



# ALAMEDA



## Climate Action and Resiliency Plan (CARP) Annual Report 2020

# Overview and Project Updates

## Overview

The Climate Action & Resiliency Plan (CARP) was adopted by the City Council on September 3, 2019, after a year and a half plan development process that included significant community and stakeholder engagement. To guide implementation, Annual Reports will be presented to City Council and Boards and Commissions to share information and evaluate priorities.

Less than six months has passed between adoption of the CARP and submittal of this first Annual Report. The 2020 Annual Report is being put forward at this time to ensure that budget decisions can be linked to plan implementation efforts and to coincide with the Transportation Choices Plan annual report, acknowledging the important connections between transportation and climate. It should also be noted that significant progress has been made to implement the CARP between September 2019 and now. The remainder of this document presents the CARP's vision and goals, the status of key projects and staffing structure, metrics and funding, and a framework for the next five years of plan implementation.

*Fruitvale Avenue Bridge. Photo credit: Tobin*



*Alameda Point.  
Credit: Richard Bangert*



*Alameda's Eastshore Drive neighborhood.  
Credit: Maurice Ramirez*

## Vision & Goals

By promoting both greenhouse gas (GHG) reduction and climate adaptation measures, the CARP will help Alameda achieve an overarching purpose to increase resilience to climate change and ensure a sustainable and healthy environment, social equity, and economy.

The CARP outlines a path to achieve eight targeted goals in support of the overarching purpose and achieving the vision. These include an ambitious goal for GHG reduction, a set of specific goals for increasing resilience to climate hazards, and a final goal for the City to effectively implement the plan and build capacity.

1. **GHG Reduction:** Reduce GHG emissions to 50 percent below 2005 levels by 2030 and achieve net zero GHG emissions as soon as possible.
2. **Sea level rise and storm surges:** Protect assets from sea level rise and storm surges, plan future land use to avoid impacts, and enhance natural shoreline habitat to mitigate impacts.
3. **Inland flooding:** Increase the resiliency and capacity of Alameda's stormwater system to prevent flooding of assets during extreme precipitation events.
4. **Drought:** Reduce water consumption and increase drought-resistant landscaping.
5. **Extreme heat:** Reduce the heat island effect and protect vulnerable populations from heat impacts during heat waves.
6. **Wildfires:** Protect public health from unhealthy air quality during wildfire events, especially vulnerable populations.
7. **Earthquakes/liquefaction:** Ensure that building and infrastructure retrofits and new design standards in areas at high risk of liquefaction consider both seismic risk and sea level rise impacts.
8. **Effective implementation and capacity building:** Develop financial and human resources and increase transparency, community engagement, social resilience, and support for effective CARP implementation.

### **Vision for the *Climate Action & Resiliency Plan***

Alameda is an innovative leader in achieving net zero carbon emissions and community resilience as soon as possible, and serve as a model for similarly impacted cities to do the same. Our community members are a vital part of this ongoing process.

Note that future Annual Reports may include proposed modifications to the CARP.



*Rendering of a concept for potential West End bike/pedestrian bridge as envisioned in the Transportation Choices Plan (Project 39).*

## **Integrating Equity into Climate Action**

The three pillars of sustainability are healthy economy, natural environment, and social equity. Equity is critical for societal sustainability and community resilience, and is a central tenet of the CARP. In the development process, social equity was considered when assessing the potential impacts of climate change, the costs and benefits of proposed City actions, and project prioritization.

To better understand the impacts of climate change locally, staff developed a Social Vulnerability Assessment (SVA) for Alameda. The SVA recognizes that hazard events do not have the same impact on every household; impacts are influenced by income, ability, age, English language proficiency, and other socioeconomic characteristics. The SVA mapped Alameda's 57 census block groups according to their concentration of social vulnerability indicators, as determined by the Association of Bay Area Governments (ABAG). This data is now being utilized in the development of the Active Transportation Plan and Emergency Operations Plan, and will be referenced on an ongoing basis in the design and implementation of adaptation and resilience projects.

The CARP is committed to implementing adaptation and GHG reduction strategies that are socially beneficial, especially for underserved communities. One example is the CARP's prioritization of mode shift strategies that increase transit access and bicycle and pedestrian safety, making affordable mobility options accessible to a broader range of Alamedans. Another equitable transportation strategy is AMP's rebate program for used EVs, launching early 2020, which will allow more Alamedans to enjoy the cost savings and cleaner air from driving a zero-emissions vehicle. Further ahead is the tree planting effort that will be incorporated into the Master Tree Plan Update in mid-2020. Where possible, staff will seek to

place carbon-sequestering trees in neighborhoods lacking in canopy cover to bring cooling shade and air filtration to more of the island.

