

**DATE:** October 3, 2023

**TO:** Council Sustainability Committee

**FROM:** Danielle Lee, Chief Sustainability and Resiliency Officer

**VIA:** Audrey Seymour Ramberg, Assistant City Manager

**SUBJECT:** **Climate Resiliency Initiatives**

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**PURPOSE**

This memorandum provides an update on climate resiliency efforts in progress and planned next steps.

**RECOMMENDATION**—Provide input on planned climate resiliency initiatives.

**BACKGROUND**

According to various State and local climate models, the City of Mountain View will face increased impacts from climate change in the coming years and decades, creating hazards for public health and the built environment. The County of Santa Clara's Countywide Climate Change Preparedness Tool, Silicon Valley 2.0 ("SV 2.0") projects that climate change will bring increased threats from riverine flooding, sea level rise, wildfires, and extreme heat to Mountain View. Cal-Adapt, a climate data platform developed by academia in partnership with State government agencies, also assesses the expected impacts of climate change.

Sea level rise and riverine flooding are two of the most significant climate change impacts the City will face. The San Francisco Bay, which is the northern border of the City, is expected to rise significantly. Based on the California Ocean Protection Council's 2018 projections, in June 2021, the City adopted the high sea level rise scenario for sea level rise adaptation planning purposes. This scenario predicts 42" of sea level rise by 2070. Precipitation and drought models also predict significant challenges in Mountain View and throughout the Bay Area. Models estimate that by midcentury, Mountain View will experience significantly longer dry spells (seven additional days in the medium emissions scenario and 10 additional days in the high emissions scenario).

Climate change will also bring more severe and frequent extreme heat events to Mountain View, which are harmful to public health and infrastructure. Persons vulnerable to extreme heat may include seniors, young children, individuals with disabilities, and individuals experiencing homelessness, who may lack the resources to seek shelter. According to Cal-Adapt and SV 2.0,

Mountain View is expected to have an average of 11 additional extreme heat days per year by midcentury in a low to moderate-emissions scenario, and 13 additional days in a high-emissions scenario. SV 2.0 projects that over 20,000 Mountain View residents will be at least moderately impacted by extreme heat events. By 2050, SV 2.0 also projects a small portion of northern Mountain View to be vulnerable to wildfires. While most of the City is not projected to be directly impacted by wildfires, more frequent and intense fires in other areas have contributed to unhealthy air quality in Mountain View, and this issue is likely to worsen as climate change intensifies.

Input from residents indicates the impact of climate hazards is already substantial. In September 2023, the City and the Community Services Agency (CSA) conducted a survey of 120 seniors that participate in CSA's senior nutrition program. Respondents indicated they are already greatly impacted by extreme heat (15%), storms (10%), and poor air-quality (15%). Furthermore, 73% indicated their home lost power at least a few times in the past three years, 48% indicated their home did not have air conditioning, and 60% reported they were not aware of Mountain View's cooling centers. These responses point to the need for resilient infrastructure, programs, and services to protect public health.

## **DISCUSSION**

### **Sea Level Rise Capital Improvement Plan**

As reported to the Council Sustainability Committee on December 1, 2021, and June 22, 2022, City staff prepared a Sea Level Rise Study Update in 2021 and recommended 14 capital projects to prepare the City to adapt to the future sea level rise. The cost estimate for the projects is \$122 million in year-of construction dollars over the next 10 years. Implementation of this plan is under way, with some projects complete, in design, or in the planning phase.

Table 1 shows the status of projects within the Sea Level Rise Capital Improvement Program (CIP).

