

# Hayward Climate Action Plan and CEQA GHG Emissions Thresholds

# Final Initial Study – Negative Declaration

prepared for

#### **City of Hayward**

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prepared by

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# **Initial Study**

This Final Initial Study-Negative Declaration (IS-ND) includes text changes made to the Draft IS-ND to incorporate text changes made to the Draft CAP measures and actions since the publication and public review of the Draft IS-ND. It should be noted that the text changes made since publication of the Draft CAP would not alter the greenhouse gas (GHG) reduction quantification amounts of the respective measures. in addition, these changes do not constitute "significant new information" requiring recirculation (See Public Resources Code Section 21092.1; CEQA Guidelines Section 15088.5). Furthermore, no public comments were received on the Draft IS-ND.

# Proposed Plan Title

Hayward Climate Action Plan (CAP) and CEQA Greenhouse Gas (GHG) Emissions Thresholds

# Lead Agency/Plan Sponsor and Contact

# Lead Agency/Plan Sponsor

City of Hayward 777 B Street Hayward, California 94541

### **Contact Person**

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# Plan Location and Physical Setting

The CAP applies to all areas and plans/projects within the City of Hayward limits. Figure 1 shows the regional location, and Figure 2 shows the plan location. The plan location includes all of Hayward's incorporated lands.

# **Regional Location and Setting**

The City of Hayward encompasses approximately 64 square miles within Alameda County in the San Francisco Bay Area. Hayward is adjacent to the San Lorenzo, Cherryland, Ashland, Castro Valley, and Fairview communities of unincorporated Alameda County to the north. To the east, Hayward is bordered by open space areas of unincorporated Alameda County, although a portion of this open space, the Palomares Ridge, is land incorporated into Hayward City limits. The Palomares ridge extends to Pleasanton. Union City borders Hayward to the south. Hayward's limits extend west approximately 2.8 miles into the San Francisco Bay.

Vehicular access to Hayward is provided primarily by Interstate 880, State Route 238, and State Route 185 that traverse Hayward northwest to southeast as well as State Route 92 that provides regional access east-west across the San Francsico Bay via the San Mateo-Hayward Bridge. Hayward

is also served by public transit facilities, including Bay Area Rapid Transit (BART), Alameda-Contra Costa Transit District, Amtrak, and Greyhound Lines.<sup>1</sup> There are two BART stations located within Hayward: the Hayward Station located at 699 B Street and the South Hayward Station located at 28601 Dixon Street.

<sup>&</sup>lt;sup>1</sup> Hayward, City of. 2014. Hayward 2040 General Plan Policy Document. July 2014. https://www.hayward-ca.gov/sites/default/files/Hayward\_2040\_General\_Plan\_FINAL.pdf (accessed September 2023).

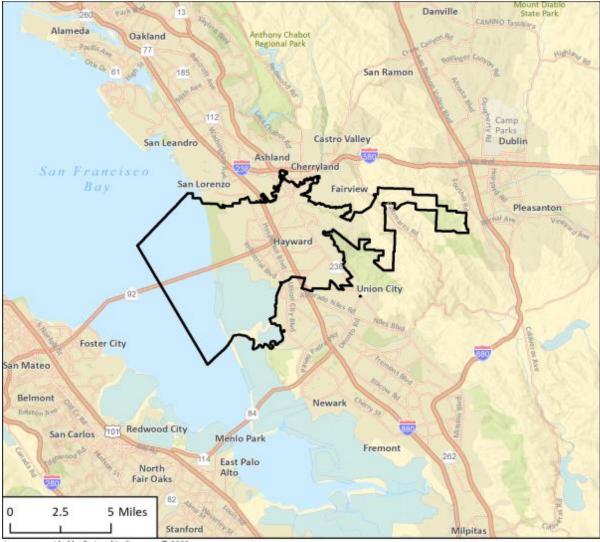


Figure 1 Regional Location

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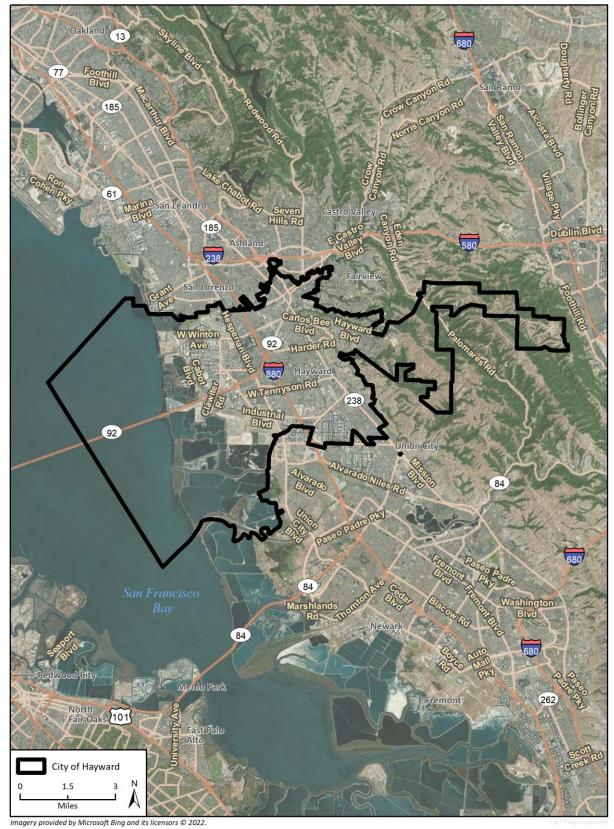


Figure 2 Plan Location

Hayward is served by the following Alameda-Contra Costa Transit District bus routes<sup>2</sup>:

- Line 10 connecting East 14th Street to Mission Boulevard.
- Line 28 connecting Alvarado Street to Castro Valley Boulevard to B Street.
- Line 34 connecting Estudillo Avenue to Davis Street to Meekland Avenue.
- Line 41 connecting Whitman Street to Huntwood Avenue to the Union Landing Transit Center.
- Line 56 connecting Santa Clara Street to Weekes Branch Public Library to Huntwood Avenue.
- Line 60 connecting California State University East Bay to Southland Mall to Tennyson Road.
- Line 86 connecting Winton Avenue to Industrial Boulevard to Tennyson Road.
- Line 93 connecting Ashland Avenue to San Lorenzo to A Street.
- Line 95 connecting D Street to Maud Avenue to the Fairview District.
- Line 97 connecting Hesperian Boulevard to Alvarado-Niles Boulevard to Decoto Road.
- Line 99 connecting Mission Boulevard to Decoto Road to Remont Boulevard.
- Line 801 connecting the San Leandro BART to Fremont BART.

Hayward is also served by the following stations and transit routes:

- Hayward Train Station at 22555 Meekland Avenue serving the Amtrak Capital Corridor Route that serves Hayward, Santa Clara, San Jose, Fremont, Oakland, Berkeley, Sacramento, Martinez, Davis, Suisun, Fairfield, Vacaville, and Richmond.<sup>3</sup>
- Hayward Greyhound Bus Station at 699 B Street.<sup>4</sup>
- Hayward BART Station at 699 B Street
- South Hayward BART Station at 28601 Dixon Street.

#### Local Setting

Hayward is the third most populous City in Alameda County, with a population of approximately 159,800 people.<sup>5</sup> Water, baylands, and open space account for approximately 57.4 percent of the land in Hayward. Of all urban land use categories, single-family residential occupies the most land in Hayward, covering 11.5 percent of Hayward. In addition, Hayward contains commercial and industrial uses along major transportation corridors and concentrated at the western end of Hayward adjacent to State Route 92. Parks are interspersed throughout Hayward, and passive open space uses are primarily located in the east of Hayward. Hayward supports a diverse range of industries, including recreation, tourism, and a variety of retail, office, and commerce.<sup>6</sup>

Hayward is part of the San Francisco Bay/Sacramento-San Joaquin Delta system. Hayward's topography is generally flat in the west with elevations increasing towards the Hayward Hills to the east.<sup>4</sup> Hayward is characterized by a Mediterranean climate with dry summers and wet winters. The warmest months of the year in Hayward are July and August, and the coldest months of the year are

<sup>&</sup>lt;sup>2</sup> Alameda-Contra Costa Transit District. 2023. Maps & Schedules. https://www.actransit.org/maps-schedules (accessed September 2023).

<sup>&</sup>lt;sup>3</sup> Amtrak. 2023. Capital Corridor Route Schedule. https://www.amtrak.com/tickets/schedule-results.html (accessed September 2023).

<sup>&</sup>lt;sup>4</sup> Greyhound. 2023. Hayward Bus Station. https://www.greyhound.com/en-us/bus-station-891495 (accessed September 2023).

<sup>&</sup>lt;sup>5</sup> California Department of Finance (DOF). 2023. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-203. https://dof.ca.gov/Forecasting/Demographics/Estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/ (accessed September 2023).

<sup>&</sup>lt;sup>6</sup> Hayward, City of. 2014. Hayward 2040 General Plan Background Report. January 2014. https://www.hayward-ca.gov/sites/default/files/General\_Plan\_Update\_Background\_Report\_1-31-14.pdf (accessed September 2023).

December and January. The average annual monthly maximum temperature is 70 degrees Fahrenheit, while the annual average monthly minimum temperature is 49 degrees Fahrenheit. Average monthly rainfall measured in the local area since 1998 varies from 0 inches in July to 2.52 inches in February.<sup>7</sup>

# Existing Sustainability Setting

# Hayward Sustainability and Greenhouse Gas Emissions Reduction Efforts

The City has actively implemented a variety of environmental programs since 2009 contributing to greenhouse gas (GHG) emissions reductions. The following is a listing of the City's primary sustainable and climate protection programs:

- City Council Sustainability Committee established (2007)
- First Climate Action Plan adopted (2009)
- Climate Action Plan Amended and adopted into the General Plan (2014)
- Joined the Carbon Disclosure Project (CDP) (2016)
- Adopted Complete Streets Strategic Initiative (2016)
- Joined the Climate Mayors (2017)
- Issued Hayward Climate Emergency Declaration (2019)
- Issued Resolution to Support Fossil Fuel Nonproliferation Treaty (2019)
- Joined the Cities Race to Zero (2019)
- Completed GHG emissions inventories of communitywide GHG emissions for 2005, 2010, 2015, 2017, 2018, and 2019
- Adopted Bicycle and Pedestrian Master Plan (2020)
- Adopted Reach Code Ordinance for the Electrification of New Residential and Non-residential buildings and Electric Vehicle (EV) Charging Infrastructure (2022)

# **Regional Sustainability and GHG Emissions Reduction Efforts**

In coordination with Alameda County, the State of California, and the federal government, the City of Hayward has committed to implementing regional and State policies related to GHG emissions reduction. As follows is a summary of the regional GHG emissions reduction efforts that the Hayward CAP is intended to be consistent with or exceed.

### Plan Bay Area: Strategy for a Sustainable Region

In 2021, the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) jointly adopted Plan Bay Area 2050, which serves as the Bay Area regional longrange plan and identifies how the Bay Area would meet its GHG emission reduction targets. Plan Bay Area is also considered the ABAG/MTC Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). In accordance with SB 743, Plan Bay Area includes elements designed to encourage land-use development that preserves affordable housing, improves economic mobility,

<sup>&</sup>lt;sup>7</sup> Iowa State University. 2023. Iowa Environmental Mesonet. https://mesonet.agron.iastate.edu/ (accessed September 2023).

enhances the transit network to reduce vehicle miles traveled (VMT) per capita, and reduces hazard risks including through adaptation to sea level rise and reducing GHG emissions.<sup>8</sup>

#### Bay Area Air Quality Management District CEQA Guidelines

In 2022, the Bay Area Air Quality Management District (BAAQMD) adopted the CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans and is in the process of updating their 2017 CEQA Guidelines (BAAQMD 2022a).<sup>9</sup> The CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans include requirements for projects and plans in jurisdictions that do not have an adopted local GHG reduction strategy that meets the criteria of CEQA Guidelines Section 15183(b). In addition, according to the BAAQMD, if a project is consistent with a local GHG reduction strategy, then it can be presumed that the project will not have significant GHG impacts.<sup>10</sup> This approach is consistent with CEQA Guidelines, Section 15183.5:

Lead agencies may analyze and mitigate the significant impacts of GHG emissions at a programmatic level, such as...a plan to reduce GHG emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an [Environmental Impact Report] containing a programmatic analysis of GHG emissions.

#### Alameda County Countywide Transportation Plan

In 2020, The Alameda County Transportation Commission adopted the Countywide Transportation Plan (CTP) to provide the County with a long-range plan for establishing the vision and priorities for transportation over a 30-year planning horizon. The CTP seeks to enhance and expand public transit, bicycle facilities, and pedestrian access within the County in order to improve mobility and access for all segments of the population and promote public health, environmental sustainability, and climate resiliency. The plan identifies 93 projects across the county including greenways and trails, transit capacity improvements, sea level rise adaptation, and multimodal corridors. Priority projects identified for Hayward include the Missions Boulevard Phases 2 and 3 Improvements, Mission Boulevard Linear Park, I-880/Winton Avenue/A Street Interchange Modernization, Downtown Hayward PDA Multimodal Complete Streets, Main Street Complete Street, Route 92/Clawiter/Whitesell Interchange Modernization, Tennyson Rd. Corridor PDA Complete Streets, and Hayward Boulevard Multi-modal Project.<sup>11</sup>

#### Alameda County Climate Protection Project and Cities for Climate Protection Campaign

In 2006, the Alameda County Climate Protection Project and Cities for Climate Protection Campaign organized a coordinated effort by all 14 cities in Alameda County, including Hayward, to reduce the emissions that cause global warming as well as improve air quality, reduce waste, cut energy use, and save money. Participants worked together across jurisdictions focusing on key action areas, such as energy efficiency, transportation, and waste reduction, and on specific projects best

<sup>&</sup>lt;sup>8</sup> ABAG-MTC. 2021. Plan Bay Area 2050. https://www.planbayarea.org/finalplan2050 (accessed September 2023).

<sup>&</sup>lt;sup>9</sup> BAAQMD. 2022. CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-b-thresholds-for-evaluating-significance-of-climate-impacts\_final-pdf.pdf?la=en (accessed September 2023).

<sup>&</sup>lt;sup>10</sup> Ibid

<sup>&</sup>lt;sup>11</sup> Alameda County Transportation Commission (ACTC). 2020. Countywide Transportation Plan. https://www.alamedactc.org/wp-content/uploads/2021/02/2020\_CTP\_Final.pdf (accessed September 2023).)

addressed by a regional effort, such as collaborative grant applications and electric vehicle related infrastructure.

### Alameda County Energy Council

Hayward and other cities throughout Alameda County partnered with StopWaste to establish the Energy Council 2013. The Alameda County Energy Council, a Joint Powers Agency, remains active today and seeks funding on behalf of its member agencies to develop and implement programs and policies that reduce energy demand, increase energy efficiency, advance the use of clean, efficient and renewable resources, and help create climate resilient communities. The Energy Council assists its members in strengthening staff capacity, providing technical expertise, and securing funds to implement local sustainable energy strategies.

#### Ava Community Energy Community Choice Aggregation Program

Ava Community Energy (formerly East Bay Community Energy) is a public agency based in Oakland and governed by a Board of local elected officials from each of the participating jurisdictions. In 2018, Ava Community Energy began supplying East Bay communities with cleaner sources of electricity. Purchasing electricity from Ava Community Energy is a way to reduce GHG emissions and meet community climate action goals. Hayward has enrolled most of its customers in Ava Community Energy's Renewable 100 product, which provides electricity from California-based wind and solar.

# State Sustainability and GHG Emissions Reduction Efforts

The following is a summary of the State GHG emissions reduction efforts, which the Hayward CAP is intended to be consistent with or exceed.

#### GHG Reduction Policies

#### **CALIFORNIA EXECUTIVE ORDER S-3-05**

In 2005, the California governor issued Executive Order (EO) S-3-05, which identifies Statewide GHG emissions reduction targets to achieve long-term climate stabilization as follows:

- Reduce GHG emissions to 1990 levels by 2020
- Reduce GHG emissions to 80 percent below 1990 levels by 2050

In response to EO S-3-05, California Environmental Protection Agency (CalEPA) created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report"). The 2006 CAT Report identified a recommended list of strategies that the State could pursue to reduce GHG emissions. These are strategies that could be implemented by various State agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the State agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture, among others.

#### CALIFORNIA ASSEMBLY BILL 32, CALIFORNIA GLOBAL WARMING POLLUTION SOLUTIONS ACT

In 2006, the California legislature signed Assembly Bill (AB) 32 – the Global Warming Solutions Act – into law, requiring a reduction in Statewide GHG emissions to 1990 levels by 2020 and California Air Resources Board (CARB) preparation of a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 required CARB to adopt regulations to require reporting and verification of Statewide GHG emissions. Based on this guidance, CARB approved a 1990 Statewide GHG level and 2020 limit of 427 metric tons (MT) of carbon dioxide equivalent ( $CO_2e$ ).

#### CALIFORNIA SENATE BILL 375, SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT

In 2008, Senate Bill (SB) 375 enhanced the State's ability to reach AB 32 targets by CARB to develop regional GHG emissions reduction targets to be achieved from passenger vehicles for 2020 and 2035. In addition, SB 375 directs each of the State's 18 major Metropolitan Planning Organizations (MPO) to prepare a sustainable community's strategy (SCS) that contains a growth strategy to meet such regional GHG emissions reduction targets for inclusion in the respective regional transportation plan (RTP).

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Association of Bay Area Governments was assigned targets of a ten percent reduction in per capita GHG emissions from passenger vehicles by 2020 and a nineteen percent reduction in per capita GHG emissions from passenger vehicles by 2035.<sup>12</sup>

#### CALIFORNIA CLIMATE CHANGE SCOPING PLAN

In 2008, CARB approved the original California Climate Change Scoping Plan, which included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted and implemented since approval of the Scoping Plan.

#### CALIFORNIA CLIMATE CHANGE SCOPING PLAN UPDATE (2013)

In 2013, CARB approved the first update to the California Climate Change Scoping Plan. The 2013 Scoping Plan Update defined CARB climate change priorities for the next five years and set the groundwork to reach post-2020 Statewide GHG emissions reduction goals. The 2013 Scoping Plan Update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State's longer-term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use.

#### CALIFORNIA EXECUTIVE ORDER B-30-15

In 2015, the California governor issued Executive Order B-30-15, which established a Statewide midterm GHG reduction target of 40 percent below 1990 levels by 2030.

<sup>&</sup>lt;sup>12</sup> CARB. 2023. SB 375 Regional Plan Climate Targets. Available: https://ww2.arb.ca.gov/our-work/programs/sustainable-communitiesprogram/regional-plan-targets (accessed September 2023).

#### CALIFORNIA SENATE BILL 32, CALIFORNIA GLOBAL WARMING POLLUTION SOLUTIONS ACT UPDATE

In 2016, SB 32 was passed, extending AB 32 by requiring further reduction in Statewide GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies and policies, such as SB 350 and SB 1383 (see below).

### CALIFORNIA CLIMATE CHANGE SCOPING PLAN UPDATE (2017)

In 2017, CARB approved the second update to the California Climate Change Scoping Plan. The 2017 Scoping Plan put an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan Update does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with Statewide per-capita goals of six MT of CO<sub>2</sub>e by 2030 and two MT of CO<sub>2</sub>e by 2050. As stated in the 2017 Scoping Plan Update, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects, because they include all GHG emissions sectors in the State.<sup>13</sup>

## CALIFORNIA EXECUTIVE ORDER B-55-18

In 2018, the California governor issued Executive Order B-55-18, which established a new Statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing Statewide GHG reduction targets established by SB 32.

For more information on the Senate and Assembly Bills, Executive Orders, and Scoping Plans discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

### ASSEMBLY BILL 1279

In September 2022, AB 1279 was approved, which established a legally binding requirement for California to achieve and maintain carbon neutrality no later than 2045. Assembly Bill 1279 also established the requirement to achieve a Statewide reduction in GHG emissions of 85 percent below 1990 levels by 2045. This indicates that the remaining 15 percent to achieve carbon neutrality can be achieved via carbon sequestration and other non-direct-GHG-emissions-reductions techniques.

### CALIFORNIA CLIMATE CHANGE SCOPING PLAN UPDATE (2022)

In response to the passage of AB 1279 and the identification of the 2045 GHG reduction target, CARB adopted the Final 2022 Climate Change Scoping Plan in November 2022. The 2022 Update builds upon the framework established by the 2008 Climate Change Scoping Plan and previous updates while identifying new, technologically feasible, cost-effective, and equity-focused path to achieve California's climate target. The 2022 Update includes policies to achieve a significant reduction in fossil fuel combustion, further reductions in short-lived climate pollutants, support for sustainable development, increased action in natural working lands to reduce emissions and

<sup>&</sup>lt;sup>13</sup> CARB. 2017. California 2017 Climate Change Scoping Plan.

https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping\_plan\_2017.pdf (accessed September 2023).

sequester carbon, and the capture and storage of carbon. The 2022 Update assesses the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan, addresses recent legislation and direction from Governor Newsom, extends and expands upon these earlier plans, and implements a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, as well as taking an additional step of adding carbon neutrality as a science-based guide for California's climate work.<sup>14</sup>

#### Energy- and Vehicle-Related Policies

#### ASSEMBLY BILL 1493, PAVLEY BILL VEHICLE EFFICIENCY STANDARDS

In 2002, the California State Legislature enacted Assembly Bill 1493 (aka "the Pavley Bill"), which directs the CARB to adopt standards that will achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles," taking into account environmental, social, technological, and economic factors. In September 2009, CARB adopted amendments to the "Pavley" regulations to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The Pavley Bill is considered to be the national model for vehicle emissions standards. In January of 2012, CARB approved a new emissions control program for vehicle model years 2017 through 2025. The program combines the control of smog, soot, and GHGs and the requirement for greater numbers of zero emission vehicles into a single package of standards called Advanced Clean Cars.

#### CALIFORNIA ENERGY EFFICIENCY STRATEGIC PLAN OF 2008

In 2008, the California Public Utilities Commission (CPUC) adopted California's first Long Term Energy Efficiency Strategic Plan, presenting a single roadmap to achieve maximum energy savings across all major groups and sectors in California. The Strategic Plan was subsequently updated in January 2011 to include a lighting chapter. The Strategic Plan sets goals of all new residential construction and all new commercial construction in California to be zero net energy (ZNE) by 2020 and 2030, respectively. In 2018, the California Energy Commission voted to adopt a policy requiring all new homes in California to incorporate rooftop solar. This change went into effect in January 2020 with the adoption of the 2019 California Code of Regulations (CCR) Title 24 Code and is a step towards the State achieving its goal of all residential new construction being ZNE by 2020. Additionally, the Strategic Plan sets goals of 50 percent of existing commercial buildings to be retrofitted to ZNE by 2030, and all new State buildings and major renovations to be constructed to ZNE by 2025.

