

# Chapter 02

## Planning Process

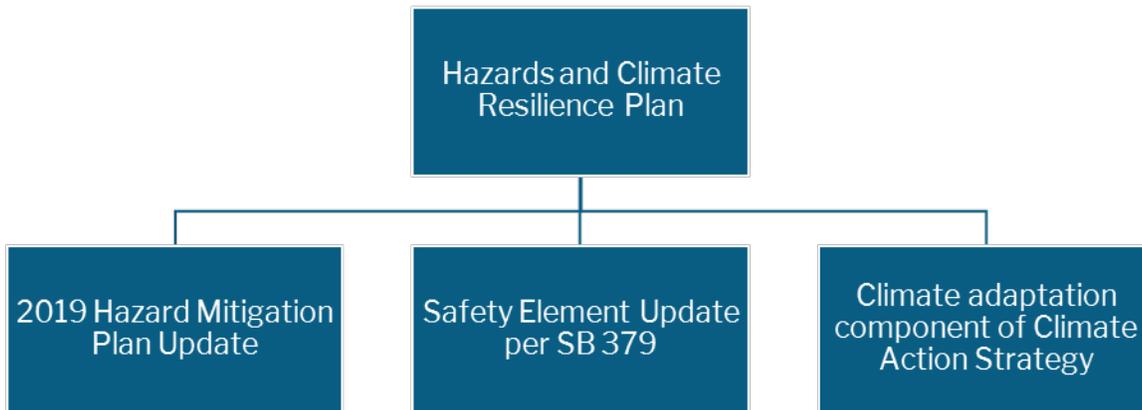


To create the HCR, the City and County of San Francisco developed a comprehensive approach to incorporate the feedback of departments and the larger San Francisco community to the greatest extent possible given time and resource constraints. This chapter describes the process used to develop the 2019 HCR, including engagement with stakeholders and the public.

### 2.1 Planning Process Overview

As illustrated in Figure 2-1, the HCR process meets three primary planning needs: (1) create a new 2019 HMP in compliance with state and federal requirements, (2) incorporate climate hazards into both the HCR and the Safety Element of the General Plan, and (3) add climate resilience and adaptation to the 2020 Climate Action Strategy.

**FIGURE 2-1: HAZARDS AND CLIMATE RESILIENCE PLANNING NEEDS**



The HCR development process also sought to achieve the outcomes listed below.

- Build greater understanding of San Francisco’s hazard and climate risks among City leaders, staff, and stakeholders
- Provide strategic policy guidance and direction for ongoing and future citywide multi-hazard risk reduction efforts
- Build the capacity of City staff and partners to develop hazard and climate resilience actions and programs

## 2.2 City Agency Leadership and Engagement

The Office of Resilience and Capital Planning (ORCP) managed the HCR development process through a Steering Committee and a Technical Working Group involving several departments. Staff from these departments provided indispensable resources and support throughout the process. All the departments listed below sat on the Steering Committee. Those in bold also sat on the Technical Working Group.

- **Office of Resilience and Capital Planning (ORCP)**
- **Planning Department (Planning)**
- **Department of Public Health (DPH)**
- **Department of the Environment (SFE)**
- **Department of Emergency Management (DEM)**
- City Administrator – Steering Committee
- Public Works (Public Works) – Steering Committee
- Mayor’s Office (MYR) – Steering Committee

The Technical Working Group met every two weeks and the Steering Committee met monthly.

Table 2-1 below is one of the Working Group’s first deliverables. This table ensures consistency with the 2014 Hazard Mitigation Plan (HMP) and compliance with new actions necessary for the Hazards and Resilience Plan (HCR).

**TABLE 2-1: SUMMARY OF UPDATES FROM 2014 HMP**

<b>2014 HMP</b>	<b>Necessary Actions</b>	<b>Location in 2019 HCR</b>
<b>Planning Process</b>	Re-form Planning Team with expanded membership	Section 2.2, Appendix C
	Expand engagement with stakeholders, especially those that serve vulnerable community members	Section 2.3, Appendix C
<b>Hazard Analysis and Vulnerability Assessment</b>	Update discussion of climate science to reflect the latest science	Section 4.1
	Incorporate climate projections into relevant hazard profiles	Section 4.2–4.14
	Develop sector-based vulnerability assessment with clear issue statements	Chapter 05, Appendix A
<b>Capabilities and Existing Actions Assessment</b>	Update and simplify capabilities and actions that have been initiated since 2014	Section 6.1, Appendix F
<b>Mitigation Strategy</b>	Update goals	Section 7.1
	Update status of 2014 HMP actions	Section 6.2
	Develop new strategies that reflect priorities since 2014 and longer-term climate resilience needs	Section 7.3
	Update strategy evaluation criteria	Section 7.3

The Technical Working Group also led engagement with City agencies through a Planning Team, comprised of staff from over 28 agencies with expertise in hazards, asset management, and mitigation and adaptation capabilities. (See Appendix C for Planning Team roster). The Technical Working Group engaged the Planning Team over the course of six meetings summarized in Table 2-2 below and in the development and review hazard profiles, vulnerability and consequence profiles, and strategies.

