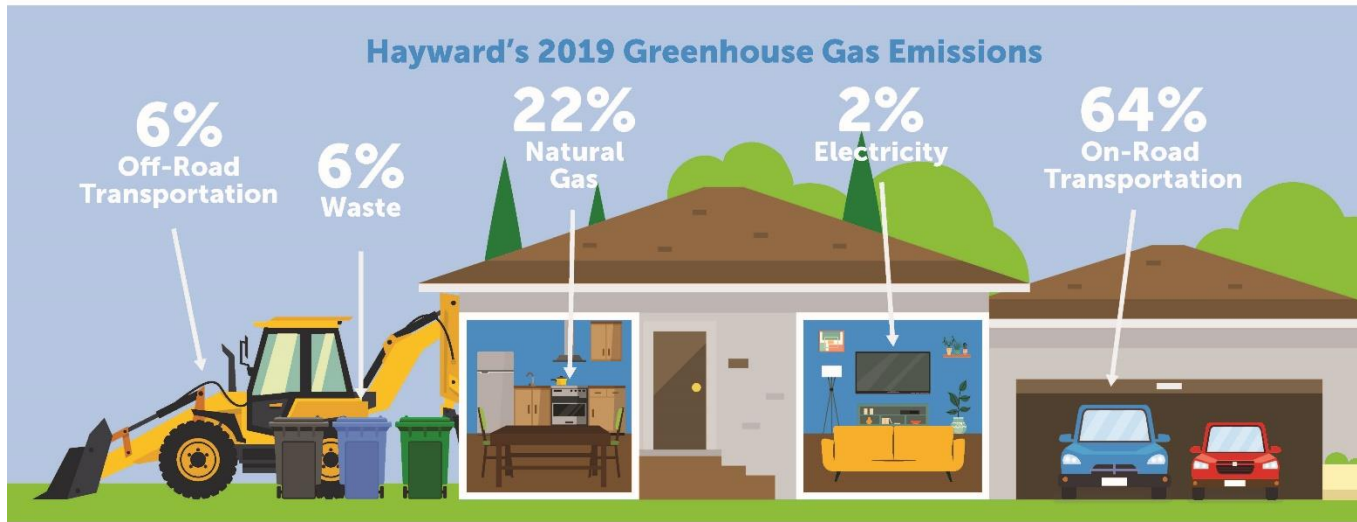
<https://haywardhousingandclimateupdate.com/>





# CLIMATE CHANGE IN HAYWARD

ROADMAP TO CARBON NEUTRALITY\*



### Climate Change Impacts

- Higher Temperatures
- Extended Periods of Drought
- Increased Risk of Wildfire
- Intense Rain and Flooding
- Damage to Property
- Poorer Human Health
- Worsened Air Quality Problems
- Higher Energy Costs

### Climate Action Plan Process



Scan the QR code to tell your Climate Story.

Please send all climate questions and comments to: [environment@hayward-ca.gov](mailto:environment@hayward-ca.gov)

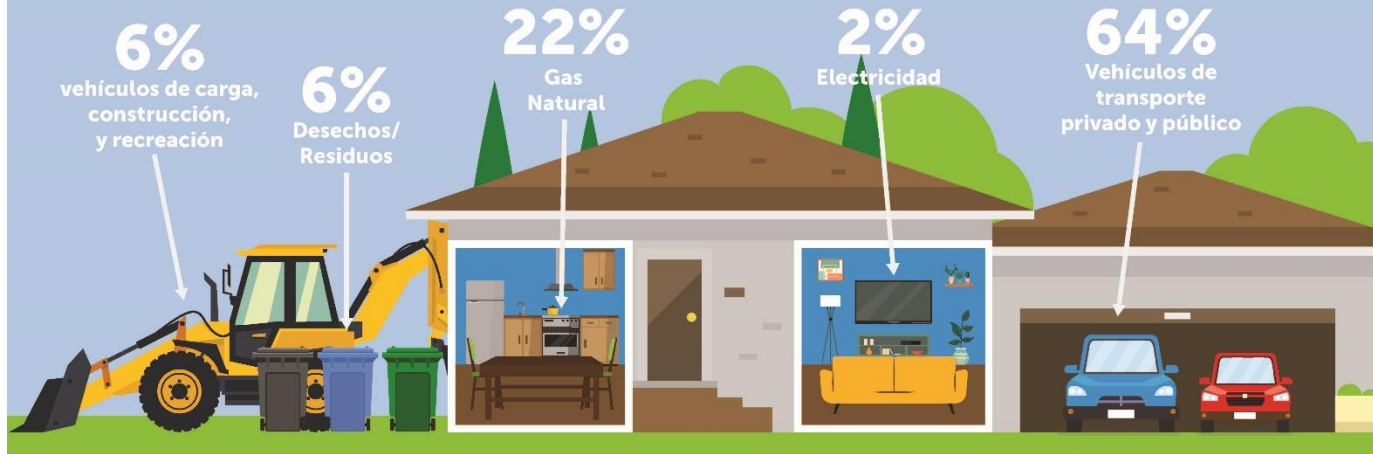
\*The City of Hayward's goals are to reduce emissions by 55% by 2030 and achieve carbon neutrality by 2045. Carbon neutrality means net zero community GHG emissions by reducing existing GHG emissions and balancing remaining emissions using new technology and strategies.



# EL CAMBIO CLIMÁTICO EN HAYWARD

EL CAMINO HACIA LA NEUTRALIDAD DE CARBONO\*

Las emisiones de gases de efecto invernadero de Hayward en el año de 2019



## Proceso de actualización del Plan de Acción Climática



Para más información, visite nuestro sitio web.

## Impactos del Cambio Climático

- Temperaturas más altas
- Periodos de sequía extendidos
- Mayor riesgo de incendios forestales
- Lluvias e inundaciones intensas
- Daños a la propiedad privada y pública
- Empeoramiento de la salud humana
- Empeoramiento de la calidad del aire
- Costos energéticos elevados

\*La Ciudad de Hayward ha establecido una meta para reducir las emisiones de gases de efecto invernadero en un 55% para el año 2030, y para lograr la neutralidad del carbono para el año 2045. La neutralidad del carbono significa lograr cero emisiones de gases de efecto invernadero en la comunidad, lo cual se lograría reduciendo las emisiones existentes y balanceando las emisiones residuales a través del uso de la tecnología y otras estrategias.

Por favor envíenos sus preguntas o comentarios acerca del cambio climático y la acción climática a: [environment@hayward-ca.gov](mailto:environment@hayward-ca.gov)

## 6.3 Equitable Climate Action Planning

CAP measures require changes in the way members of the community operate their homes and businesses, mobilize throughout the community, utilize water, dispose of waste, and consume products. As such, much of the costs and impacts related to climate change are carried by the community. Therefore, it is imperative that the CAP measures are developed with equity as a central pillar of the measure development process.

Climate equity requires local leaders and policy developers to acknowledge that disadvantaged communities are knowledgeable in creating solutions to protect and preserve their air, water, land, and communities, despite their previous exclusion from decision-making and from public resources and services. Therefore, it is critical that disadvantaged communities are involved in the policy development process so that policies reflect and align with the concerns and needs of these communities.

Disadvantaged communities are those that experience continuing injustice and face a legacy of systemic, largely racialized, inequity that influences their living and working places, the quality of their air and water, and their economic opportunities. Disadvantaged communities in Hayward include People of Color, Immigrants, People with Lower Incomes, People Experiencing Houselessness, Individuals with Physical Disabilities, Seniors, Linguistically Isolated (Limited or Non-English Speakers).

## 6.4 Hayward Equity Guardrails

Disadvantaged communities in Hayward have previously and continue to face systemic discriminatory practices that perpetuate systems of inequitable power and resource distribution. GHG reduction measures included in the CAP Update, as seen in Section 6, are intended to help address systemic discrimination and create a sustainable and equitable path forward for disadvantaged communities. Equity guardrails, as seen in the table below, were developed in coordination with City staff to provide specific criteria that GHG reduction measures proposed for the CAP Update need to include to address equity concerns specific to Hayward.

**Table 9 Hayward Equity Guardrails**

Equity Guardrails	Description
Integrate Health and Safety	Provide access to health, safety, and comfort benefits associated with the CAP by prioritizing access for disadvantaged communities.
Provide Economic Support	Establish funding and financing opportunities that are designed for and can be accessed by disadvantaged communities and that additional financial burdens on these groups are avoided.
Provide Social and Cultural Support	Provide meaningful support for disadvantaged communities through the addition/expansion of programs in partnership with community-based organizations that educate, engage, provide resources, and respond to barriers.
Mitigate Displacement Potential	Protect disadvantaged communities from displacement and increased cost of living.
Continue Investment and Engagement	Include specific mechanisms for continued investment in and engagement with disadvantaged communities throughout implementation of the CAP (unforeseen equity barriers may arise as the CAP is implemented and may need to be addressed through policy changes or additional support programs).

The Hayward equity guardrails were used to analyze each of the GHG reduction measures proposed for the CAP to generate a list of concerns and potential solutions. Potential solutions and supportive actions specific to equity were developed to address the equity concerns identified and are included under the relevant GHG reduction measures.

## 7 GHG Reduction Measures Framework

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### 7.1 Structure of GHG Reduction Measures

As part of the CAP Update process, the City developed a comprehensive set of measures to reduce communitywide GHG emissions and achieve the City’s climate action targets. Each measure is supported by a set of actions that provide measurable GHG emissions reduction that is supported by substantial evidence. The City also developed a set of measures and actions for offsetting GHG emissions through carbon sequestration, established under a sector called “Carbon Sequestration.” Measures and actions are organized according to the following hierarchy:

1. **Sectors.** Sectors define the GHG emissions category in which the GHG reductions will take place and include Building Energy, Transportation, Solid Waste, Water and Wastewater, and Carbon Sequestration.
2. **Measures.** Measures identify specific goals (i.e., activity data targets by 2030 and 2045) to address GHG emissions in each sector.
3. **Actions.** Actions identify the programs, policies, funding pathways, and other specific commitments that the City will implement. Each measure contains a suite of actions, which together have been designed to accomplish the measure goal.

### 7.2 Type of GHG Reduction Measures

Measures and actions can be either quantitative or supportive, depending on whether they directly result in GHG emissions reductions or support direct reductions.

- **Quantitative.** Quantitative measures and actions result in GHG emissions reductions that can be quantified and summed to show how Hayward will make progress towards and meet its climate action targets. The emissions reductions expected from implementation of these measures and actions are supported by substantial evidence such as peer-reviewed research that establishes their effectiveness for reducing GHG emissions.
- **Supportive.** Supportive measures and actions are critical to the overall success of a CAP and provide support so that the quantitative measures and actions will be successfully and equitably implemented. Though these measures and actions may also be quantifiable and have substantial evidence to support their overall contribution to GHG reduction, they are not quantified for one or more factors – including a low GHG reduction benefit, indirect GHG reductions, or potential for double-counting – and do not contribute directly to the expected GHG reduction targets.

## 7.3 CAP Measures Cost Ranges

Climate action plans exhibit high variability in implementation costs depending on the GHG emissions reduction measures identified, their level of specificity, and the accompanying funding and financing strategies, which may vary depending on the scope of the project. The cost range estimates are based on cost data derived from existing and past projects, case studies, and available research. For each GHG emissions reduction measure, the cost description focuses on both internal (City) costs and external (community) costs and provides insight into the variability of these costs, including the primary variables that may affect cost effectiveness such as upfront costs, lifecycle costs, incremental or marginal costs, and the cost of doing nothing.

This GHG emissions reduction measures cost range estimate analysis is not intended to provide exact and precise cost estimates for each of the measures. The costs described for each GHG emissions reduction measure are variable and provide a general range carried by differed parties associated with the measures. For more details regarding specific cost consideration and variables, refer to Appendix E. The GHG measures proposed for the CAP and listed below have been broken down into three cost segments, as summarized in Table 10.

**Table 10 Cost Categories**

Cost Category	City	Community
Low-Cost	Goals associated with low upfront costs and will only require staff time to implement, such as: <ul style="list-style-type: none"> <li>▪ Developing partnerships</li> <li>▪ Policy Updates</li> <li>▪ Community Outreach</li> </ul>	Goals associated with low upfront costs compared to existing alternatives, such as: <ul style="list-style-type: none"> <li>▪ Additional energy bill costs for renewable energy compared to fossil fuel-based energy</li> </ul>
Moderate-Cost	Goals associated with moderate upfront costs to the City and require moderate capital costs or consultant time along with staff time, such as: <ul style="list-style-type: none"> <li>▪ Feasibility Studies</li> <li>▪ Incentive and Compliance Programs</li> <li>▪ Pilot Projects</li> </ul>	Goals associated with moderate upfront costs that are not comparable to existing costs nor are offset over lifetime, such as: <ul style="list-style-type: none"> <li>▪ New fees from utilities or city taxes</li> <li>▪ Upfront costs partially offset by rebate opportunities</li> </ul>
High-Cost	Goals associated with high upfront costs and require substantial investments into infrastructure and technology system upgrades, such as: <ul style="list-style-type: none"> <li>▪ Bike Lanes</li> <li>▪ Energy Storage Systems</li> <li>▪ EV Charging Networks</li> </ul>	Goals associated with high upfront costs that are not comparable to existing cost nor are offset over lifetime, such as: <ul style="list-style-type: none"> <li>▪ New electric vehicle purchase prior to existing vehicle replacement</li> </ul>

## 7.4 Key Pillars of GHG Reduction Measures

Community-focused climate action often requires community-level behavioral changes and buy-in to be implementable and successful. This means that many factors aside from GHG emissions reductions need to be considered and balanced. To position a CAP to best achieve the City's targets, the actions supporting each measure were developed to be consistent with a set of key pillars. Each key pillar emphasizes specific criteria that play an essential role in the implementation of climate action. The key pillars are:

- **Structural Change.** Includes ordinances, codes, requirements, new programs, pilot programs, or other policy that provides some guarantee of behavior change going forward. Structural change actions are usually quantitative actions and provide the GHG emissions reduction mechanism for the associated measure to be effective.
- **Feasibility Studies.** Includes feasibility studies, City-led plans, or other investigative or strategy documents that help the City develop a strategy for measure or action implementation, especially for measures or actions that are more controversial or complicated.
- **Funding.** Includes grants, rebates, financing, and other capital avenues for ensuring that the associated measure's costs are supported.
- **Equity.** Includes actions to mitigate potential equity impacts of other actions, such as re-investment into underserved communities, or policies and programs to protect against an increased potential for displacement or increased cost burdens in the community. Equity actions help ensure the overall measure and approach can pass the equity guardrails, as described in Section 5.
- **Education.** Includes outreach, educational events, and engagement campaigns to incentivize community participation in the CAP and the new programs, policies, and incentives that have the potential to move the needle on GHG reductions.
- **Partnerships.** Includes actions that focus on partnerships with community-based organizations, other public agencies, and private-sector partners to create new programs the City cannot achieve alone.

## 7.5 Co-Benefits of GHG Reduction Measures

Climate action measures will also produce additional co-benefits beyond GHG emissions reductions that the community will see from implementing the CAP. These co-benefits will have long-term positive impacts that will help Hayward reach its community goals. The co-benefits identified for each CAP Update measure include the following.



### Improved Health and Safety

Developing a healthier community with reduced respiratory illnesses through improving both indoor and outdoor air quality, enhancing overall safety and property protection by bolstering adaptive capacity, and elevating quality of life by fostering more avenues for physical activity, increasing access to green spaces, and maintaining thermal comfort.



### Climate Change Resilience

Increased ability of community to prepare for, mitigate, and recover from climate hazards including extreme heat, sea level rise, flooding, wildfire, landslides, and drought.



### Environmental Quality & Ecosystem Services

Actions that improve the health of local ecosystems can also result in a variety of public benefits including reducing pollutants in local creeks and runoff to the bay, providing species habitat which supports a more biodiverse landscape, improving water and air quality, reducing local flood risk, and providing recreation benefits for the community enjoyment.



### Sustainable Land Use Planning

Through alignment with CEQA and the Housing Element Update, this CAP can help focus development in a manner that enhances human-centered economic corridors including transit-oriented development. A key co-benefit of a comprehensive and updated CAP is the promotion of thoughtful development that will complement the City's sustainability goals. This is achieved by creating a clear pathway for new development so it can align with Hayward's plan for reducing GHG emissions.



### Jobs Development

Initiative aimed at advancing clean energy adoption and sustainable business practices constitute a fundamental element in fostering the establishment of lucrative, well-compensated, and all-encompassing employment opportunities. These efforts will reciprocally uphold Hayward's climate targets and sustained economic well-being.

## 8 Building Energy Sector Measures

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### 8.1 Context

CAP measures for the building energy sector focus on transiting to renewable energy sources, carbon-free electricity, and building electrification. When all-electric buildings are powered by carbon-free electricity, their operating energy footprint becomes carbon-free.

#### Renewable Energy and Carbon-Free Electricity

Hayward’s building energy (BE) measures are dependent on leveraging the renewable energy that Ava Community Energy provides the community. Using 100 percent carbon-free electricity from Ava Community Energy, instead of natural gas, propane, or other non-renewable electricity sources, to power buildings reduces the GHG emissions associated with building operations to zero or near-zero. Measure BE-4 directs the City to work with Ava Community Energy to provide only 100 percent carbon-free electricity to residents and businesses and limit opt-out rates. Measure BE-6 commits the City to generating carbon-neutral electricity meeting 80 percent of the City’s electricity needs by 2030.

#### Electrification

Electrification of buildings can be a cost-effective and socially equitable way to reduce GHG emissions and protect public health. All-electric buildings can be more efficient and can result in lower energy bills.<sup>25</sup> Natural gas prices are expected to rise in the future, making it less cost-effective for building owners that don’t electrify.<sup>26</sup> All-electric buildings also provide a critical step towards improving public health. Burning natural gas in poorly ventilated areas (i.e., through gas stoves in particular) can cause a significant increase of harmful indoor pollutants that are linked to increased risk of respiratory illnesses.<sup>27</sup>

While the City has already adopted an electrification reach code for new construction which requires developers for residential and non-residential building types to provide all-electric systems, existing buildings must be electrified in order for Hayward to reach its climate action targets. Measures BE-2 and BE-3 provide frameworks of updated regulations, programs, funding mechanisms, education, and advocacy to drive electrification of existing single-family, multi-family, and commercial buildings.

Reducing both electricity and natural gas use is a fundamental strategy for the City to encourage and support as the electrical grid becomes increasingly renewable and ultimately carbon-free. Measure BE-5 aims to reduce GHG emissions by increasing energy efficiency in homes and businesses by reducing electricity and natural gas use. To further support communitywide GHG emissions reductions, the City will generate carbon-neutral electricity meeting 80 percent of the electricity needs at City facilities by 2030 (Measure BE-6). Appendix D provides more background

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<sup>25</sup> Kenney et al., (California Energy Commission (CEC). “California Building Decarbonization Assessment”. 2021. Available: <https://www.energy.ca.gov/publications/2021/california-building-decarbonization-assessment>

<sup>26</sup> Aas et. al., CEC. “The Challenge of Retail Gas in California’s Low-Carbon Future - Technology Options, Customer Costs, and Public Health Benefits of Reducing Natural Gas Use”. <https://www.energy.ca.gov/publications/2019/challenge-retail-gas-californias-low-carbon-future-technology-options-customer>

<sup>27</sup> RMI. “Gas Stoves: Health and Air Quality Impacts and Solutions.” 2020. Available: <https://rmi.org/insight/gas-stoves-pollution-health/>



information on each CAP measure and action as well as detailed summaries of GHG quantification methodologies.