#### CALIFORNIA CODE OF REGULATIONS TITLE 24 (CALIFORNIA BUILDING CODE)

Updated every three years through a rigorous stakeholder process, Title 24 of the CCR requires California homes and businesses to meet strong energy efficiency measures, thereby lowering their energy use. Title 24 contains numerous subparts, including Part 1 (Administrative Code), Part 2 (Building Code), Part 3 (Electrical Code), Part 4 (Mechanical Code), Part 5 (Plumbing Code), Part 6 (Energy Code), Part 8 (Historical Building Code), Part 9 (Fire Code), Part 10 (Existing Building Code), Part 11 (Green Building Standards Code), Part 12 (Referenced Standards Code). The California Building Code is applicable to all development in California. (Health and Safety Code §§ 17950 and 18938(b).)

<sup>&</sup>lt;sup>14</sup> CARB. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed September 2023)

The regulations receive input from members of industry, as well as the public, with the goal of "[r]educing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy." (Pub. Res. Code § 25402.) These regulations are carefully scrutinized and analyzed for technological and economic feasibility (Pub. Res. Code § 25402(d)) and cost effectiveness (Pub. Res. Code § 25402(b)(2) and (b)(3)). The 2022 Title 24 standards went into effect on January 1, 2023.

#### Part 6 – Building Energy Efficiency Standards

CCR Title 24 Part 6 is the Building Energy Efficiency Standards. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. The Building Energy Efficiency Standards is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major renovations must demonstrate their compliance with the current Building Energy Efficiency Standards through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the California Energy Commission.

### Part 11 – California Green Building Standards

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective on January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards applicable to air quality require:

- Minimum 20 percent reduction in indoor water use relative to specified baseline levels;<sup>15</sup>
- Waste Reduction:
  - Minimum 65 percent non-hazardous construction/demolition waste diverted from landfills;
  - Non-residential and multi-family dwellings with five or more units: Provide readily accessible areas identified for the depositing, storage and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastic, organic waste, and metals; and/or
  - Non-residential: Reuse and/or recycling of 100 percent of trees, stumps, rocks, and associated vegetation soils resulting from primary land clearing;
- Inspections of energy systems to ensure optimal working efficiency;
- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards; and

<sup>&</sup>lt;sup>15</sup> Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

- EV Charging for New Construction:<sup>16</sup>
  - One- and two-family dwellings and town houses with attached private garages: Dedicated circuitry to facilitate installation of electric vehicle (EV) charging;
  - Multi-family dwellings and hotels/motels with less than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable and at least 25 percent of the total number of parking spaces shall be EV-ready;
  - Multi-family dwellings and hotels/motels with greater than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable, at least 25 percent of the total number of parking spaces shall be EV-ready, and at least 5 percent of the total number of parking spaces shall be equipped with a Level 2 charging station;
  - Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces:
    - 0-9: no EV capable spaces or charging stations required;
    - 10-25: 4 EV capable spaces but no charging stations required;
    - 26-50: 8 EV capable spaces of which 2 must be equipped with charging stations;
    - 51-75: 13 EV capable spaces of which 3 must be equipped with charging stations;
    - 76-100: 17 EV capable spaces of which 4 must be equipped with charging stations;
    - 101-150: 25 EV capable spaces of which 6 must be equipped with charging stations;
    - 151-200: 35 EV capable spaces of which 9 must be equipped with charging stations; and
    - More than 200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations;
  - Non-residential land uses shall comply with the following EV charging requirements for medium- and heavy-duty vehicles: warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards;
- Bicycle Parking:
  - Non-residential short-term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for 5 percent of new visitor motorized vehicle parking spaces with a minimum of one 2-bike capacity rack; and/or
  - Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: secure bicycle parking for 5 percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility.
- Shade Trees (Non-Residential):
  - Surface parking: minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar);

<sup>&</sup>lt;sup>16</sup> EV Capable = a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways to support EV charging; EV-ready = a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging stations, including a receptacle for future installation of a charger (see 2022 California Green Building Standard Code, Title 24 Part 11 for full explanation of mandatory measures, including exceptions).

- Landscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years; and/or
- Hardscape areas: minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities).

The City of Hayward Reach Code modifies CALGreen and requires that all new residential buildings be constructed as all-electric and shall not use natural gas. All new non-residential buildings for which natural gas infrastructure is installed must be "electric ready"<sup>17</sup>. Hayward's Reach Code also requires all new buildings and modifications to existing buildings resulting in new parking spaces to have EV charging infrastructure installed above and beyond that required by CALGreen.

#### ASSEMBLY BILL 117, COMMUNITY CHOICE AGGREGATION

Assembly Bill 117 allows the creation of Community Choice Aggregation (CCA) that fosters clean and renewable energy markets. CCA allows cities and counties to aggregate the buying power of individual jurisdictions. The California CCA markets were created as an answer to the brownouts and energy shortages of the early 2000's. AB 117 was passed in 2002 as an answer to California's increased energy independency by incorporating more alternative and renewable energy sources into its energy portfolio. With AB 117, municipalities can provide alternative energy choices to their local carrier (e.g., Pacific Gas and Electric). Marin Clean Energy was the first CCA in the State of California to go online with a 50 percent to 100 percent clean energy portfolio in 2010. In 2018, Ava Community Energy began supplying Bay Area communities, including Hayward, with options for 100 percent renewable energy-sourced electricity or electricity from a mix of renewable and non-renewable sources. CCAs are governed by the CPUC. SB 790 further ensures fair and transparent competition by creating a code of conduct and guiding principles for entrants into the CCA field.

#### SENATE BILL 1275, CHARGE AHEAD INITIATIVE

In 2014, SB 1275 established a State goal of one million zero-emissions and near-zero-emissions vehicles in service by 2020 and directed CARB to develop a long-term funding plan to meet this goal. SB 1275 also established the Charge Ahead California Initiative requiring planning and reporting on vehicle incentive programs and increasing access to and benefits from zero-emissions vehicles for disadvantaged, low- and moderate-income communities and consumers.

#### SENATE BILL 350, CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015

In 2015, SB 350 established new clean energy, clean air, and GHG reduction goals for 2030 and beyond. SB 350 codified Governor Brown's aggressive clean energy goals and established the State 2030 GHG reduction target of 40 percent below 1990 levels. To achieve this goal, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 (legislation originally enacted in 2002) to 50 percent by 2030. Renewable resources include wind, solar, geothermal, wave, and small hydroelectric power. In addition, SB 350 requires the State to double State-wide energy efficiency savings in electricity and natural gas end uses by 2030 from a base year of 2015.

<sup>&</sup>lt;sup>17</sup> Electric Ready means the wiring, electrical capacity and physical space needed is provided to allow the building to be converted to an all-electric building in the future.

#### SENATE BILL 1020, CLEAN ENERGY, JOBS, AND AFFORDABILITY ACT OF 2022

Established in 2002 under SB 1078, and accelerated by SB 107 (2006), SB X 1-2 (2011), SB 100 (2018), and SB 1020, California's Renewable Portfolio Standard (RPS) obligates investor-owned utilities, energy service providers, and community choice aggregators to transition the electricity supply to renewable resources. The RPS requires energy service providers to supply renewable energy as follows: 90 percent of retail sale electricity and 100 percent of electricity procured to serve state agencies by 2035, 95 percent by 2040, and 100 percent by 2045. The CPUC and the CEC are jointly responsible for implementing the program.

#### Other GHG Emissions-Related Policies

#### ASSEMBLY BILL 197, STATE AIR RESOURCES BOARD GHGS REGULATIONS

In 2016, the California legislature approved AB 197, a bill linked to SB 32, which increases legislature oversight over CARB and directs CARB to prioritize disadvantaged communities in its climate change regulations, and to evaluate the cost-effectiveness of measures it considers. AB 197 requires CARB to protect the State's most impacted and disadvantaged communities [and] consider the social costs of the emissions of GHGs when developing climate change programs. The bill also adds two new legislatively appointed non-voting members to CARB, increasing the Legislature's role in CARB's decisions.

#### SENATE BILL 97, CEQA GUIDELINES FOR ADDRESSING GHG EMISSIONS

CEQA requires public agencies to review the environmental impacts of proposed projects, including General Plans, Specific Plans, and specific kinds of development projects. In February 2010, the California Office of Administrative Law approved the recommended amendments to the State CEQA Guidelines for addressing GHG emissions. The amendments were developed to provide guidance to public agencies regarding the analysis, mitigation, and effects of GHG emissions in draft CEQA documents.

# General Plan Designation and Zoning

The CAP would be implemented throughout the City and would occur in all Hayward General Plan designations and zoning designations. The plan would not alter any existing land use or zoning designations.

# Description of Plan

### CAP

The CAP incorporates the many climate protection programs noted above that the City of Hayward has in place and would continue to reduce GHG emissions as well as provides an update to the Hayward 2014 CAP. The CAP would provide an updated blueprint for reducing GHG emissions, increasing equitable community resilience, and supporting regional, State, and global climate goals through achieving the City's 2030 and 2045 climate action targets.

The City has developed the CAP in order to achieve several future targets, including reducing GHG emissions 30 percent below 2005 levels by 2025 and 55 percent below 2005 levels by 2030 (equivalent to 40 percent below 1990 level), as well as putting Hayward on a trajectory to meet the

State goal of achieving carbon neutrality by 2045. The CAP is also intended to provide a framework through its actions for a safer future and enhanced quality of life for the community, new economic opportunities through green jobs, and enhanced social equity and citizen engagement on the issue of climate change. The CAP provides a foundation for future sustainable development efforts in Hayward. It is anticipated that environmental review documents for future development projects would identify and incorporate applicable GHG reduction measures and actions from the CAP.

The CAP addresses communitywide GHG emissions and includes a discrete target for Hayward to reach maximum emissions of 3.12 metric tons (MT) of carbon dioxide equivalent ( $CO_2e$ ) emissions per capita by 2030. The CAP includes a 2019 communitywide GHG emissions inventory, contains a list of measures to achieve Hayward's sustainability goals, and focuses on actions through 2030 for purposes of meeting Hayward's 2030 GHG emissions target.

The 2019 GHG emissions inventory provides the basis for emissions forecasts for the years 2025, 2030, 2035, 2040, and 2045. In 2019, Hayward's GHG emissions totaled 684,399 MT CO<sub>2</sub>e. GHG emissions in the inventory are categorized based on sectors. These sectors include off-road vehicles and equipment, solid waste, water and wastewater, on-road transportation, building energy from electricity use, and building energy from natural gas use. Table 1 provides the summary of Hayward 2019 GHG emissions by sector, as well as each sector's percentage of communitywide emissions.

GHG Emissions Sector/Source	CO <sub>2</sub> e (MT)	Percent of Total Emissions
Transportation		
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
Electricity		
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
Natural Gas		
Residential Natural Gas	95,291	14
Commercial/Industrial Natural Gas	81,358	12
Water and Wastewater		
Wastewater - Direct	1,702	0.2
Wastewater – Indirect	380	0.1
Water - Indirect	10	0.001
Solid Waste		
Solid Waste Generated/Disposal	46,187	7
CO <sub>2</sub> e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric		

As shown in Table 1, the largest GHG emissions are related to transportation (specifically passenger on-road and commercial on-road) and building energy use (specifically residential and commercial/industrial natural gas use).

As part of the CAP, Hayward is committed to a 2030 target of  $3.12 \text{ MT CO}_2$ e per capita. The 2030 GHG emissions goals consistent with the State's goal to reduce GHG emission by 40 percent below 1990 levels, consistent with CEQA for a qualified GHG emissions reduction strategy and to be achievable by City-supported measures and actions identified in CAP. The CAP includes a business-as-usual (BAU) forecast and an adjusted BAU (ABAU) forecast of GHG emissions, based on the 2019 inventory, that enables Hayward to estimate the emissions reductions required to meet its per capita reduction targets.

The CAP includes measures to adopt an all-electric requirement for non-residential construction, electrify existing single-family residential buildings, increase active transportation, increase solid waste diversion, and reduce water consumption. These measures are supported by a set of actions that would help to achieve the full benefits of that measure. Table 2 includes a complete list of the CAP measures and actions as well as anticipated annual GHG reductions in 2030 and 2045.

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO <sub>2</sub> e)
Building E	nergy	
	BE-1: Continue the all-electric requirement for new residential construction. Adopt an all-elec ent for new non-residential construction to take effect by 2026.	tric
BE 1.1	Continue to enforce the adopted Hayward Electrification Ordinance for new residential buildings banning natural gas.	2030: 5,392 2045: 18,761
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.	-
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.	-
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.	-
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.	-
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.	_

#### Table 2 Hayward CAP Measures and Actions

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO <sub>2</sub> e)
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	-
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.	-
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.	
	3E-2: Electrify existing single-family residential buildings in order to achieve 100 therms/perso D therms/person in 2045.	on/year by
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.	2030: 13,872 2045: 68,020
BE 2.2	Adopt an ordinance requiring existing single-family homes to be 100% all-electric by 2045.	-
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.	
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.	-
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.	-
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.	-
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	
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.	-
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.	-

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
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.	_
BE 2.11	Devote staff time to collaborate with Pacific Gas & Electric (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 and efficient transition to carbon neutral buildings.	
BE 2.12	Work with 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.	-
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.	-
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.	-
	3E-3: Decarbonize existing commercial and multi-family buildings in order to achieve 53 thern 2030 and 0 therms per service person in 2045.	ns per service
BE 3.1	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:	2030: 20,667 2045: 114,200
	<ul> <li>Develop requirements that satisfy the federal Energy Policy and Conservation Act (EPCA) seven criteria for an exemption from preemption;</li> <li>Establish specific metrics for standard benchmarking;</li> </ul>	
	<ul> <li>Identify a regulatory mechanism for eliminating natural gas use in existing commercial buildings that addresses legal and feasibility considerations; and</li> <li>Enforce requirement compliance through the same permitting compliance program as for residential building electrification.</li> </ul>	
BE 3.2	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:	-
	<ul> <li>Develop requirements that satisfy the federal Energy Policy and Conservation Act (EPCA) seven criteria for an exemption from preemption;</li> </ul>	
	<ul> <li>Establish specific metrics for standard benchmarking;</li> <li>Identify a regulatory mechanism for eliminating natural gas use in existing multi-family buildings that addresses legal and feasibility considerations; and</li> <li>Enforce requirement compliance through the same permitting compliance program as</li> </ul>	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
BE 3.3	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.	
BE 3.4	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.	-
BE 3.5	Partner with an electrification/efficiency expert to provide guidance to commercial buildings covered by the building performance standard.	-
BE 3.6	Develop an education campaign to promote commercial electrification and include items in the program such as:	
	<ul> <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>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>Provide informational webinars and an updated website to advertise and promote all-electric building initiative rebates and incentives.</li> </ul>	_
BE 3.7	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.	-
BE 3.8	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.	-
BE 3.9	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.	-
Measure	3E-4: Support Ava Community Energy in providing 100% carbon-free electricity by 2030.	
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.	2030: 4,802 2045: 0
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.	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
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.	
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.	
Measure B Action Pla	8E-5: Continue to promote energy efficiency improvement, in alignment with the existing 201 n	4 Climate
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.	Supportive
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.	
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.	
BE 5.4	Continue to promote the use of the Energy Star Portfolio Manager program and energy benchmarking training programs for nonresidential building owners.	-
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.	
	3E-6: Generate carbon-neutral electricity on City facilities meeting 80% of the municipal opera needs by 2030.	itional
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.	Supportive
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.	-
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.	-
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.	-
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.	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
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.	
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.	
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.	
BE 6.9	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.	-
BE 6.10	Determine opportunities for the Water Pollution Control Facility (WPCF) 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 WPCF.	
BE 6.11	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.	
BE 6.12	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.	-
Transporta		_
	-1: Increase active transportation mode share to 15% by 2030 and to 20% by 2045.	2020 6 105
Τ1.1	<ul> <li>Amend the Off-Street Parking Regulation of Municipal Code to incorporate smart growth principles and to incentivize walking, biking, and public transit.</li> <li>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>Provide requirements or incentives for bicycle parking.</li> <li>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>Create parking preferences or incentives for residents who rideshare or use low- or zero-emissions vehicles.</li> <li>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> </ul>	2030: 6,485 2045: 8,755

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
	<ol> <li>Establish design standards or retrofit standards for Complete Streets.</li> <li>7.Promote multi-modal use.</li> </ol>	
T 1.2	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>18</sup> and promote a jobs-housing match. In addition, work with developers to prioritize infill development projects and transit-oriented development zones.	
T 1.3	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.	
T 1.4	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.	-
T 1.5	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.	
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.	-
Τ 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.	
Т 1.8	Identify streets for permanent through traffic closures to promote walking, biking, and other forms of active transportation.	_
Т 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.	
Т 1.10	Prioritize active transportation and mobility projects in historically under-invested neighborhoods.	
Τ 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.	-

<sup>&</sup>lt;sup>18</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.

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO <sub>2</sub> e)
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.	
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.	
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.	
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.	-
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.	
	-2: Implement public and shared transit programs to increase mode shift to public and share 2030 and 30% by 2045.	d transit mode
Т 2.1	Continue to promote infill development and/or new development that is compact, mixed use, pedestrian friendly, and transit oriented.	2030: 7,585 2045: 25,092
Т 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.	-
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.	-
Т 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.	-
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.	-
Т 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.	m
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.	-
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.	-
Т 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.	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO <sub>2</sub> e)
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.	
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).	
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.	
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.	
	-3: Develop disincentives for driving single passenger vehicles to support the bicycle/pedestri de share goals of Measures T-1 and T-2.	an and public
Т 3.1	Develop and adopt a Citywide 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).	Supportive
Т 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 development requirements, ordinances, and/or building codes requiring TDM as part of new developments as part of enforcement.	
Т 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.	
Т 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.	
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.	
Т 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.	
Т 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.	
Т 3.8	Fund active and public transit programs through a local gasoline tax and/or through paid parking fees.	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
Т 3.9	Implement a 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.	
T 3.10	Implement a gasoline/diesel car registration tax starting in 2028 with exemption criteria established for low-income residents.	-
T 3.11	Increase Broadband Internet Access. Add a program to encourage more working from home and reduce the need to travel for work.	
Measure	T-4: Increase passenger zero-emission vehicle (ZEV) adoption to 15% by 2030 and 50% by 204	5.
T 4.1	Continue to enforce the Hayward EV Charger Reach Code requiring electric vehicle charging stations in new development projects.	2030: 16,014 2045: 88,718
Т 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.	
T 4.3	Continue to maintain a streamlined EV infrastructure permitting process and ordinance in accordance with AB 1236.	-
T 4.4	Require that new private parking lots grant ZEVs access to preferred parking spaces.	-
T 4.5	Coordinate with local agencies and community-based organizations, agencies, and non- profits to conduct 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.	_
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.	
Т 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.	
T 4.8	Work with Ava Community Energy and PG&E to incentivize residential electric vehicle charger installations through on-bill financing.	
Т 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.	-
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.	-
T 4.11	Support ZEV car share companies in coming to the City. Coordinate with car share companies and community groups to develop an affordable, ZEV car share to serve affordable housing and/or multifamily developments with a priority to target low-income communities of color.	-
T 4.12	Collaborate with neighboring jurisdictions and the Alameda County Transportation Commission to develop a connected network of ZEV car share.	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
Measure	T-5: Increase ZEV adoption by businesses to 10% by 2030 and 80% by 2045.	
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.	2030: 3,161 2045: 37,461
T 5.2	Identify incentives for accelerated business fleet electrification and communicate that information to local businesses.	-
Т 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).	-
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.	_
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.	
Measure	T-6: Transition 15% of off-road equipment to zero-emission by 2030 and 80% by 2045.	
Τ6.1	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.	2030: 4,312 2045: 22,542
Т 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.	-
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).	-
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.	-
T 6.5	Partner with BAAQMD to develop a rebate and incentive program for upgrading off-road equipment and switching to biofuels.	_
T 6.6	Conduct a study to assess the technological and economic feasibility of replacing the City- owned off-road equipment fleets.	_
Т 6.7	Conduct an inventory of major off-road equipment fleets in Hayward and identify fleets with highest decarbonization potential.	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO <sub>2</sub> e)
	-7: Increase municipal passenger ZEV adoption to 75% by 2030 and 100% by 2045 and decarb y and heavy-duty vehicles as feasible.	onize
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.	Supportive
Т 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.	
Т 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.	
Т 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.	
Solid Wast	te	
	W-1: Implement and enforce SB 1383 requirements to reduce community-wide landfilled org 90% by 2045.	anics 75% by
SW 1.1	Adopt procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products.	2030: 35,925 2045: 47,101
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.	
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.	
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 community-wide organic waste diversion.	-
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.	-
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.	-
SW 1.7	Partner with local community organizations, public agencies like StopWaste and businesses to implement all required activities under SB 1383.	-
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.	-

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
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.	
SW 1.10	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 California State University East Bay (CSUEB), South Hayward Parish to identify and advertise locations for surplus food to be taken in the community.	
SW 1.11	Work with contracted hauler to: Provide quarterly route reviews to identify prohibited contaminants potentially found in containers that are collected along route. 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. Develop and implement a comprehensive monitoring and quality control program with a focus on consumer behavior change.	
SW 1.12	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.	
SW 1.13	Partner with schools, retirement communities, and other large institutions to create waste diversion and prevention program/procedure/plan.	
SW 1.14	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.	
Measure S	N-2: Increase community-wide overall landfill diversion of waste to 75% by 2030 and 85% by	2045.
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.	Supportive
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.	
SW 2.3	Continue to enforce the Hayward Construction and Demolition Debris Recycling Ordinance.	•
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.	
SW 2.5	Create a requirement for large events to hire an event waste management team.	
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.	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
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.	
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.	-
SW 2.10	Work with StopWaste and the business community to design and promote extended producer responsibility such as take-back programs.	
SW 2.11	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.	-
SW 2.12	Work with local businesses to establish post-consumer recycled content requirements that meet SB 343 recyclability claims as part of their purchasing criteria.	
SW 2.13	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.	-
SW 2.14	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.	-
SW 2.15	Explore funding opportunities to increase the circular food economy in.	
Water and	Wastewater	_
Measure V	VW-1: Reduce water consumption by 15% by 2030 and maintain it through 2045.	
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.	2030: 35 2045: 0
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.	
WW 1.3	Continue to implement rebate and water conservation device tracking system to track the number of rebates and water devices distributed.	
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.	-
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 deceives, and rebates for rain barrels and turf replacement.	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO <sub>2</sub> e)
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.	
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.	-
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.	-
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.	-
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.	-
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.	-
WW 1.12	Promote the use of on-site gray water and rainwater collection systems.	-
Carbon Seq	uestration	
	S-1: Increase carbon sequestration by planting and maintaining 1,000 new trees annually thr carbon and create urban shade to reduce heat island effect.	ough 2030 to
CS 1.1	Update the Tree Preservation Ordinance by Q2 2024 to maintain existing carbon stock and identify 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.	2030: 212 2045: 743
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.	-
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.	
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.	-
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.	-

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e
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.	
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).	
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.	-
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.	-
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.	-
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	
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.	
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.	-
Measure C through 20	S-2: Increase carbon sequestration by applying 0.08 tons of compost per capita annually in tl )30.	ne community
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.	2030: 3,081 2045: 3,392
CS 2.2	Adopt procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products.	_
CS 2.3	<ul> <li>Work with Hayward Area Recreation and Park District to develop and adopt urban park guidelines that:</li> <li>Provide flexible solutions for developing urban parks in infill areas where traditional neighborhood and community parks are not feasible;</li> <li>Establish guidelines for achieving the greatest carbon sequestration potential of parks via design;</li> <li>Are equitable in ensuring such urban parks are accessible for lower-income residents while avoiding displacement, in alignment with the Parks Master Plan.</li> </ul>	
CS 2.4	Identify locations within Hayward to apply compost to help meet the procurement requirements of SB 1383.	-

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO2e)
CS 2.5	Work with StopWaste to provide residents, businesses, and developers with educational material on best practices for using compost in landscaping.	
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).	
CS 2.7	Collaborate with Chabot College, CSUEB, and local schools to identify opportunities to apply compost to landscaping.	
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.	
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.	
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.	
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.	
	$f CO_2 e = metric tons of carbon dioxide equivalentnoiled by Rincon based on information contained in the Hayward Draft CAP.$	

Source: Compiled by Rincon based on information contained in the Hayward Draft CAP.