**TABLE 2-2:  
PLANNING TEAM MEETING TOPICS**

Meeting #	Topics	Date
1	Project introduction, goals, and hazards	May 2018
2	Asset inventory vulnerability and consequences methodology	July 2018
3	Preliminary vulnerability and consequences findings	Sep 2018
4	Key Planning Issues and strategy development process	January 2019
5	Strategy review and refinement	April 2019
6	Citywide draft review	November 2019

When necessary, department staff with expertise on specific assets and vulnerabilities participated in the analysis. This included Animal Care and Control, Office of Community Investment and Infrastructure, San Francisco Public Library, and the SFPUC Water, Wastewater, and Power Divisions.

Agencies external to the City and County were also engaged to ensure that information regarding their assets and vulnerabilities was accurate. These included BART, Caltrain, Golden Gate National Recreational Area (GGNRA), PG&E, and San Francisco Unified School District (SFUSD).

Finally, it is important to note that ORCP staff held numerous smaller strategy sessions with the Board of Supervisors, commissions, and department heads to verify information collect feedback. These include the following:

- Mayor’s Office
- San Francisco Board of Supervisors (BOS)
  - Supervisor Sandra Fewer
  - Supervisor Catherine Stefani
  - Supervisor Aaron Peskin
  - Supervisor Gordon Mar
  - Supervisor Vallie Brown
  - Supervisor Norman Yee
  - Supervisor Matt Haney
  - Supervisor Rafael Mandelman
  - Supervisor Hillary Ronen
  - Supervisor Shamann Walton
  - Supervisor Ahsha Safai
- Mayor’s Office of Housing and Community Development (MOHCD)
- Neighborhood Empowerment Network (NEN)
- Office of the City Administrator
- Office of Workforce and Economic Development (OEWD)
- Port of San Francisco (Port) and Port Commission
- San Francisco Department of Public Health (DPH)
- San Francisco Department of the Environment (SFE)
- San Francisco Planning Department (Planning)
- San Francisco Department of Emergency Management (DEM)
- San Francisco Fire Department (SFFD)
- San Francisco Department of Technology (DT)
- San Francisco Public Utilities Commission (SFPUC) and PUC Commission
- San Francisco Department of Aging and Adult Services (DAAS)
- San Francisco Public Works (DPW)
- San Francisco Municipal Transportation Agency (SFMTA)
- San Francisco International Airport (SFO)
- San Francisco Police Department (SFPD)

## 2.3 Stakeholder and Public Engagement

This section describes opportunities for the public to provide feedback during the planning process and drafting stage, including engagement with stakeholders such as:

- Community based organizations (CBOs)
- Neighborhood serving organizations
- Interest organizations
- Neighboring jurisdictions
- Regional, State, and federal agencies

### HCR Engagement Goals

The goal of the stakeholder and public engagement process is threefold; (1) share information about local risks (as outlined in the HCR); (2) solicit input from a broad community of San Franciscans on their values, concerns, and priorities; and (3) reflect public feedback in the HCR's strategies. To maximize the ways in which information gathered from community members can be used, additional information regarding overall City preparedness was also added. The process that included stakeholder engagement workshops and a community survey. Both the workshops and survey were designed to accomplish the following goals.

- Help the City understand peoples' experience with hazard events to inform how to improve the response to future hazards
- Gather community feedback on draft strategies to incorporate into the Hazards and Climate Resilience Plan
- Educate stakeholder groups about:
  - Hazard issues and impacts for San Francisco
  - Existing and planned work to increase resilience within San Francisco
  - Purpose and contents of the HCR Plan

# Stakeholder Engagement Workshops

As a first step in the engagement process, the interdepartmental HCR team met with a group of CBO leaders that work on resilience in San Francisco to hear their advice on how best to achieve the HCR goals within the communities they serve. This meeting took place on February 28, 2019 and is documented in Appendix C. Based on the feedback from this meeting, the HCR team organized five thematic workshops with additional leaders of community based organizations, non-governmental organizations, and other groups that serve the San Francisco community, especially vulnerable populations. These workshops are summarized in Table 2-3 below and documented in Appendix C.