To mobilize in response to the climate emergency, money must be spent. As much as possible, staff will seek to win grants, gain the support of partner agencies, and make use of other creative opportunities to get the most benefit out of every dollar raised locally. No matter how successful we are at this, more money will need to be raised within our jurisdiction. Unfortunately, many revenue-raising options in the city government toolkit are regressive, meaning that they take a larger percentage of income from low-income households than from high-income households. Funding and financing for climate action is an emerging topic area in California, and City staff are committed to learning how to raise needed capital as equitably as possible.

Inclusive outreach and engagement was a priority in the CARP development process and continues to be a priority as implementation begins. In the CARP, resources were produced in four languages and workshops were offered online and in-person in order to make attendance more accessible. Despite these efforts, the diversity of Alameda and complexity of the CARP mean that much more communications work is needed. Staff recommend initiating a communications plan in spring of 2020, discussed below, in order to address this need.

While social equity is central to sustainability and was a guiding principle of the CARP, there is still much work to be done in order to thoroughly integrate an equity lens into CARP actions and into other work across City departments. Staff continue to learn best practices, and plan to make significant progress in this topic area in the year ahead.

## **GHG Reduction Updates**

The CARP outlined GHG reduction strategies in three major categories in order to meet the 2030 target of reducing GHG emissions 50% below 2005 levels and achieving net zero emissions as soon as possible. Those categories are Transportation, Buildings & Energy, and Carbon Sequestration. A full list of actions and updates are in the attached appendix, and a summary is below.

Progress on transportation-related actions in the CARP includes drafting a ban on gas-powered leaf blowers in the city and continuing to electrify the City's fleet of vehicles. Actions currently underway include construction of new bike lanes, launch of the Active Transportation Planning process, and extensive outreach from Alameda Municipal Power (AMP) about electric vehicles. CARP transportation actions considered for the next year include traffic signal synchronization, reducing commute vehicle miles travelled (VMT) by promoting telecommuting, and AMP's new rebate program for used EV, which offers a higher rebate amount for income-qualified individuals.

For Buildings & Energy, staff and the City Council quickly pushed forward multiple items, creating an exemption from design review for energy efficient windows and doors to incentivize climate-friendly retrofits and passing a resolution directing staff to seek all-electric residential development on City-owned lands. In addition, AMP is providing 100% clean power to all Alamedans as of January 1, 2020. In the year to come, staff are considering both an electrification and energy efficiency reach code (which is more ambitious than the State Building Code) and a prohibition on natural gas infrastructure as options for meeting the CARP's commitment to 100% all-electric units for new residential development citywide.

Under the umbrella of Carbon Sequestration, staff have begun a scoping process for a Master Tree Plan Update, which would add 3,500 trees to Alameda. In the year ahead, staff plan to explore cost-effective

options for meeting compost application goals and identify opportunities to promote community gardens and community engagement in a way that integrates with the compost and urban forest initiatives.

For future Annual Reports, staff are considering how planning and reporting can be integrated across the multiple departments and sectors that contribute to climate action in the city. For example, greater integration between the Transportation Choices Plan, Active Transportation Plan, and the CARP, and closer alignment with AMP's Strategic Planning process. This would create a more global picture of climate action progress and obstacles in Alameda, rather than updates primarily on the actions defined in the CARP.

## **Adaptation/Resilience Updates**

Alameda is one of the most climate-vulnerable cities in California. Our most significant vulnerabilities are to sea level rise and a rising water table, but our vulnerabilities are not limited to flooding. Earthquakes, hazardous air quality from wildfire smoke, and increasing heat waves are all risks that Alamedans face.

Since CARP adoption in September, Alamedans passed a Water Quality and Flood Protection fee increase that provides needed ongoing revenues for operations and capital projects that reduce flooding and improve water quality runoff to the Bay. At the same time, staff completed and started implementing of the City's first Green Infrastructure Plan, the purpose of which is to guide the identification, implementation, tracking, and reporting of green infrastructure projects within Alameda.

Current adaptation projects include a redesign of Veteran's Court, the cul-de-sac near the Veteran's Memorial at the entrance to Bay Farm Island, to address near-term flooding risk. The Fire department is leading an effort to create an Environmental Annex to the Emergency Operations Plan, which would define protocols for City action in case of events of extreme heat, extreme cold, and hazardous air quality. Staff are also approaching completion of an update to the Master Infrastructure Plan (MIP) for Alameda Point, which will ensure that sea level rise projections for the MIP are consistent with those in the CARP, and a groundwater rise study. A rising water table due to sea level rise is one of the most significant and understudied hazards that Alameda faces. The City initiated a study in fall 2019, which is considered cutting edge in the region and state, and will provide projections of groundwater rise across Alameda based on the best available local data and will offer strategies the City can take to address this emerging hazard. The MIP update and groundwater rise study are both expected to be completed in spring of 2020.