The measures and actions included in the CAP, shown in Table 2, combined with State legislation and City initiatives, would enable Hayward to meet its GHG emissions reduction target pathway to reduce GHG emissions 55 percent below 2005 levels by 2030 (equivalent to a 40 percent reduction from 1990 levels) as well as its specific 2030 target of 3.12 MT CO<sub>2</sub>e per person.

Table 3 shows Hayward's emissions targets compared to the BAU and ABAU forecasts, beginning from the 2019 baseline year through 2045. The emissions "gap," the difference between the ABAU forecast and Hayward's GHG emissions targets, is shown for each year.

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

 Table 3
 Hayward 2030 GHG Emissions Reduction Target Pathway (MT CO2e)

Figure 3 depicts per capita 2030 and 2045 GHG emissions and targets for Hayward, including anticipated emissions once the measures and actions listed in Table 2 are implemented. Figure 3 also illustrates the forecasted BAU emissions, the forecasted ABAU emissions, and the target pathway to achieve carbon neutrality by 2045.

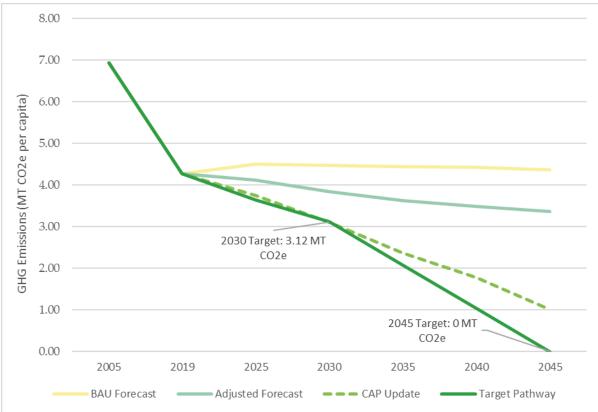


Figure 3 Hayward per Capita GHG Emissions Projections and Targets

Table 4 shows the Hayward climate action target emissions and the emissions reductions expected from implementing the CAP measures and actions shown in Table 2. Table 4 also shows that Hayward would meet its 2030 GHG reduction target and make substantial progress towards the 2045 goal of carbon neutrality.

Table 4	Targets Versus GHG Reductions
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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
$MT CO_2 e = metric tons of carbon dioxide equivalent$		

Source: Hayward Draft CAP

Implementation of CAP measures and actions listed in Table 2 could result in physical changes to the environment that could potentially have an impact on the environment. While individual projects resulting from these actions have not been identified for the purposes of this document, the types of actions that could result from realization of CAP measures are taken into account in considering potential environmental impacts that could occur through implementation of the CAP. For example, projects or actions requiring ministerial approval, such as installation of EV charging stations and supporting infrastructure, as well as new bicycle or pedestrian facilities, would introduce physical changes related to the temporary presence and operation of construction vehicles and equipment during installation of required facilities and the long-term presence of new facilities such as bike and pedestrian infrastructure, solar arrays, and EV charging stations, which could alter pedestrian and vehicular traffic patterns. Future plans or projects requiring discretionary approval would be subject to environmental review under CEQA, and individual impact analyses may identify required plan- or project-specific mitigation measures where applicable.

The CAP would be incorporated into the Hayward General Plan through a General Plan Amendment that would amend the 2014 CAP and related implementation programs currently included in the General Plan with the updated CAP measures and actions.<sup>19, 20</sup>

## **CEQA GHG Emissions Thresholds**

In 2007, SB 97 acknowledged that climate change is an environmental issue that requires analysis in CEQA documents, and in 2010, the California Natural Resources Agency adopted amendments to the CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines gave lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. Specifically, Section 15183.5(b)(1)A-G of Title 14 of the California Code of Regulations was amended to state that a qualified GHG Reduction Plan, or a CAP, may be used for tiering and streamlining the analysis of GHG emissions in subsequent CEQA project evaluation, provided that the GHG Reduction Plan or CAP does the following:

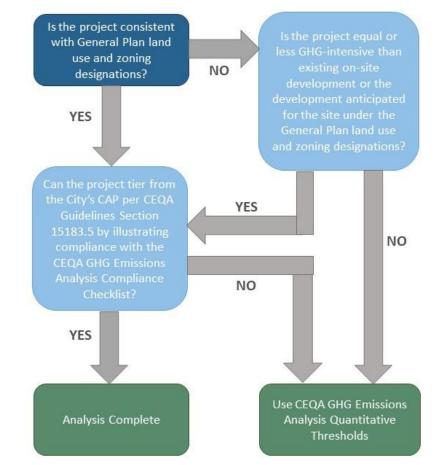
<sup>&</sup>lt;sup>19</sup> The CEQA Review and AB 52/SB 18 tribal consultation associated with all General Plan amendments, including incorporation of the updated CAP into the General Plan, was previously conducted via a General Plan EIR Addendum in 2022/2023.

<sup>&</sup>lt;sup>20</sup> The General Plan amendment would result in the same environmental impacts as the CAP itself, as the amendments would only involve direct incorporation of the CAP document and its measures (i.e., policies) and actions (i.e., implementation programs).

- Quantifies GHG emissions both existing and projected over a specific period of time, resulting from activities within a defined geographical area
- Establishes a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable
- Identifies and analyzes the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area
- Specifies measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level
- Establishes a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels
- Be adopted in a public process following environmental review.

Therefore, the City of Hayward proposes to also adopt quantitative efficiency thresholds for use in evaluating whether a plan or project's GHG emissions would result in a potentially significant environmental impact under CEQA for plans or projects with pre-2030 buildout or initial operation years. The CEQA GHG emissions thresholds would be applied to plans or projects that cannot tier from the environmental analysis for the Hayward CAP (as contained in this Initial Study-Negative Declaration) due to one of the following circumstances, which are illustrated in Figure 4:

- The plan or project would not be consistent with the Hayward General Plan land use and/or zoning designations for the project site and would result in greater GHG emissions than existing on-site development; or
- The plan or project would not be consistent with the CEQA GHG Emissions Analysis Compliance Checklist.



#### Figure 4 Determining CEQA GHG Emissions Analysis Methodology

These thresholds are set at the level of GHG emissions that new development would need to achieve to be consistent with the CAP's emissions reduction target of 3.12 MT CO<sub>2</sub>e per capita by 2030. The efficiency thresholds, listed below, are expressed in terms of MT CO<sub>2</sub>e per capita and are applicable to plans or projects with pre-2030 buildout or initial operational years:

- 1.99 per resident
- 2.62 per employee
- 2.18 per service person<sup>21, 22</sup>

Efficiency thresholds for beyond 2030 would be established later in conjunction with subsequent CAP updates.

Plans or projects that do not tier from this Hayward CAP IS-ND and would generate GHG emissions in excess of these thresholds would result in a potentially significant impact on the environment related to GHG emissions and climate change. Mitigation measures would be required to reduce potentially significant impacts resulting from such plans or projects. Plans or projects that are unable to reduce GHG emissions below these thresholds through implementation of identified mitigation measures would result in a significant and unavoidable environmental impact. The CEQA

<sup>&</sup>lt;sup>21</sup> The service population is equal to the residential population plus the number of employees.

<sup>&</sup>lt;sup>22</sup> Source: Hayward, City of. Hayward Final CEQA GHG Emissions Thresholds and Guidance Report. Published October 5, 2023.

GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not have direct construction or operational impacts.

## Cumulative Projects Scenario

For purposes of CEQA cumulative impacts analysis of the CAP and CEQA GHG Emissions Thresholds, the cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element. The cumulative projects scenario is shown in Table 7.

Growth Metric <sup>1,2</sup>	<b>2019</b> <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

#### Table 5 Cumulative Projects Scenario

Note: Service Population = Population + Employment

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

<sup>2</sup> Forecasted demographic data for Hayward is based on the Alameda County Transportation Commission 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.

Source: Hayward, City of. Hayward Draft CAP. Published October 5, 2023.

## Required Approvals

## City of Hayward

Required approvals include:

- Adoption of the CAP Initial Study-Negative Declaration; and
- Adoption of the CAP and related General Plan Amendment to incorporate the CAP; and
- Adoption of the CEQA GHG Emissions Thresholds.

Although individual plans or projects may be implemented later under the umbrella of CAP, each individual plan or project would be subject to separate environmental review under CEQA, unless exempt.

### **Other Public Agencies**

The City of Hayward has sole approval authority regarding CAP. There are no other public agencies whose approval is required.

## Environmental Factors Potentially Affected

This project<sup>23</sup> would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

Aesthetics	Agriculture and Forestry Resources	Air Quality
Biological Resources	Cultural Resources	Energy
Geology and Soils	Greenhouse Gas Emissions	Hazards and Hazardous Materials
Hydrology and Water Quality	Land Use and Planning	Mineral Resources
Noise	Population/Housing	Public Services
Recreation	Transportation	Tribal Cultural Resources
Utilities/Service Systems	Wildfire	Mandatory Findings of Significance

## Determination

Based on this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- □ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

<sup>&</sup>lt;sup>23</sup> Note that the CAP is a plan; however, this language and the significance criteria questions language throughout this IS-ND are taken directly from CEQA Guidelines Appendix G, which refers to a "project" generally but is applicable to either a project or plan.

- □ I find that the proposed project MAY have a "potentially significant impact" or "less than significant with mitigation incorporated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

E PR	January 3, 2024
Lead Agency Representative Signature	Date
Erik J. Pearson	Environmental Services Manager
Lead Agency Representative Printed Name	Title

## **Environmental Checklist**

1	Aesthetics				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
W	ould the project:				
a.	Have a substantial adverse effect on a scenic vista?				
b.	Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				
C.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			-	
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			-	

a. Would the project have a substantial adverse effect on a scenic vista?

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

The Hayward General Plan Environmental Impact Report (EIR) identifies scenic resources within and nearby Hayward as the undeveloped hillsides and ridges to the east of Hayward, portions of the San Francsico Bay shoreline, and baylands. Scenic vistas are primarily available from publicly accessible roadways and scenic routes including I-580, I-880 and SR-92.<sup>24</sup> There are no State-designated scenic highways that run through Hayward; however, I-580, which runs east to west through Hayward, is an eligible state scenic highway.<sup>25</sup>

<sup>&</sup>lt;sup>24</sup> Hayward, City of. 2014. Hayward General Plan Draft Environmental Impact Report. http://www.hayward-

ca.gov/sites/default/files/documents/Hayward%20GPU%20Public%20Release%20Draft%20EIR\_1-30-14.pdf (accessed October 2023).

<sup>&</sup>lt;sup>25</sup> California Department of Transportation. 2018. California State Scenic Highway System Map.

https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed October 2023).

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in impacts related to scenic vistas and scenic highways. As a policy document, the CAP would not result in impacts related to scenic vistas and scenic highways. However, implementation of some CAP measures may promote infrastructure development and other physical changes through policies and programs. CAP Measure BE-6 would promote installation of small-scale solar PV systems at existing municipal facilities and in new developments. CAP Measure T-1 would improve bicycle and pedestrian facilities throughout the City and Measures T-4, T-5, and T-7 encourage the installation of EV charging stations and supporting infrastructure. Additionally, CAP Measure CS-1 would facilitate the expansion of the urban forest within Hayward. CAP projects would generally be limited to the existing developed areas of the City and would be small-scale in nature. Additionally, expansion of the urban forest could have a positive effect on scenic vistas, adding new tree cover and enhancing existing natural landscapes.

The CAP would promote infrastructure development and redevelopment that is complimentary to existing development and land uses. Though the implementation of the CAP may result in future development, CAP-related projects and actions, including those identified above, would be required to adhere to City development zoning and regulations, including the City's applicable Design Guidelines, which establish criteria for the aesthetic qualities of development in Hayward in order to preserve and enhance the desired character of existing neighborhoods.<sup>26</sup> Compliance with the City's Design Guidelines would ensure that potential future infrastructure development and redevelopment related to the CAP would be carefully integrated with the existing character of Hayward, minimizing potential aesthetic impacts. In addition, CAP projects and actions would be reviewed for consistency with the Hayward General Plan policies related to scenic resources prior to approval. As such, the CAP would not result in adverse impacts related to scenic vistas or State scenic highways within the City. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *less-than-significant impacts* related to scenic vistas and scenic highways.

c. Would the project in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Hayward is a primarily urbanized area with the following applicable visual character/quality policies in the Hayward General Plan Land Use and Community Character, Natural Resources, and Community Health and Quality of Life Elements.

## Land Use and Community Character Element

- Policy LU-1.7 Design Guidelines. The City shall maintain and implement commercial, residential, industrial, and hillside design guidelines to ensure that future development complies with General Plan goals and policies.
- Policy LU-4.5 Massing, Height, and Scale. The City shall require corridor developments to transition the massing, height, and scale of buildings when located adjacent to residential properties. New development shall transition from a higher massing and scale along the corridor to a lower massing and a more articulated scale toward the adjoining residential properties.

<sup>&</sup>lt;sup>26</sup> Hayward, City of. 2023. Hayward Design Guidelines. https://www.hayward-ca.gov/your-government/documents/planning-documents (accessed October 2023).

 Policy LU-4.11 Streetscape Enhancements. The City shall strive to improve the visual character of corridors by improving streetscapes with landscaped medians, and widened sidewalks that are improved with street trees, pedestrian-scaled lighting, underground utilities, landscaping, and streetscape furniture and amenities.

### **Natural Resources Element**

- Policy NR-8.1 Hillside Residential Design Standards. The City shall regulate the design of streets, sidewalks, cluster home development, architecture, site design, grading, landscaping, utilities, and signage in hillside areas to protect aesthetics, natural topography, and views of surrounding open space through the continued Hillside Design and Urban/Wildland Interface Guidelines.
- Policy NR-8.2 Hillside Site Preparation Techniques. The City shall require low-impact site grading, soils repair, foundation design, and other construction methods to be used on new residential structures and roadways above 250 feet in elevation to protect aesthetics, natural topography, and views of hillsides and surrounding open space.
- Policy NR-8.4 Shoreline Views Protection. The City shall maintain and implement residential and non-residential design guidelines in order to protect existing views of the Bay shoreline.

### **Community Health and Quality of Life Element**

 Policy HQL-8.1 Manage and Enhance Urban Forest: The City shall manage and enhance the urban forest by planting new trees, ensuring that new developments have sufficient right-ofway width for tree plantings, managing and caring for all publicly owned trees, and working to retain healthy trees.<sup>27</sup>

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in impacts related to aesthetics. The CAP would promote sustainable infrastructure development and redevelopment through policies and programs. Implementation of some CAP measures related to transportation, renewable energy, and GHG sequestration may result in physical changes that could impact scenic resources. Specifically, CAP Measure BE-6 would promote installation of small-scale solar PV systems at existing municipal facilities and in new developments. CAP Measure T-1 would improve bicycle and pedestrian facilities throughout the City and Measures T-4, T-5, and T-7 encourages the installation of EV charging stations and supporting infrastructure. Additionally, CAP Measure CS-1 would facilitate the expansion of the urban forest within Hayward, consistent with existing General Plan policies.

Implementation of small-scale solar panels, introduction of EV charging infrastructure, planting additional trees, and expanding Hayward's urban forest may slightly change the scenic character of Hayward. However, future CAP-related projects would be located and designed to be complimentary to existing land uses and would be required to adhere to the City development zoning and regulations that seek to preserve the character of Hayward and minimize environmental impacts. In addition, CAP projects and actions would be reviewed for consistency with the Hayward General Plan policies highlighted above and other applicable regulatory policies, such as the Zoning Ordinance and applicable Specific Plans and design guidelines, prior to approval. Therefore, the CAP

<sup>&</sup>lt;sup>27</sup> Hayward, City of. 2014. Hayward 2040 General Plan Policy Document. http://www.haywardca.gov/sites/default/files/Hayward\_2040\_General\_Plan\_FINAL.pdf (accessed October 2023).

and CEQA GHG Emissions Thresholds would not conflict with applicable zoning and other regulations governing scenic quality and would result in a *less-than-significant impact*.

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in impacts related to light and glare. The CAP would promote sustainable infrastructure development and redevelopment that is complimentary to existing land uses in the City. As a policy document, the CAP would not directly result in impacts related to light and glare. However, implementation of CAP Measure BE-6 encourages the installation of solar panels and battery storage systems at new developments. Solar panels have the potential to result in new sources of glare within Hayward if not thoughtfully designed and located. The design and location of proposed solar infrastructure would be complimentary to existing development in Hayward, such as the addition of small-scale rooftop solar panels, in order to reduce potential glare impacts within Hayward. Furthermore, CAP projects would be reviewed for consistency with the CCR Title 24 lighting standards (CCR Title 24 Part 6), the Zoning Ordinance, and applicable Specific Plans and design guidelines, which includes a review of exterior lighting.<sup>28,29</sup> In addition, CAP projects or actions would be reviewed for consistency with the Hayward General Plan and other applicable regulatory land use actions prior to approval. Compliance with these regulations would minimize environmental impacts related to light and glare by complying with standard conditions of approval requiring the shielding of exterior lighting and limiting spillover lighting. Thus, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to light and glare.

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). Cumulative impacts related to scenic resources, visual character, and increased light and glare would generally be site-specific, and cumulative projects are not anticipated to contribute to cumulative aesthetic impacts with adherence to Hayward General Plan policies, the Zoning Ordinance, and applicable Specific Plans and design guidelines. As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Because of the developed nature of Hayward, future infrastructure projects under the CAP, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, would not adversely impact the visual character of the Hayward community. In addition, future development in the City would be required to comply with the City's Design Review process and be reviewed against applicable Hayward General Plan policies and City's design standards for design quality and compatibility with adjacent land uses. Therefore, implementation of the CAP would result in a *less-than-significant cumulative impact* related to aesthetics.

<sup>&</sup>lt;sup>28</sup> California Energy Commission (CEC). 2022. 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings. https://www.energy.ca.gov/sites/default/files/2022-12/CEC-400-2022-010\_CMF.pdf (accessed October 2021).

<sup>&</sup>lt;sup>29</sup> Hayward, City of. 1993. City of Hayward Design Guidelines. https://www.hayward-

ca.gov/sites/default/files/COH%20Design%20Guildlines.pdf (accessed October 2023).

# 2 Agriculture and Forestry Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
W	ould the project:				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b.	Conflict with existing zoning for agricultural use or a Williamson Act contract?				
C.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				-
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				•

- a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?
- *e.1.* Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

Hayward is characterized primarily by urban and suburban development. The California Farmland Mapping and Monitoring Program classifies Hayward as Urban and Built-Up Land, Grazing Land, and Other Land. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in

Hayward.<sup>30</sup> There are a few parcels of non-Prime Farmland in eastern Hayward that are enrolled in Williamson Act contracts.<sup>31</sup>

The CAP measures focus on building electrification, active transportation, zero emission vehicles, public transit, water conservation, solid waste diversion, and urban greenspace and trees. CAP measures would not involve projects or policies that would result in impacts related to conversion or loss of Farmland. Additionally, the CEQA GHG Emissions Thresholds do not propose development or changes to land use and zoning that could result in the loss of farmland or conflict with existing agricultural zoning. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a **no impact** related to degradation of agricultural resources or conversion of agricultural land to non-agriculture uses, nor would there be a conflict with existing zoning or Hayward General Plan land use designations.

- c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?
- d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?
- *e.2.* Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?

Hayward contains several open space areas in the eastern portion of the City that contain mixed grassland and woodland communities.<sup>32</sup> However, Hayward does not contain areas designated for forest land or Timberland Production. The Hayward Municipal Code (HMC) Chapter 10, Article 15, Tree Preservation, establishes policies, regulations, and standards to ensure tree protection within the Hayward. In addition, the Hayward General Plan contains a number of goals, policies, and actions such as Policy 1.7, Native Tree Protection, which illustrate the City's commitment to managing and preserving Hayward's urban forest. The CAP aligns with the Hayward General Plan by including measures and actions such as CAP Measure CS-1, which promotes the planting of 1,000 new trees annually through 2030.

As such, the CAP would increase planting of trees within the City and be consistent with the City's Tree Preservation regulations. Furthermore, the CAP seeks to increase trees within the City for the purposes of carbon sequestration. The CAP does not include actions that would result in the loss of forest land or the conversion of forest land to non-forest use, nor would it conflict with or cause the rezoning of forest, timber land, or Timberland Production areas. Likewise, the CEQA GHG Emissions Thresholds would provide guidance during CEQA review and do not propose development or changes to land use and zoning that could result in the loss of forestland or conflict with existing zoning for forest uses. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in **no** *impact* related to degradation of forestry resources or conversion of forest land to non-forest uses, nor would there be a conflict with existing zoning or 2040 General Plan land use designations.

<sup>&</sup>lt;sup>30</sup> California Department of Conservation. 2022. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed October 2023).

<sup>&</sup>lt;sup>31</sup> California Department of Conservation. 2022. California Williamson Act Enrollment Finder.

https://gis.conservation.ca.gov/portal/home/webmap/viewer.html?webmap=18f7488c0a9d4d299f5e9c33b312f312 (accessed October 2023).