## 8.2 Measures and Actions Detail

**Measure BE-1: Continue the all-electric requirement for new residential construction. Adopt an all-electric requirement for new non-residential construction to take effect by 2026.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure BE-1 are included in Table 11.



**Table 11 Measure BE-1 Actions**

Action ID	Action Description
BE 1.1	Continue to enforce the adopted Hayward Electrification Ordinance for new residential buildings banning natural gas. <i>Key Pillar: Structural Change</i>
BE 1.2	Adopt an ordinance, reach code, or zero NOx threshold, effective January 1, 2026, that establishes mandatory requirements that all newly constructed buildings avoid natural gas use by 2026. <i>Key Pillar: Structural Change</i>
BE 1.3	Compile case studies conducted by BayREN, the Building Decarbonization Coalition and other relevant sources that show cost effective strategies for electric buildings by prototype and detail the cost savings associated with all-electric construction. Share the information on the City’s website. <i>Key Pillar: Education/Funding</i>
BE 1.4	Partner with BayREN to provide/share technical resources, including hosting workforce development training for installers, local contractors, and building owners/operators, to discuss benefits and technical requirements of electrification within Hayward. Promote the cost savings, environmental benefits, and versatility of electrification to builders, property owners, and contractors on the City website and at the City permit counters. <i>Key Pillar: Education/ Partnership</i>
BE 1.5	Engage with stakeholders, both internal stakeholders, such as City staff and officials, and external stakeholders, such as local developers and community groups regarding the purpose and impact of the Hayward Electrification Reach Code and to identify equity concerns. <i>Key Pillar: Partnership/Equity</i>
BE 1.6	Engage with an organization such as Building Decarbonization Coalition to work with local building industry stakeholders in educating developers and other stakeholders on new appliances and approaches to building electrification. <i>Key Pillar: Partnership</i>
BE 1.7	Partner with Ava Community Energy to conduct an electrification infrastructure and capacity feasibility study to identify expected increases in electricity demand due to building and vehicle electrification, ensure capacity to meet that demand, and identify any infrastructure improvements. <i>Key Pillar: Feasibility Studies</i>
BE 1.8	Utilize the Low Carbon Concrete Code Amendment Toolkit and review current best practices to develop implementation strategies, compliance forms, and specifications for compliant mixes. <i>Key Pillar: Feasibility Studies</i>

Action ID	Action Description
BE 1.9	Promote the use of low carbon concrete in construction projects (residential and commercial). Coordinate with the California Air Resources Board as they develop rules and guidance pursuant to AB2446. <i>Key Pillar: Education</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 5,392 MT CO <sub>2</sub> e, 2045: 18,761 MT CO <sub>2</sub> e	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> Moderate	
<b>Co-Benefits:</b> Improved Public Health & Safety, Sustainable Land Use Planning	

**Measure BE-2: Electrify existing single-family residential buildings in order to achieve 100 therms/person/year by 2030 and 0 therms/person in 2045.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure BE-2 are included in Table 12.



**Table 12 Measure BE-2 Actions**

Action ID	Action Description
BE 2.1	Once costs and funding/financing options are identified (BE-2.5), adopt a decarbonization ordinance for existing single-family residential buildings by 2026 that, based on legislative feasibility, establishes mandatory requirements that eliminates expansion of natural gas infrastructure, and requires appliances, upon replacement, to be decarbonized where technologically feasible and cost effective. <i>Key Pillar: Structural Change</i>
BE 2.2	Adopt an ordinance requiring existing single-family homes to be 100% all-electric by 2045. <i>Key Pillar: Structural Change</i>
BE 2.3	Adopt a time of retrofit ordinance that requires all buildings with retrofit work who meet a certain threshold, to complete energy efficiency/electrification actions. To be part of the reach code to take effect January 2026. <i>Key Pillar: Structural Change</i>
BE 2.4	Work with community stakeholders including realtors and contractors to develop electrification readiness requirements to be completed within 120 days of completion of a home sale. Include a potential waiver process for distressed sales. <i>Key Pillar: Structural Change/Partnership</i>
BE 2.5	Develop a single-family residential building electrification feasibility study with a detailed existing building analysis and electrification costs analysis to understand cost implications, identify potential equity concerns/impacts, and develop strategies to electrify existing buildings such that natural gas usage in single-family residential buildings is reduced by 10% by 2030. <i>Key Pillar: Feasibility Studies</i>
BE 2.6	Support BAAQMD’s efforts to require zero-NOx furnaces and water heaters at time of replacement with compliant technologies such as electric heat pumps. Advocate that BAAQMD ensure discounted electric appliances are offered to lower income households and upfront rebates are available. <i>Key Pillar: Partnership</i>

Action ID	Action Description
BE 2.7	Partner with BayREN, Ava Community Energy, and StopWaste to work with the local contractors, realtors, homeowner associations, and labor unions to develop a comprehensive building code and compliance training program, including hosting workforce development trainings discussing the benefits and technical requirements of electrification. <i>Key Pillar: Partnership/ Education</i>
BE 2.8	Conduct engagement efforts for the general public and targeted to low-income communities of color during development of the electrification strategy to understand the community's concerns around electrification. <i>Key Pillar: Education</i>
BE 2.9	Partner with Hayward Below Market Rate (BMR) housing stock owners (such as Eden Housing) to commit to electrifying all BMR housing by 2045. Establish a plan, financing strategies, and schedule for implementing this action by 2026. <sup>28</sup> <i>Key Pillar: Equity</i>
BE 2.10	Identify and partner with local community-based organizations with connections to low-income communities of color to assist in development of the electrification strategy. <i>Key Pillar: Equity</i>
BE 2.11	Devote staff time to collaborate with PG&E, Ava Community Energy, and other cities in the region to advocate for regulatory changes at the State level (e.g., CARB) to allow neighborhood level electrification and pruning of natural gas to reduce the change of stranded asset, provide potential funding, and establish an efficient transition to carbon neutral buildings. <i>Key Pillar: Partnership/Funding</i>
BE 2.12	Work with Pacific Gas & Electric (PG&E), and Ava Community Energy to conduct a feasibility study assessing the cost and funding strategy for incentivizing all-electric retrofits through on-bill financing. <i>Key Pillar: Partnership/Funding</i>
BE 2.13	Review incentives, rebates, and financing options for procedural equity and ensure that existing and updated incentive programs are being equitably distributed to the community. Hurdles to equitable implementation could include credit checks, excessive procedural hurdles, and lack of targeted outreach. <i>Key Pillar: Equity</i>
BE 2.14	Partner with a financing/management company such as BlocPower to provide electrification services and financing to the community with prioritization of historically under-invested communities. <i>Key Pillar: Partnerships</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 13,872 MT CO <sub>2</sub> e, 2045: 68,020 MT CO <sub>2</sub> e	
<b>City Cost:</b> High	
<b>Community Cost:</b> High	
<b>Co-Benefits:</b> Improved Public Health & Safety, Jobs Development	

<sup>28</sup> <https://www.hayward-ca.gov/services/city-services/finding-affordable-housing>.

**Measure BE-3: Decarbonize existing commercial and multi-family buildings in order to achieve 53 therms per service person in 2030 and 0 therms per service person in 2045.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure BE-3 are included in Table 13.



**Table 13 Measure BE-3 Actions**

Action ID	Action Description
BE 3.1	<p>Based on the results of the feasibility studies (BE- 3.4) adopt a decarbonization ordinance for existing commercial buildings by 2026 that, based on legislative feasibility, establishes mandatory requirements that eliminates expansion of natural gas infrastructure and requires appliances, upon replacement, to be decarbonized where technologically feasible and cost effective. As part of this ordinance, implement the following steps:</p> <ol style="list-style-type: none"> <li>1. Develop requirements that satisfy the federal Energy Policy and Conservation Act (EPCA) seven criteria for an exemption from preemption;</li> <li>2. Establish specific metrics for standard benchmarking;</li> <li>3. Identify a regulatory mechanism for eliminating natural gas use in existing commercial buildings that addresses legal and feasibility considerations; and</li> <li>4. Enforce requirement compliance through the same permitting compliance program as for residential building electrification.</li> </ol> <p><i>Key Pillar: Structural Change</i></p>
BE 3.2	<p>Based on the results of the feasibility studies (BE- 3.4) adopt a decarbonization ordinance for existing multi-family buildings by 2026 that, based on legislative feasibility, establishes mandatory requirements that eliminates expansion of natural gas infrastructure and requires appliances, upon replacement, to be decarbonized where technologically feasible and cost effective. As part of this ordinance, implement the following steps:</p> <ol style="list-style-type: none"> <li>1. Develop requirements that satisfy the federal Energy Policy and Conservation Act (EPCA) seven criteria for an exemption from preemption;</li> <li>2. Establish specific metrics for standard benchmarking;</li> <li>3. Identify a regulatory mechanism for eliminating natural gas use in existing multi-family buildings that addresses legal and feasibility considerations; and</li> <li>4. Enforce requirement compliance through the same permitting compliance program as for residential building electrification.</li> </ol> <p><i>Key Pillar: Structural Change</i></p>
BE 3.3	<p>Adopt a Commercial Energy Performance Assessment and Disclosure Ordinance for commercial and multi-family buildings, which requires energy use disclosure consistent with State law (AB 1103) and the use of the ENERGY STAR Portfolio Manager benchmarking tool.</p> <p><i>Key Pillar: Structural Change</i></p>
BE 3.4	<p>Conduct feasibility studies to identify commercial and multi-family building decarbonization barriers and develop a commercial and multi-family building decarbonization strategy with analysis supporting future adoption of a commercial and multi-family building decarbonization ordinance.</p> <p><i>Key Pillar: Feasibility Studies</i></p>
BE 3.5	<p>Partner with an electrification/efficiency expert to provide guidance to commercial buildings covered by the building performance standard.</p>

Action ID	Action Description
<i>Key Pillar: Education/ Partnership</i>	
BE 3.6	<p>Develop an education campaign to promote commercial electrification and include items in the program such as:</p> <ol style="list-style-type: none"> <li>1. Continue to engage with local business and business organizations (e.g., Chamber of Commerce, the Alameda County Green Business Program) to inform and facilitate electrification for commercial business owners.</li> <li>2. Continue to promote the use of the Energy Star Portfolio Manager program and energy benchmarking training programs for nonresidential building owners.</li> <li>3. Advertise via utility bill inserts the incentive programs or grants available and the cost benefits of electric appliances.</li> <li>4. Conduct targeted outreach to builders, developers, local contractors, and property managers with an informational brochure describing the financial benefits of replacing natural gas appliances with all electric appliances when they apply for permits.</li> <li>5. Provide informational webinars and an updated website to advertise and promote all-electric building initiative rebates and incentives.</li> </ol> <p><i>Key Pillar: Education</i></p>
BE 3.7	<p>Conduct outreach to small businesses and minority-owned businesses to understand potential equity impacts of a decarbonization policy as part of the existing building decarbonization study.</p> <p><i>Key Pillar: Funding</i></p>
BE 3.8	<p>Conduct feasibility study to evaluate the current uptake and effectiveness of Property Assessed Clean Energy (PACE) financing for installation of renewable energy systems in commercial and industrial properties. If feasibility study indicates effectiveness, continue to offer PACE financing for commercial and industrial properties to install renewable energy systems.</p> <p><i>Key Pillar: Funding</i></p>
BE 3.9	<p>Continue to work with Bay Area Regional Energy Networks (BayREN), Ava Community Energy, and StopWaste to continue to improve and implement commercial electrification rebates and financing opportunities and other offered incentives.</p> <p><i>Key Pillar: Partnerships</i></p>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 20,667 MT CO <sub>2</sub> e, 2045: 114,200 MT CO <sub>2</sub> e	
<b>City Cost:</b> High	
<b>Community Cost:</b> Moderate	
<b>Co-Benefits:</b> Improved Public Health & Safety, Jobs Development	

**Measure BE-4: Support Ava Community Energy in providing 100% carbon-free electricity by 2030.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure BE-4 are included in Table 14.



**Table 14 Measure BE-4 Actions**

Action ID	Action Description
BE 4.1	Adopt a resolution establishing a policy that if Ava Community Energy does not meet the 2030 goal of its entire portfolio being 100% carbon-free, all Hayward customers will be enrolled in Renewable 100 in by 2030. Resolution should include identification of funding or subsidies to ensure no cost increase to CARE/FERA customers. This may include subsidization costs to CARE/FERA customers to be funded by a rate increase for non-discounted customers. <i>Key Pillar: Structural Change</i>
BE 4.2	Engage with community (residential and non-residential) to advertise/highlight Ava Community Energy’s plan to provide 100% carbon-free electricity by 2030. Provide information on the importance of this goal and the impact of buying electricity from Ava Community Energy. <i>Key Pillar: Education</i>
BE 4.3	In collaboration with Ava Community Energy, implement a pilot program to provide Hayward’s affordable housing units Ava Community Energy’s Renewable 100 service. Identify funding options with Ava Community Energy such as subsidies funded by non-discounted customers or grant funding. <i>Key Pillar: Equity</i>
BE 4.4	Work with Ava Community Energy to conduct an annual analysis of opt-out rates in the City of Hayward to understand why residents and businesses opt out of Ava Community Energy or opt-down to Bright Choice over Renewable 100. <i>Key Pillar: Feasibility Studies</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 4,802 MT CO <sub>2</sub> e, 2045: 0 MT CO <sub>2</sub> e	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> Low	
<b>Co-Benefits:</b> Improved Health and Safety, Job Development	

**Measure BE-5: Continue to promote energy efficiency improvement, in alignment with the 2014 Climate Action Plan.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure BE-5 are included in Table 15.



**Table 15 Measure BE-5 Actions**

Action ID	Action Description
BE 5.1	Continue to promote the efficient use of energy in the design, construction, maintenance, and operation of public and private facilities, infrastructure, and equipment. <i>Key Pillar: Structural Change</i>
BE 5.2	Continue to collaborate with partner agencies, utility providers, and the business community to support a range of energy efficiency, conservation, and waste reduction measures, including the development of green buildings and infrastructure, weatherization programs, installation of energy-efficient appliances and equipment in homes and offices, promotion of energy efficiency retrofit programs, use of green power options, and heightened awareness of the benefits of energy efficiency and conservation issues. <i>Key Pillar: Partnership/Education</i>
BE 5.3	Continue to collaborate with regional entities and others to promote incentive programs for energy efficiency retrofits such as the Energy Upgrade California program for residential properties. <i>Key Pillar: Partnership/Funding</i>
BE 5.4	Continue to promote the use of the Energy Star Portfolio Manager program and energy benchmarking training programs for nonresidential building owners. <i>Key Pillar: Partnership/Funding</i>
BE 5.5	Obtain and prioritize funding for the weatherization program specifically for low, very low, and low-income homeowners, landlords, and renters, to make energy efficiency improvement and improve health and safety of residences. <i>Key Pillar: Partnership/Funding</i>
<b>Total GHG Emissions Reduction from Measure: Supportive Measure &amp; Actions</b>	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> Moderate	
<b>Co-Benefits:</b> Improved Public Health & Safety, Climate Change Resilience	



**Measure BE-6: Generate carbon-neutral electricity on City facilities meeting 80% of the municipal operational electricity needs by 2030.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure BE-6 are included in Table 16.



**Table 16 Measure BE-6 Actions**

Action ID	Action Description
BE 6.1	Obtain battery storage in City buildings and critical facilities, including community-based resilience hubs, identified to need power during emergencies or power outages. <i>Key Pillar: Structural Change</i>
BE 6.2	Develop partnerships with organizations, such as the Urban Sustainability Directors Network (USDN) or California Resilience Partnership (CRP), to conduct a feasibility study to identify locations for community resilience hubs within the City, identify grant opportunities, and to develop a plan to implement resilience hubs. <i>Key Pillar: Partnership/ Feasibility Study</i>
BE 6.3	Conduct analysis on risks and benefits associated with relying on battery storage to achieve carbon neutral electricity and grid resiliency goals in the City and set a MW capacity goal for installed battery storage by 2030 and 2045. <i>Key Pillar: Structural Change</i>
BE 6.4	Formally include City facilities that serve as cooling centers to disadvantaged communities in the Energy Assurance Plan (Community Safety program 13) and develop and implement energy resiliency strategies like on-site renewable energy generation or energy storage to ensure center remains active even in power shortages. <i>Key Pillar: Equity</i>
BE 6.5	As part of Energy Assurance Plan (Community Safety program 13), include identifications of locations or complexes (i.e., City facilities, college campuses, critical facilities) in the City for installation of local renewable energy generation, energy storage projects, and/or ideal locations for development of a micro-grid as evaluated in Ava Community Energy feasibility study. <i>Key Pillar: Feasibility Study</i>
BE 6.6	Develop the study estimating renewable energy generation on City facilities and schedule implementing of the prioritized solar projects identified. The plan should include an identification of barriers and needs for implementation of the prioritized projects as well as identify funding sources and partnerships needed for successful implementation. <i>Key Pillar: Feasibility Study</i>
BE 6.7	Partner with PG&E and/or Ava Community Energy to ensure smooth integration of renewable energy systems from the identified prioritized projects or other individual solar projects into the grid. <i>Key Pillar: Partnership</i>
BE 6.8	Identify and advertise incentives available for the community members for installing solar on homes such as Net Metering Programs through PG&E for bill credits, or the Disadvantaged Communities-Single-family Solar Homes (DAC-SASH) program. Identify incentives available for businesses and homeowners to install energy storage systems, such as Self Generation Incentive Program (SGIP) and Equity Resiliency rebates that provides an upfront rebate for battery storage and/or the federal investment tax credit for solar batteries installed. Provide resource information to the community through websites, workshops, and partnerships. <i>Key Pillar: Funding/Education</i>



Action ID	Action Description
BE 6.9	<p>Partner with affordable housing providers to conduct a feasibility analysis of battery storage and solar projects at the affordable housing in Hayward that are eligible for Equity Resilience Incentives under the SGIP Program.</p> <p><i>Key Pillar: Funding /Equity</i></p>
BE 6.10	<p>Determine opportunities for the Water Pollution Control Facility to expand existing biogas (i.e., methane) capturing and utilization as part of the Biosolids Master Plan currently underway. The Master Plan document will plan for and phase in improvements for utilizing biogas for the next 20-years including potentially expanding the existing cogeneration facility to produce more energy, or possibly converting to renewable natural gas for pipeline injection off-setting the need to purchase non-renewable natural gas. The Master Plan is consistent with General Plan Policy PFS-4.12 to develop, enhance, and maintain clean, green, and renewable energy systems at the Water Pollution Control Facility (WPCF)</p> <p><i>Key Pillar: Funding/Partnership</i></p>
BE 6.11	<p>Provide educational materials and workshops to large commercial developers and large business property owners of the benefits of microgrids and energy resiliency. Provide resources to identify opportunities for solar installations and/or battery storage on site.</p> <p><i>Key Pillar: Education</i></p>
BE 6.12	<p>Prepare a plan to facilitate the transition of natural gas appliances to electric in City Facilities. Plan should include an inventory of appliances available for replacement, identify cost where possible, and establish a timeline for replacement.</p> <p><i>Key Pillar: Feasibility Study</i></p>
<b>Total GHG Emissions Reduction from Measure:</b> Supportive Measure & Actions	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> No expected community cost	
<b>Co-Benefits:</b> Improved Public Health & Safety, Climate Change Resilience, Jobs Development	

## 9 Transportation Sector Measures

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### 9.1 Context

Transportation accounts for the largest portion of GHG emissions in Hayward.