**TABLE 2-3: SUMMARY OF STAKEHOLDER MEETINGS**

Date	Theme/Topic	Examples of Unique Perspective for Each Group
July 9 <sup>th</sup>	Business/ Commercial Properties	<ul style="list-style-type: none"> <li>• Provided feedback on relative effectiveness and likely impacts of incentivizing or mandating specific strategies, including small businesses</li> <li>• Identified challenges and opportunities to partner with businesses in implementing strategies</li> </ul>
July 9 <sup>th</sup>	Housing Stakeholders and Residential Property Managers/ Owners	<ul style="list-style-type: none"> <li>• Provided feedback on relative effectiveness and likely impacts of incentivizing or mandating specific strategies (e.g., installing or upgrading HVAC systems, communicating about hazards to residents/tenants)</li> <li>• Identified challenges and opportunities for implementing strategies in supportive housing</li> </ul>
July 12 <sup>th</sup>	Disability and Functional Needs (DAFN)/Older Adults	<ul style="list-style-type: none"> <li>• Identified unique needs when responding to hazards (e.g., charge motorized wheelchairs’ batteries, maintain power for residents with assisted respiration)</li> <li>• Emphasized the need to ensure that communication is accessible to people with a range of different disabilities</li> </ul>
July 12 <sup>th</sup>	Racial, Social, and Environmental Justice	<ul style="list-style-type: none"> <li>• Emphasized the need to set up processes prior to a hazard to ensure that critical information about hazards reaches, and is easily understood by, low-income, immigrant, homeless, and other vulnerable communities</li> <li>• Provided additional information on how hazards impact vulnerable, disenfranchised, and under-resourced communities, as well as critical needs for these communities</li> </ul>
July 16 <sup>th</sup>	Children, Youth, and Families	<ul style="list-style-type: none"> <li>• Identified challenges in keeping young people of different ages groups safe during and immediately following a hazard</li> <li>• Identified challenges and opportunities for implementing strategies in schools and out-of-school programming (e.g., summer camps, afterschool care)</li> </ul>

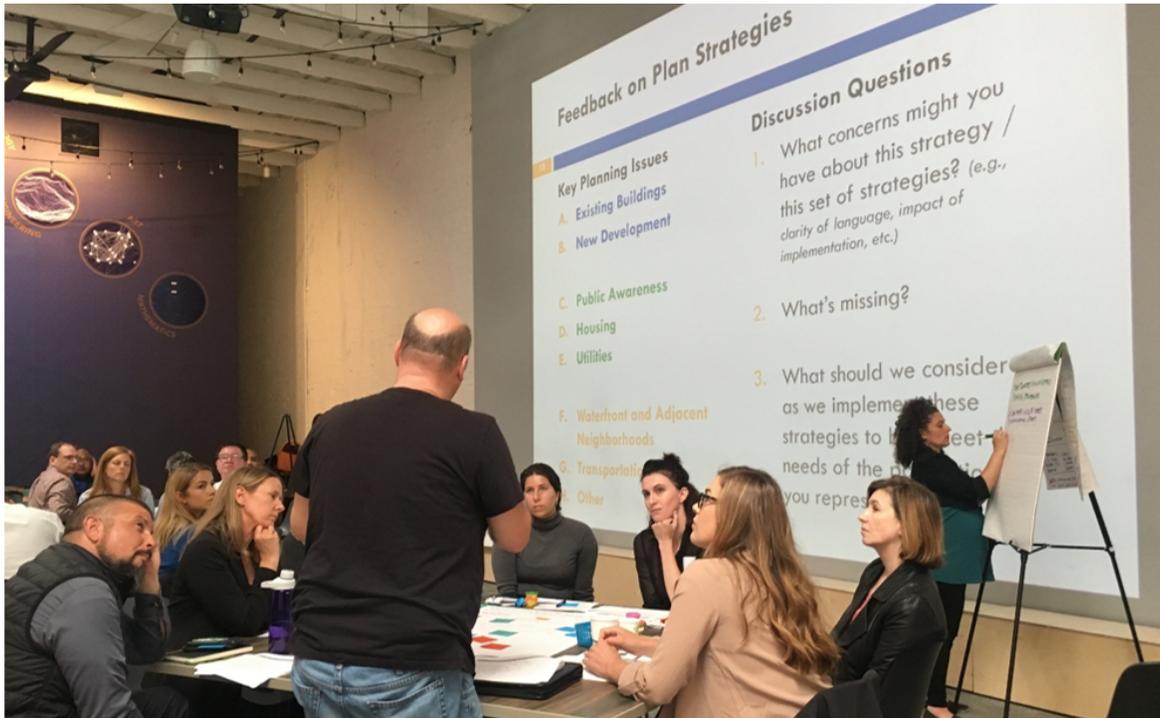
## *Themes from Across Stakeholder Workshops*

Stakeholders consistently expressed interest in learning more about the hazard risks relevant to the neighborhoods in which they work, as well as the City’s recommendations (or general best practices) to prepare for the hazards they are most likely to experience. Many participants were excited to learn that the HCR would include maps with citywide risks and vulnerabilities. Many participants also wanted to know what the City considered to be key community facilities (both which specific facilities and more general types of facilities).