<sup>&</sup>lt;sup>32</sup> Hayward, City of. 2014. Hayward 2040 General Plan. January 30, 2014. http://www.hayward-

 $ca.gov/sites/default/files/documents/Hayward\%20 GPU\%20 Public\%20 Release\%20 Draft\%20 EIR_1-30-14.pdf (accessed October 2023).$ 

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. As the City's population, employment, and housing grows and development intensifies in the future, CAP Measure CS-1 would ensure that the urban forest is maintained and that additional trees are planted throughout the City. As discussed above, the CAP would not include any measures or actions that would significantly impact agricultural or forest resources. In addition, the CAP would not involve land use or zoning changes that could result in cumulative impacts related to conversion or loss of farmland or forest land. Therefore, implementation of CAP would result in *no cumulative impact* related to agricultural and forestry resources.

3	Air Quality				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Wo	ould the project:				
a.	Conflict with or obstruct implementation of the applicable air quality plan?				•
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?				
c.	Expose sensitive receptors to substantial pollutant concentrations?			•	
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			•	

#### a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The federal Clean Air Act (CAA) governs air quality in the United States and is administered by the United States Environmental Protection Agency (U.S. EPA) at the federal level. Air quality in California is also governed by regulations under the California CAA, which is administered by CARB at the State level. At the regional and local levels, local air districts typically administer the federal and California CAA. As part of implementing the federal and California CAA, the U.S. EPA and CARB have established ambient air quality standards for major pollutants at thresholds intended to protect public health. Hayward is located within the San Francisco Bay Area Air Basin (the Air Basin), which includes the nine Bay Area counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma. The Air Basin is under the jurisdiction of BAAQMD. As the local air quality management agency, BAAQMD is required to monitor air pollutant levels to ensure that State and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether or not the standards are met or exceeded, the Air Basin is classified as being in "attainment" or "nonattainment." Under State law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-attainment. BAAQMD is in nonattainment for the State and federal ozone standards, the State and federal  $PM_{2.5}$  (particulate matter up to 2.5 microns in size) standards, and the State PM<sub>10</sub> (particulate matter up to 10 microns in size) standards and is required to prepare a plan for improvement.<sup>33</sup> The sources, health effects, and typical controls associated with criteria pollutants are described in Appendix A.

<sup>&</sup>lt;sup>33</sup> Bay Area Air Quality Management District (BAAQMD). 2017. Air Quality Standards and Attainment Status. http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status (accessed October 2023).

The Bay Area 2017 Clean Air Plan provides a plan to improve Bay Area air quality and protect public health as well as the climate. The legal impetus for the Clean Air Plan is to update the most recent ozone plan, the 2010 Clean Air Plan, to comply with State air quality planning requirements as codified in the California Health and Safety Code. Although steady progress has been made toward reducing ozone levels in the Bay Area, the region continues to be designated as non-attainment for both the one-hour and eight-hour State ozone standards as noted previously. In addition, emissions of ozone precursors in the Bay Area contribute to air quality problems in neighboring air basins. Under these circumstances, State law requires the Clean Air Plan to include all feasible measures to reduce emissions of ozone precursors and reduce transport of ozone precursors to neighboring air basins.<sup>34</sup>

The Federal Clean Air Act Amendments (CAAA) mandate that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. The SIP includes pollution control measures to demonstrate how the standards will be met through those measures. The SIP is established by incorporating measures established during the preparation of Air Quality Management Plans (AQMP) and adopted rules and regulations by each local Air Pollution Control District (APCD) and AQMD, which are submitted for approval to CARB and the U.S. EPA.<sup>35</sup> The goal of an AQMP is to reduce pollutant concentrations below the NAAQS through the implementation of air pollutant emissions controls.

The CAP would not involve land use or zoning changes but would rather promote sustainable infrastructure development and redevelopment. Likewise, the CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. CAP measures and actions focus on electrification of buildings and sustainable development, increasing local renewable energy infrastructure, improving active transportation, zero emission vehicle and public transit infrastructure, and increasing urban trees. Implementation of CAP measures, such as those aimed at reducing VMT, electrifying vehicles, and reducing natural gas use through building electrification, would have co-benefits to air quality within the Air Basin. These measures would help BAAQMD meet applicable air quality plan goals, and would generally reduce air pollutant concentrations. Although the purpose and intended effect of the CAP is to reduce GHG emissions generated in Hayward to help reduce the effects of climate change, many of its measures would also reduce criteria pollutant emissions. CAP Measures BE-2, BE-3, and BE-6 involve increased energy efficiency and building electrification as part of residential, non-residential, and municipal land uses. In addition, CAP Measures T-1, T-2, and T-3 seek to reduce VMT in the City by improving active transportation and public transit facilities, while Measures T-4, T-5, and T-7 would encourage the adoption of ZEVs and low-emissions off-road vehicles and equipment by enhancing EV infrastructure. These energy- and transportation-related measures would reduce air pollutant emissions as well as GHG emissions. Therefore, the CAP and CEQA GHG Emissions Thresholds would be consistent with the 2017 Clean Air Plan and would have **no impact** related to a conflict with or obstruction of the applicable air quality plan.

<sup>&</sup>lt;sup>34</sup> BAAQMD. 2017. Final Clean Air Plan: Spare the Air Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area. Final 2017 Clean Air Plan. https://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans (accessed October 2023).

<sup>&</sup>lt;sup>35</sup> California Air Resources Board (CARB). 2022. 2022 State Strategy for the State Implementation Plan.

https://ww2.arb.ca.gov/sites/default/files/2022-08/2022\_State\_SIP\_Strategy.pdf (accessed October 2023).

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to an increase of criteria pollutants. Likewise, the CAP would not involve land use or zoning changes but would instead promote sustainable infrastructure development and redevelopment. As a policy document, the CAP would not result in impacts related to criteria pollutants. However, implementation of the CAP measures and actions discussed below may promote construction activities that would temporarily generate criteria pollutants during the construction phase.

CAP Actions BE-1.1, BE-1.2, and BE-2.1 through BE-2.3 promote electrification and decarbonization of new and existing single-family homes. Measure BE-3 encourages energy efficiency upgrades and retrofits to existing buildings and commercial and multi-family buildings. Measure T-1 would improve bicycle and pedestrian facilities throughout the City, Measures T-4, T-5, and T-7 would expand EV charging stations and supporting infrastructure. Action BE 1.6 would result in the potential expansion of the existing WPCF cogeneration facility to produce more biogas. CAP Measure WW-1 would incentivize water efficiency retrofits to existing buildings and landscaped areas. Additionally, CAP Measure CS-1 would involve the planting of new trees throughout the City. Construction-related air quality impacts are generally associated with fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) and exhaust emissions from heavy construction vehicles and soil hauling trucks, in addition to reactive organic gases that would be released during the drying phase upon application of architectural coatings. However, implementation of CAP actions would not include large-scale construction within Hayward and would involve temporary and short-term criteria pollutant emissions. As such, the CAP would result in low-level criteria pollutant emissions and negligible impacts to air quality. Through the standard review process for new development or Capital Improvement projects, CAP projects or actions would also be reviewed for consistency with BAAQMD air quality regulations and other applicable local, State, and federal regulations. Thus, the construction associated with implementation of the CAP would result in a less-than-significant impact related to net increase of criteria pollutants.

With respect to operational emissions, many of the CAP actions would have the secondary benefit of reducing criteria pollutant emissions, such as measures that would increase building energy efficiency and eliminate natural gas use in new and existing buildings, promote EVs, reduce on-road gasoline fuel use, and reduce VMT. Implementation of the CAP would be beneficial by helping Hayward meet applicable air quality plan goals. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to criteria pollutant emissions.

#### c. Would the project expose sensitive receptors to substantial pollutant concentrations?

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to exposure of sensitive receptors to substantial pollutant concentrations. Implementation of the CAP measures, as described under *Response 3b.*, promote infrastructure development and redevelopment that may result in temporary construction activities. Construction-related air quality impacts are generally associated with fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) and exhaust emissions from heavy construction

vehicles and soil hauling trucks, in addition to reactive organic gases that would be released during the drying phase upon application of architectural coatings. However, implementation of CAP measures and actions would not include large-scale construction, and construction-related emissions would be temporary. As such, implementation of the CAP could result in low-level toxic air contaminant emissions associated with construction.

While the CAP could result in construction-related impacts related to toxic air contaminants and exposure to sensitive receptors, CAP projects or actions would be reviewed for consistency with BAAQMD air quality regulations and other applicable local, State, and federal regulations through the standard development review process once project details and locations are known to ensure compliance. Thus, construction associated with implementation of the CAP are not expected to result in substantial emissions of toxic air contaminants and exposure to sensitive receptors. No operational toxic air contaminant emissions are anticipated with implementation of the CAP measures and actions. Therefore, the CAP and CEQA GHG Emissions Thresholds would have a *less-than-significant impact* related to exposure of sensitive receptors to toxic air contaminants.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The CARB 2005 Air Quality Land Use Handbook: A Community Health Perspective identifies land uses associated with odor complaints which include: sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, auto body shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations.<sup>36</sup> The CEQA GHG Emissions Thresholds would provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not have construction or operational impacts related to odors. The CAP includes Measure CS-2 that seeks to increase carbon sequestration by increasing the application of compost on appropriate lands, such as natural areas and parks. As such, the CAP could result in minor odors related to compost application. However, the location of future compost application would be selected to be complimentary to existing development in the City and would be reviewed for site specific potential odor impacts to ensure that projects implemented in accordance with the CAP would not adversely affect a substantial number of people. In addition, Action BE-6.10 would expand the capture and utilization of biogas at the existing WPCF, which could result in minor odors. However, this action would only affect the existing cogeneration facility at the WPCF, and would not involve development of biogas facilities at additional or new locations within the City that could adversely affect a substantial number of people. Therefore, the CAP would not facilitate development that could create adverse odors, and there would be *less-than-significant impacts* related to odors exposure.

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Future CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, could result in air pollutant emissions that exceed applicable BAAQMD thresholds or be

<sup>&</sup>lt;sup>36</sup> California Air Resources Control Board (CARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available: https://ww3.arb.ca.gov/ch/handbook.pdf (accessed October 2023).

inconsistent with the 2017 Clean Air Plan. However, implementation of the CAP and CEQA GHG Emissions Thresholds would have a less-than-significant contribution related to potential cumulative air quality impacts within the Air Basin and on sensitive receptors within Hayward, given that the CAP and CEQA GHG Emissions Thresholds would result in community-wide reduction of GHG emissions, energy use, single-occupancy vehicle travel, and associated air pollutant emissions. As such, implementation of the CAP and CEQA GHG Emissions Thresholds would not result in adverse impacts related to contribution of criteria pollutants to the air basin and exposure of sensitive receptors to toxic air contaminants, and could result in co-benefits to air quality within the Air Basin for the reasons outlined in *Response 3a*. above. Therefore, implementation of the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant cumulative impact* related to air quality.

## 4 Biological Resources

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
impact	Incorporated	Impact	Impact

Would the project:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

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a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Hayward is a primarily urbanized community with neighborhood parks, community parks, and recreational and open spaces incorporated throughout the City. However, the foothill areas in the eastern portion of Hayward and the Baylands area adjacent to the Hayward shoreline contain wetlands, riparian areas, woodlands, and grasslands which could provide habitat for special-status species. <sup>37</sup> In addition, migratory and nesting birds protected by Sections 3503, 3503.5, and 3513 of the California Fish and Game Code (CFGC) and the Migratory Bird Treaty Act (MBTA) may utilize trees, landscaping, and structures throughout Hayward for nesting habitat. The General Plan Natural Resources Element incorporates polices to protect biological resources, such as plants, trees, wildlife habitats, shoreline, and the species that utilize these habitats.<sup>38</sup>

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not have construction or operational impacts related to special status species and their habitats. The CAP would not involve land use or zoning changes and would instead promote sustainable infrastructure development and redevelopment. The CAP measures would not conflict with the policies of the Hayward General Plan related to wildlife but would rather be consistent with and promote those policies. CAP measures and actions would generally apply to the urbanized areas of the City, with little application to parks, open spaces area, or the undeveloped portions of the City where sensitive habitat and related species may be present. In addition, CAP Measure CS-1 facilitates the planting and maintenance of 1,000 new trees annually through 2030 and the development of new or enhanced natural areas throughout Hayward that could serve as additional habitat for special status species and migratory and nesting birds. As such, the CAP would not have a substantial adverse effect on candidate, threatened, or endangered wildlife species either directly through individual take or indirectly through species habitat modification.

As a policy document, the CAP would not directly result in impacts related to wildlife species of special status. However, implementation of some CAP actions may promote infrastructure development within the urbanized portions of the City and could result in impacts to species through construction activities. CAP Actions BE-1.1, BE-1.2, and BE-2.1 through BE-2.3 promote electrification and decarbonization of new and existing single-family homes. Measure BE-3 encourages energy efficiency upgrades and retrofits to existing buildings and commercial and multifamily buildings. Measure T-1 would improve bicycle and pedestrian facilities throughout the City, Measures T-4, T-5, and T-7 would expand EV charging stations and supporting infrastructure. Action BE 1.6 would result in the potential expansion of the existing WPCF cogeneration facility to produce more biogas. CAP Measure WW-1 would incentivize water efficiency retrofits to existing buildings and landscaped areas. These actions have the potential to disturb nesting habitat for birds and raptors protected under Sections 3503, 3503.5, and 3513 of the CFGC and under the MBTA. However, construction activities for future CAP projects would be required to comply with the provisions of the MBTA and CFGC Sections 3503, 3503.5, and 3513 in order to avoid impacts to protected birds and would be reviewed for consistency with City, State, and federal policies related

<sup>&</sup>lt;sup>37</sup> Hayward, City of. 2014. Hayward 2040 General Plan Draft EIR. http://www.hayward-

ca.gov/sites/default/files/documents/Hayward%20GPU%20Public%20Release%20Draft%20EIR\_1-30-14.pdf (accessed October 2023).

<sup>&</sup>lt;sup>38</sup> Hayward, City of. 2014. Hayward 2040 General Plan. http://www.hayward-

 $ca.gov/sites/default/files/Hayward_2040\_General\_Plan\_FINAL.pdf (accessed October 2023).$ 

to protected species. As such, the CAP and CEQA GHG Emissions Thresholds would not have a substantial adverse effect on special-status wildlife species. Therefore, the CAP would result in a *less-than-significant impact* related to special-status wildlife species.

- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As stated in *Response 4a*, Hayward contains wetlands and riparian habitat. This includes the Hayward Regional Shoreline Park, which contains 1,811 acres of marshes and seasonal wetlands on the western edge of the City, and approximately 111 acres of riparian forests on the eastern edge of the City, which include San Lorenzo Creek, Castro Valley Creek, and Ward Creek.<sup>39 40</sup>

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not have construction or operational impacts related to riparian, wetland, or other sensitive habitats. The CAP would not involve land use or zoning changes but would instead promote sustainable infrastructure development and redevelopment within urbanized areas of the city. The CAP measures would generally apply to the urbanized areas of the City, with little application to parks, open spaces area, or other locations where riparian and wetland habitat is located. CAP Measure CS-1 facilitates the planting and maintenance of 1,000 new trees annually through 2030 and the development of new or enhanced natural areas throughout Hayward, which aligns with Hayward General Plan goals related to habitat conservation. Future CAP-related projects would be required to adhere to City development regulations and Hayward General Plan policies and the HMC, including HMC Chapter 10, Article 15, Tree Preservation, to retain urban forestry and minimize environmental impacts. In addition, the location and details of future CAP projects would be reviewed for consistency with applicable local, regional, and State regulations related to sensitive habitat prior to approval. As such, the CAP would not have a substantial adverse effect on riparian habitat or a sensitive natural community, such as wetlands. Therefore, the CAP and CEQA GHG Emissions Thresholds would have a *less-than-significant impact* related to sensitive natural plant communities.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not have construction or operational impacts related to interference with species movement or wildlife nurseries. The CAP would not involve land use or zoning changes but would instead promote sustainable infrastructure development and redevelopment within urbanized portions of the City. As a policy document, the CAP would not result in direct impacts related to

<sup>&</sup>lt;sup>39</sup> Hayward, City of. 2014. Hayward 2040 General Plan Draft EIR. http://www.hayward-

ca.gov/sites/default/files/documents/Hayward%20GPU%20Public%20Release%20Draft%20EIR\_1-30-14.pdf (accessed October 2023).

<sup>&</sup>lt;sup>40</sup> Hayward, City of. 2014. Hayward 2040 General Plan Background Report. https://www.hayward-

ca.gov/sites/default/files/General\_Plan\_Update\_Background\_Report\_1-31-14.pdf (accessed October 2023).

interference with species movement or use of wildlife nursery sites. Future CAP projects would be required to adhere to City development regulations and Hayward General Plan and the HMC, including HMC Chapter 10, Article 15, Tree Preservation, and would be reviewed for consistency with applicable local, regional, and State regulations to retain urban forestry and open space and minimize environmental impacts. In addition, CAP Measure CS-1 facilitates the planting and maintenance of 1,000 new trees annually through 2030 and the development of new or enhanced natural areas throughout Hayward, which could create new natural areas to support migratory wildlife. Furthermore, the CAP actions would generally apply to the urbanized areas of Hayward with little application to parks, open spaces, or other locations where wildlife corridors or native wildlife nursery sites may be present. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to interference with species movement or wildlife nursery use.

## e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Hayward is a primarily urbanized community with neighborhood parks, community parks, and recreational spaces throughout the City. The General Plan Natural Resources Element incorporates polices to protect biological resources such as plants, trees, wildlife habitats, shoreline, and the species that utilize these habitats.<sup>41</sup> In addition, HMC Chapter 10, Article 15, Tree Preservation, establishes the City's tree preservation policy.

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not have construction or operational impacts related to biological resources. The CAP would not involve land use or zoning changes but would promote sustainable infrastructure development and redevelopment within the urbanized portion of the City. The purpose and intended effect of the CAP is to reduce GHG emissions generated in the City to help reduce the effects of climate change. Implementation of proposed CAP actions would be beneficial by helping Hayward meet applicable local policies and ordinances for protecting biological resources, including the HMC Chapter 10, Article 15, Tree Preservation. Specifically, CAP Measure CS-1 provides for the planting of and maintenance of additional trees and development of new or enhanced natural areas within the City. As such, the CAP would not conflict with or obstruct implementation of the applicable policies for preserving biological resources. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to consistency with local biological resources protection policies.

*f.* Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

No portion of Hayward is currently subject to a Habitat Conservation Plan or Natural Community Conservation Plan.<sup>42</sup> Therefore, the CAP and CEQA GHG Emissions Thresholds would have **no impact** related to consistency with an adopted habitat or natural community conservation plan.

<sup>&</sup>lt;sup>41</sup> Hayward, City of. 2014. Hayward 2040 General Plan. http://www.hayward-

 $ca.gov/sites/default/files/Hayward_2040\_General\_Plan\_FINAL.pdf (accessed October 2023).$ 

<sup>&</sup>lt;sup>42</sup> California Department of Fish and Wildlife (CDFW). 2019. Natural Community Conservation Plans. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline (accessed October 2023).

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Implementation of future CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, could result in impacts to biological resources during infrastructure and building construction. However, as described in *Responses 4a*. through *4f*., above, infrastructure development or redevelopment resulting from implementation of the CAP would be required to comply with applicable Hayward General Plan policies and State and federal regulatory requirements regarding avoidance of special wildlife species and habitat. In addition, the CAP would not result in new building construction and contains actions that prioritize the preservation of trees, improvements to existing habitat, and development of new natural areas. Therefore, implementation of the CAP would result in a *less-than-significant cumulative impact* related to biological resources.

## 5 Cultural Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:	Would the project:				
	tial adverse change in the historical resource 064.5?			•	
	tial adverse change in the n archaeological resource 064.5?			•	
c. Disturb any hum those interred o cemeteries?	an remains, including utside of formal			•	

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

The Hayward General Plan Draft EIR identifies 20 historic-aged properties officially designated as historical resources.<sup>43</sup> The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to historical resources. The CAP would not involve land use or zoning changes but would promote infrastructure development and redevelopment that would be complimentary to existing development. CAP projects would be required to comply with Hayward 2040 General Plan Land Use and Community Character Element goals and policies related to the preservation of historic resources, including Policy LU-8.14 which prohibits the demolition of historic resources unless rehabilitation is infeasible, demolition is necessary for public health, or public benefits of demolition outweigh the loss of a public resource. CAP projects and actions would be reviewed for compliance with applicable local, regional, and State regulations regarding cultural resources and the Hayward 2040 General Plan Land Use and Community Character Element to avoid adverse impacts related to historic resources. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to historical resources.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in impacts related to archaeological resources. There is a possibility for archaeological sites not previously recorded to be present in areas where CAP projects could occur.

<sup>43</sup> Hayward, City of. 2014. Hayward 2040 General Plan Draft EIR. http://www.hayward-

ca.gov/sites/default/files/documents/Hayward%20GPU%20Public%20Release%20Draft%20EIR\_1-30-14.pdf (accessed October 2023).

In particular, CAP Measures BE-1, BE-2, BE-3, BE-6, T-1, T-4, T-5, T-7, and CS-1 would result in smallscale construction that may expose previously undiscovered archaeological resources during ground disturbing activities. The CAP projects would be located and designed strategically to reduce ground disturbance to the maximum extent possible. In addition, CAP projects and actions would be reviewed for consistency with applicable local, regional, and State archeological regulations prior to final siting and construction and would be required to implement best management practices (BMPs) if development would occur in an archaeologically sensitive area, as defined by HMC Section 10-11.150, which requires archaeological monitoring and a stop work order if unanticipated archaeological resources are discovered. As such, archeological resources would be protected prior to and/or upon discovery and, thus, impacts would be reduced to a minimal level. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to archaeological resources.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not have impacts related to human remains. There is a possibility of encountering unknown buried human remains throughout the City where future CAP projects could occur. In particular, CAP Measures BE-1, BE-2, BE-3, BE-6, T-1, T-4, T-5, T-7, and CS-1 would result in small-scale construction that may expose unknown human burial sites ground disturbing activities. CAP projects and actions would be required to comply with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98 regulations related to burial findings, including notification, assessment, and treatment of burial sites. Therefore, the CAP would result in a *less-than-significant impact* related to human remains.

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Implementation of future CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, would include infrastructure that could have an impact on cultural resources during construction. Additionally, there is a possibility of encountering buried archaeological deposits and human remains throughout the City. Impacts to historic and archaeological resources and human remains are generally site-specific. Accordingly, potential impacts associated with cumulative developments would be addressed on a case-by-case basis. In addition, future projects in the City, including those associated with implementation of the CAP, would be required to comply with the City's policies and programs that require the identification and protection of sites and structures of architectural, historical, archaeological, and cultural significance in order to avoid impacts related to cultural resources. Therefore, implementation of the CAP would result in a *less-than-significant cumulative impact* related to cultural resources.