The City of Hayward strives to promote transportation options that provide a robust set of health, mobility, and livability benefits for all community members. The City is committed to developing a thriving transportation network to encourage residents to make more sustainable and healthy choices.

#### **Reducing Vehicle Miles Travelled**

These transportation measures (T) prioritize reducing vehicle miles travelled (VMT) first, by improving active and public transportation, then shifting the remaining VMT to electric vehicles. While in theory, 100 percent electrification of all vehicles in Hayward could achieve zero-emissions in the transportation sector without reducing VMT, the City recognizes that cars and roadways carry huge amounts of embodied emissions not accounted for in the inventory, over which the City has little control. Beyond decreasing GHG emissions, there are other benefits associated with reducing VMT. These include alleviating traffic congestion, requiring less space for roads and parking, promoting local economic revitalization, and enhancing overall quality of life.

In line with the Hayward 2020 Bicycle and Pedestrian Master Plan, the City will increase active transportation mode share to 15 percent by 2030 and 20 percent by 2045 (Measure T-1). The City will implement public and share transit programs to increase mode shift to public and shared transit mode to 15 percent by 2030 and 30 percent by 2045. While Measures T-1 and T-2 can be effective in changing community choices around transportation, the impacts of incentive-based policies increase when coupled with disincentives for less favorable choices, such as making it less convenient to drive a gasoline-fueled single passenger vehicle. Through Measure T-3, the City will develop disincentives for driving single passenger vehicles to support the bicycle/pedestrian and public transit mode share goals.

#### **Electrification**

While the City cannot require its residents or businesses to buy Zero-Emission Vehicles (ZEVs), Measures T-4 and T-5 will ensure the infrastructure and incentives are present in the City to begin to remove present barriers to passenger and commercial ZEV adoption. In line with this, the City will increase municipal passenger ZEV adoption to align with the State of California's ZEV goals. Measure T-6 establishes a goal of decarbonizing 15 percent of off-road equipment by 2030 and 80 percent by 2045 to further contribute to the City's overall GHG emissions reductions.

## 9.2 Measures and Actions Detail

### Measure T-1: Increase active transportation mode share to 15% by 2030 and to 20% by 2045.

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure T-1 are included in Table 17.



**Table 17 Measure T-1 Actions**

Action ID	Action Description
T 1.1	<p>Amend the Off-Street Parking Regulation of Municipal Code to incorporate smart growth principles and to incentivize walking, biking, and public transit.</p> <ol style="list-style-type: none"> <li>1. Create a single “blended” parking requirement for commercial uses to facilitate future changes of use (i.e., changing a retail store to a restaurant).</li> <li>2. Provide requirements or incentives for bicycle parking.</li> <li>3. Allow on-street parking along the property’s frontage to count towards satisfying a portion of the property’s off-street parking requirements.</li> <li>4. Create parking preferences or incentives for residents who rideshare or use low- or zero-emissions vehicles.</li> <li>5. Allow property owners to develop and implement parking demand management plans that consider ways to reduce the need for off-street parking by using shared parking arrangements, valet parking services, paid parking, and other appropriate techniques.</li> <li>6. Establish design standards or retrofit standards for Complete Streets.</li> <li>7. Promote multi-modal use.</li> </ol> <p><i>Key Pillar: Structural Change</i></p>
T 1.2	<p>In support of the General Plan and City land-use policies, maximize infill development, increase land-use and transit efficiencies to support the regional Sustainable Communities Strategy<sup>29</sup> and promote a jobs-housing match. In addition, work with developers to prioritize infill development projects and transit-oriented development zones.</p>
T 1.3	<p>Based on the completed Complete Streets Assessment (existing Mobility program 6), the Complete Streets Inventory Baseline, and the 2020 Bicycle and Pedestrian Master Plan, develop a priority list of complete streets improvements such as retrofits, design standards, and green infrastructure that would accommodate walking, biking, transit use and carpooling. This effort should include a schedule for implementation, prioritization of improvements, identification of whether improvement will aid in walking, biking or transit access, and the plan should ensure equitable roll-out to low-income communities.</p> <p><i>Key Pillar: Structural Change</i></p>
T 1.4	<p>Adopt and implement a micro-mobility policy that promotes ownership of micro-mobility devices, especially among lower income community members. Promote equitable access to charging facilities for electric micro-mobility devices.</p> <p><i>Key Pillar: Structural Change</i></p>
T 1.5	<p>Continue to implement 2020 Bicycle and Pedestrian Master Plan goals of developing 153 new bicycle facilities and 32 miles of multi-use paths for pedestrians and cyclists.</p>

<sup>29</sup> To support achievement of the State’s GHG emissions reduction goals, California established the Sustainable Communities and Climate Protection Act. It requires regional metropolitan planning organizations in California to develop Sustainable Communities Strategies that align transportation, housing, and land use decisions towards achieving GHG emissions reductions.

Action ID	Action Description
	<i>Key Pillar: Structural Change</i>
T 1.6	Evaluate and, if necessary, update the City's Zoning Code, Transportation Demand Management Plan (or Administrative Rule 2.26), and California Green Building Code to reflect current transportation demand management opportunities and to ensure the City requires sufficient bicycle parking for new commercial development and retrofits. <i>Key Pillar: Structural Change</i>
T 1.7	Update and conduct Underused Rights-of-Way Study such that a community/business survey and evaluation is completed to understand community perspective on potential barriers to conversions and identify barrier solutions. Based on findings, convert recommended amount miles of under used roadways thoroughfare to active transportation corridors to create a connected environment City (i.e., downtown areas). As part of the program, launch a public campaign to gain public and business support to ensure success of such efforts. Consider having pilot programs (i.e., shutting down street lanes for specific events/periods of time) to demonstrate the advantages of proposed improvements. <i>Key Pillar: Structural Change/Feasibility Study</i>
T 1.8	Identify streets for permanent through traffic closures to promote walking, biking, and other forms of active transportation. <i>Key Pillar: Structural Change</i>
T 1.9	Identify areas of the City to remove parking and/or additional traffic lanes to prioritize outdoor seating and make permanent outdoor dining established during Covid 19. <i>Key Pillar: Structural Change</i>
T 1.10	Prioritize active transportation and mobility projects in historically under-invested neighborhoods. <i>Key Pillar: Equity</i>
T 1.11	Partner with schools, employers, transit agencies, Hayward Area Recreation and Park District (HARD), and community groups to teach bicycle and pedestrian safety in schools and workplaces and to educate residents and businesses about the health and environmental benefits of walking, bicycling, and using public transit. <i>Key Pillar: Partnership/Education</i>
T 1.12	Partner with community organizations and local bike shops to provide rebates for low-income community members to purchase bicycles, helmets, pumps, e-bikes, e-scooters, and other related equipment. Work with community partners to provide incentives to promote bicycle, e-bike and e-scooter ownership. <i>Key Pillar: Partnership</i>
T 1.13	Partner with community groups to obtain funding through the California Air Resources Board Car Sharing and Mobility Options program for a pilot bike-share program in low-income communities and to connect low-income communities with the E-Bike Purchase Incentive Program through CalBike. <i>Key Pillar: Equity/Funding</i>
T 1.14	Ensure there is equitable access to safe bicycle and pedestrian infrastructure in all areas of the city. Prioritize the development of pedestrian and bicycle infrastructure in low-income communities where there is currently no or limited pedestrian and bicycle infrastructure. <i>Key Pillar: Equity</i>
T 1.15	Based on the identified barriers to completing the Complete Streets Evaluation including limited staff and fiscal resources, develop strategies to reduce or eliminate barriers, such as identifying staff to assign the Complete Streets Evaluation to. <i>Key Pillar: Feasibility Studies</i>
T 1.16	Devote staff time to managing, tracking and applying for grant funding to complete projects that would improve active transportation or mobility in the community. <i>Key Pillar: Funding</i>
<b>Total GHG Emissions Reduction from Measure: 2030: 6,485 MT CO<sub>2</sub>e, 2045: 8,755 MT CO<sub>2</sub>e</b>	
<b>City Cost: High</b>	
<b>Community Cost: Low</b>	

Action ID	Action Description
<b>Co-Benefits:</b> Improved Public Health & Safety, Sustainable Land Use Planning, Environmental Quality & Ecosystem	

**Measure T-2: Implement public and shared transit programs to increase mode shift to public and shared transit mode to 15% by 2030 and 30% by 2045.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure T-2 are included in Table 18.



**Table 18 Measure T-2 Actions**

Action ID	Action Description
T 2.1	Continue to promote infill development and/or new development that is compact, mixed use, pedestrian friendly, and transit oriented. <i>Key Pillar: Structural Change</i>
T 2.2	Adopt a policy or code into the Municipal code that establishes specific standards for new development of public space to be transit accessible and multi-functional by co-locating public facilities. <i>Key Pillar: Structural Change</i>
T 2.3	Consistent with the Downtown Parking Management Plan and Downtown Specific Plan, adopt parking requirements into the Municipal code that are appropriate for a mixed-use, walkable, and transit-oriented district. Evaluate opportunities in the Downtown area to designate streets for transit only. <i>Key Pillar: Structural Change</i>
T 2.4	Develop and adopt an ordinance requiring new multi-family development projects to install a car share or provide e-bikes/e-scooters to each new tenant. <i>Key Pillar: Structural Change</i>
T 2.5	Evaluate and prioritize transit stops needing renovations that do not meet the adopted Pedestrian Design Standard for Transit Stop. Upgrade transit stops such that they include bicycle parking and shade trees or structures and are designed to promote use. <i>Key Pillar: Structural Change</i>
T 2.6	Consistent with the intention of Senate Bill 10, allow developers to build housing without off-street parking if they're close to frequent transit service. <i>Key Pillar: Structural Change</i>
T 2.7	Through the adoption of an ordinance or incorporation into large commercial building codes, require all employers to develop a Transportation Demand Management (TDM) Plan. TDM plans should include money-based incentives for employees to bike, walk, carpool, or take the bus to work. In alignment with BAAQMD requirement, large employers (more than 50 employees) shall subsidize biking, walking, or bus travel. <i>Key Pillar: Funding/Structural Change</i>
T 2.8	Expand the Student Transit Pass Program (STPP), which provides free youth clipper cards with unlimited bus rides to middle and high schools students, to provide free AC transit to college students and low-income community members. <i>Key Pillar: Partnership/Equity</i>
T 2.9	Collaborate and engage with AC Transit to understand how they are addressing the Innovative Clean Transit Rule and their plan to electrify their bus fleet. <i>Key Pillar: Partnership</i>

Action ID	Action Description
T 2.10	Dedicate staff time or create a staff position to pursue funding opportunities to implement planned City transit/TDM projects and programs and to support AC Transit in obtaining grant funding for region-wide service expansion. <i>Key Pillar: Funding</i>
T 2.11	Conduct local transportation surveys to better understand the community’s needs and motivation for traveling by car versus other alternatives such as AC Transit or BART. Use survey results to inform policy development and education/outreach campaigns that are transit focused. Consistent with the previous CAP policy M-3 (Survey Transportation and Transit Gaps and Barriers) <i>Key Pillar: Feasibility Study</i>
T 2.12	Assess the feasibility and GHG reduction impact of banning cars in high-traffic zone(s) or on individual roads in the City where other transit options are available by implementing a congestion charge that applies to passenger cars and car-sharing services like Uber and Lyft with exceptions for handicap drivers and residents of those areas. <i>Key Pillar: Feasibility Study</i>
T 2.13	Partner with AC Transit to conduct a study to determine transit priority corridors and prioritize infrastructure improvements in existing neighborhoods that enable people to better access and use public transit. <i>Key Pillar: Feasibility Studies/ Partnerships</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 7,585 MT CO <sub>2</sub> e, 2045: 25,092 MT CO <sub>2</sub> e	
<b>City Cost:</b> High	
<b>Community Cost:</b> Low	
<b>Co-Benefits:</b> Improved Public Health & Safety, Sustainable Land Use Planning, Jobs Development	

**Measure T-3: Develop disincentives for driving single passenger vehicles to support the bicycle/pedestrian and public transit mode share goals of Measures T-1 and T-2.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure T-3 are included in Table 19.



**Table 19 Measure T-3 Actions**

Action ID	Action Description
T 3.1	Develop and adopt a Citywide Transportation Demand Management (TDM) Plan including strategies to reduce peak-hour traffic, such as staggered work hours, flexible schedule options, and telecommuting from home offices. Include updated policy incentives or disincentive options to achieve reductions in peak-hour traffic, reduce traffic congestions and promotes alternative transportation (biking, walking, and use of transit) <i>Key Pillar: Structural Change</i>
T 3.2	Continue to require new development adopt transportation demand management strategies to reduce use of single occupancy vehicles and encourage the use of alternative modes of travel. Update

Action ID	Action Description
	development requirements, ordinances, and/or building codes requiring TDM as part of new developments as part of enforcement. <i>Key Pillar: Structural Change</i>

Action ID	Action Description
T 3.3	Develop consistent standards for parking minimums and maximums across the city. Reduce parking minimums and parking maximums citywide, as improved active and public transit infrastructure becomes more available. Additionally, price all public parking spaces for all areas of the city based on available transportation options, travel demand, and land use. <i>Key Pillar: Structural Change</i>
T 3.4	Evaluate parking pricing structures that would best work with the City of Hayward. Based on evaluation, implement dynamic parking pricing in downtown parking areas and earmark parking revenues to implement other active transportation and transit projects. <i>Key Pillar: Structural Change</i>
T 3.5	Conduct an analysis of the potential community impacts and benefits of implementing disincentive-based policies for driving single passenger vehicles, including a congestion charge program, limiting parking options, increased local taxes (income tax, gasoline tax, or car registration tax), and Transportation Network Company (TNC) user taxes. <i>Key Pillar: Feasibility Study</i>
T 3.6	Conduct engagement efforts for the general public and target low-income communities of color during analysis of the disincentive-based transportation policies to understand the community's potential concerns. <i>Key Pillar: Equity</i>
T 3.7	Define equity metrics for implementation of disincentives based on feedback from local low-income communities of color and structure the disincentive programs to meet these metrics. <i>Key Pillar: Equity</i>
T 3.8	Fund active and public transit programs through a local gasoline tax and/or through paid parking fees. <i>Key Pillar: Funding</i>
T 3.9	Implement a Transportation Network Company (TNC) user tax which would put a small fee on the use of Uber and Lyft and generate funds to pay for transit and mobility infrastructure. <i>Key Pillar: Funding</i>
T 3.10	Implement a gasoline/diesel car registration tax starting in 2028 with exemption criteria established for low-income residents. <i>Key Pillar: Funding/ Equity</i>
T 3.11	Increase Broadband Internet Access. Add a program to encourage more working from home and reduce the need to travel for work. <i>Key Pillar: Structural Change</i>
<b>Total GHG Emissions Reduction from Measure: Supportive Measure &amp; Actions</b>	
<b>City Cost: Low</b>	
<b>Community Cost: Moderate</b>	
<b>Co-Benefits: Improved Public Health &amp; Safety, Sustainable Land Use Planning</b>	



**Measure T-4: Increase passenger zero-emission vehicle (ZEV) adoption to 15% by 2030 and 50% by 2045.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure T-4 are included in Table 20.



**Table 20 Measure T-4 Actions**

Action ID	Action Description
T 4.1	Continue to enforce the Hayward EV Charger Reach Code requiring electric vehicle charging stations in new development projects. <i>Key Pillar: Structural Change</i>
T 4.2	Work with Ava Community Energy to install 100 new publicly accessible EV chargers by 2030 through public private partnerships and on City owned properties. <i>Key Pillar: Structural Change</i>
T 4.3	Continue to maintain a streamlined EV infrastructure permitting process and ordinance in accordance with AB 1236. <i>Key Pillar: Structural Change</i>
T 4.4	Require that new private parking lots grant zero emission vehicles (ZEVs) access to preferred parking spaces. <i>Key Pillar: Structural Change</i>
T 4.5	Coordinate with local agencies and community-based organizations, agencies, and non-profits to conduct zero-emission vehicle (ZEV) education events for residents and targeted events for low-income communities that would evaluate the barriers to ZEV adoption, include information on costs/benefits of owning ZEVs, steps on how to receive incentives for ZEVs, and other benefits. <i>Key Pillar: Structural Change</i>
T 4.6	Explore opportunities with CARB, BAAQMD, or other agencies to start a purchase rebate program and provide higher trade-in value for combustion vehicles to assist lower-income households to purchase EVs. <i>Key Pillar: Education/Equity</i>
T 4.7	Develop outreach and education materials and distribute to local businesses and organizations on the financial, environmental, and health and safety benefits of ZEVs. Provide information on available funding opportunities. <i>Key Pillar: Equity</i>
T 4.8	Work with Ava Community Energy and PG&E to incentivize residential electric vehicle charger installations through on-bill financing. <i>Key Pillar: Education</i>
T 4.9	Evaluate opportunities for EV or hydrogen charging infrastructure through State and utility programs, like LCFS or PG&E EV Fast Charge Program. Disseminate information via outreach and education materials. <i>Key Pillar: Funding</i>
T 4.10	Partner with Ava Community Energy to aid in Ava’s survey of existing publicly accessible electric vehicle chargers and their locations and identify a prioritized list of locations in Hayward for new electric vehicle charging stations with particular consideration for equitable distribution of chargers to residents of multi-family homes, low-income people, people on a fixed income, and communities of color. <i>Key Pillar: Funding</i>

Action ID	Action Description
T 4.11	Support zero-emission vehicle (ZEV) car share companies in coming to the City. Coordinate with car share companies and community groups to develop an affordable, zero-emission vehicle (ZEV) car share to serve affordable housing and/or multifamily developments with a priority to target low-income communities of color. <i>Key Pillar: Feasibility Study/Partnership</i>
T 4.12	Collaborate with neighboring jurisdictions and the Alameda County Transportation Commission to develop a connected network of ZEV car share. <i>Key Pillar: Partnership</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 16,014 MT CO <sub>2</sub> e, 2045: 88,718 MT CO <sub>2</sub> e	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> Moderate	
<b>Co-Benefits:</b> Improved Public Health & Safety, Jobs Development	

**Measure T-5: Increase zero-emission vehicle (ZEV) adoption by businesses to 10% by 2030 and 80% by 2045.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure T-5 are included in Table 21.