Addressing earthquake resiliency, the City's soft story retrofit program has identified 185 soft story buildings of which 120 have been retrofitted. (A soft story building is a multi-story building in which one or more floors are significantly weaker in lateral load resistance than the stories above it or foundation below it. They are vulnerable to earthquake damage.) This program was not a mandatory retrofit ordinance, and there were no grants through the City associated with it. A total of 65 hazardous soft story buildings remain of those identified. There are currently no plans to continue beyond the established retrofit ordinance, though it could be revisited. New development is constructed to the highest seismic standards per the California Building Code.

For next steps, staff will be looking for ways to make progress on some of the more complex adaptation challenges Alameda faces. Three flooding locations are identified as implementation priorities in the CARP: Doolittle Drive, the Webster and Posey Tubes, and the Eastshore neighborhood. Addressing flooding in all three of these locations is made more complex by the number of property owners involved. Doolittle Drive and the Tubes are both owned by Caltrans, while the shoreline on Eastshore, east of Fernside Avenue, is comprised of dozens of residential property owners who are not linked by a single homeowners association. To move toward adaptation solutions in these challenging areas, staff will seek

grant assistance for planning and will engage with partner agencies (which for Doolittle include Caltrans, the Port of Oakland and East Bay Regional Parks District) to find shared solutions that make efficient use of local resources.

At all timescales of adaptation planning and implementation, funding is a primary concern. According to an economic analysis done for the CARP, investment in flood protection saves at least \$3.50 for every \$1 spent – and the ratio could be significantly higher, depending on how fast sea levels rise and other factors. The recently-passed Water Quality fee increase is one important source of revenue, but there will need to be others to invest in Alameda’s medium- and long-term resilience. One option for raising revenue is an infrastructure bond, which could be considered in 2020.

For more detailed information, see the Appendix to this report.

## Legislation Update

The City of Alameda supported the following State bills related to climate action and resiliency in 2019 and will continue to support additional resources to assist in the City’s implementation of the Climate Action & Resiliency Plan.

AB 1080: Would enact the California Circular Economy and Pollution Reduction Act, which would impose a comprehensive regulatory scheme on producers, retailers, and wholesalers of single-use packaging and single-use products.

Status: delayed; 2-year bill

SB 5: Would establish in state government the Affordable Housing and Community Development Investment Program.

Status: Vetoed

SB 54: Would enact the California Circular Economy and Pollution Reduction Act.

Status: delayed; 2-year bill

SB 127: Would require the asset management plan of the Department of Transportation to prescribe a process for community input and complete streets implementation to prioritize the implementation of safe and connected facilities for pedestrians, bicyclists, and transit users.

Status: Vetoed

## Partnerships and Staffing

### Partnerships

The City is partnering with a variety of local and regional stakeholders to ensure that implementation is smooth, represents community values, and is in line with industry best practices.

To support implementation, City staff reconvened the CARP Task Force, which also supported the CARP during the development process. A purpose statement for the Task Force will be developed in the coming months. The members of the CARP Task Force are:

- Ruth Abbe, Community Action for a Sustainable Alameda
- Dania Alvarez, Bay East Association of Realtors, Alameda Chapter

- Linda Asbury, Western Alameda Business Association
- Aimee Barnes, Recreation and Parks Commission
- Steve Busse, Downtown Alameda Business Association
- Jeffrey Cavanaugh, Planning Board
- Dawn Jaeger, Community of Harbor Bay Isle Owners' Association
- Ann McCormick, Alameda Public Utilities Board
- Mike O'Hara, Alameda Transportation Management Association
- Pat Potter, Bike Walk Alameda
- Tina Yuen, Transportation Commission
- Bill Smith, Sierra Club

Other agencies that the City is engaging with as stakeholders and collaborators include: Community Action for a Sustainable Alameda (CASA), San Francisco Bay Conservation and Development Commission (BCDC), California Department of Transportation (Caltrans), Port of Oakland, Stopwaste, East Bay Regional Park District (EBRPD), and Alameda Unified School District (AUSD).

City staff are also engaged in a number of networks in order to learn and integrate industry best practices into CARP implementation. These include: Bay Area Climate Adaptation Network (BayCAN) where Alameda is a member of the Steering Committee, Coastal Hazards Adaptation Resiliency Group (CHARG), annual and monthly Floodplain Management Association conferences, the Urban Sustainability Director's Network, and Stopwaste Energy Council Technical Advisory Group (TAG). Staff also attend meetings of the regional Climate Emergency Task Force on an ad hoc basis.

## **Staffing**

At this time, implementation of the CARP is led by the Assistant City Manager, with the support of the part-time Climate Action Coordinator. Much of the organization is focused on implementing various aspects of the CARP, particularly staff from Public Works; Planning, Building and Transportation; Recreation and Parks; and Alameda Municipal Power.