6	Energy				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:					
a.	Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				•
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				•

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

California is one of the lowest per-capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate.<sup>44</sup> California consumed 287,826 gigawatt-hours (GWh) of electricity in 2022 and 11,710 million therms of natural gas in 2022.<sup>45,46</sup> The single largest end-use sector for energy consumption in California is transportation (37.8 percent), followed by industrial (23.2 percent), residential (20.0 percent) and commercial (19.0 percent).<sup>47</sup> The City of Hayward has demonstrated its commitment to energy efficiency and renewable energy through many efforts, as described in the *Existing Sustainability Setting* section above. The City has adopted the Hayward Reach Code that modifies CALGreen to require that all new residential buildings be constructed as all-electric and that projects install EV charging infrastructure above and beyond the CALGreen requirements. The City completed a communitywide GHG emissions inventory for 2019, which is summarized in Table 1. Transportation (specifically passenger on-road and commercial on-road) and building energy use (specifically residential and commercial/industrial natural gas use) were responsible for the most GHG emissions within Hayward in 2019. Passenger and commercial vehicles in Hayward accounted for 937,000,000 VMT in 2019. Residential, non-residential, and other electricity use in Hayward totaled 750,646,369 kWh in 2019. Residential and non-residential natural gas use in Hayward totaled 33,264,056 therms in 2019.48 The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not

<sup>48</sup> Hayward, City of. 2023. Draft Climate Action Plan Appendix C.

<sup>&</sup>lt;sup>44</sup> United States Energy Information Administration (USEIA). 2023. California - Profile Overview. April 20, 2023. https://www.eia.gov/state/?sid=CA (accessed October 2023).

<sup>&</sup>lt;sup>45</sup> California Energy Commission (CEC). 2023. Electricity Consumption by County. http://www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed October 2023).

<sup>&</sup>lt;sup>46</sup> California Energy Commission (CEC). 2023. Gas Consumption by County. http://www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed October 2023).

<sup>&</sup>lt;sup>47</sup> United States Energy Information Administration (USEIA). 2023. California - Profile Overview. April 20, 2023. https://www.eia.gov/state/?sid=CA (accessed October 2023).

propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to wasteful consumption of energy resources. The CAP is a policy document containing climate action measures to reduce communitywide GHG emissions. The CAP would encourage energy efficiency in the City's existing building stock through new policies and educational campaigns as well as new requirements for proposed new buildings through CAP Measures BE-1, BE-2, and BE-3. The CAP would also promote increased renewable energy production within the City through Measure BE-4 and Action BE 1.6, which would increase biogas produced at the WPCF cogeneration facility. Additionally, the CAP attempts to reduce transportation-related energy consumption by increasing active transportation and public transit use and reducing VMT through Measures T-1, T-2, and T-3.

Implementation of some CAP measures would require small-scale construction. However, energy use for the construction of such projects would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of CCR Title 13 Sections 2449 and 2485, which would minimize unnecessary fuel consumption. Construction equipment would be subject to the U.S. EPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Furthermore, per applicable regulatory requirements such as the 2022 CALGreen, future infrastructure projects would comply with construction waste management practices to divert a minimum of 65 percent of construction and demolition debris. These practices would result in efficient use of energy necessary to construct CAP-related projects. Upon completion of construction for any CAP-related infrastructure development and redevelopment, non-renewable energy use would be reduced by increasing renewable energy production and storage and reducing VMT and energy use within the City.

The purpose and intended effect of the CAP is to reduce GHG emissions generated within Hayward to minimize the effects of climate change, including those emissions generated by energy demand and supply. The CAP would not result in the use of non-renewable resources in a wasteful or inefficient manner; rather, it would assist in reducing use of non-renewable energy resources and increasing the production of local renewable energy. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to the wasteful, inefficient, or unnecessary consumption of energy.

# b. Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Relevant plans and policies that aim to increase energy efficiency and the production of renewable energy include SB 1020, the 2022 CALGreen (Title 24 Part 11), and the 2022 California Building Energy Efficiency Standards (Title 24 Part 6). SB 1020 supports the reduction of GHG emissions from the electricity sector by accelerating the State's RPS Program and requires electricity providers to increase procurement from eligible renewable energy resources to 90 percent of total retail sales by 2035, 95 percent by 2040, and 100 percent by 2045. CALGreen (Title 24 Part 11) institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures and the Hayward Reach Code builds upon and exceeds the requirements of CALGreen. In addition, the California Building Energy Efficiency Standards (Title 24 Part 6) establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy demand. CCR Title 24 (Parts 6 and 11) is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major renovations must demonstrate their compliance with the current Building Energy Efficiency Standards through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC.

Hayward is part of the Ava Community Energy community choice aggregate, which provides electricity primarily from clean, renewable sources. Hayward would continue to reduce its use of nonrenewable energy resources as the electricity generated by renewable resources provided by Ava Community Energy continues to increase to comply with State requirements through SB 1020. The CAP includes measures and actions to reduce electricity use and increase production of renewable energy, as discussed further below, and would therefore align with the overall intent of SB 1020.

In addition, construction and operation associated with infrastructure projects stemming from the CAP would be designed to comply with the energy source standards of the CALGreen and the Hayward Reach Code and the California Building Energy Efficiency Standards. Future CAP projects would be required to demonstrate compliance with the CALGreen, California Building Energy Efficiency, and Hayward Reach Code Standards by implementing sustainability and energy efficiency measures such as high-efficiency lighting and HVAC systems, low-flow water fixtures, dual-paned windows, and water efficient landscaping and irrigation systems. Compliance with these regulations would minimize potential conflicts with adopted energy conservation plans.

The CEQA GHG Emissions Thresholds provide guidance during CEQA review and do not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in conflicts with renewable energy plans. As discussed under *Response 6a.*, above, Measures BE-1, BE-2, and BE-3 seek to decrease natural gas and energy consumption in new and existing buildings by requiring electrification and decarbonization, while Measure BE-4 encourages the production and use of local renewable energy. Additionally, Action BE 1.6 would result in the potential expansion of the existing WPCF cogeneration facility to produce more biogas. These measures and actions are consistent with the goals and policies established by SB 1020, CALGreen, and the California Building Energy Efficiency Standards. Thus, the CAP and CEQA GHG Emissions Thresholds would not conflict with adopted renewable energy or energy conservation plans and there would be *no impact*.

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Implementation of the CAP would result in reduced use of non-renewable energy resources across the community, in particular with requirements for retrofitted and new buildings and new infrastructure. Implementation of the CAP would also increase the production of renewable energy within the City by incentivizing the inclusion of small-scale solar projects in new development and on existing municipal facilities. Additionally, the CAP includes measures to increase the use of active transportation and public transit and reduce VMT within the City, which would reduce transportation fuel use. As the City's population grows and development intensifies in the future, actions contained within the CAP would ensure that planned new development is constructed to strict energy efficiency standards and that VMT is reduced. As the CAP would result in decreased non-renewable energy use within the City and would align with existing plans and policies related to renewable energy and energy efficiency, implementation of the CAP would result in *no cumulative impact* related to energy.

# 7 Geology and Soils

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Wo	Would the project:				
a.	Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:				
	<ol> <li>Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?</li> </ol>				-
	2. Strong seismic ground shaking?				•
	<ol><li>Seismic-related ground failure, including liquefaction?</li></ol>				•
	4. Landslides?				•
b.	Result in substantial soil erosion or the loss of topsoil?			-	
C.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			-	
d.	Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			•	
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
  - 2. Strong seismic ground shaking?
  - 3. Seismic-related ground failure, including liquefaction?
  - 4. Landslides?

Hayward is located in a seismic hazard zone and there are multiple active faults within the vicinity of the City that could cause seismic-related impacts. In addition, the Hayward Fault Zone, delineated on the Alquist-Priolo Earthquake Fault Zoning Map, traverses Hayward northwest to southeast.<sup>49</sup> Approximately, half of Hayward is designated as a hazard zone for liquefaction, and the hilly, eastern portion of Hayward contains landslide hazard zones.<sup>50</sup>

Although Hayward is at risk of earthquake-induced ground shaking and associated hazards, the CAP is a policy document containing measures and supporting actions to reduce GHG emissions. The CAP does not propose habitable development or policies that could result in exposure of people to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides. Likewise, the CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to seismic- and landslide-related hazards.

#### b. Would the project result in substantial soil erosion or the loss of topsoil?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to substantial loss of topsoil. The CAP would not involve land use or zoning changes but would promote sustainable infrastructure development and redevelopment. As a policy document, the CAP would not directly require ground-disturbing activities. However, implementation of several CAP measures, such as CAP Measures BE-1, BE-2, BE-3, BE-6, T-1, T-4, T-5, T-7, and CS-1 may result in small-scale construction activities that could cause soil erosion or the loss of topsoil during construction.

CAP projects and actions would be reviewed for consistency with Hayward General Plan and HMC and other local and State erosion and grading regulations prior to final siting and construction. The potential for CAP project construction activities involving soil disturbance to result in increased erosion and sediment transport by stormwater to surface waters would be minimized through compliance with HMC Chapter 10, Article 8, which includes erosion and sediment control standards,

<sup>&</sup>lt;sup>49</sup> Hayward, City of. 2014. Hayward 2040 General Plan Draft EIR. http://www.hayward-

ca.gov/sites/default/files/documents/Hayward%20GPU%20Public%20Release%20Draft%20EIR\_1-30-14.pdf (accessed October 2023). <sup>50</sup> Hayward, City of. 2014. Hayward 2040 General Plan Draft EIR. http://www.hayward-

ca.gov/sites/default/files/documents/Hayward%20GPU%20Public%20Release%20Draft%20EIR\_1-30-14.pdf (accessed October 2023).

and/or the National Pollutant Discharge Elimination System (NPDES) Construction General Permit provided by the Regional Water Quality Control Board. These regulations require BMPs such as the covering of graded slopes and stockpiled materials, storm drain protection, and use of fiber rolls and silt fences to reduce erosion and topsoil loss from stormwater runoff. Compliance with these regulations would ensure that BMPs are implemented during construction and that soil erosion and the loss of topsoil are minimized. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to soil erosion and loss of topsoil.

- c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
- d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

According to the Hayward 2040 General Plan Draft EIR, approximately 50 percent of Hayward is within a liquefaction hazard area.<sup>51</sup> Most of Hayward is characterized by low to no potential for landslides, other than the hillside areas in the eastern portions of the City. Expansive soils are known to be present in Hayward.<sup>52</sup> The Hayward 2040 General Plan Hazards Element, HMC, and California Building Code (CBC) contain regulations for structural design and soil hazards in order to mitigate potential impacts related to unstable soils.

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to project location on an unstable geologic unit or soil. The CAP is a policy document containing programs that are consistent with the Hayward 2040 General Plan. Some of the proposed policies in the CAP would support small-scale construction projects, such as EV charging stations. However, CAP projects and actions would be reviewed for consistency with local and State geotechnical regulations prior to final siting and construction. New structures would be required to comply with the CBC, including measures to address unstable soil conditions. Therefore, the CAP would result in a *less-than-significant impact* related to risks associated with location on unstable geologic unit or soil or on expansive soils.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The CAP and CEQA GHG Emissions Thresholds would not involve the development of habitable structures and, thus, no use of septic tanks or alternative wastewater disposal systems. Therefore, *no impact* would occur related to soil capability support of alternative wastewater disposal systems.

<sup>&</sup>lt;sup>51</sup> Hayward, City of. 2014. Hayward 2040 General Plan Draft EIR. http://www.hayward-

ca.gov/sites/default/files/documents/Hayward%20GPU%20Public%20Release%20Draft%20EIR\_1-30-14.pdf (accessed October 2023).

<sup>&</sup>lt;sup>52</sup> Hayward, City of. 2014. Hayward 2040 General Plan Background Report. https://www.hayward-

ca.gov/sites/default/files/General\_Plan\_Update\_Background\_Report\_1-31-14.pdf (accessed October 2023).

# *f.* Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to paleontological resources. The CAP would not involve land use or zoning changes that would encourage new development but would instead promote sustainable development and redevelopment. As a policy document, the CAP would not directly result in impacts related to paleontological resources or unique geologic features. CAP policies that would involve construction activities, such as the policies related to building energy-efficiency, renewable energy production, and EV charging infrastructure, would involve work within existing, previously graded and disturbed areas where the likelihood of encountering intact and previously undiscovered paleontological resources would be minimal. Nonetheless, there is a possibility that these small-scale construction projects may expose paleontological resources during ground disturbing activities. To reduce such risks, CAP projects and actions would be reviewed for consistency with geotechnical and paleontological regulations prior to final siting and construction. CAP projects would be required to minimize impacts to paleontological resources in accordance with the Hayward 2040 General Plan Policies NR-7.1 and NR-7.2 which prohibit development that damages or destroys paleontological resources and requires a stop-work order of paleontological resources are dissevered during construction.<sup>53</sup> In addition, the CAP projects would be located and designed strategically to reduce ground disturbance to the maximum extent possible. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to paleontological resources and unique geologic features.

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Future CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, could expose additional people and property to the seismic and geologic hazards that are present in the region. The magnitude of geologic hazards for individual projects, including those associated with implementation of the CAP, would depend upon the location, type, and size of development and the specific hazards associated with individual sites. Specific geologic hazards associated with individual project sites would be limited to those sites without affecting other areas. Similarly, potential impacts to paleontological resources associated with each individual site would be limited to that site without affecting other areas, and impacts related to these resources would be minimized on a case-by-case basis. Compliance with existing regulations, including CBC requirements, City-issued permit requirements, the Hayward 2040 General Plan, and the HMC, would minimize potential cumulative seismic and geologic impacts. Seismic and geologic hazards and paleontological resources impacts would be addressed on a case-by-case basis and would not result in cumulative impacts. Therefore, implementation of the CAP would result in a less-thansignificant cumulative impact related to geology and soils.

<sup>&</sup>lt;sup>53</sup> Hayward, City of. 2014. 2040 General Plan. http://www.hayward-ca.gov/sites/default/files/Hayward\_2040\_General\_Plan\_FINAL.pdf (accessed October 2023).

## 8 Greenhouse Gas Emissions

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			•	
b.	Conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases?				

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

The greenhouse effect is a natural occurrence that helps regulate the temperature of the Earth. The majority of radiation from the sun hits Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions. This process is essential to support life on Earth, because it warms the planet by approximately 60 degrees Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 270 years ago) have been adding to the natural greenhouse effect by resulting in increased gases in the atmosphere that trap heat and contribute to an average increase in Earth's temperature. Global warming is the observed increase in the average temperature of the Earth's surface, and climate change is the resultant change in wind patterns, precipitation, and storms over an extended period.

GHGs produced by human activities include CO2, methane (CH4), nitrous oxide (N2O), hydroflourocarcons, perfluorinated compound, and sulfur hexafluoride.<sup>54</sup> Combustion of fossil fuels (gasoline, natural gas, and coal), deforestation, and decomposition of waste release carbon into the atmosphere that had been locked underground and stored in oil, gas, and other hydrocarbon deposits or in the biomass of surface vegetation. Since 1750, estimated concentrations of CO2, CH4, and N2O in the atmosphere have increased by over 36 percent, 148 percent, and 18 percent respectively, primarily due to human activity. Emissions of GHGs affect the atmosphere directly by changing its chemical composition.

Changes to the land surface also indirectly affect the atmosphere by changing the way in which Earth absorbs gases from the atmosphere. Potential impacts in California due to climate change include sea level rise, more extreme-heat days and high-ozone days, larger and more frequent

<sup>&</sup>lt;sup>54</sup> The CAP only considers emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, because these are the GHGs most relevant to local government policymaking. These gases comprise a large majority of GHG emissions at the community level. The remaining gases are emitted primarily in private sector manufacturing and electricity transmission and are the subject of regulation at the State level. Therefore, these gases were omitted from the CAP.

forest fires, and more frequent and severe drought years.<sup>55</sup> Although GHG emissions do not typically cause direct health impacts at a local level, GHG emissions can result in indirect health impacts by contributing to climate change, which can have public health implications. The primary public health impacts of climate change include the following: <sup>56</sup>

- Increased incidences of hospitalization and deaths due to increased incidences of extreme heat events;
- Increased incidences of health impacts related to ground-level ozone pollution due to increased average temperatures that facilitate ozone formation;
- Increased incidences of respiratory illnesses from wildfire smoke due to increased incidences of wildfires;
- Increased vector-borne diseases due to the growing extent of warm climates; and
- Increased stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.

Hayward has completed a communitywide GHG emissions inventory for 2019, which is summarized in Table 1. The transportation sector was the largest contributor to Hayward's GHG emissions, followed by the energy sector. Figure 3 summarizes the communitywide GHG emissions forecast under three scenarios: 1) BAU, 2) BAU projections with State measures, and 3) the City of Hayward target reduction path along with State measures. As shown therein, under the BAU scenario, communitywide GHG emissions are forecasted to increase to approximately 4.47 MT of CO<sub>2</sub>e per capita by the year 2030, based on anticipated economic and population growth. However, with implementation of State laws and programs, communitywide GHG emissions would decline to approximately 3.84 of CO<sub>2</sub>e per capita by 2030. Furthermore, implementation of the CAP alongside State laws and programs would reduce communitywide GHG emissions to approximately 3.11 MT of CO<sub>2</sub>e per capita by 2030.

The measures included in the CAP combined with State-wide legislation and initiatives and Countywide transportation programs would enable the City to meet its per capita emissions reduction target of 55 percent below 2005 levels (equivalent to 40 percent below 1990 levels) by 2030. The City needs to achieve a GHG emissions reduction from 2030 BAU levels of 0.72 MT of CO<sub>2</sub>e per person to meet the SB 32 target. The estimated per capita GHG reductions from 2030 BAU levels that would be achieved by the CAP along with State-wide legislation and initiatives total 0.73 MT of CO<sub>2</sub>e per capita by 2030 and would exceed the SB 32 requirements. Because SB 32 is considered an interim target toward meeting the 2045 State goal of carbon neutrality, implementation of the CAP would also be considered substantial progress toward meeting the State's long-term 2045 goal. Avoiding interference with and making substantial progress toward these long-term State targets are important, because these targets have been set at levels that achieve California's fair share of international emissions reduction targets that will stabilize global climate change effects and help avoid the associated adverse environmental consequences.

The CAP includes a list of 18 measures intended to reduce communitywide GHG emissions. Implementation of the CAP would result in the reduction of communitywide and per capita operational GHG emissions, while only generating temporary GHG emissions during construction of

<sup>&</sup>lt;sup>55</sup> CARB and California Environmental Protection Agency (CalEPA). 2009. Environmental Health and Equity Impacts from Climate Change and Mitigation Policies in California: A Review of the Literature.

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.386.4605&rep=rep1&type=pdf (accessed October 2023).

<sup>&</sup>lt;sup>56</sup> California Natural Resources Agency. 2018. California's Fourth Climate Change Assessment Statewide Summary Report. http://www.climateassessment.ca.gov/state/ (accessed October 2023).

infrastructure such as EV charging stations and building energy and water efficiency upgrades. Additionally, the CAP would serve as a pathway to reduce GHG emissions and introduce other beneficial environmental and sustainability effects. The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning and, thus, would not result in construction or operational impacts related to GHG emissions. The CEQA GHG Emissions Thresholds would establish GHG emissions targets and analysis methodologies consistent with the goals established by the CAP that are enforced during CEQA review with the intention of reducing GHG emissions associated with construction and operation of future projects and plans in Hayward. These benefits include reduction in building energy consumption, vehicle miles traveled (and thus air pollution), and solid waste generation. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to generation of GHG emissions.

*b.* Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The CARB 2022 Climate Change Scoping Plan outlines a pathway to achieving the 2045 carbon neutrality goal established by EO B-55-18. The CAP and CEQA GHG Emissions Thresholds are policy-level documents that establish measures and policies to reduce GHG emissions within Hayward in an effort to comply with State regulations. As discussed under *Response 8a*. above, the CAP includes measures that would reduce Hayward GHG emissions from forecasted BAU levels to approximately 3.11 MT of CO<sub>2</sub>e per capita by 2030. The purpose of the CAP is to meet Hayward's proportionate fair share of the Statewide GHG emissions reduction target set by SB 32 and work toward the State's longer-term target of carbon neutrality identified by the 2022 Scoping Plan and California Executive Order B-55-18.

The CAP would not conflict with any applicable GHG reduction plans, including the CARB 2022 Climate Change Scoping Plan. The CAP identifies how Hayward would achieve consistency with the Statewide GHG emissions reduction goals. The CAP would serve as a pathway to reduce GHG emissions and introduce other beneficial environmental and sustainability effects. These benefits include reduction in building energy consumption, VMT (and thus air pollution), and solid waste generation. Likewise, the CEQA GHG Emissions Thresholds would establish GHG emissions targets and analysis methodologies consistent with the CAP and would be enforced during CEQA review with the intention of reducing GHG emissions associated with construction and operation of future projects and plans in Hayward. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a **no impact** related to consistency with applicable GHG emissions reduction plans, policies, and regulations.

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Analyses of GHG emissions and climate change are cumulative in nature, as they affect the accumulation of GHG emissions in the atmosphere. Cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth and that exceed the proposed CEQA GHG Emissions Thresholds would have a significant impact related to GHG emissions and climate change, both individually and cumulatively. The CAP creates a GHG emissions reduction strategy (consistent with Section 15183.5 of the CEQA Guidelines) for Hayward. The CAP also includes a series of actions that are intended to reduce per capita GHG

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emissions by approximately 55 percent below 2005 levels (equivalent to 40 percent below 1990 levels) by 2030, which provides substantial progress toward Hayward meeting State goals. As such, the CAP would result in the reduction of GHG emissions rather than generating GHG emissions. Some GHG emissions would occur during future construction of CAP-related infrastructure projects; however, these emissions would be temporary and minor in nature. Therefore, implementation of the CAP would result in a *less-than-significant cumulative impact* related to GHG emissions.

# 9 Hazards and Hazardous Materials

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Wo	ould the project:				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			•	
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?			•	
d.	Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			•	
e.	For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				•
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?				■

- a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to hazardous materials. The CAP is a policy document containing measures and actions to reduce GHG emissions. The CAP does not involve identified site-specific development and, for the most part, it would not facilitate new development that would involve the routine use of hazardous materials. Implementation of some of the CAP actions, such as energy and water efficiency retrofits and installation of EV charging stations, would require construction activities. Construction would involve the temporary use of hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. However, these types of materials are not considered acutely hazardous, and storage, handling, and disposal of these materials are regulated by the California Department of Toxic Substances Control, the U.S. EPA, and the Occupational Safety & Health Administration. In addition, standard construction BMPs for the use and handling of such materials would avoid or reduce the potential for such conditions to occur. Any use of potentially hazardous materials during construction of projects would comply with all local, State, and federal regulations regarding the handling of potentially hazardous materials, including Title 49 of the Code of Federal Regulations and Title 22, Division 4.5 of the CCR. Risk of spills would cease after construction is completed. Therefore, construction activities related to CAP actions would not be anticipated to create upset and accident conditions involving the release of hazardous materials, and operation of the majority of CAP actions would not involve the routine transport, use, or disposal of hazardous materials during operation.