**Table 21 Measure T-5 Actions**

Action ID	Action Description
T 5.1	Work with stakeholders to develop and implement a plan for City-supported accelerated fleet electrification. As part of the plan, identify opportunities for accelerated fleet electrification and promote ZEV/EV adoption within business fleets. <i>Key Pillar: Structural Change</i>
T 5.2	Identify incentives for accelerated business fleet electrification and communicate that information to local businesses. <i>Key Pillar: Funding</i>
T 5.3	Engage with local employers and business fleet owners in the City to identify opportunities for accelerated fleet conversion to ZEV/EV. Provide information on the requirements of the Advanced Clean Fleets rule and available funding sources for fleet replacements (e.g., LCFS, Clean Truck and Bus Voucher). <i>Key Pillar: Education</i>
T 5.4	Develop and maintain a collaborative of stakeholders (e.g., local major employers, commercial business) to lead the creation of best practices and the pursuit of funding for ZEV/EV infrastructure as well as public and private zero-emission business vehicle fleets. <i>Key Pillar: Partnership</i>
T 5.5	Conduct an inventory of business vehicle fleets in Hayward and identify employers and businesses subject to the Advanced Clean Fleets rule as well as those to target for accelerating ZEV/EV adoption. <i>Key Pillar: Feasibility Studies</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 3,161 MT CO <sub>2</sub> e, 2045: 37,461 MT CO <sub>2</sub> e	
<b>City Cost:</b> Low	
<b>Community Cost:</b> Moderate	
<b>Co-Benefits:</b> Improved Public Health & Safety, Jobs Development	

**Measure T-6: Transition 15% of off-road equipment to zero-emission by 2030 and 80% by 2045.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure T-6 are included in Table 22.



**Table 22 Measure T-6 Actions**

Action ID	Action Description
T 6.1	Support and promote CARB’s regulations requiring most newly manufactured small off-road engines such as those found in leaf blowers, lawn mowers, and other equipment to be zero emission starting in Model Year 2024. Phase 2 of the regulations will be implemented in Model Year 2028, when the emission standards for generators and large pressure washers will be zero. In addition, work with Hayward Chamber of Commerce to disseminate information regarding the regulation to impacted businesses (e.g., lawn equipment dealers, commercial landscapers, construction companies) and promote transition of equipment sales and equipment use to electric alternatives. <i>Key Pillar: Education/Partnership</i>
T 6.2	Develop and implement a plan to replace all City owned end-of-life off-road equipment with zero-emission equipment. Plan should include evaluation of current City-owned equipment, alternative low or zero-emission options, prioritize equipment to replace first (e.g., largest GHG emission reduction potential), and a timeline for replacements that align with goals and feasibility of replacement. <i>Key Pillar: Structural Change</i>
T 6.3	Develop an Off-road Equipment Replacement Program and Outreach Campaign that provides information to contractors, residents, and fleet operators in Hayward regarding alternatives to fossil-fueled off-road equipment, public health and safety benefits of alternative equipment technology, and funding opportunities available (i.e., Clean Off-Road Equipment Voucher Incentive Program [CORE], Zero-Emission Landscaping Equipment Incentive Programs). <i>Key Pillar: Education</i>
T 6.4	Partner with BAAQMD to identify funding opportunities to encourage residents to replace gas-powered landscaping equipment and off-road engines with zero emission equipment. <i>Key Pillar: Funding</i>
T 6.5	Partner with BAAQMD to develop a rebate and incentive program for upgrading off-road equipment and switching to biofuels. <i>Key Pillar: Partnership/Funding</i>
T 6.6	Conduct a study to assess the technological and economic feasibility of replacing the City-owned off-road equipment fleets. <i>Key Pillar: Feasibility Study</i>
T 6.7	Conduct an inventory of major off-road equipment fleets in Hayward and identify fleets with highest decarbonization potential. <i>Key Pillar: Feasibility Study</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 4,312 MT CO <sub>2</sub> e, 2045: 22,542 MT CO <sub>2</sub> e	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> Moderate	
<b>Co-Benefits:</b> Improved Public Health & Safety, Environmental Quality & Ecosystem	

**Measure T-7: Increase municipal passenger zero-emission vehicle (ZEV) adoption to 75% by 2030 and 100% by 2045 and decarbonize emergency and heavy-duty vehicles as feasible.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure T-7 are included in Table 23.



**Table 23 Measure T-7 Actions**

Action ID	Action Description
T 7.1	Establish and adopt Zero-emission Fleet Conversion and Purchase Policy that requires new, and replacement municipal fleet vehicle purchases are EVs or ZEVs. The policy will also include a schedule for replacement of fleet vehicles to meet a 100% carbon neutral fleet by 2040. <i>Key Pillar: Structural Change</i>
T 7.2	Conduct feasibility and cost assessment to determine the number of EV/ZEV chargers and funds needed to support the fleet transition to 50% EV/ZEV by 2030. Expand EV/ZEV charging infrastructure for city fleet and employees in alignment with feasibility study. <i>Key Pillar: Structural Change/Feasibility Study</i>
T 7.3	Secure funding from programs such as the California Air Resources Board's Clean Vehicle Rebate Project and the Clean Truck and Bus Voucher Incentive Program to increase procurement of EV or ZEV cars, trucks, and other vehicles and installation of EV/ZEV charging/fueling infrastructure at municipal facilities. <i>Key Pillar: Funding</i>
T 7.4	Evaluate credit generation opportunities within the Low Carbon Fuel Standard (LCFS) program for ZEV/EV fueling and charging stations for the municipal fleet to offset cost of infrastructure development needed to support transition. <i>Key Pillar: Funding</i>
<b>Total GHG Emissions Reduction from Measure: Supportive Measure &amp; Actions</b>	
<b>City Cost: High</b>	
<b>Community Cost: Low</b>	
<b>Co-Benefits: Improved Public Health &amp; Safety</b>	

# 10 Solid Waste Sector Measures

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## 10.1 Context

Sustainable solid waste management is a critical component to a healthy and inclusive community. Hayward defines zero waste as an ongoing set of practices to conserve resources and protect humans and the environment by responsibly producing, consuming, reusing, and recovering food and goods. Striving toward zero waste can create climate benefits beyond Hayward's borders and the measures in this section support Hayward's overall goal of working toward zero waste of resources.

The City has a goal of attaining a 75 percent communitywide waste diversion from the landfill and is exploring adopting the Alameda County Waste Management Authority's goal of eventual landfill obsolescence. Working toward zero waste requires two main strategies. First, maximizing waste diversion (including recycling and composting) and second, minimizing waste generation. Through Measure solid waste (SW)-1, the City will implement and enforce SB 1383 requirements to reduce communitywide landfilled organics 75 percent by 2025 and 90 percent by 2045. Measure SW-2 will ensure that City increases communitywide overall landfill diversion of waste to 75 percent by 2030 and 85 percent by 2045.

### **Less Waste to Landfill**

Minimizing the amount of organic waste, including yard and food waste, sent to landfills will help the City achieve its climate goals because methane released from landfilled organic waste is the main source of waste related GHG emissions from the community. Actions for reducing organic waste to the landfill are already clearly defined by State requirements under SB 1383, which lay out specific programs, policies, and objectives for the City to support the State goal. Under SB 1383, cities are required to rescue edible food, divert organic waste from landfill, and procure compost and/or other materials from recycled organic waste.

To support this, Hayward also seeks to reduce inorganic waste (such as plastic, paper, and metal) going to landfill.

### **Waste Prevention**

The best way to manage waste is to prevent it in the first place. This is because creating items and disposing of them as waste requires raw materials, time, energy, and other resources, which can all be conserved when waste is prevented. In addition, not all waste is reusable or recyclable, so the best way to keep it out of landfill as technologies develop is prevention.

The GHG emissions produced during the production and transportation of goods prior to their consumption are referred to as lifecycle emissions. Usually, these emissions exceed any emissions generated within Hayward from local waste disposal. While recycling and waste recovery play a role in preventing landfill accumulation, they do not tackle the lifecycle emissions and additional costs associated with material production.

To make progress towards zero waste and reduce GHG emissions as much as possible, Hayward will prioritize waste prevention so that waste can be eliminated at the source before management and disposal are necessary. Although actions that address inorganic waste will have a minimal impact

toward meeting Hayward’s communitywide GHG emissions reduction goals, reducing inorganic waste reduces the need for production and disposal of these materials. As a result, this will curtail the lifecycle emissions linked to the waste beyond Hayward’s borders.

## 10.2 Measures and Actions Detail

### **Measure SW-1: Implement and enforce SB 1383 requirements to reduce community-wide landfilled organics 75% by 2025 and 90% by 2045.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure SW-1 are included in Table 24.



**Table 24 Measure SW-1 Actions**

Action ID	Action Description
SW 1.1	Adopt procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products. <i>Key Pillar: Structural Change</i>
SW 1.2	Continue to implement exclusive hauling agreement with Waste Management of Alameda County (WMAC) that regulates haulers collecting organic waste, including collection program requirements and identification of organic waste receiving facilities. <i>Key Pillar: Structural Change</i>
SW 1.3	Continue to implement edible food recovery ordinance for edible food generators, food recovery services, or organizations that are required to comply with SB 1383. Ordinance requires all residential and commercial customers to subscribe to an organic waste collection program and/or report self-hauling or backhauling of organics. <i>Key Pillar: Structural Change</i>
SW 1.4	Implement enforcement and fee for incorrectly sorted materials with sensitivity to shared collection. Utilize funding to implement programs and efforts to increase communitywide organic waste diversion. <i>Key Pillar: Structural Change</i>
SW 1.5	Work with StopWaste to conduct targeted outreach with food recovery organizations, generators, haulers, facilities, and local agencies to promote strategies to implement requirements of SB 1383 <i>Key Pillar: Education</i>
SW 1.6	Encourage businesses to educate their employees about organic waste diversion and proper sorting annually by providing training resources and rebate programs to fund employee time for training. <i>Key Pillar: Education</i>
SW 1.7	Partner with local community organizations, public agencies like StopWaste and businesses to implement all required activities under SB 1383. <i>Key Pillar: Partnership</i>
SW 1.8	Provide free compost bins and kitchen-top food waste containers to low-income communities of colors and elderly households in order to increase compost participation. Evaluate opportunities to have a community compost hub that is easily accessible to disadvantaged neighborhoods. <i>Key Pillar: Equity</i>
SW 1.9	Establish relationships with multi-family property owners/managers to develop signage for their properties. Present at Homeowner Associations in Hayward annually and provide supplies and education for proper sorting. <i>Key Pillar: Equity</i>

Action ID	Action Description
SW 1.10	<p>Establish an edible food recovery program to minimize food waste. Leverage CalRecycle supports projects that prevent food waste or rescue edible food. Partner with existing food pantries like CSUEB, South Hayward Parish to identify and advertise locations for surplus food to be taken in the community.</p> <p><i>Key Pillar: Partnership</i></p>
SW 1.11	<p>Work with contracted hauler to:</p> <ul style="list-style-type: none"> <li>▪ Provide quarterly route reviews to identify prohibited contaminants potentially found in containers that are collected along route.</li> <li>▪ Clearly label all new containers indicating which materials are accepted in each container, and by January 1, 2024, place or replace labels on all containers.</li> <li>▪ Develop and implement a comprehensive monitoring and quality control program with a focus on consumer behavior change.</li> </ul> <p><i>Key Pillar: Partnership</i></p>
SW 1.12	<p>Work with local organizations, StopWaste, and investigate various funding/grant opportunities to fund edible food recovery organizations so they can expand and handle increased volume.</p> <p><i>Key Pillar: Partnership/Funding</i></p>
SW 1.13	<p>Partner with schools, retirement communities, and other large institutions to create waste diversion and prevention program/procedure/plan.</p> <p><i>Key Pillar: Partnerships</i></p>
SW 1.14	<p>Partner with StopWaste to conduct a feasibility study and identify next steps to ensure edible food reuse infrastructure in Hayward is sufficient to accept capacity needed to recover 20% of edible food disposed of within Hayward.</p> <p><i>Key Pillar: Feasibility Studies/Partnership</i></p>
<p><b>Total GHG Emissions Reduction from Measure:</b> 2030: 35,925 MT CO<sub>2</sub>e, 2045: 47,101 MT CO<sub>2</sub>e</p>	
<p><b>City Cost:</b> Moderate</p>	
<p><b>Community Cost:</b> Moderate</p>	
<p><b>Co-Benefits:</b> Environmental Quality &amp; Ecosystem Services, Jobs Development</p>	



**Measure SW-2: Increase communitywide overall landfill diversion of waste to 75% by 2030 and 85% by 2045.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure SW-2 in Table 25.



**Table 25 Measure SW-2 Actions**

Action ID	Action Description
SW 2.1	Continue to implement the Organics Reduction and Recycling Ordinance (ORRO) adopted in November 2021 in alignment with the Countywide ORRO ordinance. Support StopWaste and County Environmental Health in the enforcement of the ORRO within the City. <i>Key Pillar: Structural Change</i>
SW 2.2	Review recent circular economy bills signed by the governor (i.e., SB 343, AB 881, AB 1201, AB 962, AB 1276) and incorporate requirements into hauling agreements, and municipal codes for full-service restaurants and local manufacturing businesses. <i>Key Pillar: Structural Change</i>
SW 2.3	Continue to enforce the Hayward Construction and Demolition Debris Recycling Ordinance. <i>Key Pillar: Structural Change</i>
SW 2.4	Adopt a citywide Zero Waste Goal and develop a Zero Waste Strategic Plan to increase diversion from the landfill by 85% 2045. <i>Key Pillar: Structural Change</i>
SW 2.5	Create a requirement for large events to hire an event waste management team. <i>Key Pillar: Structural Change</i>
SW 2.6	Regularly evaluate and update new franchise agreement with Waste Management of Alameda County to meet SB 1383 requirements and to implement new components to further divert waste from landfills. Work with WMAC to determine data necessary to meet zero waste goals and establish protocol for regular collection and reporting of associated metrics. Identify dedicated staff responsible for this. <i>Key Pillar: Partnership</i>
SW 2.7	Require food service providers to implement a fee for single-use food ware. <i>Key Pillar: Structural Change/ Funding</i>
SW 2.8	Partner with StopWaste to conduct targeted, multi-lingual, culturally appropriate, and geographically diverse waste prevention educational and technical assistance campaigns based on outcomes of a waste characterization study (WCS). Such as food waste prevention, edible food recovery strategies, proper storage, how to fix clothes/electronics, how to donate, reusable alternatives, effects of over consumption, sustainable consumption habits, buying second hand, buying durable, sharing, repurposing. Continue to conduct outreach regarding AB 1276 to full-service restaurants. <i>Key Pillar: Education/Equity</i>
SW 2.9	Continue to work with StopWaste and haulers to monitor participation in residential recycling programs, create education materials for the community, provide technical assistance to business to implement mandatory recycling, and identify other opportunities and means to promote zero waste efforts. <i>Key Pillar: Partnership</i>
SW 2.10	Work with StopWaste and the business community to design and promote extended producer responsibility such as take-back programs. <i>Key Pillar: Partnership</i>



Action ID	Action Description
SW 2.11	<p>Conduct a consumption-based GHG emissions inventory to understand the community’s worst consumption habits and emission reduction potential and provide educational materials on a closed-loop circular economy.</p> <p><i>Key Pillar: Feasibility Study</i></p>
SW 2.12	<p>Work with local businesses to establish post-consumer recycled content requirements that meet SB 343 recyclability claims as part of their purchasing criteria.</p> <p><i>Key Pillar: Structural Change</i></p>
SW 2.13	<p>Partner with local organizations, schools, and libraries to establish pop-up repair cafes for commonly broken and easily repaired items. Partner with library to promote reuse by increasing accessibility to shared tools through a tool lending library.</p> <p><i>Key Pillar: Partnership/Equity</i></p>
SW 2.14	<p>Based on existing StopWaste waste characterization studies and Litterati litter assessment, increase bans on "problem materials" (i.e., items without means of recycling or recycling markets, such as sale of polystyrene, plastic packaging, straws, plastics #4-7, mixed materials). Enforce the single-use plastic pre-checkout ban, by January 1, 2025, in alignment with SB 1046.</p> <p><i>Key Pillar: Structural Change</i></p>
SW 2.15	<p>Explore funding opportunities to increase the circular food economy.</p> <p><i>Key Pillar: Funding</i></p>
<b>Total GHG Emissions Reduction from Measure:</b> Supportive Measure and Actions	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> Moderate	
<b>Co-Benefits:</b> Environmental Quality & Ecosystem Services,	

# 11 Water and Wastewater Measures

## 11.1 Context

Water and wastewater infrastructure can be managed to reduce the energy needed to transport water and wastewater, and associated GHG emissions. Residential and commercial buildings use water both indoors for cooking, cleaning, bathing, and toilet flushing, and outdoors to irrigate landscaping and maintain pools and fountains. Water efficiency measures not only reduce the amount of water used but also reduce the amount of energy needed to convey, treat, and distribute water. Additionally, water consumption and wastewater generation are interconnected, therefore water conservation efforts will lead to decreases in wastewater generated, as less water is treated through the wastewater system. Water conservation efforts also have the added benefit of putting less pressure on water resources across California during times of drought and ensuring more long-term resilience of this vital resource. The CAP Update’s water and wastewater (WW) measures focus on reducing indirect electricity usage from water use and wastewater generation and do not directly address wastewater process emissions.

### Water and Wastewater

While only a small part of the City’s GHG emissions, water conservation is an important aspect of a community’s overall sustainability. Through Measure WW-1, the City will reduce water consumption by 15 percent by 2030 and maintain it through 2045.

## 11.2 Measures and Actions Detail

### Measure WW-1: Reduce water consumption by 15% by 2030 and maintain it through 2045.

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure WW-1 are included in Table 26.