**Table 1: Status of Sea Level Rise CIP Projects**

<b>Project</b>	<b>Status/Phase</b>
Sailing Lake Access Road Construction Project	Complete
North Landfill Erosion Protection	Design
Lower Stevens Creek Levee Improvement	Design
Crittenden Pump Station Improvements	Design
Coast-Casey Levee Improvement	Planning
Coast-Casey Pump Station Improvements	Planning
Sailing Lake Pump Station Modifications	Planning
Charleston Slough Mitigation	Planning
U.S. Fish and Wildlife Services Projects at the Salt Ponds	Pond A2W under construction, Pond A1 in design

## **Citywide Resiliency Planning**

City staff is working on several resiliency planning efforts.

### *Gap Analysis*

The City is participating in the “Cities Race to Resilience” initiative run by ICLEI—Local Governments for Sustainability (formerly International Council for Local Environmental Initiatives). Through “Cities Race to Resilience,” City staff gained access to training on climate risk and vulnerability assessments and adaptation planning, support from ICLEI USA technical staff, and peer learning and networking opportunities. Staff is exploring a partnership with ICLEI to conduct a gap analysis of the City’s resiliency policy and programs, which will help focus the City’s resiliency planning. The gap analysis would include:

- Climate hazard maps and data visualizations, overlaid with social vulnerability data;
- Analysis of existing policies and plans to identify resilience gaps;
- Stakeholder workshops to explore resilience solutions and set goals;
- Identification of City resource and capacity needs;
- Development of implementation and monitoring plans; and
- Community engagement through surveys and other strategies.

### *Request for Proposals for Resiliency Planning*

City staff is developing a Request for Proposals for an external consultant to conduct a vulnerability assessment and develop a Citywide decarbonization and resiliency strategy and implementation plan. The vulnerability assessment will consider top climate hazards facing Mountain View, including extreme heat, wildfire smoke, sea level rise, storms, and riverine flooding. The assessment will also evaluate potential risks to City assets and social vulnerability. The resiliency strategy will outline adaptation strategies to address climate vulnerabilities. The Request for Proposals is anticipated to be opened in fall 2023.

Resiliency planning will build from existing resources such as:

- The County of Santa Clara Silicon Valley 2.0 tool and Climate Adaptation Guidebook;
- The County of Santa Clara Hazard Mitigation Plan (Mountain View Annex);

- The Shoreline Regional Park Community Sea Level Rise Study Feasibility Report and Capital Improvement Program;
- Cal-Adapt Climate Tools; and
- City of Mountain View Biodiversity Strategy (in-progress).

### **Resilience Hub Infrastructure and Services**

The City is working to transform some of its buildings into resilience hubs, which are community-serving facilities augmented to support residents and serve as safe gathering spaces in the event of climate emergencies, such as power outages, extreme heat, and storms.

#### *Senior Center*

The Mountain View Senior Center is an ideal resilience hub site for a variety of reasons, including its high utilization for recreation and social safety net services, its role as the City's primary location for providing overnight shelter services during emergencies, and its proximity to other City-owned amenities, including the Community Center, the new Rengstorff Park Aquatics Center, The View Teen Center, and Rengstorff Park. City staff, with assistance from grant consultant Renne Public Policy Group, submitted a grant application to the Strategic Growth Council in September, requesting \$5.3 million in funding from the Community Resilience Centers grant program to transform the Senior Center into a resilience hub. The application was submitted jointly by the City, the grant lead, and Co-Applicants Community Services Agency (CSA) and Day Worker Center of Mountain View (DWC). Several City departments and divisions, including the Public Works Department, Community Services Department, Sustainability Division, Office of Emergency Services, Finance and Administrative Services Department, and Community Development Department, contributed to the application.

The grant application requested funds for several capital improvements at the Senior Center that would benefit energy resiliency and public health, including:

- Solar photovoltaic (PV) panels and battery backup, to provide an independent source of energy to support a resilience hub and overnight shelter during extreme heat days, power outages, and other extreme events;
- Indoor or outdoor air quality monitors to provide real-time data to adapt programs and services in response to poor air quality days;

- An electric, MERV 13 heating, cooling, and ventilation (HVAC) system to filter dust and small particles, providing protection during smoky days due to wildfires; and
- Eight electric vehicle (EV) charging ports to support mobility of residents, particularly EV drivers who do not have charging at home or who lose power.