CAP Measure BE-6 emphasizes increasing local renewable energy production and storage within the City by encouraging new developments to include small-scale solar systems and battery storage in their design. Lithium-ion batteries, the typical battery technology used in battery storage systems, may pose a risk of upset and accidental release of hazardous chemicals contained within the batteries (e.g., in the event of a fire). Lithium-ion technology is a common battery storage medium and is considered one of the safest and most efficient methods of energy storage on the market. During normal operation, lithium-ion batteries do not represent a risk to off-site receptors, and safety standards applicable to energy storage facilities and safety certification tests established by independent bodies, such as Underwriters Laboratories, National Fire Protection Association, and International Electrotechnical Commission would prevent any reasonable possibility of a substantial adverse effect on the environment related to the lithium-ion batteries. However, in the unlikely event of a fire, there is a risk of the accidental release of hazardous materials associated with renewable energy systems. Any future proposed renewable energy systems would, therefore, be carefully reviewed for appropriate locations, safety measures, and consistency with the Hayward 2040 General Plan, HMC, and applicable local, State, and federal regulations. Thus, establishment of such production and storage facilities would be subject to site specific review and approval by the Hayward Fire Department, Hazardous Materials Division, and Building Division and would be required to comply with all applicable safety standards. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a less-than-significant impact related to creating a significant

hazard through the routine transport, use, or disposal of hazardous materials and reasonably foreseeable upset and accident conditions involving the release of hazardous materials.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to handling hazardous materials in the vicinity of schools. The CAP is a policy document containing measures to reduce GHG emissions. The CAP does not include site-specific proposals and development. Implementing some CAP actions may require future development or improvements, such as EV charging stations and building improvements related to energy efficiency. However, CAP projects and actions would be reviewed to ensure the appropriate location of projects in relation to existing development in the City and would be reviewed for consistency with the Hayward 2040 General Plan, HMC, and applicable local, State, and federal regulations. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to handling of hazardous materials in proximity to schools.

d. Would the project be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to project site location on a site listed on a hazardous material site. The CAP is a policy document containing measures and supporting actions to reduce GHG emissions. The CAP does not include site-specific proposals and development, but CAP measures could result in projects that could be located on listed hazardous materials sites. However, CAP projects and actions would be reviewed for consistency with the Hayward 2040 General Plan, HMC, and would be required to comply with applicable local, State, and federal regulations related to hazardous materials sites. Therefore, the CAP would result in a *less-than-significant impact* related to location on a listed hazardous materials site.

e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Hayward contains one airport, the Hayward Executive Airport, located in the northwest portion of the City. The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to airport hazards. Furthermore, the CAP is a policy document that would not increase airport activity or result in additional habitable development or commercial development that could increase potential exposure of residents and employees to aircraft-related hazards. CAP-related projects that could occur within the influence area zones of the Hayward Executive Airport would be subject to the policies of the Hayward Executive Airport Land Use Compatibility Plan.<sup>57</sup>Therefore, the CAP and

<sup>&</sup>lt;sup>57</sup> Alameda, County of. 2012. Hayward Executive Airport Land Use Compatibility Plan. https://www.acgov.org/cda/planning/generalplans/documents/Cover\_HWD\_ALUC2012.pdf (accessed October 2023).

CEQA GHG Emissions Thresholds would result in a *no impact* related to risks associated with location proximate to a public airport.

*f.* Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The CAP and CEQA GHG Emissions Thresholds are policy documents intended to reduce GHG emissions. The proposed CAP and CEQA GHG Emissions Thresholds do not involve site-specific development, nor would they facilitate new development that would interfere with adopted emergency plans. Implementation of some CAP measures may involve construction within the local right-of-way. Construction activities have the potential to require lane closures and may impact traffic and vehicle speeds on the affected roadways; however, these impacts would be temporary and access to roadways would be maintained throughout project construction. Furthermore, future projects involving work in the public right-of-way would be required to coordinate with the City through the encroachment permit review and permitting process to ensure appropriate construction staging and adequate vehicular and pedestrian access on adjacent roadways and that emergency evacuation routes would not be substantially impacted. In addition, CAP Measure BE-6 would expand renewable energy and battery storage in City buildings and critical facilities to provide resilience at critical facilities, such as police and fire departments. This would improve the City's ability to respond to emergency events. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to impairment or interference with implementation of an emergency response or evacuation plan.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

According to the Hayward 2040 General Plan Hazards Element, wildfire poses a high risk to portions of Hayward at the urban-wildland fringe in the eastern portion of the City. These areas are concentrated in the east of the City at hillsides.<sup>58</sup> The CAP and CEQA GHG Emissions Thresholds do not propose specific development or new residential or commercial land uses that could be subject to wildland fire, nor would they result other physical changes to the environment that could increase the risk of a wildland fire. Furthermore, CAP Action CS 1.13 would help to reduce community vulnerability to wildfires by identifying locations for wildfire defense and risk reduction to be incorporated into comprehensive wildfire planning at regional, county, City, and community levels. In addition, the CAP does not propose specific development or new residential or commercial land uses that could be exposed to wildland fire. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to risks associated with exposure to wildland fires.

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Hazards and hazardous materials impacts are typically site-specific in nature. Future CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, are not anticipated to contribute to cumulative hazards and hazardous materials impacts with adherence to

<sup>&</sup>lt;sup>58</sup> Hayward, City of. 2014. Hayward 2040 General Plan Policy Document. July 2014. https://www.hayward-ca.gov/sites/default/files/Hayward\_2040\_General\_Plan\_FINAL.pdf (accessed September 2023).

applicable Hayward 2040 General Plan policies and federal, State, and local regulatory requirements. Therefore, implementation of the CAP would result in a *less-than-significant cumulative impact* related to hazards and hazardous materials.

# 10 Hydrology and Water Quality

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Wo	ould the project:				
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?				
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				
C.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			Π	-
	<ul><li>(i) Result in substantial erosion or siltation on- or off-site;</li></ul>				-
	<ul> <li>(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;</li> </ul>				
	(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				
	(iv) Impede or redirect flood flows?				-
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			•	
е.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				•

## a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The CEQA GHG Emissions Thresholds is a guidance document as does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to water quality standards. The CAP is a policy document containing actions intended to reduce GHG emissions within Hayward. CAP Actions BE-1.1, BE-1.2, BE-2.1 through BE-2.3 promote electrification and decarbonization of new and existing single-family homes. Measure BE-3 encourages energy efficiency upgrades and retrofits to existing buildings and commercial and multi-family buildings. Measure T-1 would improve bicycle and pedestrian facilities throughout the City, Measures T-4, T-5, and T-7 would expand EV charging stations and supporting infrastructure. CAP Measure WW-1 would incentivize water efficiency retrofits to existing buildings and landscaped areas. Additionally, Action BE 1.6 would result in the potential expansion of the existing WPCF cogeneration facility to produce more biogas. These actions may result in small scale construction activities in the future that could result in temporary water quality impacts due to soil erosion and ground disturbance, as further discussed under *Response 10c* in Section 7, *Geology and Soils*.

However, CAP projects and actions would be reviewed for consistency with local and State regulations, including the NPDES permitting program that requires implementation of Stormwater Pollution Prevention Plans (SWPPPs), as applicable, and the HMC Chapter 10, Article 8, that include erosion and sediment control standards. These regulations require BMPs to reduce water quality impacts from construction activities. Compliance with the HMC Chapter 10, Article 8 and/or NPDES permitting program would ensure that BMPs are implemented during construction to minimize potential impacts to surface and groundwater quality. As such, the CAP's related infrastructure and retrofit projects would not result in new or different wastewater discharge that would violate water quality standards, waste discharge requirements, or otherwise degrade surface or groundwater quality. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in Hayward.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to groundwater supplies. The CAP is a policy document containing measures intended to reduce GHG emissions and increase sustainability. CAP Measure WW-1 seeks to decrease community water use by 15 percent in 2030. Reduced water use within the City would aid in maintaining groundwater supplies. CAP Measure CS-1 would facilitate the expansion of the urban forest and greenspaces and development of new and enhanced natural areas within Hayward. Increased greenspace and natural areas would increase pervious surfaces in Hayward for improved groundwater recharge. Implementation of other CAP measures, such as improved EV charging infrastructure and building energy efficiency retrofits, would not substantially degrade groundwater quality or recharge or result in increased groundwater demand. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to impedance of sustainable groundwater management.

- c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - Result in substantial erosion or siltation on- or off-site?
  - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
  - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
  - Impede or redirect flood flows?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to alterations in drainage patterns and impervious surfaces. Implementation of several CAP measures may promote infrastructure development and small-scale construction activities within Hayward. CAP Actions BE-1.1, BE-1.2, and BE-2.1 through BE-2.3 promote electrification and decarbonization of existing single-family homes. Measure BE-3 encourages energy efficiency upgrades and retrofits to existing buildings and commercial and multi-family buildings. Measure T-1 would improve bicycle and pedestrian facilities throughout the City, Measures T-4, T-5, and T-7 would expand EV charging stations and supporting infrastructure. CAP Measure WW-1 would incentivize water efficiency retrofits to existing buildings and landscaped areas. Additionally, CAP Action BE 1.6 would result in the potential expansion of the existing WPCF cogeneration facility to produce more biogas.

Implementation of these CAP actions would primarily occur within previously developed areas and would not result in substantial alterations to Hayward's existing drainage patterns and amount of impervious surface. Construction of CAP projects could result in erosion as discussed in Section 7, *Geology and Soils*. However, impacts to drainage and water quality during construction would be minimized through the implementation of BMPs as required by the HMC Chapter 10, Article 8 and/or NPDES Construction General Permit program. In addition, CAP projects would be developed in accordance with the Hayward 2040 General Plan, which includes goals and policies for the protection and preservation of creeks, streams, and groundwater within Hayward.<sup>59</sup> Furthermore, CAP Measure CS-1 would increase permeable surfaces in Hayward, which would improve drainage and water quality. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *no impact* related to the alteration of existing drainage patterns.

d. Would the project result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Hayward is not located within designated seiche hazard zone<sup>60</sup>. Western portions of the Hayward are located within a tsunami hazard zone<sup>61</sup>. Portions of Hayward are within Flood Hazard Zones A and AE as defined by the Federal Emergency Management Agency (FEMA), and the City also

<sup>&</sup>lt;sup>59</sup> Hayward, City of. 2014. Hayward 2040 General Plan. http://www.hayward-

ca.gov/sites/default/files/Hayward\_2040\_General\_Plan\_FINAL.pdf (accessed October 2023).

<sup>&</sup>lt;sup>60</sup> Hayward, City of. 2014. 2040 General Plan Background Report. https://www.haywardca.gov/sites/default/files/General\_Plan\_Update\_Background\_Report\_1-31-14.pdf (accessed October 2023).

<sup>&</sup>lt;sup>61</sup> California Department of Conservation. 2021. Alameda County Tsunami Hazard Areas. https://www.conservation.ca.gov/cgs/tsunami/maps/alameda (accessed October 2023).

contains areas within the inundation zone of the Ward Creek Dam located to the east of the City. 62,63 Therefore, areas of Hayward are at risk of flooding. The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to flooding and the risk of the release of pollutants. As described under Response 10c., CAP projects would not impede or redirect flood flows, and as discussed under Responses 9a. and b. in Section 9, Hazards and Hazardous Materials, CAP projects would generally not involve the regular use or storage of hazardous materials with the exception of renewable energy systems that include the storage of lithium-ion batteries. Future CAP projects, such as renewable energy systems, would be reviewed for compliance with the applicable local and State regulations related to flooding and hazardous materials use and storage, including CBC standards for construction. Furthermore, any projects associated with implementation of the CAP located in flood-prone areas must comply with HMC Chapter 9, Article 4, Flood Plain Management, which provides requirements to mitigate potential flood risks, including general construction standards. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to flooding and inundation resulting in release of pollutants.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to obstruction of a water quality control plan or sustainable groundwater management plan. The CAP measures would not include activities that would result in the extraction of groundwater. Rather, the CAP encourages reduced water consumption and expanded pervious surfaces within Hayward, which would aid in groundwater conservation and recharge and reduced surface water runoff and related water quality issues. The CAP would not interfere with or obstruct implementation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to consistency with a water quality control plan or sustainable groundwater management plan.

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in any development or land use changes that could result in cumulative impacts related to hydrology and water quality. Future CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, are not anticipated to contribute to cumulative hydrology and water quality impacts with adherence to applicable Hayward 2040 General Plan policies and local, State, and federal regulatory requirements. Implementation of the CAP would not contribute to an increase in growth and development in Hayward but could result in small-scale infrastructure development and building retrofit projects, including new EV charging infrastructure and energy and water efficiency

<sup>&</sup>lt;sup>62</sup> California Department of Water Resources. 2023. Dam Breach Inundation Map Web Publisher.

https://fmds.water.ca.gov/webgis/?appid=dam\_prototype\_v2 (accessed October 2023).

<sup>&</sup>lt;sup>63</sup> Federal Emergency Management Agency. 2023. National Flood Hazard Layer Viewer. https://hazards-

fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd (accessed October 2023).

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upgrades. As such, implementation of the CAP and other cumulative projects could have incremental impacts related to hydrology and water quality, such as erosion and sedimentation due to construction activities. However, the CAP's contribution to such impacts would be minor and temporary, and the CAP would have the long-term effect of reducing water use and improving sustainable stormwater management. Therefore, implementation of the CAP would result in a *less-than-significant cumulative impact* related to hydrology and water quality.

## 11 Land Use and Planning

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Wo	ould the project:				
a.	Physically divide an established community?				•
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				

#### a. Would the project physically divide an established community?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to division of an established community. The CAP is a policy document containing measures that are consistent with the Hayward 2040 General Plan and does not include actions or specific development projects that would divide an established community. CAP Measures T-1 and T-2 facilitate the installation of active transportation infrastructure and amenities, improved public transit connectivity, and enhanced safety for pedestrians and bicyclists. Such actions would help to increase connectivity within Hayward. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to division of an established community.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning and, thus, would not result in a construction or operational conflict with land use plans and policies. Rather, the CEQA GHG Emissions Thresholds would establish GHG emissions targets and analysis methodologies consistent with the goals established by the CAP that are enforced during CEQA review with the intention of reducing GHG emissions associated with construction and operation of future projects and plans in the City.

The CAP is a policy document containing measures that are consistent with the Hayward 2040 General Plan and that are designed to reduce adverse environmental impacts associated with climate change. Nonetheless, implementing the CAP could require some modification of existing policies, including developing and implementing new programs, and projects, or modifying existing ones. For example, CAP Measures BE-1, BE-2, and BE-3 would establish new building ordinances or updates to the existing municipal code to require building electrification in residential developments and decarbonization of commercial developments. CAP Measure T-2 may involve updates to the municipal code to provide car share for multifamily development projects or incorporation of a

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transportation demand management plan for commercial projects. In order to implement these measures, the HMC, Hayward 2040 General Plan, and other applicable City documents may need to be amended to reflect new or modified requirements. However, where modifications of existing policies are needed, the CAP measures would result in greater avoidance or reduction of environmental effects. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to consistency with current land use plans or policies.

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). The CAP and CEQA GHG Emissions Thresholds are policy documents containing measures that are consistent with the Hayward 2040 General Plan. Nonetheless, implementation of the CAP and CEQA GHG Emissions Thresholds, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, would require some modification of existing land use policies, including amending the General Plan and developing and implementing new programs, and projects, or modifying existing ones. The proposed policy changes in the CAP are consistent with the intent of the goals and policies established within the 2040 General Plan and HMC and would not cumulatively contribute to population growth or the loss of housing. Cumulative projects, including the CAP, would be required to adhere to City development regulations and 2040 General Plan policies to retain land use character and minimize environmental impacts. Future CAP projects and actions would be reviewed for consistency with the 2040 General Plan and other applicable regulatory land use actions prior to approval. Therefore, implementation of the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant cumulative impact* related to land use.

## 12 Mineral Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
W	ould the project:				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				

- a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The Hayward 2040 General Plan identifies La Vista Quarry east of Mission Boulevard and Tennyson Road as an aggregate mineral resource area; however, a significant portion of the former quarry is being reclaimed and redeveloped into a public park.<sup>64,65</sup> Furthermore, the CAP and CEQA GHG Emissions Thresholds would not facilitate additional urban growth or infrastructure development projects within the City that could result in the loss of availability of known mineral resources. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to mineral resources.

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Hayward is redeveloping La Vista Quarry into a park and therefore no substantial mineral resources or mineral resource extraction operations are present in Hayward. Therefore, CAP-related projects and the CEQA GHG Emissions Thresholds, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, are not anticipated to contribute to cumulative impacts to mineral resources. Thus, implementation of the CAP and CEQA GHG Emissions Thresholds would result in *no cumulative impact* related to mineral resources.

<sup>&</sup>lt;sup>64</sup> Hayward, City of. 2014. Hayward 2040 General Plan. http://www.hayward-

 $ca.gov/sites/default/files/Hayward_2040\_General\_Plan\_FINAL.pdf (accessed October 2023).$ 

<sup>&</sup>lt;sup>65</sup> Hayward, City of. 2023. La Vista Park. https://www.hayward-ca.gov/content/la-vista-park (accessed October 2023).

1	3 Noise				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
W	ould the project result in:				
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			-	
b.	Generation of excessive groundborne vibration or groundborne noise levels?			-	
C.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			-	

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Noise is unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). Because of the way the human ear works, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (such as construction equipment). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance, while noise from a point source typically attenuates at about 6 dBA per doubling of distance. Noise levels may also be reduced by the introduction of intervening structures. For example, a single row of buildings between the receptor

and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm that breaks the line-of-sight reduces noise levels by 5 to 10 dBA.

The Hayward 2040 General Plan Hazards Element identifies aircraft, trains, vehicle traffic on freeways and roadways, and industrial and commercial operations as the major sources of noise within the City.<sup>66</sup> The 2040 General Plan Hazards Element aims to ensure appropriate noise levels considered compatible for community noise environments. In addition, HMC Chapter 4, Article 1 establishes noise regulations for residential, commercial, industrial, and public property uses, as well as for construction activity noise.

Land Use	Highest Level of Exterior Noise Exposure that is Regarded as "Normally Acceptable" <sup>1</sup> (L <sub>dn</sub> <sup>2</sup> or CNEL <sup>3</sup> )
Residential: Singe-Family Homes, Duplex, Mobile Homes	60
Residential: Townhouse and Multi-Family Apartments and Condominiums	65
Urban Residential Infill and Mixed-Use Projects	70
Lodging: Motels and Hotels	65
Schools, Libraries, Churches, Hospitals, Nursing Homes	70
Auditoriums, Concert Hall, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70
Gold Courses, Riding Stables, Water Recreation, Cemeteries	75
Office Buildings: Business, Commercial, and Professional	70
Industrial Manufacturing, Utilities, Agriculture	75

 Table 6
 Hayward General Plan Noise Element Normally Acceptable Noise Levels

<sup>1</sup> As defined in the State of California General Plan Guidelines 200, "Normally Acceptable" means that the specified land uses is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise mitigation. For projects located along major transportation corridors (major freeways, arterials, and rail lines) this "normally acceptable" exterior noise level may be exceeded for certain areas of the project site (e.g., the frontage adjacent to the corridor or parking areas) with the exception of primary open space areas (see policies HAZ-8.5 and HAZ-8.6)

<sup>2</sup> Ldn or Day Night Average is an average 24-hour noise measurement that factors day and night noise levels

<sup>3</sup> CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.

Source: City of Hayward 2040 General Plan

Construction noise is regulated by HMC Section 4-1.03.4, which provides that construction occurring between 7:00am and 7:00pm Monday through Saturday and 10:00am and 6:00pm on Sundays and holidays is subject to the following:

- a. No individual device or piece of equipment shall produce a noise level exceeding eighty-three (83) dBA at a distance of twenty-five (25) feet from the source. If the device or equipment is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close as possible to twenty-five (25) feet from the equipment.
- b. The noise level at any point outside of the property plane shall not exceed eighty-six (86) dBA.
- c. During all other times, the decibel levels set forth in Section 4-1.03.1 shall control.

<sup>&</sup>lt;sup>66</sup> Hayward, City of. 2014. 2040 General Plan. http://www.hayward-ca.gov/sites/default/files/Hayward\_2040\_General\_Plan\_FINAL.pdf (accessed October 2023).

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The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to excessive noise levels. The CAP is a policy document containing programs that are consistent with the 2040 General Plan. Some of the CAP measures would support small-scale construction projects that could result in temporary noise. CAP Measures BE-2 and BE-3 promote electrification and decarbonization of existing buildings, Measure T-1 would improve bicycle and pedestrian facilities throughout the City, Measures T-4, T-5, and T-7 would expand EV charging stations and supporting infrastructure, , and CAP Measure WW-1 would incentivize water efficiency retrofits to existing buildings and landscaped areas. Additionally, CAP Action BE 1.6 would result in the potential expansion of the existing WPCF cogeneration facility to produce more biogas. However, CAP projects would be reviewed for consistency with the 2040 General Plan and HMC, and construction activities would be required to comply with the provisions of the HMC Section 4-1.03.4. Therefore, the CAP would not result in significant construction noise related impacts.

The CAP does not include future projects that would result in substantial operational noise. Rather, the CAP encompasses a suite of GHG-reduction opportunities that affect the transportation sector and its associated noise. For example, CAP Measures T-1, T-4, T-5, T-6, and T-7 encourage adoption of EVs and electric off-road equipment, which are quieter than gas-powered alternatives, and facilitate improvements to bicycle and public transit circulation to increase active transportation and transit ridership and decrease VMT. These measures would reduce VMT and traffic-related noise in Hayward. Therefore, the CAP and CEQA GHG Emissions Thresholds would not generate excessive operational noise levels and would result in a *less-than-significant impact* related to noise exposure.

## *b.* Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise.<sup>67</sup> Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or Root Mean Square (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings.<sup>68</sup> Vibration significance ranges from approximately 50 vibration decibels (VdB), which is the typical background vibration-velocity level, to 100 VdB, the general

<sup>&</sup>lt;sup>57</sup> California Department of Transportation. 2020. Transportation and Construction Vibration Guidance Manual (CT-HWANP-RT-13-069.25.3). https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf (accessed October 2023).