**Table 26 Measure WW-1 Actions**

Action ID	Action Description
WW 1.1	Continue to implement the City’s Bay-Friendly Water Efficient Landscape ordinance applicable to all land use types to decrease water consumption. <i>Key Pillar: Structural Change</i>
WW 1.2	Continue to implement and enforce the Water Conservation Standards within the Municipal Code via the Prohibition of Wasteful Water Practices Ordinance for households, businesses, industries, and public infrastructure. <i>Key Pillar: Structural Change</i>
WW 1.3	Continue to implement rebate and water conservation device tracking system to track the number of rebates and water devices distributed. <i>Key Pillar: Structural Change</i>

Action ID	Action Description
WW 1.4	Continue to implement the Recycled Water Program which includes expanding facilities if necessary to deliver recycled water to additional customers, working with customers to complete site retrofits, connecting customers to the recycled water system, and ensuring customer deliveries. <i>Key Pillar: Structural Change</i>
WW 1.5	Continue to offer water conservation programs to the community including educational programs like water education program for schools and water wise landscape classes as well as incentives like free water conserving devices, and rebates for rain barrels and turf replacement. <i>Key Pillar: Education/Funding</i>
WW 1.6	As part of the water conservation programs offered, implement a public education campaign that in addition to highlighting water conservation practices, with focus on low-income households with high utility bill burdens. <i>Key Pillar: Education/Equity</i>
WW 1.7	Ensure that water conservation educational materials, programs and outreach efforts are in multiple languages and accessible for low-income or disadvantaged communities. <i>Key Pillar: Equity</i>
WW 1.8	Perform targeted outreach to low-income communities and elderly households to provide free water conservation devices and aid disadvantaged community members in obtaining available rebates for water conservation devices. <i>Key Pillar: Equity</i>
WW 1.9	Partner with programs such as Green House Call or other similar programs to support community members with installation of water saving devices with a particular focus of support for low-income, elderly, or disadvantaged elderly residents. <i>Key Pillar: Partnerships/Equity</i>
WW 1.10	Continue to coordinate with commercial and industrial customers including the Hayward Area Recreation and Park District and the Hayward Unified School District to advance water recycling programs. <i>Key Pillar: Partnerships</i>
WW 1.11	Develop a Recycled Water Master Plan to assess the feasibility of expanding the recycled water system and establish a roadmap for a recycled water expansion program. The plan will identify the locations available for recycled water use, the capacity needed to fully replace potable water use at identified locations and establish a schedule for potable water replacement with recycled water for appropriate applications. <i>Key Pillar: Feasibility Studies</i>
WW 1.12	Promote the use of on-site gray water and rainwater collection systems. <i>Key Pillar: Education</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 35 MT CO <sub>2</sub> e, 2045: 0 MT CO <sub>2</sub> e	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> Low	
<b>Co-Benefits:</b> Climate Change Resilience, Environmental Quality & Ecosystem Services	

# 12 Carbon Sequestration Measures

## 12.1 Context

A carbon neutral future includes leveraging the greenspace within the City to reduce GHG emissions. For example, greenspace – like trees and planted landscapes – can be expanded and maintained to remove carbon from the atmosphere through natural biological processes called carbon sequestration, helping to reduce GHG emissions in the City.

### Carbon Sequestration

To achieve carbon neutrality in 2045, Hayward will reduce GHG emissions across all sectors to minimize emissions to nearly zero. However, due to limitations in technology and the length of time that it takes to normalize new low-carbon behaviors, it is expected that some GHG emissions will remain under the City’s jurisdiction in 2045. Therefore, a carbon-neutral future incorporates methods for carbon sequestration to offset residual GHG emissions. Carbon sequestration strategies include enhancing and converting green spaces, planting trees, composting, and removing carbon from the atmosphere. The City will increase carbon sequestration by planting 1,000 new trees annually through 2030 to sequester carbon and create urban shade to reduce heat island effect (Measure CS-1). Applying compost to the land boosts soil health and allows for microbes to further sequester carbon in the soil from photosynthesis. The City will increase sequestration by applying 0.08 tons of compost per capita annually in the community through 2030 (Measure CS-2). Carbon sequestration strategies will be increasingly important as other sector emissions are reduced, state guidance is developed, and technologies come online.

## 12.2 Measures and Actions Detail

**Measure CS-1: Increase carbon sequestration by planting and maintaining 1,000 new trees annually through 2030 to sequester carbon and create urban shade to reduce heat island effect.**

Actions, co-benefits, City costs, community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure CS-1 are included in Table 27.



**Table 27 Measure CS-1 Actions**

Action ID	Action Description
CS 1.1	Update the Tree Preservation Ordinance by Q2 2024 to maintain existing carbon stock is maintained and that replacement trees that are climate resilient and drought tolerant for Hayward’s climate. Ordinance updates may include development requirements to protect or replace value-to-value existing trees and greenspace; and a requirement for a cash mitigation fee equal to the value of trees removed. <i>Key Pillar: Structural Change</i>
CS 1.2	Develop and adopt an Urban Forest Management Plan that identifies: City’s potential capacity for new tree planting; timeframe and mechanism for implementation; a management plan for existing trees; and a tracking system to assess progress towards annual benchmark.

Action ID	Action Description
	<i>Key Pillar: Structural Change</i>
CS 1.3	Identify and map public spaces that can be converted to green space, including freeway airspace that can be made into green space, vertical walls that can be planted with vines, and rooftops of public buildings that can be developed into gardens. <i>Key Pillar: Feasibility Study</i>
CS 1.4	Partner with community groups to apply for community garden grants and develop new or expand existing community gardens based on the identified public spaces available for green space conversion. <i>Key Pillar: Partnership/Funding</i>
CS 1.5	Adopt a standard policy and set of practices for expanding the urban tree canopy and placing vegetative barriers between busy roadways and developments to reduce exposure to air pollutants from traffic. <i>Key Pillar: Equity</i>
CS 1.6	Conduct an urban canopy study to identify areas in Hayward that have below average canopy coverage and implement a tree planting program focusing on the least covered portions of the City. Establish a goal of having no significant difference in canopy coverage between high and low-income areas citywide by 2030. <i>Key Pillar: Feasibility Study/Equity</i>
CS 1.7	In addition, or as an expansion to the Adopt-a-Block Program, establish an adopt-a-tree or adopt-a-street program that is specific to further greening and tree planting. The program will enable individuals, businesses, and community organizations to plant and care for trees in selected communities. The program should provide formalized information on appropriate trees eligible for planting in Hayward (i.e., native, drought tolerant, locations). <i>Key Pillar: Education</i>
CS 1.8	Dedicate staff time to obtaining grant funding for tree planting. Identify and apply for applicable federal (e.g., USDA) and state (e.g., California ReLeaf, Affordable Housing and Sustainable Communities Program (AHSC), Urban and Community Forestry Program) grants for tree planting and maintenance projects. <i>Key Pillar: Funding</i>
CS 1.9	Explore opportunities to fund the Urban Forest Management Program. Possibilities include use of general tax revenues, permit fees, or revenues from the municipal tree ordinance enforcement. <i>Key Pillar: Funding</i>
CS 1.10	Establish a Tree Trust or Tree Endowment where the interest on the principal can be used for purchasing trees, paying for tree maintenance, or for staff resources for the Urban Forest Management Program. <i>Key Pillar: Funding</i>
CS 1.11	Partner with private developers, CSUEB, Chabot College, HARD, HUSD, and other community-based organizations to support and contribute to the Urban Forest Management Program <i>Key Pillar: Partnerships</i>
CS 1.12	Establish alternative fee mechanisms, similar to the SF Carbon Fund, to fund nature-based solutions. By 2026, create permanent code and financial incentives for homeowners and other private landowners to preserve existing mature trees and shrubs and to plant local native species. <i>Key Pillar: Funding</i>
CS 1.13	Identify existing greenbelts and the best locations for new greenbelts for wildfire defense and risk reduction. Incorporate these locations into comprehensive wildfire planning at regional, county, city, and community levels and in all municipal service reviews. <i>Key Pillar: Feasibility Study</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 212 MT CO <sub>2</sub> e, 2045: 743 MT CO <sub>2</sub> e	
<b>City Cost:</b> Moderate	
<b>Community Cost:</b> Low	
<b>Co-Benefits:</b> Improved Public Health & Safety, Climate Change Resilience, Environmental Quality & Ecosystem Services	

**Measure CS-2: Increase carbon sequestration by applying 0.08 tons of compost per capita annually in the community through 2030.**

Actions, co-benefits, City costs community costs, and specific quantitative GHG emissions reductions associated with implementation of Measure CS-2 are included in Table 28.



**Table 28 Measure CS-2 Actions**

Action ID	Action Description
CS 2.1	Enforce compliance with SB 1383 by establishing a minimum level of compost application per year on applicable/appropriate land throughout the City including City-owned land. <i>Key Pillar: Structural Change</i>
CS 2.2	Adopt procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products. <i>Key Pillar: Structural Change</i>
CS 2.3	Work with Hayward Area Recreation and Park District to develop and adopt urban park guidelines that: 1) Provide flexible solutions for developing urban parks in infill areas where traditional neighborhood and community parks are not feasible; 2) Establish guidelines for achieving the greatest carbon sequestration potential of parks via design; 3) Are equitable in ensuring such urban parks are accessible for lower-income residents while avoiding displacement, in alignment with the Parks Master Plan. <i>Key Pillar: Structural Change/ Equity</i>
CS 2.4	Identify locations within Hayward to apply compost to help meet the procurement requirements of SB 1383. <i>Key Pillar: Feasibility Study</i>
CS 2.5	Work with StopWaste to provide residents, businesses, and developers with educational material on best practices for using compost in landscaping. <i>Key Pillar: Education</i>
CS 2.6	Explore opportunities to use the parkland in-lieu fees from the updated City's Property Developers - Obligations for Parks and Recreation Ordinance (Article 16 of City's municipal code) to implement the Carbon Management Activities Program (NR 15). <i>Key Pillar: Funding</i>
CS 2.7	Collaborate with Chabot College, CSUEB, and local schools to identify opportunities to apply compost to landscaping. <i>Key Pillar: Partnerships</i>
CS 2.8	Work with Alameda County and StopWaste to identify opportunities for a regional compost procurement program to help meet the organics procurement provisions of SB 1383. <i>Key Pillar: Partnerships</i>
CS 2.9	Work with the City's franchisee under the new franchise agreement with Waste Management of Alameda County to provide compost throughout the community. <i>Key Pillar: Partnership</i>
CS 2.10	Conduct a study to identify opportunities to enhance or create new natural areas in existing open spaces, parklands, and fields with native species, biodiverse ecology, higher carbon sequestration potential and improved recreational connectivity for the community. <i>Key Pillar: Feasibility Study</i>

Action ID	Action Description
CS 2.11	Create and deliver a range of resources to train residents, city gardening staff, and other institutions on how to incorporate biodiversity, soil, and carbon sequestration techniques into landscaping and gardening projects. <i>Key Pillar: Education</i>
<b>Total GHG Emissions Reduction from Measure:</b> 2030: 3,081 MT CO <sub>2</sub> e, 2045: 3,392 MT CO <sub>2</sub> e	
<b>City Cost:</b> Low	
<b>Community Cost:</b> Low	
<b>Co-Benefits:</b> Improved Public Health & Safety, Climate Change Resilience, Environmental Quality & Ecosystem Services	

## 13 CAP Implementation

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### 13.1 Tracking, Monitoring, and Reporting

The CAP serves as roadmap for Hayward to implement actions to achieve the 2030 GHG emission reduction target and make progress towards reaching carbon neutrality by 2045. The underlying assumptions and data informing this plan including adoption rates of measures and actions, the emergence of new or improved technologies, changes in costs of technology, legislative changes, and co-benefits will continue to change and evolve over time. As a result, the CAP shall serve as a strategic framework that will undergo regular re-evaluation.

The City maintains its dedication to the ongoing, incremental, and all-encompassing endeavor necessary for achieving the long-term climate targets specified in this CAP. The City will continue to engage the community, provide informative progress updates, and create ongoing opportunities to solicit and incorporate community feedback as policies and programs are developed and infrastructure is constructed. The City will report publicly on its progress towards its high-impact GHG reduction measures no less than every two years.

Continual monitoring and assessment of Hayward’s progress will be a vital aspect of the ongoing communitywide efforts to reduce GHG emissions. The City will regularly conduct communitywide GHG emissions inventories on a routine basis in alignment with GHG standard protocols and climate commitments,<sup>30</sup> but no less than every three years. If the City’s 2025 GHG emissions reductions are on track to reach the 2030 targets, it is anticipated that no additional CAP measure adjustments would be necessary.

Table 29 outlines the implementation timeframe of each CAP action and the City department(s) responsible for leading the implementation and monitoring.



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<sup>30</sup> Global Covenant of Mayors current guidance is to conduct GHG inventory updates every two years: [globalcovenantofmayors.org](https://www.globalcovenantofmayors.org)



**Table 29 CAP Update Implementation and Monitoring**

Action ID	Pillar	Action	Lead City Department	Timeframe
<b>Measure BE-1 Continue the all-electric requirement for new residential construction. Adopt an all-electric requirement for new non-residential construction to take effect by 2026.</b>				
BE-1.1	Structural Change	Continue to enforce the adopted Hayward Electrification Ordinance for new residential buildings banning natural gas.	Development Services – Code Enforcement Public Works – Environmental Services	Starts 2023- complete by end of 2025
BE-1.2	Structural Change	Adopt an ordinance, reach code, or zero NOx threshold, effective January 1, 2026, that establishes mandatory requirements that all newly constructed buildings avoid natural gas use by 2026.	Development Services – Code Enforcement Public Works – Environmental Services	Starts 2026
BE-1.3	Education/Funding	Compile case studies conducted by BayREN, the Building Decarbonization Coalition and other relevant sources that show cost effective strategies for electric buildings by prototype and detail the cost savings associated with all-electric construction. Share the information on the City's website.	Public Works – Environmental Services	2024-2025
BE-1.4	Education/ Partnership	Partner with BayREN to provide/share technical resources, including hosting workforce development training for installers, local contractors, and building owners/operators, to discuss benefits and technical requirements of electrification within Hayward. Promote the cost savings, environmental benefits, and versatility of electrification to builders, property owners, and contractors on the City website and at the City permit counters.	City Manager's Office – Economic Development Division Public Works – Environmental Services	2024
BE-1.5	Partnerships/Equity	Engage with stakeholders, both internal stakeholders, such as City staff and officials, and external stakeholders, such as local developers and community groups regarding the purpose and impact of the Hayward Electrification Reach Code and to identify equity concerns.	Development Services – Code Enforcement Public Works – Environmental Services	2024-2025
BE-1.6	Partnership	Engage with an organization such as Building Decarbonization Coalition to work with local building industry stakeholders in educating developers and other stakeholders on new appliances and approaches to building electrification.	Development Services – Code Enforcement Public Works – Environmental Services	2024
BE-1.7	Feasibility Studies	Partner with Ava Community Energy to conduct an electrification infrastructure and capacity feasibility study to identify expected increases in electricity demand due to building and vehicle electrification, ensure capacity to meet that demand, and identify any infrastructure improvements.	Development Services – Code Enforcement Public Works – Environmental Services	2023-2025
BE-1.8	Feasibility Studies	Utilize the Low Carbon Concrete Code Amendment Toolkit and review current best practices to develop implementation strategies, compliance forms, and specifications for compliant mixes.	Development Services – Code Enforcement Public Works – Environmental Services	2025

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
BE-1.9	Education	Promote the use of low carbon concrete in construction projects (residential and commercial). Coordinate with the California Air Resources Board as they develop rules and guidance pursuant to AB2446.	Development Services – Code Enforcement Public Works – Environmental Services	2026
<b>Measure BE -2 Electrify existing single-family residential buildings in order to achieve 100 therms/person/year by 2030 and 0 therms/person in 2045.</b>				
BE-2.1	Structural Change	Once costs and funding/financing options are identified (BE-2.5), adopt a decarbonization ordinance for existing single-family residential buildings by 2026 that, based on legislative feasibility, establishes mandatory requirements that eliminates expansion of natural gas infrastructure, and requires appliances, upon replacement, to be decarbonized where technologically feasible and cost effective.	Development Services – Code Enforcement Public Works – Environmental Services	2025-2026
BE-2.2	Structural Change	Adopt an ordinance requiring existing single-family homes to be 100% all-electric by 2045.	Development Services – Code Enforcement Public Works – Environmental Services	2030
BE-2.3	Structural Charge	Adopt a time of retrofit ordinance that requires all buildings with retrofit work who meet a certain threshold, to complete energy efficiency/electrification actions. To be part of reach code to take effect January 2026.	Development Services – Code Enforcement Public Works – Environmental Services	2026
BE-2.4	Structural Change/ Partnership	Work with community stakeholders including realtors and contractors to develop electrification readiness requirements to be completed within 120 days of completion of a home sale. Include a potential waiver process for distressed sales.	Development Services – Code Enforcement Public Works – Environmental Services	2027
BE-2.5	Feasibility Studies	Develop a single-family residential building electrification feasibility study with a detailed existing building analysis and electrification costs analysis to understand cost implications, identify potential equity concerns/impacts, and develop strategies to electrify existing buildings such that natural gas usage in single-family residential buildings is reduced by 10% by 2030.	Development Services – Code Enforcement Public Works – Environmental Services	2024
BE-2.6	Partnership	Support BAAQMD’s efforts to require zero-NOx furnaces and water heaters at time of replacement with compliant technologies such as electric heat pumps. Advocate that BAAQMD ensure discounted electric appliances are offered to lower income households and upfront rebates are available.	Public Works – Environmental Services City Manager’s Office – Housing Division	2024
BE-2.7	Partnership/ Education	Partner with BayREN, <b>Ava</b> Community Energy and StopWaste to work with the local contractors, realtors, homeowner associations, and labor unions to develop a comprehensive building code and compliance training program, including hosting workforce development trainings discussing the benefits and technical requirements of electrification.	Public Works – Environmental Services	Start planning in 2024 and begin implementation in 2025

Action ID	Pillar	Action	Lead City Department	Timeframe
BE-2.8	Education	Conduct engagement efforts for the general public and targeted to low-income communities of color during development of the electrification strategy to understand the community's concerns around electrification.	Public Works – Environmental Services	Start in 2023 and ongoing
BE-2.9	Equity	Partner with Hayward Below Market Rate (BMR) housing stock owners (such as Eden Housing) to commit to electrifying all BMR housing by 2045. Establish a plan, financing strategies, and schedule for implementing this action by 2026	Public Works – Environmental Services City Manager's Office – Housing Division	2026-2030
BE-2.10	Equity	Identify and partner with local community-based organizations with connections to low-income communities of color to assist in development of the electrification strategy	Public Works – Environmental Services	Start in 2023 and ongoing
BE-2.11	Partnership/ Funding	Devote staff time to collaborate with PG&E, Ava Community Energy, and other cities in the region to advocate for regulatory changes at the State level (e.g., CARB) to allow neighborhood level electrification and pruning of natural gas to reduce the change of stranded asset, provide potential funding, and establish an efficient transition to carbon neutral buildings.	Public Works – Environmental Services	Start in 2026 and ongoing
BE-2.12	Partnership/ Funding	Work with Pacific Gas & Electric (PG&E), and Ava Community Energy to conduct a feasibility study assessing the cost and funding strategy for incentivizing all-electric retrofits through on-bill financing.	Public Works – Environmental Services	2025
BE-2.13	Equity	Review incentives, rebates, and financing options for procedural equity and ensure that existing and updated incentive programs are being equitably distributed to the community. Hurdles to equitable implementation could include credit checks, excessive procedural hurdles and lack of targeted outreach.	Public Works – Environmental Services	2025
BE-2.14	Partnerships	Partner with a financing/management company such as BlocPower to provide electrification services and financing to the community with prioritization of historically under-invested communities.	Public Works – Environmental Services	2024
<b>Measure BE-3 Decarbonize existing commercial and multi-family buildings in order to achieve 53 therms per service person in 2030 and 0 therms per service person in 2045.</b>				
BE-3.1	Structural Change	Based on the results of the feasibility studies (BE- 3.4) adopt a decarbonization ordinance for existing commercial buildings by 2026 that, based on legislative feasibility, establishes mandatory requirements that eliminates expansion of natural gas infrastructure and requires appliances, upon replacement, to be decarbonized where technologically feasible and cost effective. As part of this ordinance, implement the following steps: <ol style="list-style-type: none"> <li>1. Develop requirements that satisfy the federal Energy Policy and Conservation Act (EPCA) seven criteria for an exemption from preemption;</li> <li>2. Establish specific metrics for standard benchmarking;</li> <li>3. Identify a regulatory mechanism for eliminating natural gas use in existing commercial buildings that addresses legal and feasibility considerations; and</li> <li>4. Enforce requirement compliance through the same permitting compliance program as for residential building electrification.</li> </ol>	Development Services – Code Enforcement Public Works – Environmental Services	2026
BE-3.2	Structural Change	<b>Based on the results of the feasibility studies (BE- 3.4) adopt a decarbonization ordinance for existing multi-family buildings by 2026 that, based on legislative feasibility, establishes mandatory</b>	Development Services – Code Enforcement	2026