In the upcoming mid-cycle budget discussion, the City Council will be presented with the option to add a new full-time equivalent position – Sustainability and Resilience Manager. The Sustainability and Resilience Manager would be a full-time employee responsible for coordination and ongoing management of CARP implementation, progress tracking and reporting. Additionally, the Sustainability and Resilience Manager may take on project management related to certain projects identified in the CARP (e.g., Master Tree Plan Update, including community outreach).

CARP implementation is primarily organized through three Working Groups, which are inter-departmental staff teams focused on advancing specific actions identified in the CARP. The three working groups meet every one to two months and are focused on:

- Reducing Emissions from Buildings and Transportation;
- Carbon Sequestration; and



- Climate Adaptation.

In addition to the Working Groups, City-wide focus on the CARP is supported through regular updates to the City's Executive Management Team, as well as a variety of more focused groups such as the Electric Vehicle Working Group and planning staff working on the General Plan update, which includes a Climate Action and Conservation chapter that will be considered by Council in 2020. To support institutionalization of a climate lens throughout all City activities, staff have added a Climate Impacts section to staff reports to consider the greenhouse gas and resiliency implications of every decision that goes before the City Council.

## **Communications Plan**

Communications is a critical component of building community resilience and empowering effective climate action. There is no path to achieving the goals of the CARP without an effective communications strategy. The original scope of work for the CARP reflected this, with a section devoted to a communications plan. However, this had to be cut during the negotiation process with contractors in order to ensure ample budget for completing the technical components of the plan. Now that the CARP has been adopted and is in implementation, staff recommend developing a comprehensive communications plan related to climate action and resiliency. The communications plan will entail a programmatic approach to the City website, social media, public-facing dashboard to track CARP implementation, and in-person outreach and engagement. This plan will build on the in-person and digital outreach that staff conducted with community partners during the CARP development process, and will leverage the work currently underway to improve the CARP webpage and develop an initial dashboard.

The communications plan will require funding, which will be requested as part of the mid-cycle budget amendments in summer 2020.

## **Dashboard and Metrics**

Tracking and communicating metrics throughout the implementation process will be key to achieving the CARP's ambitious 2030 goals. Figuring out which metrics to track for internal and public-facing purposes, how to communicate about them, and how to tie them to CARP strategies and actions will be a major focus of staff effort in 2020. For greenhouse gas reduction, the summary metrics proposed include citywide natural gas consumption as a way to track emissions from buildings, vehicle registration by fuel type in Alameda as a way to track growth in EVs and decline in car ownership, and mode shift metrics such as bus and ferry ridership. The summary metrics proposed for carbon sequestration include number of trees planted and citywide canopy cover. Summary metrics for climate adaptation could include number of parcels in the 100-year floodplain.

To track and communicate these summary metrics, as well as more granular metrics for specific sectors, staff are creating a dashboard in partnership with OpenGov. The first version of this dashboard will be available at the Annual Report presentation to City Council, and will be expanded and refined through 2020 and beyond.

The communications plan will incorporate existing work on metrics and the OpenGov dashboard.

## Budget and Funding

As stated in the adopted CARP, “to implement GHG and resilience strategies, Alameda will need to use a mix of federal, regional, state, and local dollars and grants.” Staff continues to communicate with other agencies and organizations to identify and selectively pursue grant opportunities. At the local level, the Capital Improvement Plan (CIP) will be a key source of funding for prioritized projects in the near-term. To help fund CIP projects, the City Council will use funding from a number of sources, including the Water Quality fee, approved by Alameda property owners 2019.

The adopted CARP also mentions the possibility of creating a “Climate Fund,” which could be used for matching grants, offsetting permit fees, retrofitting buildings and purchasing carbon offsets. At this stage in our overall CARP implementation process, staff intends to develop a more comprehensive funding plan in 2020, which aligns with project and program priorities for the coming years.

## Next Steps

The status and next steps for each GHG reduction project and the top adaptation projects in the CARP are described in an appendix to this report. Staff continue to look for early wins while building momentum on longer-term, more complex projects.

The Annual Reports will be presented to the City Council in March 2021 to maintain alignment with the reporting schedule of the Transportation Choices Plan. The City Council could ask to receive updates more frequently; for example, staff could present an update at the six-month mark, in September 2020, which could prepare the City Council to make any mid-year budget adjustments if necessary at the beginning of 2021.

There are over 150 actions related to resilience and climate adaptation in the CARP. The table listed in the appendix presents the highest priorities of these. The remainder can be viewed at [https://www.alamedaca.gov/files/sharedassets/public/public-works/climate-action-page/alameda\\_carp\\_final\\_091119.pdf](https://www.alamedaca.gov/files/sharedassets/public/public-works/climate-action-page/alameda_carp_final_091119.pdf), or downloaded from [www.alamedaca.gov/carp](http://www.alamedaca.gov/carp).