<sup>&</sup>lt;sup>68</sup> Federal Highway Administration (FHWA). 2006. FHWA Highway Construction Noise Handbook. (FHWAHEP-06-015; DOT-VNTSC-FHWA-06-02). https://www.fhwa.dot.gov/Environment/noise/construction\_noise/handbook/handbook00.cfm (accessed October 2023).

threshold where minor damage can occur in fragile buildings. The general human response to different levels of groundborne vibration velocity levels is described in Table 7.<sup>69</sup>

Vibration Velocity Level	Human Reaction		
65 VdB	Approximate threshold of perception for many people		
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.		
85 VdB	Vibration acceptable only if there are an infrequent number of events per day		
VdB = vibration decibels			
Source: Federal Transit Administration 2018			

Table 7 Human Response to Different Levels of Groundborne Vibration

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to groundborne vibration. The CAP is a policy document containing programs that are consistent with the 2040 General Plan. Some of the CAP actions would support small-scale construction projects, such as EV charging station construction and building energy and water efficiency retrofits that may result in a temporary, minor increase in groundborne vibration. However, CAP projects would be reviewed for consistency with the 2040 General Plan and HMC, and construction activities would be required to comply with applicable local, State, and federal regulations to ensure that temporary construction impacts related to groundborne vibration would be minimized. Furthermore, CAP projects would not include operational sources of groundborne vibration. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to groundborne vibration.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Hayward contains one airport, the Hayward Executive Airport, located in the northwest portion of the City. The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to airport noise. Furthermore, the CAP is a policy document that would not increase airport activity or result in additional habitable development or commercial development that could increase potential exposure of residents and employees to airport noise. CAP-related projects that could occur within the influence area zones of the Hayward Executive Airport would be subject to the noise reduction policies of the Hayward Executive Airport Land Use Compatibility Plan.<sup>70</sup> Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to aviation-related noise exposure.

<sup>&</sup>lt;sup>69</sup> Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual.

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\_0.pdf (accessed October 2023).

<sup>&</sup>lt;sup>70</sup> Alameda, County of. 2012. Hayward Executive Airport Land Use Compatibility Plan.

https://www.acgov.org/cda/planning/generalplans/documents/Cover\_HWD\_ALUC2012.pdf (accessed October 2023).

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. The CAP is a policy document containing programs that are consistent with the 2040 General Plan, including the Hazards Element. Nonetheless, CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, would support construction projects, such as EV charging station construction that may result in a temporary increase in groundborne vibration or noise levels. However, cumulative projects, including future CAP projects, would be subject to review by the City for compliance with the 2040 General Plan and HMC and would be required to comply with applicable State and federal regulations governing construction noise and vibration. Additionally, the CAP encompasses a suite of GHG-reduction opportunities that would decrease traffic and traffic-related noise. As such, implementation of the CAP would not generate permanent, excessive groundborne vibration or noise levels. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant cumulative impact* related to noise.

## 14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				

- a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to substantial unplanned population growth or the displacement of existing people or housing. The CAP does not include measures, policies, or programs that would result in new housing or jobs or that would displace existing residents or housing. In addition, the CAP does not propose new infrastructure, such as roadways or utilities, which could indirectly lead to new population growth or development. Therefore, the CAP would not directly increase the population, indirectly induce additional unplanned population growth, or displace people or housing. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to population and housing.

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Future CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, are not anticipated to displace people or housing nor induce substantial unplanned population growth within Hayward. Specifically, the CAP would not contribute to person or housing displacement in Hayward nor result in population growth beyond that already assumed and planned

for in the 2040 General Plan. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no cumulative impact* related to population and housing.

## 15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	1. Fire protection?				-
	2. Police protection?				
	3. Schools?				
	4. Parks?				•
	5. Other public facilities?				

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire protection?
  - Police protection?
  - Schools?
  - Parks?
  - Other public facilities?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to public services. The CAP is a policy document containing programs that are consistent with the 2040 General Plan. Implementation of the CAP and its proposed measures and actions would not result in increases in population or new employment opportunities that could induce population growth, as further discussed in Section 14, *Population and Housing*. As such, the CAP would not require the construction of new or physically altered governmental facilities to serve additional population, the construction of which could cause

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significant environmental impacts. CAP Measure CS-1 would help to increase community resiliency, reduce vulnerability to the impacts of climate change, and mitigate hazards such as wildfire and electrical grid instability in Hayward, thereby reducing the burden on local public services related to such natural disasters. Furthermore, future CAP-related projects would be reviewed for consistency with the 2040 General Plan and other applicable local and State regulations related to public services. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to public services in terms of need for the construction of new or altered governmental facilities.

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Implementation of future CAP-related projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, would not result in increases in population or induce additional population growth beyond that assumed under the 2040 General Plan. Therefore, implementation of the CAP would not result in substantial cumulative need to expand public services facilities. Rather, the CAP includes measures to improve community resilience and reduce the potential impacts of climate change in the City, thereby reducing the burden on local public services related to climate change-induced disasters. Therefore, the CAP would result in a *no cumulative impact* related to public services.

## 16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
<ul> <li>a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur on be accelerated?</li> </ul>				
b. Include recreational facilities or require th construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	e□			

- a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b. Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Hayward is a primarily urbanized community with parks and recreational spaces incorporated throughout the City, including large open space areas within the eastern and western borders of the City, as shown in Figure 5-6 of the 2040 General Plan Background Report .<sup>71</sup> The 2040 General Plan Community Health and Quality of Life Element incorporates goals and policies to protect open space/recreational resources in the City. The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to parks or recreational facilities. The CAP is a policy document containing programs that are consistent with 2040 General Plan, including the recreation and open space policies established in the Community Health and Quality of Life Element. CAP Measure CS-1 seeks to increase greenspace, natural areas, parks, and trees within Hayward. Additionally, as described in Section 14, Population and Housing, the CAP would not result in substantial population growth or direct land use changes. As such, implementation of the CAP would not result in a substantial physical deterioration of parks or other recreational facilities or result in the need to expand recreational facilities. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in no impact related to the need for construction of new or altered recreational facilities.

<sup>&</sup>lt;sup>71</sup> Hayward, City of. 2014. 2040 General Plan Background Report. https://www.haywardca.gov/sites/default/files/documents/Hayward%20General%20Plan%20Update%20Background%20Report\_1-31-14.pdf (accessed October 2023).

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Implementation of CAP projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, would not result in increases in population or induce additional population growth beyond that assumed under the 2040 General Plan. Therefore, implementation of the CAP would not result in increased demand for parks or substantial cumulative physical deterioration of parks or other recreational facilities or result in the cumulative need to expand recreational facilities. In addition, the CAP includes measures to increase greenspace, natural areas, and parks within the community, which aligns with the 2040 General Plan recreation goals. Therefore, implementation of the CAP would result in *no cumulative impact* related to recreation.

## 17 Transportation

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Wo	ould the project:				
a.	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				•
b.	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?				-
C.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?				
d.	Result in inadequate emergency access?				

- a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- *b.* Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The 2040 General Plan Mobility Element includes the following goals:

- **Goal M-1:** Provide a comprehensive, integrated, and connected network of transportation facilities and services for all modes of travel.
- **Goal M-2:** Connect Hayward to regional and adjacent communities' transportation networks and reduce the impacts of regional through traffic in Hayward.
- **Goal M-3:** Provide complete streets that balance the diverse needs of users of the public right-of-way.
- **Goal M-4:** Enhance and maintain local access and circulation, while protecting neighborhoods from through traffic.
- **Goal M-5:** Provide a universally accessible, safe, convenient, and integrated pedestrian system that promotes walking.
- **Goal M-6:** Create and maintain a safe, comprehensive, and integrated bicycle system and support facilities throughout the City that encourage bicycling that is accessible to all.
- **Goal M-7:** Improve coordination among public agencies and transit providers to meet public transit needs and provide greater mobility.
- **Goal M-8:** Encourage transportation demand management strategies and programs to reduce vehicular travel, traffic congestion, and parking demand.

- Goal M-9: Provide and manage a balanced approach to parking that meets economic development and sustainability goals.
- **Goal M-10:** Develop the airport to meet projected airside and landside facilities needs and improve the overall efficiency of operations as a reliever airport.
- Goal M-11: Balance the safe and efficient movement of goods with local access and circulation needs.
- Goal M-12: Maintain sufficient funding to provide for existing and future transportation facility and service needs, including the operation and maintenance of the transportation system. <sup>72</sup>

Additionally, the City adopted the Hayward Bicycle and Pedestrian Master Plan in 2020 to make active transportation a safe and pleasant option within Hayward by providing a dedicated bicycle and pedestrian network. The Hayward Bicycle and Pedestrian Master Plan also implements the 2040 General Plan goals, policies, and programs related to complete streets by building on the blueprint for a system of bikeways established in the 2040 General Plan.<sup>73</sup>

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts that would conflict with a program, plan, ordinance, or policy addressing the transportation circulation system. The CAP is a policy document containing measures and policies that are consistent with the 2040 General Plan Mobility Element and Hayward Bicycle and Pedestrian Master Plan. CAP Measure T-1 facilitates programs that would work toward the development of new bicycle facilities and multi-use paths, and Measure T-2 would facilitate the development of an ordinance requiring new multi-family development projects to install car share or provide e-bikes or e-scooters to tenants. Additionally, CAP Measure T-3 seeks to fund active and public transit programs. These CAP measures would advance active transportation and public transit within Hayward and decrease VMT and associated air pollutants and GHG emissions. These CAP measures would be consistent with the 2040 General Plan Mobility Element and Hayward Bicycle and Pedestrian Master Plan goals related to improving multi-modal facilities, reducing VMT and single-occupancy vehicles, encouraging active transportation, and reducing vehicle congestion within Hayward.

Furthermore, the CAP would seek to reduce VMT within the City, consistent with CEQA Guidelines section 15064.3, subdivision (b). Therefore, the CAP and CEQA GHG Emissions Thresholds would result in *no impact* related to consistency with plans addressing the transportation circulation system and CEQA Guidelines section 15064.3, subdivision (b).

- d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?
- e. Would the project result in inadequate emergency access?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to risk associated with transportation design, incompatible use, or emergency access. The CAP is a policy document

<sup>&</sup>lt;sup>72</sup> Hayward, City of. 2014. 2040 General Plan. http://www.hayward-ca.gov/sites/default/files/Hayward\_2040\_General\_Plan\_FINAL.pdf (accessed October 2023).

<sup>&</sup>lt;sup>73</sup> Hayward, City of. 2020. Bicycle and Pedestrian Master Plan. https://www.hayward-

ca.gov/sites/default/files/Hayward%20BPMP\_Final%20Plan.pdf (accessed October 2023).

containing measures that are consistent with the 2040 General Plan and would not facilitate development beyond that allowed under the 2040 General Plan. Implementation of some CAP measures may involve construction within the local right-of-way. Construction activities have the potential to require lane closures and may impact traffic and vehicle speeds on the affected roadways; however, these impacts would be temporary and access to roadways would generally be maintained throughout project construction. Furthermore, future projects involving work in the public right-of-way would be required to coordinate with the City through the encroachment permit process to ensure appropriate construction staging and adequate vehicular and pedestrian access on adjacent roadways. Coordination with the City would ensure that significant impacts to the circulation system design, including safety impacts and emergency access, would not occur. As such, construction of future CAP-related projects would not create transportation design hazards or result in inadequate emergency access. Furthermore, the CAP would facilitate increased active transportation and public transit use and decreased VMT within Hayward, which in turn would reduce potential transportation hazards and congestion conditions that can hinder emergency response. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a less-thansignificant impact related to transportation hazards and emergency access.

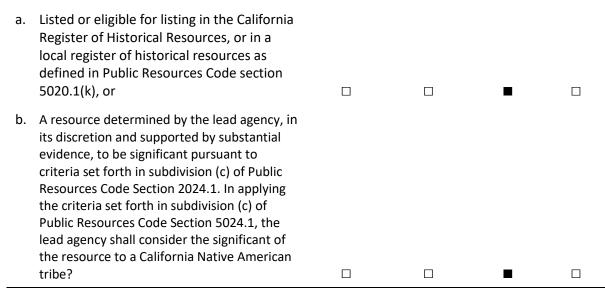
### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth could result in increases in VMT or changes affecting traffic design safety and emergency access. However, the CAP is a policy document containing programs that are consistent with the 2040 General Plan and other applicable transportation policies and does not propose new development that would increase VMT, result in design hazard, or affect emergency access. Rather, the CAP measures and actions would promote alternative modes of transportation and reduction of VMT throughout Hayward, consistent with goals contained in the 2040 General Plan Mobility Element and Hayward Bicycle and Pedestrian Master Plan. Therefore, the CAP would result in a *less-than-significant cumulative impact* related to transportation.

## 18 Tribal Cultural Resources

	Less than Significant			
Potent Signifi Impa	tially w icant Miti	vith Less-than- gation Significant porated Impact	No Impact	

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:



- a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1 (k)?
- b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 2024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significant of the resource to a California Native American tribe?

On October 5, 2023, 12 Native American Heritage Commission (NAHC)-identified local Native American tribal representatives from nine Native American Tribal groups were formally notified that the City initiated environmental review of the CAP and CEQA GHG Emissions Thresholds and were invited to consult on the plan. On October 18, 2023, the NAHC provided an updated list with five

additional representatives for local Native American Tribal groups, and these additional representatives were formally notified of the project on October 27, 2023. The Native American Tribal groups that were notified for the plan include the following:

- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- Costanoan Rumsen Carmel Tribe
- North Valley Yokuts Tribe
- Tamien Nation
- Indian Canyon Mutsun Band of Costanoan
- The Confederate Villages of Lisjan
- The Ohlone Indian Tribe
- Wuksache Indian Tribe/Eshom Valley Band

On October 11, 2023, a representative from the Confederate Villages of Lisjan responded requesting any records searches or archaeological reports prepared for the CAP. On October 20, 2023, the City responded indicating that a records search and archaeological report was not prepared for this plan due to the nature of the plan and asked if the Tribe would like to schedule a meeting to consult. On November 1, 2023, a representative from the Confederate Villages of Lisjan responded stating that they have no information to supply for the plan and do not need to need to discuss further, but that the tribe would like to be contacted in the event that tribal cultural resources are found during any future ground disturbance.

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to tribal cultural resources. The CAP would not involve land use or zoning changes that would increase development within the City but would instead promote sustainable infrastructure development within the urbanized area of the City. As a policy document, the CAP would also not directly entail ground disturbing activities; however, implementation of various CAP actions related to existing building energy, active transportation facilities, EV charging infrastructure, and tree planting may include minor construction activities in the future.

Electrification retrofits associated with CAP Measures BE-1, BE-2, and BE-3 may change the physical environment through the need for upgraded service and electrical panels, branch circuit upgrades, and installation of condensate drains to facilitate the installation of electric heat pumps for water and space heating. The physical changes these upgrades would entail are dependent on the year of building construction and location of electrical and service panels and plumbing connection of condensate drains, which sometimes may include modifications to the interior and/or exterior of buildings for wiring and panel replacement and minor excavation for connection of drainage to sewer systems.

Improvements to bicycle and pedestrian facilities associated with CAP Measure T-1 and installation of EV chargers associated with CAP Measures T-4 and T-7 would primarily impact previously disturbed areas within existing roadways, parking lots, and developments. However, the physical changes these installations and enhancements would entail are dependent on the location of construction for new bike lanes, sidewalks, and EV charging connections, which in some cases may include minor temporary excavation.

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In addition, CAP Measure CS-1 would increase the planting of urban trees within the community. These actions could result in ground disturbance related to planting new trees. However, the physical changes these installations and enhancements would entail are generally minor and would be dependent on the location of construction.

Implementation of these CAP measures could impact unknown tribal cultural resources during construction that involves below-grade activities in previously undisturbed soils. However, the CAP projects would be located and designed strategically to reduce ground disturbance to the maximum extent possible. In addition, CAP projects and actions would be reviewed for consistency with applicable local, regional, and State tribal cultural and archaeological regulations prior to final siting and construction and would be required to implement BMPs in accordance with the 2040 General Plan and HMC Section 10-11.150, which requires a stop work order if cultural resources are discovered during ground-disturbing activities. As such, tribal cultural resources would be protected prior to and/or upon discovery and, thus, impacts would be reduced to a minimal level. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to tribal cultural resources.

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. CAP projects, in combination with other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth, could increase the potential for adverse effects to unknown tribal cultural resources in Hayward. However, impacts to tribal cultural resources are site-specific; accordingly, as required under applicable laws and regulations, potential impacts associated with cumulative developments would be addressed on a case-by-case basis as cumulative project details and locations become known. CAP projects and other cumulative projects would be required to comply with the 2040 General Plan and HMC requirements for the halting of construction and proper treatment of any resources discovered during ground disturbance. Therefore, the CAP would result in a *less-than-significant cumulative impact* related to tribal cultural resources.

## 19 Utilities and Service Systems

		Less than Significant			
		Potentially Significant Impact	with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Wo	ould the project:				
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				
c.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
d.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction				

e. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

goals?

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not have direct construction or operational impacts related to utilities and service systems. The CAP is a policy document aimed at reducing solid waste production and energy and water consumption, amongst other issues, and the related GHG emissions throughout Hayward and does not include site-specific infrastructure designs or project proposals. Implementing the CAP would

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not result in an increase in population and housing nor would it facilitate growth beyond that anticipated by the 2040 General Plan. As such, implementation of the CAP would not create new demand related to water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities. However, projects resulting from implementation of the CAP could include redevelopment and/or restructuring of electricity and natural gas power facilities and infrastructure, as well as new local renewable energy generation and storage and green stormwater infrastructure projects. Potential impacts related to these measures are discussed further below.

## Water Supply Facilities/Infrastructure

The City of Hayward is the retail water supplier for development within the City. According to the Hayward Urban Water Management Plan (UWMP), Hayward obtains its municipal water supply from the San Francsico Public Utilities Commission, which supplies water predominantly from snowmelt from the Sierra Nevada.<sup>74</sup> The City's distribution system consists of consists of six main pressure zones, 14 water storage tanks, and seven pump stations delivering water to upper pressure zones.<sup>75</sup>

CAP WW-1 seeks to decrease community water use by promoting water efficiency retrofits, sustainable landscaping, and efficient landscaping irrigation. In addition, CAP Measure CS-1 would increase the planting of urban trees and development of new greenspace and natural areas, which would increase permeable surfaces throughout the City, improving water infiltration and groundwater recharge. Furthermore, the CAP would not result in new land uses, such as increased residential or commercial development, which would contribute to an increase in water use compared to existing conditions or that would require relocation or construction of new water infrastructure. Therefore, the CAP and CEQA GHG Emissions Thresholds would have *no impact* related to the need for construction or expansion of water supply facilities and infrastructure.

### Wastewater Treatment Facilities/Infrastructure

The City of Hayward collects and treats wastewater within Hayward. The City's sewer system consists of approximately 325 miles of pipes and nine lift stations. Sewage treatment for the collected wastewater is provided by the Hayward Water Pollution Control Facility (WPCF) located in Hayward. The WPCF currently treats approximately 11.3 million gallons per day (mgd) on average and approximately 18 mgd during wet weather conditions. The treatment plant has an average dry weather flow treatment capacity of approximately 18.5 mgd and a wet weather flow treatment rated capacity of approximately 34.2 mgd.<sup>76</sup>

The CAP would not result in new land uses that would generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment requirements. The amount of wastewater treated at the WPCF would not change compared to existing conditions with implementation of the CAP. The CAP would not require relocation or construction of new wastewater treatment infrastructure to meet wastewater treatment demands. Action BE 1.6 would result in the future potential expansion of the existing WPCF cogeneration facility to produce more biogas; however, this would involve minor construction activities within the existing facility. Therefore, *no impact* 

<sup>75</sup> Bay Area Water Supply and Conservation Agency. 2023. Hayward Service Area.

<sup>&</sup>lt;sup>74</sup> Hayward, City of. 2021. 2020 Urban Water Management Plan. https://www.hayward-

ca.gov/sites/default/files/Hayward\_2020%20UWMP\_Final.pdf (accessed October 2023).

https://bawsca.org/members/profiles/hayward#:~:text=The%20City%20of%20Hayward%20obtains%20its%20entire%20water,pump%20s tations%20delivering%20water%20to%20upper%20pressure%20zones. (accessed October 2023).

<sup>&</sup>lt;sup>76</sup> San Francisco Bay Regional Water Quality Control Board. 2017. Order No. R2-2017-0016.

https://www.waterboards.ca.gov/sanfranciscobay/board\_decisions/adopted\_orders/2017/R2-2017-0016.pdf (accessed October 2023).

related to construction or expansion of wastewater treatment facilities and infrastructure would occur.

### Stormwater Drainage Facilities/Infrastructure

The City maintains a system of storm drains, gutters, and ditches to convey stormwater generated during rain events. As discussed in Section 10, *Hydrology and Water Quality*, implementation of CAP measures related to building electrification and energy and water efficiency upgrades, renewable energy production and storage, transportation, and urban trees may promote infrastructure development that would involve small-scale construction. Construction of projects implemented in accordance with the CAP could result in erosion and potential changes to drainage patterns. However, as described in Section 7, *Geology and Soils*, and Section 10, *Hydrology and Water Quality*, CAP projects would be required to comply with local, State, and federal requirements during construction that would control stormwater runoff, erosion, and potential impacts to the stormwater drainage system. In addition, CAP Measure CS-1 would increase the planting of urban trees and development of new greenspace and natural areas, which would increase permeable surfaces throughout the City, improving water infiltration and stormwater management. Therefore, *no impact* related to construction or expansion of stormwater drainage facilities and infrastructure would occur.

### Electric Power Facilities/Infrastructure

Electric power service in the City is provided by Ava Community Energy using transmission infrastructure operated and maintained by Pacific Gas & Electric (PG&E). CAP Measures BE-1, BE-2, BE-3, and BE-4 promote building electrification of new and existing buildings, energy efficiency retrofits of existing buildings, and energy efficient buildings for future development. CAP Measure BE-6 supports installation of small-scale renewable energy systems, biogas capture, battery storage to provide greener renewable electricity within the City. In addition, CAP Measures T-4, T-5, and T-7 encourage new EV infrastructure throughout the City. These CAP measures may slightly alter electricity demand within Hayward. However, the CAP would serve as a pathway to reduce GHG emissions, including emissions related to energy consumption, and other beneficial environmental and sustainability effects. These benefits include a reduction in energy consumption and increase in renewable energy production. Therefore, the CAP would result in a *less-than-significant impact* related to construction, expansion, or relocation of electric power facilities and infrastructure.

### Natural Gas Power Facilities/Infrastructure

PG&E provides natural gas services to the City. The CAP would not involve new land uses that require new or additional natural gas service that could require the construction of new or expanded natural gas facilities. CAP Measures BE-1, BE-2, BE-3, and BE-4 would encourage building electrification in new and existing buildings to reduce natural gas consumption within the City. Implementation of these actions could involve minor alterations to existing natural gas infrastructure as natural gas use is reduced. However, the CAP would serve as a pathway to reduce GHG emissions, including emissions related to natural gas consumption, and other beneficial environmental and sustainability effects. These benefits include a reduction in natural gas consumption. Therefore, the CAP would result in a *less-than-significant impact* related to construction, expansion, or relocation of natural gas facilities and infrastructure.