Action ID	Pillar	Action	Lead City Department	Timeframe
		<p><b>requirements that eliminates expansion of natural gas infrastructure and requires appliances, upon replacement, to be decarbonized where technologically feasible and cost effective.</b> As part of this ordinance, implement the following steps:</p> <ol style="list-style-type: none"> <li>1. Develop requirements that satisfy the federal Energy Policy and Conservation Act (EPCA) seven criteria for an exemption from preemption;</li> <li>2. Establish specific metrics for standard benchmarking;</li> <li>3. Identify a regulatory mechanism for eliminating natural gas use in existing commercial buildings that addresses legal and feasibility considerations; and</li> <li>4. Enforce requirement compliance through the same permitting compliance program as for residential building electrification.</li> </ol>	Public Works – Environmental Services	
BE-3.3	Structural Change	Adopt a Commercial Energy Performance Assessment and Disclosure Ordinance for commercial and multi-family buildings, which requires energy use disclosure consistent with State law (AB 1103) and the use of the ENERGY STAR Portfolio Manager benchmarking tool.	Development Services – Code Enforcement Public Works – Environmental Services	2026
BE-3.4	Feasibility Studies	Conduct feasibility studies to identify commercial and multi-family building decarbonization barriers and develop a commercial and multi-family building decarbonization strategy with analysis supporting future adoption of a commercial and multi-family building decarbonization ordinance.	Development Services – Code Enforcement Public Works – Environmental Services	2026
BE-3.5	Education/ Partnership	Partner with an electrification/efficiency expert to provide guidance to commercial buildings covered by the building performance standard.	Public Works – Environmental Services	2025
BE-3.6	Education	<p>Develop an education campaign to promote commercial electrification and include items in the program such as:</p> <ul style="list-style-type: none"> <li>▪ Continue to engage with local business and business organizations (e.g., Chamber of Commerce, the Alameda County Green Business Program) to inform and facilitate electrification for commercial business owners.</li> <li>▪ Continue to promote the use of the Energy Star Portfolio Manager program and energy benchmarking training programs for nonresidential building owners.</li> <li>▪ Advertise via utility bill inserts the incentive programs or grants available and the cost benefits of electric appliances.</li> <li>▪ Targeted outreach to builders, developers, local contractors, and property managers with an informational brochure describing the financial benefits of replacing natural gas appliances with all electric appliances when they apply for permits.</li> <li>▪ Provide informational webinars and an updated website to advertise and promote All-Electric Building Initiative rebates and incentives.</li> </ul>	Public Works – Environmental Services	2026

Action ID	Pillar	Action	Lead City Department	Timeframe
BE-3.7	Equity	Conduct outreach to small businesses and minority-owned businesses to understand potential equity impacts of a decarbonization policy as part of the existing building decarbonization study.	Public Works – Environmental Services	Start in 2024 through 2025
BE-3.8	Funding	Conduct feasibility study to evaluate the current uptake and effectiveness of Property Assessed Clean Energy (PACE) financing for installation of renewable energy systems in commercial and industrial properties. If feasibility study indicates effectiveness, continue to offer PACE financing for commercial and industrial properties to install renewable energy systems.	Public Works – Environmental Services	2024
BE-3.9	Partnerships	Continue to work with Bay Area Regional Energy Network (BayREN), Ava Community Energy, and StopWaste to continue to improve and implement commercial electrification rebates and financing opportunities and other offered incentives.	Public Works – Environmental Services	Start in 2023 and ongoing
<b>Measure BE-4: Support Ava Community Energy in providing 100% carbon-free electricity by 2030</b>				
BE-4.1	Structural Change	Adopt a resolution establishing a policy that if Ava Community Energy does not meet the 2030 goal of its entire portfolio being 100% carbon-free, all Hayward customers will be enrolled in Renewable 100 by 2030. Resolution should include identification of funding or subsidies to ensure no cost increase to CARE/FERA customers. This may include subsidization cost to CARE/FERA customers to be funded by a rate increase for non-discounted customers.	Public Works – Environmental Services	Start in 2028, adopt and implement before 2030
BE-4.2	Education	Engage with community (residential and non-residential) to advertise/highlight Ava Community Energy's plan to provide 100% carbon-free electricity by 2030. Provide information on the importance of this goal and the impact of buying electricity from Ava Community Energy.	Public Works – Environmental Services	2028
BE-4.3	Equity	In collaboration with Ava Community Energy, implement a pilot program to provide Hayward's affordable housing units Ava Community Energy's Renewable 100 service. Identify funding options with Ava Community Energy such as subsidies funded by non-discounted customers or grant funding.	Public Works – Environmental Services City Manager's Office – Housing Division	Start in 2027, implementation in 2028
BE-4.4	Feasibility Studies	Work with Ava Community Energy to conduct an annual analysis of opt-out rates in the City of Hayward to understand why residents and businesses opt out of Ava Community Energy or opt-down to Bright Choice over Renewable 100.	Public Works – Environmental Services	Start in 2023 and ongoing
<b>Measure BE-5 Continue to promote energy efficiency improvement, in alignment with the 2014 Climate Action Plan</b>				
BE-5.1	Structural Change	Continue to promote the efficient use of energy in the design, construction, maintenance, and operation of public and private facilities, infrastructure, and equipment.	Public Works – Environmental Services	Ongoing
BE-5.2	Partnership/Education	Continue to collaborate with partner agencies, utility providers, and the business community to support a range of energy efficiency, conservation, and waste reduction measures, including the development of green buildings and infrastructure, weatherization programs, installation of energy-efficient appliances and equipment in homes and offices, promotion of energy efficiency retrofit programs, use of green power options, and heightened awareness of the benefits of energy efficiency and conservation issues.	Public Works – Environmental Services	2025 and ongoing
BE-5.3	Partnership/Funding	Continue to collaborate with regional entities and others to promote incentive programs for energy efficiency retrofits such as the Energy Upgrade California program for residential properties.	Public Works – Environmental Services	2024 and ongoing

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
BE-5.4	Structural Change	Continue to promote the use of the Energy Star Portfolio Manager program and energy benchmarking training programs for nonresidential building owners.	Public Works – Environmental Services	Ongoing
BE-5.5	Equity/Funding	Obtain and prioritize funding for the weatherization program specifically for low, very low, and low-income homeowners, landlords, and renters, to make energy efficiency improvement and improve health and safety of residences.	Public Works – Environmental Services	2026
<b>Measure BE-6 Generate carbon-neutral electricity on City facilities meeting 80% of the municipal electricity needs by 2030.</b>				
BE-6.1	Structural Change	Obtain battery storage in City buildings and critical facilities, including community-based resilience hubs, identified to need power during emergencies or power outages.	Maintenance Services Department – Facility Management	2025
BE-6.2	Partnership/ Feasibility Study	Develop partnerships with organizations, such as the Urban Sustainability Directors Network (USDN) or California Resilience Partnership (CRP), to conduct a feasibility study to identify locations for community resilience hubs within the City, identify grant opportunities, and to develop a plan to implement resilience hubs.	Maintenance Services Department – Facility Management Public Works – Environmental Services Department	2027
BE-6.3	Structural Change	Conduct analysis on risks and benefits associated with relying on battery storage to achieve carbon neutral electricity and grid resiliency goals in the City and set a MW capacity goal for installed battery storage by 2030 and 2045.	Maintenance Services Department – Facility Management Public Works – Environmental Services Department	2026
BE-6.4	Equity	Formally include City facilities that serve as cooling centers to disadvantaged communities in the Energy Assurance Plan (Community Safety program 13) and develop and implement energy resiliency strategies like on-site renewable energy generation or energy storage to ensure center remains active even in power shortages.	Maintenance Services Department – Facility Management Public Works – Environmental Services Department	2024
BE-6.5	Feasibility Study	As part of Energy Assurance Plan (Community Safety program 13), include identifications of locations or complexes (i.e., City facilities, college campuses, critical facilities) in the City for installation of local renewable energy generation, energy storage projects, and/or ideal locations for development of a micro-grid as evaluated in Ava Community Energy feasibility study.	Maintenance Services Department – Facility Management Public Works – Environmental Services Department	2025
BE-6.6	Feasibility Study	Develop the study estimating renewable energy generation on City facilities and schedule for implementing the prioritized solar projects identified. The plan should include an identification of	Maintenance Services Department – Facility Management	2025

Action ID	Pillar	Action	Lead City Department	Timeframe
		barriers and needs for implementation of the prioritized projects as well as identify funding sources and partnerships needed for successful implementation.	Public Works – Environmental Services Department	

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
BE-6.7	Partnership	Partner with PG&E and/or Ava Community Energy to ensure smooth integration of renewable energy systems from the identified prioritized projects or other individual solar projects into the grid.	Maintenance Services Department – Facility Management Public Works – Environmental Services Department	2026
BE-6.8	Funding/Education	Identify and advertise incentives available for the community members for installing solar on homes such as Net Metering Programs through PG&E for bill credits, or the Disadvantaged Communities-single-family Solar Homes (DAC_SASH) program. Identify incentives available for businesses and homeowners to install energy storage systems, such as Self Generation Incentive Program (SGIP) and Equity Resiliency rebates that provides an upfront rebate for battery storage and/or the federal investment tax credit for solar batteries installed. Provide resource information to the community through websites, workshops, and partnerships.	Public Works – Environmental Services Department	2025
BE-6.9	Funding /Equity	Partner with affordable housing providers to conduct a feasibility analysis of battery storage and solar projects at the affordable housing in Hayward that are eligible for Equity Resilience Incentives under the SGIP Program.	Public Works – Environmental Services Department City Manager’s Office – Housing Division	2027
BE-6.10	Funding/Partnership	Determine opportunities for the Water Pollution Control Facility to expand existing biogas (i.e., methane) capturing and utilization as part of the Biosolids Master Plan currently underway. The Master Plan document will plan for and phase in improvements for utilizing biogas for the next 20-years including potentially expanding the existing cogeneration facility to produce more energy, or possibly converting to renewable natural gas for pipeline injection off-setting the need to purchase non-renewable natural gas. This master plan is consistent with General Plan policy PFS-4.12 to develop, enhance and maintain clean, green and renewable energy systems at the Water Pollution Control Facility (WPCF).	Public Works – Utilities Division	2024
BE-6.11	Education	Provide educational materials and workshops to large commercial developers and large business property owners of the benefits of microgrids and energy resiliency. Provide resources to identify opportunities for solar installations and/or battery storage on site.	Public Works – Environmental Services	2027
BE-6.12	Feasibility Study	Prepare a plan to facilitate the transition of natural gas appliances to electric in City Facilities. Plan should include an inventory of appliances available for replacement, identify cost where possible, and establish a timeline for replacement.	Public Works – Environmental Services Public Works – Environmental Services Department	2024



Action ID	Pillar	Action	Lead City Department	Timeframe
<b>Measure T-1 Increase active transportation mode share to 15% by 2030 and to 20% by 2045.</b>				
T-1.1	Structural Change	Amend the Off-Street Parking Regulation of Municipal Code to incorporate smart growth principles and to incentivize walking, biking, and public transit.	Public Works – Transportation Division	2026
T-1.2	Structural Change	In support of the General Plan and City land-use policies, maximize infill development, increase land-use and transit efficiencies to support the regional Sustainable Communities Strategy and promote a jobs-housing match. Wlin addition, work with developers to prioritize infill development projects and transit-oriented development zones.	Public Works – Transportation Division City Manager’s Office – Economic Development Division	2027
T-1.3	Structural Change	Based on the completed Complete Streets Assessment, the Complete Streets Inventory Baseline, and the 2020 Bicycle and Pedestrian Master Plan, develop a priority list of complete streets improvements such as retrofits, design standards, and green infrastructure that would accommodate walking, biking, transit use and carpooling. This effort should include a schedule for implementation, prioritization of improvements, identification of whether improvement will aid in walking, biking or transit access, and the plan should ensure equitable roll-out to low-income communities.	Public Works – Transportation Division Public Works – Engineering Division	2027
T-1.4	Structural Change	Adopt and implement a micro-mobility policy that promotes ownership of micro-mobility devices, especially among lower income community members. Promote equitable access to charging facilities for electric micro-mobility devices.	Public Works – Transportation Division	2023 and ongoing
T-1.5	Structural Change	Continue to implement 2020 Bicycle and Pedestrian Master Plan goals of developing 153 new bicycle facilities and 32 miles of multi-use paths for pedestrians and cyclists.	Public Works – Transportation Division	2023 and ongoing
T-1.6	Structural Change	Evaluate and, if necessary, update the City's Zoning Code, Transportation Demand Management Plan (or Administrative Rule 2.26), and California Green Building Code to reflect current transportation demand management opportunities and ensure the City requires sufficient bicycle parking for new commercial development and retrofits.	Public Works – Transportation Division	2027
T-1.7	Structural Change/ Feasibility Study	Update and conduct Underused Rights-of-Way Study such that a community/business survey and evaluation is completed to understand community perspective on potential barriers to conversions and identify barrier solutions.  Based on findings, convert recommended amount miles of under used roadways thoroughfare to active transportation corridors to create a connected environment City (i.e., downtown areas). As part of the program, launch a public campaign to gain public and business support to ensure success of such efforts. Consider having pilot programs (i.e., shutting down street lanes for specific events/periods of time) to demonstrate the advantages of proposed improvements.	Public Works – Transportation Division	2026
T-1.8	Structural Change	Identify streets for permanent through traffic closures to promote walking, biking, and other forms of active transportation.	Public Works – Transportation Division	2026
T-1.9	Structural Change	Identify areas of the City to remove parking and/or additional traffic lanes to prioritize outdoor seating and make permanent outdoor dining established during Covid 19.	Public Works – Transportation Division	2024

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
T-1.10	Equity	Prioritize active transportation and mobility projects in historically under-invested neighborhoods.	Public Works – Transportation Division	2024 and ongoing
T-1.11	Partnership/ Education	Partner with schools, employers, transit agencies, Hayward Area Recreation and Park District (HARD), and community groups to teach bicycle and pedestrian safety in schools and workplaces and to educate residents and businesses about the health and environmental benefits of walking, bicycling, and using public transit.	Public Works – Transportation Division	2028
T-1.12	Partnership	Partner with community organizations and local bike shops to provide rebates for low-income community members to purchase bicycles, helmets, pumps, e-bikes, e-scooters, and other related equipment. Work with community partners to provide incentives to promote bicycle, e-bike and e-scooter ownership.	Public Works – Transportation Division City Manager’s Office - Economic Development	2025
T-1.13	Equity/Funding	Partner with community groups to obtain funding through the California Air Resources Board Car Sharing and mobility Options program for a pilot bike-share program in low-income communities and to connect low-income communities with the E-Bike Purchase Incentive Program through CalBike.	Public Works – Transportation Division City Manager’s Office - Economic Development	2025
T-1.14	Equity	Ensure there is equitable access to safe bicycle and pedestrian infrastructure in all areas of the city. Prioritize the development of pedestrian and bicycle infrastructure in low-income communities where there is currently no or limited pedestrian and bicycle infrastructure	Public Works – Transportation Division	2024
T-1.15	Feasibility Studies	Based on the identified barriers to completing the Complete Streets Evaluation including limited staff and fiscal resources, develop strategies to reduce or eliminate barriers, such as identifying staff to assign the Complete Streets Evaluation to.	Public Works – Transportation Division	2026
T-1.16	Funding	Devote staff time to managing, tracking and applying for grant funding to complete projects that would improve active transportation or mobility in the community.	Public Works – Transportation Division City Manager’s Office - Economic Development	2024 and ongoing
<b>Measure T-2 Implement public and shared transit programs to increase mode shift to public and shared transit mode to 15% by 2030 and 30% by 2045.</b>				
T-2.1	Structural Change	Continue to promote infill development and/or new development that is compact, mixed use, pedestrian friendly, and transit oriented.	Public Works – Transportation Division	2023 and ongoing
T-2.2	Structural Change	Adopt a policy or code into the Municipal code that establishes specific standards for new development of public space to be transit accessible and multi-functional by co-locating public facilities.	Public Works – Transportation Division	2030
T-2.3	Structural Change	Consistent with the Downtown Parking Management Plan and Downtown Specific Plan, adopt parking requirements into the Municipal code that are appropriate for a mixed-use, walkable, and transit-oriented district. Evaluate opportunities in the Downtown area to designate streets for transit only.	Public Works – Transportation Division	2025