The grant application also requested funding for community services within a one-mile radius of the Senior Center, such as:

- Funding for the CSA to coordinate emergency communications in the community to alert vulnerable residents of extreme heat and other climate hazards and to provide emergency supplies and information. CSA may partner with local community-based organizations, such as the Community in Action Team (CAT), to conduct door-to-door outreach in Spanish; and
- Funding for DWC to conduct a workforce training program for local day laborers to learn how to install monolithic adobe (cob) structures and other sustainable building types. This will equip the local workforce with career opportunities and provide more sustainable building services for residents and businesses.

The grant application results are anticipated to be released in December. City staff is also evaluating the opportunity of other City and community facilities to be adapted into resilience hubs.

### *Community Center*

The Community Center is another optimal resilience hub site given its role as a community gathering place, an emergency shelter, and cooling center during natural disasters and heat waves, and a vaccination center during the COVID-19 pandemic. The Community Center Resiliency Hub project is currently under way. Partially funded by \$636,365 in grant funding from Silicon Valley Clean Energy (SVCE), this project will install a standby battery energy storage system, supporting resiliency by ensuring the Community Center has electricity during Pacific Gas and Electric (PG&E) Public Safety Power Shutoff events and other power outages. When the Community Center was renovated and expanded in 2019, an emergency generator was not included due to funding limitations. During power outages, City staff transports and connects an emergency diesel generator to restore power. An on-site standby battery energy storage system is a preferred solution for circumstances in which power is immediately needed during a natural disaster or while cooling or vaccination center services are being provided. Design for the Community Center Resiliency Hub project is complete and is currently under a permit review, which is anticipated to be approved in fall 2023. Once the permit is approved, construction will take approximately three months.

### *Community Engagement*

City staff is also developing approaches to engage diverse populations and neighborhoods on resiliency, with the goal of engaging residents throughout the entire City. Last week, staff applied to the Santa Clara County Public Health Department for the Climate Change Adaptation and Mitigation Funding Program for Jurisdictions. If awarded, City staff would work with CSA to conduct emergency preparedness-related community engagement in neighborhoods not covered by the Senior Center grant. Potential target populations include vehicularly-housed individuals, seniors, and Spanish-speaking individuals. The maximum funding award is \$50,000, and decisions will be released by late October.

### **Partnerships**

City staff is developing partnerships to accelerate the City's resiliency efforts. The City is joining the Santa Clara County Climate Collaborative this year as an official partner, and staff has been a member of the Collaborative's Leadership Advisory Team and Sea Level Rise Work Group since 2022. The Collaborative is a network and community of practice for public agencies, academia, nonprofit and community-based organizations, and business and community leaders to advance regional solutions to climate change through resource-sharing, joint-funding opportunities, and partnership development. City staff is also utilizing the County's climate modeling tool, SV 2.0, to understand how the City will be impacted by hazards such as extreme heat, storms, riverine flooding, and wildfires.

City staff plans to convene Santa Clara County, Second Harvest Food Bank, and other Countywide or local organizations to serve as an advisory group on Mountain View resiliency initiatives. The purpose of this group is to learn about resiliency-related resources in the Bay Area and get feedback on Mountain View's resiliency planning. City staff is also planning to connect with more community-based organizations, through a partnership with CSA, in order to develop community engagement pilot projects.

### **NEXT STEPS**

Staff will continue developing the Request for Proposals for Resiliency Planning and anticipate releasing the RFP this fall. The Resiliency Plan will be developed by summer 2024. Staff will monitor the results of the Strategic Growth Council and Santa Clara County grant applications and continue to seek funding opportunities for resiliency planning, implementation, and community engagement. Staff will provide a resiliency progress update to the CSC in Q4.

DL/LA/1/MGR

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