### **Telecommunications Facilities/Infrastructure**

The City is served by existing telecommunications companies such as AT&T and Comcast. The CAP would not alter existing telecommunications facilities and infrastructure and would not involve new land uses or development that would require new telecommunications infrastructure. Therefore, the CAP would result in **no impact** related to need for construction or expansion of telecommunication facilities and infrastructure.

- b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The City addresses issues of water supply in the UWMP, which is a long-range planning document used to assess current and projected water usage, water supply planning, and conservation and recycling efforts. According to the UWMP, the City has analyzed three different hydrological conditions to determine the reliability of water supplies: average/normal water year, single dry water year, and multiple, dry water year periods. The UWMP indicates that water supplies under the average/normal year conditions will be sufficient to meet demand through 2040. In addition, the UWMP includes a Water Shortage Contingency Plan.<sup>77</sup>

The CEQA GHG Emissions Thresholds is a guidance document and does not propose development or changes to land use and zoning. Thus, implementation of the CEQA GHG Emissions Thresholds would not result in construction or operational impacts related to water supplies or wastewater. The CAP is a policy-level document that does not include site-specific infrastructure designs or project proposals, nor does it grant entitlements for development that would have the potential to increase demand for water supply or wastewater treatment. Rather the CAP contains measures and actions to reduce water use, such as Measure WW-1, which encourages a reduction of water consumption of 15 percent by 2030, that would reduce water demand and wastewater production. Thus, the CAP would result in *no impact* related to water supply and wastewater treatment.

- d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- e. Would the project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Waste Management of Alameda County provides solid waste services within the City. Municipal solid waste generated in Hayward is primarily disposed of at the Altamont Landfill in Livermore. The Altamont Landfill has a maximum permitted throughput of 11,150 tons per day of solid waste per day and has a remaining capacity of 65,400,000 cubic yards.<sup>78</sup>

The CAP focuses on sustainable infrastructure development and does not include land use or other policy changes that would result in increased residential, commercial, or other development that would increase solid waste generation within the City. CAP Measures SW-1 and SW-2 seek to reduce

<sup>&</sup>lt;sup>77</sup> Hayward, City of. 2021. 2020 Urban Water Management Plan. https://www.hayward-

ca.gov/sites/default/files/Hayward\_2020%20UWMP\_Final.pdf (accessed October 2023).

<sup>&</sup>lt;sup>78</sup> California Department of Resources Recovery and Recycling (CalRecycle). 2023. SWIS Facility/Site Activity Details: Altamont Landfill & Resource Recovery. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/7?siteID=7 (accessed October 2023).

the amount of waste produced within the City by reducing consumption and implementing sustainable waste programs. These CAP measures align with federal, State, and local regulations aimed at reducing solid waste disposal and increasing organic waste diversion, such as SB 1383. Additionally, because the CAP is a policy document that would not facilitate growth beyond that anticipated by the 2040 General Plan, it would not generate solid waste in excess of State or local standards. Therefore, the CAP would result in *no impact* related to solid waste.

## **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Other cumulative projects that occur to accommodate Hayward's anticipated population, employment, and housing growth could result in increases in population and additional use of or need for utilities and service systems. However, implementation of the CAP and related infrastructure projects would not contribute to increases in population or induce additional population growth that would require additional use of existing City utilities or service systems. Rather, implementation of the CAP would result in reduced energy and water consumption and solid waste and wastewater production. Therefore, implementation of the CAP would result in a *less-than-significant cumulative impact* related to utilities and service systems.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
20	Wildfire				

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?		
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?		•
c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?		•
d.	Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?		•

- a. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?
- b. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- c. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d. If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

According to the California Department of Forestry and Fire Protection, Hayward is not located in designated California Fire Hazard Severity Zones; however, the City is adjacent to areas classified as moderate and high fire hazard severity zones at the wildland fringes located at the northern, southern, and eastern borders of the City.<sup>79,80</sup>

Though there are areas surrounding Hayward that are at risk of wildfires, the CAP and CEQA GHG Emissions Thresholds are policy-level documents that do not propose new residential, commercial, or institutional development that could be at risk from wildfire, nor do they grant entitlements for development that would have the potential to directly cause wildfire. The CAP actions would generally apply to the urbanized areas of Hayward with little application to parks, open space areas, or other locations where wildland fire risk exists. Additionally, CAP Action CS 1.13 would help to reduce community vulnerability to wildfires by identifying locations for wildfire defense and risk reduction to be incorporated into comprehensive wildfire planning at regional, county, City, and community levels. Thus, the CAP and CEQA GHG Emissions Thresholds would result in **no impact** related to wildfire.

### **Cumulative Impacts**

The cumulative projects scenario is the population, employment, and housing forecasts identified in the CAP, based on demographic data contained in Plan Bay Area 2040 and the Hayward Housing Element (refer to Table 5). As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. The CAP does not include new habitable development that could be at risk from wildfire, nor does it grant entitlements for development that would have the potential to cause wildfire. Rather, implementation of the CAP measures would reduce and mitigate the effects of climate change, including wildfire. Therefore, the CAP would result in *no cumulative impact* related to wildfire.

<sup>&</sup>lt;sup>79</sup> California Department of Forestry and Fire Protection. 2023. State Responsibility Area Fire Hazard Severity Zones. https://osfm.fire.ca.gov/media/s1wfngas/fhsz\_county\_sra\_11x17\_2022\_alameda\_2.pdf (accessed October 2023).

<sup>&</sup>lt;sup>80</sup> California Department of Forestry and Fire Protection. 2008. Very High Fire Hazard Severity Zones in LRA. https://osfm.fire.ca.gov/media/6638/fhszl\_map1.pdf (accessed October 2023).

# Mandatory Findings of Significance

	Less than Significant		
Potentially	with	Less-than-	
Significant	Mitigation	Significant	No
Impact	Incorporated	Impact	Impact

Does the project:

- a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- b. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?
- Have environmental effects which will С. cause substantial adverse effects on human beings, either directly or indirectly?
- a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

The intent of the CAP and CEQA GHG Emissions Thresholds is to reduce GHG emissions from Hayward community operations through implementation of measures and actions related to energy use, water consumption, transportation, solid waste, carbon sequestration, and community education and outreach. The CAP measures and actions are consistent with the 2040 General Plan and encourage residents, businesses, and the municipal facilities to reduce energy and water use, fuel use, VMT, and solid waste generation and the associated GHG emissions. The CAP and CEQA GHG Emissions Thresholds would not facilitate development that would eliminate or threaten wildlife habitats or eliminate important examples of the major periods of California history or prehistory. Therefore, as discussed in more detail in Section 4, Biological Resources, Section 5,

*Cultural Resources*, and Section 18, *Tribal Cultural Resources*, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to biological and cultural resources.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

As a guidance document, the CEQA GHG Emissions Thresholds would not result in cumulative impacts. Implementation of the CAP would result in a cumulatively beneficial reduction of GHG and air pollutant emissions across the City. In addition, as discussed throughout the respective cumulative impacts discussions within this document, the CAP would not result in significant cumulative impacts. Rather, implementation of the CAP would be consistent with 2040 General Plan policies aimed at reducing emissions of GHGs and air pollutants, reducing VMT, reducing energy and water supply demands on utilities, and decreasing solid waste generation. Therefore, the CAP would result in an overall *less-than-significant cumulative impact* related to all CEQA topics addressed within this document.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

In general, impacts to human beings are associated with air quality, GHG emissions and climate change, hazards and hazardous materials, noise, transportation, and wildfire impacts. As detailed in the preceding sections, the CAP and CEQA GHG Emissions Thresholds would not result, either directly or indirectly, in substantial adverse effects related to air quality, GHG emissions, hazards, noise, transportation, or wildfire. As discussed in more detail in Section 3, *Air Quality*, Section 13,*Noise,* and Section 17, *Transportation*, the CAP could cause temporary construction impacts related to transportation, air quality, and noise that could, in turn, affect human beings but would not result in substantial adverse effects. In addition, as discussed throughout this document, the CAP would serve as a pathway to reduce operational GHG emissions and would result in other positive environmental and sustainability effects. These benefits include reduction in building energy and water consumption, VMT and traffic noise, and solid waste generation, as well as improved air quality and resiliency to the effects of climate change and natural disasters. Therefore, the CAP and CEQA GHG Emissions Thresholds would result in a *less-than-significant impact* related to potential for adverse effects on human beings.

# References

# Bibliography

- Alameda-Contra Costa Transit District. 2023. Maps & Schedules. https://www.actransit.org/mapsschedules (accessed September 2023).
- Alameda, County of. 2012. Hayward Executive Airport Land Use Compatibility Plan. https://www.acgov.org/cda/planning/generalplans/documents/Cover\_HWD\_ALUC2012.pdf (accessed October 2023).
- Alameda County Transportation Commission (ACTC). 2020. Countywide Transportation Plan. https://www.alamedactc.org/wp-content/uploads/2021/02/2020\_CTP\_Final.pdf (accessed September 2023).
- Bay Area Air Quality Management District (BAAQMD). 2017. Air Quality Standards and Attainment Status. http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status (accessed October 2023).
- 2017. Final Clean Air Plan: Spare the Air Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area. Final 2017 Clean Air Plan. https://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans (accessed October 2023).
- Bay Area Water Supply and Conservation Agency. 2023. Hayward Service Area. https://bawsca.org/members/profiles/hayward#:~:text=The%20City%20of%20Hayward%20 obtains%20its%20entire%20water,pump%20stations%20delivering%20water%20to%20upp er%20pressure%20zones. (accessed October 2023).
- California Air Resources Board (CARB). 2023. SB 375 Regional Plan Climate Targets. Available: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regionalplan-targets (accessed September 2023).
- \_\_\_\_\_. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed September 2023).
- \_\_\_\_\_. 2022. 2022 State Strategy for the State Implementation Plan. https://ww2.arb.ca.gov/sites/default/files/2022-08/2022\_State\_SIP\_Strategy.pdf (accessed October 2023).
  - \_\_\_\_\_. 2017. California 2017 Climate Change Scoping Plan. https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping\_plan\_2017.pdf (accessed September 2023).
- \_\_\_\_\_. 2005. 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available: https://ww3.arb.ca.gov/ch/handbook.pdf (accessed October 2023).

California Air Resources Board and California Environmental Protection Agency (CalEPA). 2009. Environmental Health and Equity Impacts from Climate Change and Mitigation Policies in California: A Review of the Literature.

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.386.4605&rep=rep1&type=pdf (accessed October 2023).

- California Department of Conservation. 2022. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed October 2023).
- \_\_\_\_\_. 2022. California Williamson Act Enrollment Finder. https://gis.conservation.ca.gov/portal/home/webmap/viewer.html?webmap=18f7488c0a9 d4d299f5e9c33b312f312 (accessed October 2023).
  - \_\_\_\_\_. 2021. Alameda County Tsunami Hazard Areas. https://www.conservation.ca.gov/cgs/tsunami/maps/alameda (accessed October 2023).
- California Department of Finance (DOF). 2023. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-203.

https://dof.ca.gov/Forecasting/Demographics/Estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/ (accessed September 2023).

- California Department of Fish and Wildlife (CDFW). 2019. Natural Community Conservation Plans. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline (accessed October 2023).
- California Department of Forestry and Fire Protection. 2023. State Responsibility Area Fire Hazard Severity Zones.

https://osfm.fire.ca.gov/media/s1wfngas/fhsz\_county\_sra\_11x17\_2022\_alameda\_2.pdf (accessed October 2023).

\_\_\_\_\_. 2008. Very High Fire Hazard Severity Zones in LRA. https://osfm.fire.ca.gov/media/6638/fhszl\_map1.pdf (accessed October 2023).

California Department of Resources Recovery and Recycling (CalRecycle). 2023. SWIS Facility/Site Activity Details: Altamont Landfill & Resource Recovery. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/7?siteID=7 (accessed October 2023).

- California Department of Transportation. 2020. Transportation and Construction Vibration Guidance Manual (CT-HWANP-RT-13-069.25.3). https://dot.ca.gov/-/media/dotmedia/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf (accessed October 2023).
- \_\_\_\_\_\_. 2018. California State Scenic Highway System Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e 8057116f1aacaa (accessed October 2023).
- California Department of Water Resources. 2023. Dam Breach Inundation Map Web Publisher. https://fmds.water.ca.gov/webgis/?appid=dam\_prototype\_v2 (accessed October 2023).
- California Energy Commission (CEC). 2023. Electricity Consumption by County. http://www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed October 2023).
- \_\_\_\_\_. 2023. Gas Consumption by County. http://www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed October 2023).

9aa9cd (accessed October 2023).

- \_\_\_\_\_. 2022. 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings. https://www.energy.ca.gov/sites/default/files/2022-12/CEC-400-2022-010\_CMF.pdf (accessed October 2023).
- California Natural Resources Agency. 2018. California's Fourth Climate Change Assessment Statewide Summary Report. http://www.climateassessment.ca.gov/state/ (accessed October 2023).
- Federal Emergency Management Agency. 2023. National Flood Hazard Layer Viewer. https://hazardsfema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b552
- Federal Highway Administration (FHWA). 2006. FHWA Highway Construction Noise Handbook. (FHWAHEP-06-015; DOT-VNTSC-FHWA-06-02). https://www.fhwa.dot.gov/Environment/noise/construction\_noise/handbook/handbook00. cfm (accessed October 2023).
- Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/researchinnovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\_0.pdf (accessed October 2023).
- Hayward, City of. 2023. Hayward Draft Climate Action Plan. https://www.hayward-ca.gov/yourgovernment/departments/planning-division/hayward-housing-element-climate-action-plansafety-element-and-environmental-justice-update (accessed October 2023).
- \_\_\_\_\_\_. 2023. Hayward Final CEQA GHG Emissions Thresholds and Guidance Report. Published October 5, 2023.
- \_\_\_\_\_. 2023. Hayward Design Guidelines Documents. https://www.hayward-ca.gov/yourgovernment/documents/planning-documents (accessed October 2023).
- \_\_\_\_\_. 2023. La Vista Park. https://www.hayward-ca.gov/content/la-vista-park (accessed October 2023).
- \_\_\_\_\_. 2021. 2020 Urban Water Management Plan. https://www.haywardca.gov/sites/default/files/Hayward\_2020%20UWMP\_Final.pdf (accessed October 2023).
- \_\_\_\_\_\_. 2020. Bicycle and Pedestrian Master Plan. https://www.haywardca.gov/sites/default/files/Hayward%20BPMP\_Final%20Plan.pdf (accessed October 2023).
- . 2014. Hayward 2040 General Plan Policy Document. July 2014. https://www.haywardca.gov/sites/default/files/Hayward\_2040\_General\_Plan\_FINAL.pdf (accessed September 2023).
- \_\_\_\_\_. 2014. 2040 General Plan Background Report. January 2014. https://www.haywardca.gov/sites/default/files/General\_Plan\_Update\_Background\_Report\_1-31-14.pdf (accessed September 2023).
- . 2014. Hayward General Plan Draft Environmental Impact Report. http://www.haywardca.gov/sites/default/files/documents/Hayward%20GPU%20Public%20Release%20Draft%20 EIR\_1-30-14.pdf (accessed October 2023).
- . 1993. City of Hayward Design Guidelines. https://www.haywardca.gov/sites/default/files/COH%20Design%20Guildlines.pdf (accessed October 2023).

- Iowa State University. 2023. Iowa Environmental Mesonet. https://mesonet.agron.iastate.edu/ (accessed September 2023).
- San Francisco Bay Regional Water Quality Control Board. 2017. Order No. R2-2017-0016. https://www.waterboards.ca.gov/sanfranciscobay/board\_decisions/adopted\_orders/2017/ R2-2017-0016.pdf (accessed October 2023).
- United States Energy Information Administration (USEIA). 2023. California Profile Overview. April 20, 2023. https://www.eia.gov/state/?sid=CA (accessed October 2023).
  - \_\_\_\_\_. 2023. California Profile Overview. April 20, 2023. https://www.eia.gov/state/?sid=CA (accessed October 2023).

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Rincon prepared this CAP and CEQA GHG Emissions Thresholds Initial Study-Negative Declaration under contract to the City of Hayward. Persons involved in data gathering, environmental impact analysis, quality review, graphics preparation, and document formatting include the following.

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Appendix A

Sources, Health Effects, and Typical Controls Associated with Criteria Pollutants

Pollutant	Sources	Health Effects	Typical Controls
Ozone (O <sub>3</sub> )	Formed when reactive organic gases (ROG) and nitrogen oxides react in the presence of sunlight. ROG sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil); solvents; petroleum processing and storage.	Breathing difficulties, lung tissue damage, vegetation damage, damage to rubber and some plastics.	Reduce motor vehicle reactive organic gas (ROG) and nitrogen oxide (NO <sub>X</sub> ) emissions through emission standards, reformulated fuels, inspections programs, and reduced vehicle use. Limit ROG emissions from commercial operations, gasoline refueling facilities, and consumer products. Limit ROG and NO <sub>X</sub> emissions from industrial sources such as power plants and manufacturing facilities.
Carbon monoxide (CO)	Any source that burns fuel such as automobiles, trucks, heavy construction and farming equipment, residential heating.	Chest pain in heart patients, headaches, reduced mental alertness.	Control motor vehicle and industrial emissions. Use oxygenated gasoline during winter months. Conserve energy.
Nitrogen dioxide (NO <sub>2</sub> )	See Carbon Monoxide.	Lung irritation and damage. Reacts in the atmosphere to form ozone and acid rain.	Control motor vehicle and industrial combustion emissions. Conserve energy.
Sulfur dioxide (SO <sub>2</sub> )	Coal or oil burning power plants and industries, refineries, diesel engines.	Increases lung disease and breathing problems for asthmatics. Reacts in the atmosphere to form acid rain.	Reduce use of high sulfur fuels (e.g., use low sulfur reformulated diesel or natural gas). Conserve energy.
Respirable particulate matter (PM <sub>10</sub> )	Road dust, windblown dust, agriculture and construction, fireplaces. Also formed from other pollutants (NO <sub>X</sub> , SO <sub>X</sub> , organics).	Increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling.	Control dust sources, industrial particulate emissions, woodburning stoves and fireplaces. Reduce secondary pollutants which react to form PM <sub>10</sub> . Conserve energy.
Fine particulate matter (PM <sub>2.5</sub> )	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning. Also formed from reaction of other pollutants (NO <sub>X</sub> , SO <sub>X</sub> , organics, and NH <sub>3</sub> ).	Increases respiratory disease, lung damage, cancer, and premature death, reduced visibility, surface soiling. Particles can aggravate heart diseases such as congestive heart failure and coronary artery disease.	Reduce combustion emissions from motor vehicles, equipment, industries, and agricultural and residential burning. Precursor controls, like those for ozone, reduce fine particle formation in the atmosphere.
Lead	Metal smelters, resource recovery, leaded gasoline, deterioration of lead paint.	Learning disabilities, brain and kidney damage. Control metal smelters.	No lead in gasoline or paint.
Sulfur Dioxide (SO <sub>2</sub> )	Coal or oil burning power plants and industries, refineries, diesel engines.	Increases lung disease and breathing problems for asthmatics. Reacts in the atmosphere to form acid rain.	Reduce use of high sulfur fuels (e.g., use low sulfur reformulated diesel or natural gas). Conserve energy.
Sulfates	Produced by reaction in the air of $SO_2$ , (see $SO_2$ sources), a component of acid rain.	Breathing difficulties, aggravates asthma, reduced visibility.	See SO <sub>2</sub>

Sources, Health Effects,	and Typical	Controls /	Associated	with	Criteria Pollutants
			Associated	*****	

#### City of Hayward Hayward Climate Action Plan and CEQA GHG Emissions Thresholds

Pollutant	Sources	Health Effects	Typical Controls
Hydrogen Sulfide	Geothermal power plants, petroleum production and refining, sewer gas.	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations).	Control emissions from geothermal power plants, petroleum production and refining, sewers, and sewage treatment plants.
Visibility Reducing Particulates	See PM <sub>2.5</sub>	Reduced visibility (e.g., obscures mountains and other scenery), reduced airport safety.	See PM <sub>2.5</sub>
Vinyl Chloride	Exhaust gases from factories that manufacture or process vinyl chloride (construction, packaging, and transportation industries).	Central nervous system effects (e.g., dizziness, drowsiness, headaches), kidney irritation, liver damage, liver cancer.	Control emissions from plants that manufacture or process vinyl chloride, installation of monitoring systems.
Toxic Air Contaminant (TAC)	Combustion engines (stationary and mobile), diesel combustion, storage and use of TAC-containing substances (i.e., gasoline, lead smelting, etc.)	Depends on TAC, but may include cancer, mutagenic and/or teratogenic effects, other acute or chronic health effects.	Toxic Best Available Control Technologies (T-BACT), limit emissions from known sources.

# <u>Appendix</u> B

Description of Greenhouse Gases of California Concern

Greenhouse Gas	Physical Description and Properties	Global Warming Potential (100 years)	Atmospheric Residence Lifetime (years)	Sources
Carbon dioxide (CO <sub>2</sub> )	Odorless, colorless, natural gas.	1	50–200	Burning coal, oil, natural gas, and wood; decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; oceanic evaporation; volcanic outgassing; cement production; land use changes
Methane (CH₄)	Flammable gas and is the main component of natural gas.	28	12	Geological deposits (natural gas fields) extraction; landfills; fermentation of manure; and decay of organic matter
Nitrous oxide (N <sub>2</sub> O)	Nitrous oxide (laughing gas) is a colorless GHG.	298	114	Microbial processes in soil and water; fuel combustion; industrial processes
Chloro-fluoro- carbons (CFCs)	Nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (level of air at the Earth's surface); formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms.	3,800–8,100	45–640	Refrigerants; aerosol propellants; cleaning solvents
Hydro-fluoro- carbons (HFCs)	Synthetic human-made chemicals used as a substitute for CFCs and contain carbon, chlorine, and at least one hydrogen atom.	140 to 11,700	1–50,000	Automobile air conditioners; refrigerants
Per-fluoro- carbons (PFCs)	Stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface.	6,500 to 9,200	10,000–50,000	Primary aluminum production; semiconductor manufacturing
Sulfur hexafluoride (SF <sub>6</sub> )	Human-made, inorganic, odorless, colorless, and nontoxic, nonflammable gas.	22,800	3,200	Electrical power transmission equipment insulation; magnesium industry, semiconductor manufacturing; a tracer gas
Nitrogen trifluoride (NF <sub>3</sub> )	Inorganic, is used as a replacement for PFCs, and is a powerful oxidizing agent.	17,200	740	Electronics manufacture for semiconductors and liquid crystal displays

### Description of Greenhouse Gases of California Concern