Action ID	Pillar	Action	Lead City Department	Timeframe
T-2.4	Structural Change	Develop and adopt an ordinance requiring new multi-family development projects to install a car share or provide e-bikes/e-scooters to each new tenant.	Public Works – Transportation Division	2029
T-2.5	Structural Change	Evaluate and prioritize transit stops needing renovations that do not meet the adopted Pedestrian Design Standard for Transit Stop. Upgrade transit stops such that they include bicycle parking and shade trees or structures and are designed to promote use.	Public Works – Transportation Division	2028
T-2.6	Structural Change	Consistent with the intention of Senate Bill 10, allow developers to build housing without off-street parking if they're close to frequent transit service.	City Manager's Office – Housing Division Public Works – Transportation Division	2024
T-2.7	Funding/Structural	Through the adoption of an ordinance or incorporation into large commercial building codes, require all employers to develop a Transportation Demand Management (TDM) Plan. TDM plans should include money-based incentives for employees to bike, walk, carpool, or take the bus to work. In alignment with BAAQMD requirement, require large employers (more than 50 employees) to subsidize biking, walking, or bus travel.	Public Works – Transportation Division	2025
T-2.8	Partnership/Equity	Expand the Student Transit Pass Program (STPP), which provides free youth clipper cards with unlimited bus rides to middle and high schools students, to provide free AC transit to college students and low-income community members.	Public Works – Transportation Division City Manager's Office – Economic Development	2025
T-2.9	Partnership	Collaborate and engage with AC Transit to understand how they are addressing the Innovative Clean Transit Rule and their plan to electrify their bus fleet.	Public Works – Transportation Division	2024
T-2.10	Funding	Dedicate staff time or create a staff position to pursue funding opportunities to implement planned City transit/TDM projects and programs and to support AC Transit in obtaining grant funding for region-wide service expansion.	Public Works – Transportation Division City Manager's Office – Economic Development	2024
T-2.11	Feasibility Study	Conduct local transportation surveys to better understand the community's needs and motivation for traveling by car versus other alternatives such as AC Transit or BART. Use survey results to inform policy development and education/outreach campaigns that are transit focused. Consistent with the previous CAP policy M-3 (Survey Transportation and Transit Gaps and Barriers)	Public Works – Transportation Division	2025
T-2.12	Feasibility Study	Assess the feasibility and GHG reduction impact of banning cars in high-traffic zone(s) or on individual roads in the City where other transit options are available by implementing a congestion charge that applies to passenger cars and car-sharing services like Uber and Lyft with exceptions for handicap drivers and residents of those areas.	Public Works – Transportation Division Public Works – Environmental Services Division	2029
T-2.13	Feasibility Studies/ Partnerships	Partner with AC Transit to conduct a study to determine transit priority corridors and prioritize infrastructure improvements in existing neighborhoods that enable people to better access and use public transit	Public Works – Transportation Division	2026

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
<b>Measure T-3 Develop disincentives for driving single passenger vehicles to support the bicycle/pedestrian and public transit mode share goals of Measures T-1 and T-2.</b>				
T-3.1	Structural Change	Develop and adopt a Citywide Transportation Demand Management (TDM) Plan including strategies to reduce peak-hour traffic, such as staggered work hours, flexible schedule options, and telecommuting from home offices. Include updated policy incentives or disincentive options to achieve reductions in peak-hour traffic, reduce traffic congestions and promotes alternative transportation (biking, walking, and use of transit)	Public Works – Transportation Division City Manager’s Office – Economic Development	2024
T-3.2	Structural Change	Continue to require new development adopt transportation demand management strategies to reduce use of single occupancy vehicles and encourage the use of alternative modes of travel. Update development requirements, ordinances, and/or building codes requiring TDM as part of new developments as part of enforcement.	Public Works – Transportation Division	2023 and ongoing
T-3.3	Structural Change	Develop consistent standards for parking minimums and maximums across the city. Reduce parking minimums and parking maximums citywide, as improved active and public transit infrastructure becomes more available. Additionally, price all public parking spaces for all areas of the city based on available transportation options, travel demand, and land use.	Development Services – Planning Division Public Works – Transportation Division	2027
T-3.4	Feasibility Study/ Funding	Evaluate parking pricing structures that would best work with the City of Hayward. Based on evaluation, implement dynamic parking pricing in downtown parking areas and earmark parking revenues to implement other active transportation and transit projects.	Public Works – Transportation Division City Manager’s Office – Economic Development	2029
T-3.5	Feasibility Study	Conduct an analysis of the potential community impacts and benefits of implementing disincentive-based policies for driving single passenger vehicles, including a congestion charge program, limiting parking options, increased local taxes (income tax, gasoline tax, or car registration tax), and Transportation Network Company (TNC) user taxes.	Public Works – Transportation Division City Manager’s Office – Economic Development	2029
T-3.6	Equity	Conduct engagement efforts for the general public and targeted to low-income communities of color during analysis of the disincentive-based transportation policies to understand the community's potential concerns	Public Works – Transportation Division	2026
T-3.7	Equity	Define equity metrics for implementation of disincentives based on feedback from local low-income communities of color and structure the disincentive programs to meet these metrics	Public Works – Transportation Division	2026
T-3.8	Funding	Fund active and public transit programs through a local gasoline tax and/or through paid parking fees.	Public Works – Transportation Division City Manager’s Office – Economic Development	2029
T-3.9	Funding	Implement a Transportation Network Company (TNC) user tax which would put a small fee on the use of Uber and Lyft and generate funds to pay for transit and mobility infrastructure.	Public Works – Transportation Division City Manager’s Office – Economic Development	2029

Action ID	Pillar	Action	Lead City Department	Timeframe
T-3.10	Funding/ Equity	Implement a gasoline/diesel car registration tax starting in 2028 with exemption criteria established for low-income residents.	Public Works – Transportation Division City Manager’s Office – Economic Development	2028
T-3.11	Structural Change	Increase Broadband Internet Access. Add a program to encourage more working from home and reducing the need to travel for work.	Public Works – Transportation Division City Manager’s Office – Community Services Division	2026
<b>Measure T-4 Increase passenger zero-emission vehicle (ZEV) adoption to 15% by 2030 and 50% by 2045</b>				
T-4.1	Structural Change	Continue to enforce the Hayward EV Charger Reach Code requiring electric vehicle charging stations in new development projects.	Development Services – Planning Division Public Works – Environmental Services Division	2023 and ongoing
T-4.2	Structural Change	Work with Ava Community Energy to install 100 new publicly accessible EV chargers by 2030 through public private partnerships and on City owned properties.	Public Works – Environmental Services Division	2023 and ongoing
T-4.3	Structural Change	Continue to maintain a streamlined EV infrastructure permitting process and ordinance in accordance with AB 1236.	Development Services – Building Division	2023 and ongoing
T-4.4	Structural Change	Require that new private parking lots grant zero emission vehicles (ZEVs) access to preferred parking spaces.	Development Services – Planning Division	2028
T-4.5	Structural Change	Coordinate with local agencies and community-based organizations, agencies, and non-profits to conduct zero-emission vehicle (ZEV) education events for residents and targeted events for low-income communities that would evaluate the barriers to ZEV adoption, include information on costs/benefits of owning ZEVs, steps on how to receive incentives for ZEVs, and other benefits.	Public Works – Transportation Division Public Works – Environmental Services Division	2025 and ongoing
T-4.6	Education/Equity	Explore opportunities with CARB, BAAQMD, or other agencies to start a purchase rebate program and provide higher trade-in value for combustion vehicles to assist lower-income households to purchase EVs.	Public Works – Transportation Division	2025

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
			Public Works – Environmental Services Division	
T-4.7	Equity	Develop outreach and education materials and distribute to local businesses and organizations on the financial, environmental, and health and safety benefits of ZEVs. Provide information on available funding opportunities.	Public Works – Transportation Division Public Works – Environmental Services Division	2028
T-4.8	Education	Work with Ava Community Energy and PG&E to incentivize residential electric vehicle charger installations through on-bill financing	Public Works – Transportation Division Public Works – Utilities Division Public Works – Environmental Services Division	2028
T-4.9	Funding	Evaluate opportunities for EV or hydrogen charging infrastructure through State and utility programs, like LCFS or PG&E EV Fast Charge Program. Disseminate information via outreach and education materials.	Public Works – Transportation Division Public Works – Utilities Division Public Works – Environmental Services Division	2025 and ongoing
T-4.10	Funding	Partner with Ava Community Energy to aid in Ava Community Energy’s survey of existing publicly accessible electric vehicle chargers and their locations and identify a prioritized list of locations in Hayward for new electric vehicle charging stations with particular consideration for equitable distribution of chargers to residents of multi-family homes, low-income people, people on a fixed income, and communities of color.	Public Works – Transportation Division Public Works – Environmental Services Division	2023 and ongoing
T-4.11	Feasibility Study/Partnership	Support zero-emission vehicle (ZEV) car share companies in coming to the City. Coordinate with car share companies and community-groups to develop an affordable, zero-emission vehicle (ZEV) car share to serve affordable housing and/or multifamily developments with a priority to target low-income communities of color.	Public Works – Transportation Division Public Works – Environmental Services Division	2026-2030
T-4.12	Partnership	Collaborate with neighboring jurisdictions and the Alameda County Transportation Commission to develop a connected network of ZEV car share.	Public Works – Transportation Division Public Works – Environmental Services Division	2029

Action ID	Pillar	Action	Lead City Department	Timeframe
<b>Measure T-5 Increase zero-emission vehicle (ZEV) adoption by businesses to 10% by 2030 and 80% by 2045.</b>				
T-5.1	Structural Change	Work with stakeholders to develop and implement a plan for City-supported accelerated fleet electrification. As part of the plan, identify opportunities for accelerated fleet electrification and promote ZEV/EV adoption within business fleets.	Public Works – Transportation Division Public Works – Environmental Services Division	2028
T-5.2	Funding	Identify incentives for accelerated business fleet electrification and communicate that information to local businesses.	Public Works – Transportation Division Public Works – Environmental Services Division	2026
T-5.3	Education	Engage with local employers and business fleet owners in the City to identify opportunities for accelerated fleet conversion to ZEV/EV. Provide information on the requirements of the Advanced Clean Fleets rule and available funding sources for fleet replacements (e.g., LCFS, Clean Truck and Bus Voucher).	Public Works – Transportation Division Public Works – Environmental Services Division	2026
T-5.4	Partnership	Develop and maintain a collaborative of stakeholders (e.g., local major employers, commercial business) to lead the creation of best practices and the pursuit of funding for ZEV/EV infrastructure as well as public and private zero-emission business vehicle fleets.	Public Works – Transportation Division Public Works – Environmental Services Division	2026
T-5.5	Feasibility Studies	Conduct an inventory of business vehicle fleets in Hayward and identify employers and businesses subject to the Advanced Clean Fleets rule as well as those to target for accelerating ZEV/EV adoption.	Public Works – Transportation Division Public Works – Environmental Services Division	2029
<b>Measure T-6 Transition 15% of off-road equipment to zero-emission by 2030 and 80% by 2045</b>				
T-6.1	Structural Change	Support and promote CARB’s regulations requiring most newly manufactured small off-road engines such as those found in leaf blowers, lawn mowers, and other equipment to be zero emission starting in Model Year 2024. Phase 2 of the regulations will be implemented in Model Year 2028, when the emission standards for generators and large pressure washers will be zero. In addition, work with Hayward Chamber of Commerce to disseminate information regarding the regulation to impacted businesses (e.g., lawn equipment dealers, commercial landscapers, construction companies) and promote transition of equipment sales and equipment use to electric alternatives.  <i>Key Pillar: Education/Partnership</i>	Public Works – Transportation Division Public Works – Environmental Services Division	2024 and ongoing

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
T-6.2	Structural Change	Develop and implement a plan to replace all City owned end-of-life off-road equipment with zero-emission equipment. Plan should include evaluation of current City-owned equipment, alternative low or zero-emission options, prioritize equipment to replace first (e.g., largest GHG emission reduction potential), and a timeline for replacements that align with goals and feasibility of replacement.	Public Works – Transportation Division Public Works – Environmental Services Division	2027
T-6.3	Education	Develop an Off-road Equipment Replacement Program and Outreach Campaign that provides information to contractors, residents, and fleet operators in Hayward regarding alternatives to fossil-fueled off-road equipment, public health and safety benefits of alternative equipment technology, and funding opportunities available (i.e., Clean Off-Road Equipment Voucher Incentive Program CORE]), Zero-Emission Landscaping Equipment Incentive Programs).	Public Works – Transportation Division Public Works – Environmental Services Division	2026 and ongoing
T-6.4	Funding	Partner with BAAQMD to identify funding opportunities to encourage residents to replace gas-powered landscaping equipment and off-road engines with zero emission equipment.	Public Works – Transportation Division Public Works – Environmental Services Division	2025
T-6.5	Partnership/ Funding	Partner with BAAQMD to develop a rebate and incentive program for upgrading off-road equipment and switching to biofuels.	Public Works – Transportation Division Public Works – Environmental Services Division	2026
T-6.6	Feasibility Study	Conduct a study to assess the technological and economic feasibility of replacing the City-owned off-road equipment fleets.	Public Works – Transportation Division Public Works – Environmental Services Division	2025
T-6.7	Feasibility Study	Conduct an inventory of major off-road equipment fleets in Hayward and identify fleets with highest decarbonization potential.	Public Works – Transportation Division Public Works – Environmental Services Division	2029



Action ID	Pillar	Action	Lead City Department	Timeframe
<b>Measure T-7 Increase municipal passenger zero-emission vehicle (ZEV) adoption to 75% by 2030 and 100% by 2045 and decarbonize emergency and heavy-duty vehicles as feasible.</b>				
T-7.1	Structural Change	Establish and adopt Zero-emission Fleet Conversion and Purchase Policy that requires new, and replacement municipal fleet vehicle purchases are EVs or ZEVs. The policy will also include a schedule for replacement of fleet vehicles to meet a 100% carbon neutral fleet by 2040.	Public Works – Transportation Division Public Works – Environmental Services Division	2023
T-7.2	Structural Change/Feasibility Study	Conduct feasibility and cost assessment to determine the number of EV/ZEV chargers and funds needed to support the fleet transition to 50% EV/ZEV by 2030. Expand EV/ZEV charging infrastructure for city fleet and employees in alignment with feasibility study.	Public Works – Transportation Division Public Works – Environmental Services Division	2023 and ongoing
T-7.3	Funding	Secure funding from programs such as the California Air Resources Board's Clean Vehicle Rebate Project and the Clean Truck and Bus Voucher Incentive Program to increase procurement of EV or ZEV cars, trucks, and other vehicles and installation of EV/ZEV charging/fueling infrastructure at municipal facilities.	Public Works – Transportation Division Public Works – Environmental Services Division	2023 and ongoing
T-7.4	Funding	Evaluate credit generation opportunities within the Low Carbon Fuel Standard (LCFS) program for ZEV/EV fueling and charging stations for the municipal fleet to offset cost of infrastructure development needed to support transition.	Public Works – Transportation Division Public Works – Environmental Services Division	2025
<b>Measure SW-1 Implement and enforce SB 1383 requirements to reduce communitywide landfilled organics 75% by 2025 and 90% by 2045.</b>				
SW-1.1	Structural Change	Adopt procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products.	Public Works – Environmental Services Division	2024
SW-1.2	Structural Change	Continue to implement exclusive hauling agreement with Waste Management of Alameda County (WMAC) that regulates haulers collecting organic waste, including collection program requirements and identification of organic waste receiving facilities.	Public Works – Environmental Services Division	2023 and ongoing
SW-1.3	Structural Change	Continue to implement edible food recovery ordinance for edible food generators, food recovery services, or organizations that are required to comply with SB 1383. Ordinance requires all residential and commercial customers to subscribe to an organic waste collection program and/or report self-hauling or backhauling of organics.	Public Works – Environmental Services Division	2024
SW-1.4	Structural Change	Implement enforcement and fee for incorrectly sorted materials with sensitivity to shared collection. Utilize funding to implement programs and efforts to increase communitywide organic waste diversion.	Public Works – Environmental Services Division	2023

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
SW-1.5	Education	Work with StopWaste to conduct targeted outreach with food recovery organizations, generators, haulers, facilities, and local agencies to promote strategies to implement requirements of SB 1383	Public Works – Environmental Services Division	2023 and ongoing
SW-1.6	Education	Encourage businesses to educate their employees about organic waste diversion and proper sorting annually by providing training resources and rebate program to fund employee time for training.	Public Works – Environmental Services Division	2023 and ongoing
SW-1.7	Partnership	Partner with local community organizations, public agencies like StopWaste and businesses to implement all required activities under SB 1383.	Public Works – Environmental Services Division	2023 and ongoing
SW-1.8	Equity	Provide free compost bins and kitchen-top food waste containers to low-income communities of colors and elderly households in order to increase compost participation. Evaluate opportunities to have a community compost hub that is easily accessible to disadvantaged neighborhoods	Public Works – Environmental Services Division	2023
SW-1.9	Equity	Establish relationships with multi-family property owners/managers to develop signage for their properties. Present at all Home-Owner Associations in Hayward annually and provide supplies and education for proper sorting.	Public Works – Environmental Services Division	2023 and ongoing
SW-1.10	Partnership	Establish an edible food recovery program to minimize food waste. Leverage CalRecycle supports projects that prevent food waste or rescue edible food. Partner with existing food pantries like CSUEB, South Hayward Parish to identify and advertise locations for surplus food to be taken in the community.	Public Works – Environmental Services Division	2025
SW-1.11	Partnership	Work with contracted hauler to: <ul style="list-style-type: none"> <li>▪ Provide quarterly route reviews to identify prohibited contaminants potentially found in containers that are collected along route.</li> <li>▪ Clearly label all new containers indicating which materials are accepted in each container, and by January 1, 2024 place or replace labels on all containers.</li> <li>▪ Develop and implement a comprehensive monitoring and quality control program with a focus on consumer behavior change.</li> </ul>	Public Works – Environmental Services Division	2023 and ongoing
SW-1.2	Partnership/ Funding	Work with local organizations, StopWaste, and investigate various funding/ grant opportunities to fund edible food recovery organizations so they can expand and handle increased volume.	Public Works – Environmental Services Division	2024
SW-1.13	Partnerships	Partner with schools, retirement communities, and other large institutions to create waste diversion and prevention program/procedure/plan.	Public Works – Environmental Services Division	2023 and ongoing
SW-1.14	Feasibility Studies/ Partnership	Partner with StopWaste to conduct a feasibility study and identify next steps to ensure edible food reuse infrastructure in Hayward is sufficient to accept capacity needed to recover 20% of edible food disposed or identify proposed new or expanded food recovery capacity within Hayward.	Public Works – Environmental Services Division	2024

Action ID	Pillar	Action	Lead City Department	Timeframe
<b>Measure SW-2 Increase communitywide overall landfill diversion of waste to 75% by 2030 and 85% by 2045.</b>				
SW-2.1	Structural Change	Continue to implement the Organics Reduction and Recycling Ordinance (ORRO) adopted in November 2021 in alignment with the Countywide ORRO ordinance. Support StopWaste and County Environmental Health in the enforcement of the ORRO within the City.	Public Works – Environmental Services Division	2025
SW-2.2	Structural Change	Review recent circular economy bills signed by the governor (i.e., SB 343, AB 881, AB 1201, AB 962, AB 1276) and incorporate requirements into hauling agreements, and municipal codes for full-service restaurants and local manufacturing businesses.	Public Works – Environmental Services Division	2025
SW-2.3	Structural Change	Continue to enforce the Hayward Construction and Demolition Debris Recycling Ordinance.	Public Works – Environmental Services Division	2023 and ongoing
SW-2.4	Structural Change	Adopt a City wide Zero Waste Goal and develop a Zero Waste Strategic Plan to increase diversion from the landfill by 85% 2045.	Public Works – Environmental Services Division	2027
SW-2.5	Structural Change	Create a requirement for large events to hire an event waste management team.	Public Works – Environmental Services Division	2028
SW-2.6	Partnership	Regularly evaluate and update new franchise agreement with Waste Management of Alameda County to meet SB 1383 requirements and to implement new components to further divert waste from landfills. Work with (WMAC) hauler to determine data necessary to meet zero waste goals and establish protocol for regular collection and reporting of associated metrics. Identify dedicated staff responsible for this.	Public Works – Environmental Services Division	2023 and ongoing
SW-2.7	Structural Change/ Funding	Require food service providers to implement a fee for single-use food ware.	Public Works – Environmental Services Division	2025
SW-2.8	Education/ Equity	Partner with StopWaste to conduct targeted, multi-lingual, culturally appropriate, and geographically diverse waste prevention educational and technical assistance campaigns based on outcomes of a waste characterization study (WCS). Such as food waste prevention, edible food recovery strategies, proper storage, how to fix clothes/electronics, how to donate, reusable alternatives, effects of over consumption, sustainable consumption habits, buying second hand, buying durable, sharing, repurposing. Continue to conduct outreach regarding AB 1276 to full-service restaurants.	Public Works – Environmental Services Division	2024
SW-2.9	Partnership	Continue to work with StopWaste and haulers to monitor participation in residential recycling programs, create education materials for the community, provide technical assistance to business to implement mandatory recycling, and identify other opportunities and means to promote zero waste efforts.	Public Works – Environmental Services Division	2023 and ongoing

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
SW-2.10	Partnership	Work with StopWaste and the business community to design and promote extended producer responsibility such as take-back programs.	Public Works – Environmental Services Division	2029
SW-2.11	Feasibility Study	Conduct a consumption-based GHG emissions inventory to understand the community’s worst consumption habits and emission reduction potential and provide educational materials on a closed-loop circular economy.	Public Works – Environmental Services Division	2028
SW-2.12	Structural Change	Work with local businesses to establish post-consumer recycled content requirements that meet SB 343 recyclability claims as part of their purchasing criteria.	Public Works – Environmental Services Division	2028
SW-2.13	Partnership/Equity	Partner with local organizations, schools, and libraries to establish pop-up repair cafes for commonly broken and easily repaired items. Partner with the library to promote reuse by increasing accessibility to shared tools through a tool lending library.	Public Works – Environmental Services Division	2026
SW-2.14	Structural Change	Based on existing StopWaste waste characterization studies and Litterati litter assessment, increase bans on “problem materials” (i.e., items without means of recycling or recycling markets, such as sale of polystyrene, plastic packaging, straws, plastics #4-7, mixed materials). Enforce the single-use plastic pre-checkout ban, by January 1, 2025, in alignment with SB-1046.	Public Works – Environmental Services Division	2024
SW-2.15	Funding	Explore funding opportunities to increase the circular food economy.	Public Works – Environmental Services Division	2024
<b>Measure WW-1. Reduce water consumption by 15% by 2030 and maintain it through 2045.</b>				
WW-1.1	Structural Change	Continue to implement the City’s Bay-Friendly Water Efficient Landscape ordinance applicable to all land use types to decrease water consumption.	Public Works – Utilities Division Maintenance Services Department – Landscape Maintenance	2023 and ongoing
WW-1.2	Structural Change	Continue to implement and enforce the Water Conservation Standards within the Municipal Code via the Prohibition of Wasteful Water Practices Ordinance for households, businesses, industries, and public infrastructure.	Public Works – Utilities Division	2023 and ongoing
WW-1.3	Structural Change	Continue to implement rebate and water conservation device tracking system to track the number of rebates and water devices distributed.	Public Works – Utilities Division	2023 and ongoing
WW-1.4	Structural Change	Continue to implement the Recycled Water Program which includes expanding facilities if necessary to deliver recycled water to additional customers, working with customers to complete site retrofits, connecting customers to the recycled water system, and ensuring customer deliveries.	Public Works – Utilities Division	2023 and ongoing

Action ID	Pillar	Action	Lead City Department	Timeframe
WW-1.5	Education/Funding	Continue to offer water conservation programs to the community including educational programs like water education program for schools and water wise landscape classes as well as incentives like free water conserving devices, and rebates for rain barrels and turf replacement.	Public Works – Utilities Division	2023 and ongoing
WW-1.6	Education/Equity	As part of the water conservation programs offered implement a public education campaign that in addition to highlighting water conservation practices, with focus on low-income households with high utility bill burdens.	Public Works – Utilities Division	2023 and ongoing
WW-1.7	Equity	Ensure that water conservation educational materials, programs and outreach efforts are in multiple languages and accessible for low-income or disadvantaged communities.	Public Works – Utilities Division	2024
WW-1.8	Equity	Perform targeted outreach to low-income communities and elderly households to provide free water conservation devices and aid disadvantaged community members in obtaining available rebates for water conservation devices.	Public Works – Utilities Division	2024
WW-1.9	Partnerships/Equity	Partner with programs such as Green House Call or other similar programs to support community members with installation of water saving devices with a particular focus of support for low-income, elderly, or disadvantaged elderly residents.	Public Works – Utilities Division	2023 and ongoing
WW-1.10	Partnership	Continue to coordinate with commercial and industrial customers including the Hayward Area Recreation and Park District and the Hayward Unified School District to advance water recycling programs.	Public Works – Utilities Division Maintenance Services Department – Landscape Maintenance	2023 and ongoing
WW-1.11	Feasibility Studies	Develop a Recycled Water Master Plan to assess the feasibility of expanding the recycled water system and establish a roadmap for a recycled water expansion program. The plan will identify the locations available for recycled water use, the capacity needed to fully replace potable water use at identified locations and establish a schedule for potable water replacement with recycled water for appropriate applications.	Public Works – Utilities Division	2024
WW-1.12	Education	Promote the use of on-site gray water and rainwater collection systems	Public Works – Utilities Division	2026
<b>Measure CS-1 Increase carbon sequestration by planting and maintain 1,000 new trees annually through 2030 to sequester carbon and create urban shade to reduce heat island effect.</b>				
CS-1.1	Structural Change	Update the Tree Preservation Ordinance by Q2 2024 to maintain existing carbon stock is maintained and that replacement trees that are climate resilient and drought tolerant for Hayward’s climate. Ordinance updates may include development requirements to protect or replace value-to-value existing trees and greenspace; and a requirement for a cash mitigation fee equal to the value of trees removed.	Development Services Maintenance Services Department – Landscape Maintenance	Start 2023

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
CS-1.2	Structural Change	Develop and adopt an Urban Forest Management Plan that identifies: City’s potential capacity for new tree planting; timeframe and mechanism for implementation; a management plan for existing trees; and a tracking system to assess progress towards annual benchmark. (Replaces existing General Plan program HQL-5.)	Maintenance Services Department – Landscape Maintenance	2025
CS-1.3	Feasibility Study	Identify and map public spaces that can be converted to green space, including freeway airspace that can be made into green space, vertical walls that can be planted with vines, and rooftops of public buildings that can be developed into gardens.	Public Works-Environmental Services Division Maintenance Services Department – Landscape Maintenance	2024
CS-1.4	Partnership/ Funding	Partner with community groups to apply for community garden grants and develop new or expand existing community gardens based on the identified public spaces available for green space conversion.	Public Works-Environmental Services Division	2024
CS-1.5	Equity	Adopt a standard policy and set of practices for expanding the urban tree canopy and placing vegetative barriers between busy roadways and developments to reduce exposure to air pollutants from traffic.	Public Works-Environmental Services Division Maintenance Services Department – Landscape Maintenance	2026
CS-1.6	Feasibility Study/Equity	Conduct an urban canopy study to identify areas in Hayward that have below average canopy coverage and implement a tree planting program focusing on the least covered portions of the City. Establish a goal of having no significant difference in canopy coverage between high and low-income areas citywide by 2030.	Public Works-Environmental Services Division Maintenance Services Department – Landscape Maintenance	Study: 2023-2024; Adopt Goal: 2024
CS-1.7	Education	In addition, or as an expansion to the Adopt-a-Block Program establish an adopt-a-tree or adopt-a-street program that is specific to further greening and tree planting. The program will enable individuals, businesses, and community organizations to plant and care for trees in selected communities. Program should provide formalized information on appropriate trees eligible for planting in Hayward (i.e., native, drought tolerant, locations)	Public Works-Environmental Services Division Maintenance Services Department – Landscape Maintenance	2026

Action ID	Pillar	Action	Lead City Department	Timeframe
CS-1.8	Funding	Dedicate staff time to obtaining grant funding for tree planting. Identify and apply for applicable federal (e.g., USDA) and state (e.g., California ReLeaf, Affordable Housing and Sustainable Communities Program (AHSC), Urban and Community Forestry Program) grants for tree planting and maintenance projects.	Public Works- Environmental Services Division Maintenance Services Department – Landscape Maintenance	2023
CS-1.9	Funding	Explore opportunities to fund the Urban Forest Management Program. Possibilities include use of general tax revenues, permit fees, or revenues from the municipal tree ordinance enforcement.	Public Works- Environmental Services Division Maintenance Services Department – Landscape Maintenance	2023
CS-1.10	Funding	Establish a Tree Trust or Tree Endowment where the interest on the principal can be used for purchasing trees, paying for tree maintenance, or for staff resources for the Urban Forest Management Program.	Public Works- Environmental Services Division	2027
CS-1.11	Partnerships	Partner with private developers, CSU, Chabot College, HARD, HUSD, and other community-based organizations to support and contribute to the Urban Forest Management Program	Public Works- Environmental Services Division	2027
CS-1.12	Funding	Establish alternative fee mechanisms, similar to the SF Carbon Fund, to fund nature-based solutions. By 2026, create permanent code and financial incentives for homeowners and other private landowners to preserve existing mature trees and shrubs and to plant local native species.	Public Works- Environmental Services Division City Manager's Office – Economic Development Division	2027
CS-1.13	Feasibility Study	Identify existing greenbelts and the best locations for new greenbelts for wildfire defense and risk reduction. Incorporate these locations into comprehensive wildfire planning at regional, county, city, and community levels and in all Municipal Service Reviews.	Public Works- Environmental Services Division Fire Department	2025

City of Hayward  
**Hayward Climate Action Plan**

Action ID	Pillar	Action	Lead City Department	Timeframe
<b>Measure CS-2 Increase carbon sequestration by applying 0.08 tons of compost per capita annually in the community through 2030.</b>				
CS-2.1	Structural Change	Enforce compliance with SB 1383 by establishing a minimum level of compost application per year on applicable/appropriate land throughout the City including City-owned land.	Public Works- Environmental Services Division	Start in 2024 and ongoing
CS-2.2	Structural Change	Adopt procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products.	Public Works- Environmental Services Division	2024
CS-2.3	Structural Change/ Equity	Work with Hayward Area Recreation and Park District to develop and adopt urban park guidelines that 1) Provide flexible solutions for developing urban parks in infill areas where traditional neighborhood and community parks are not feasible; 2) Establish guidelines for achieving the greatest carbon sequestration potential of parks via design; 3) Are equitable in ensuring such urban parks are accessible for lower-income residents while avoiding displacement, in alignment with the Parks Master Plan.	Public Works- Environmental Services Division	2025
CS-2.4	Feasibility Study	Identify locations within Hayward to apply compost to help meet the procurement requirements of SB 1383.	Public Works- Environmental Services Division	2024
CS-2.5	Education	Work with StopWaste to provide residents, businesses, and developers with educational material on best practices for using compost in landscaping.	Public Works- Environmental Services Division	2023
CS-2.6	Funding	Explore opportunities to use the parkland in-lieu fees from the updated City's Property Developers - Obligations for Parks and Recreation Ordinance (Article 16 of City's municipal code) to implement the Carbon Management Activities Program (NR 15).	Public Works- Environmental Services Division	2029
CS-2.7	Partnerships	Collaborate with Chabot College, CSUEB, and local schools to identify opportunities to apply compost to landscaping.	Public Works- Environmental Services Division Maintenance Services Department – Landscape Maintenance	2024
CS-2.8	Partnerships	Work with Alameda County and StopWaste to identify opportunities for a regional compost procurement program to help meet the organics procurement provisions of SB 1383.	Public Works- Environmental Services Division	2024

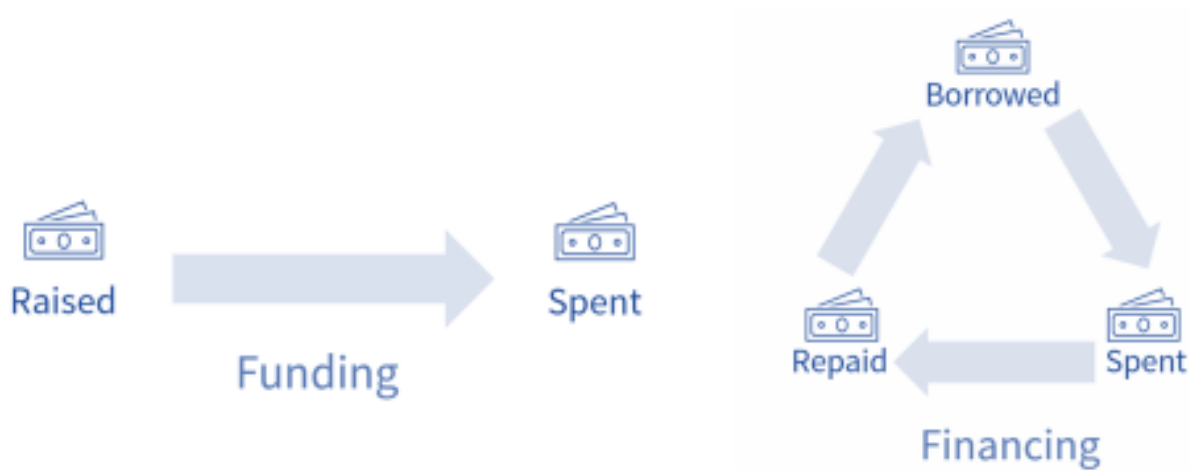


Action ID	Pillar	Action	Lead City Department	Timeframe
CS-2.9	Partnership	Work with the City’s franchisee under the new franchise agreement with Waste Management of Alameda County to provide compost throughout the community.	Public Works- Environmental Services Division	Start in 2023 and ongoing
CS-2.10	Feasibility Study	Conduct a study to identify opportunities to enhance or create new natural areas in existing open spaces, parklands, and fields with native species, biodiverse ecology, higher carbon sequestration potential and improved recreational connectivity for the community.	Public Works- Environmental Services Division	2028
CS-2.11	Education	Create and deliver a range of resources to train residents, city gardening staff, and other institutions on how to incorporate biodiversity, soil, and carbon sequestration techniques into landscaping and gardening projects.	Public Works- Environmental Services Division Maintenance Services Department – Landscape Maintenance	2025

## 13.2 Funding Considerations

Identifying funding and financing mechanisms that go beyond municipal sources is central to unlocking investments that generate benefits for Hayward residents and businesses. Funding and financing strategies that supplement City-led approaches may also lessen the burden on low-income residents by funding investments that specifically support disadvantaged communities in Hayward.

Funding refers to the money used for a specific purpose or projects, raised at one time or over time through methods like grants or taxes. Financing refers to the process of receiving money that must eventually be paid back to financial institutions lending it. Therefore, financing presupposes an underlying revenue source for repayment over time.



The City will need to identify and partner with a variety of constituents in order to successfully fund and finance CAP implementation. Examples of constituents the City may engage with include:

- Tenants
- Property Owners
- Business Owners
- Building Developers
- Utility Rate Payers
- Utility Providers (e.g., Ava Community Energy)
- Public Institutions or Non-profits (e.g., schools and colleges)
- Private Institutions (e.g., solar installers)
- State Entities (e.g., California Transportation Commission)
- Regional Entities (e.g., Metropolitan Transportation Commission)
- Federal Entities (e.g., Environmental Protection Agency)
- Taxpayers

Types of funding and financing options to implement the CAP measures and actions may include:

- Funding through an assessment district, which is a charge imposed on property owners in a given district through installments on property tax bills.
- Funding through a neighborhood land trust organization, which is a non-profit organization that owns and manages capital, operations, and maintenance of land in a community ownership model.
- Financing through tariffed on-bill financing (TOBF). For building electrification, in a TOBF, a utility provider pays for upgrades under the terms of an added tariff.
- Federal grant and rebate programs through Inflation Reduction Act (IRA) programs including:
  - IRA Building Electrification Programs for Local Governments,
  - IRA Building Electrification Programs for Residents
  - IRA Commercial or Multi-family Building Electrification and Decarbonization Programs for Local Governments
  - IRA Transportation and Mobility Programs for Local Governments
  - IRA Urban Shade and Forestry Programs for Local Governments
- Public or private grant opportunities
- Power purchase agreements

Hayward’s CAP project team has been active in pursuing various funding and financing options. The City will continue to pursue funding and financing options to implement CAP measures and actions. Funding requests to implement measures and actions in this plan will be brought for consideration by the City Council in the respective budget cycle.

### 13.3 Looking Forward

If the City does not make satisfactory advancements toward its GHG emissions reduction targets before the next review of the CAP, it may be necessary to revise the CAP. This update would set new or stronger goals for emissions reduction, aiming to increase the reduction efforts and maintain its status as a CEQA-qualified GHG emissions reduction plan. The next CAP update could require additional implementation of the existing actions and/or additional actions such as shifting incentive and educational programs to mandatory requirements. A comprehensive CAP update for GHG emissions reduction targets beyond 2030 will be required and the City will initiate this process by 2029.

In 2029, it is expected that the City will commence the process to review and update the CAP to augment or develop new measures and actions to meet the 2045 GHG emissions reduction target. As new technologies are made available and state regulations are adopted, the City will need to augment the CAP to facilitate further GHG emissions reduction and meet the 2045 carbon neutrality goal. The City will conduct ongoing implementation and monitoring of the CAP GHG emissions reduction measures and report on this progress to the City Council on a bi-annual basis beginning in 2025.

## 14 Conclusion

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The City of Hayward boasts a history of robust leadership in addressing the climate crisis. Through the implementation of the 2014 CAP, the City took decisive action to achieve a 20 percent reduction in GHG emissions from 2005 levels, laying solid groundwork for sustained long-term climate action. Hayward’s consistent dedication to mitigating climate change has made significant progress toward ambitious emission reduction targets, while simultaneously fostering an improved quality of life within the Hayward community. The City of Hayward can act now and over the next two decades to do its fair share in reducing GHG emissions that contribute to climate change. This updated CAP provides a guiding framework for continued progress towards a more resilient, prosperous, and sustainable Hayward achieved through the collective efforts of all Hayward community members.

# 15 Acknowledgements

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## **Hayward City Council Sustainability Committee**

Councilmember Angela Andrews  
Councilmember Julie Roche  
Councilmember Francisco Zermeno  
Former Mayor Barbara Halliday  
Former Councilmember Elisa Márquez

## **City Project Team**

Erik Pearson, Environmental Services Manager  
Leigha Schmidt, Principal Planner  
Nicole Grucky, Senior Sustainability Specialist  
Makenna Colucci, Sustainability Service Corps Fellow 2023/2024  
Sierra Cannon, Climate Corps Fellow 2022/2023  
Carolyn Weisman, Climate Corps Fellow 2021/2022

## **Consultant Support**

Rincon Consultants, Inc.  
Hatch

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