Recognizing the significant impacts that some hazards will have, and the many jurisdictions that will be involved in recovering from such hazards, participants emphasized how important it is for the City to support and participate in coordination planning between City departments, with overlapping jurisdictions (e.g., SFUSD, Port, National Park Service), with neighboring jurisdictions (e.g., Marin County, Daly City, San Mateo County, Alameda County), and potentially with geographically remote partners (for example, to provide supportive housing while the City and region recover from a major earthquake).

Workshop participants agreed that resources should be prioritized for and directed to vulnerable populations and the critical facilities that serve those populations. However, different stakeholder groups had different ideas of what populations are most vulnerable and what types of facilities are “critical.” Participants in most workshops identified the importance of involving Single-Room Occupancy hotels (SROs) and temporary shelters, as well as residents who are currently experiencing homelessness, in the implementation of resilience strategies.

**FIGURE 2-2: STAKEHOLDER ENGAGEMENT WORKSHOP**



**FIGURE 2-3: STAKEHOLDER ENGAGEMENT WORKSHOP**



## Public Engagement

The HCR development process offered several opportunities for members of the general public to provide their feedback during the drafting stage.

### Webpage

A webpage for the Hazards and Climate Resilience Plan was launched in July 2019 on the OneSF website, which included information on the Plan update process and how community members could provide feedback and suggest changes to the Plan. In December 2019, the web page was updated to include the Draft Plan for public comment.

### Survey

A public survey was distributed during the stakeholder workshops and available on the webpage from July 2019 to September 2019. All individuals who attended any of the stakeholder workshops and/or were invited to participate were sent the information to share with their colleagues, community members, and populations served by each of their organizations. City agencies and individual employees also encouraged their networks to participate in the survey. It was also advertised through City social media accounts. The survey had a total of 597 responses and the results of the survey can be found within the Community Engagement Report in Appendix C.

## Community Engagement Highlights

The following are some of the highlights from the stakeholder workshops and survey:

**Solutions Need to be Diversified, Multi-Pronged, and Coordinated.** The most common theme from community engagement was that there is no “one-size-fits all” solution to addressing any of the hazards that may impact San Francisco. Workshop participants emphasized the importance of using different strategies to effectively engage with, communicate information to, and provide resources to the city’s diverse communities. Workshop and survey participants also recognized the complexity and interdependence of the city’s buildings, infrastructure, and economy, as well as how all of those impact residents.

**Most Concerning Hazards.** The vast majority of survey and workshop participants reported being the most concerned about earthquakes and poor/unhealthy air quality. Additionally, one in five survey respondents identified the following as one of the three hazards they are most concerned about: disease outbreaks, urban fires, drought, extreme heat, and flooding. Some workshop participants discussed concerns about hazardous materials and tsunamis.

**Support for Improving Resilience of Key City Assets.** Nearly all survey and workshop participants agreed that it is important for the City and County of San Francisco to improve the resilience of infrastructure (e.g., utilities and transportation), buildings (e.g., housing, existing buildings, new development), and communities (e.g., community connections, neighborhood preparedness).

Only half of survey respondents said they know their neighbors well enough to help each other in an emergency.

**Importance of Community Cohesion.** Workshop participants emphasized the importance of strengthening relationships and interactions within individual neighborhoods, at the block level, within large multi-unit buildings, and through face-to-face social networks. Only half of survey participants said they know their neighbors well enough to help each other in an emergency. Increasing relationships and connections between neighbors and community members helps ensure that vulnerable residents

stay safe during and following a hazard event, as traditional communication and outreach strategies will not reach everyone. This may require expanding support for community-serving organizations that address neighborhood resilience.

### Information about Hazards and Emergency

**Preparedness.** Most survey participants get information about hazard events from AlertSF and/or social media, while some rely on television, radio, and personal contacts (e.g., friend, family member, neighbor). Workshop participants also identified methods and types of media that will be especially effective at reaching specific populations. Workshop participants were excited about the maps that will be shared with the Hazards and Climate Resilience Plan and how they and other community members will be able to use them to prepare for the specific types of hazards they are likely to experience.

[I am] extremely concerned about an earthquake and the potentially devastating impact it would have on the housing stock.

Survey  
Respondent

**Level of Preparedness.** Most survey respondents believe that they and the people they live with are prepared for extreme heat days, earthquakes, and poor/unhealthy air quality days, while fewer are prepared for flooding. At the same time, more survey respondents felt that their housing in San Francisco would be a safe place to stay during flooding and extreme heat while fewer felt it would be safe place during a poor/unhealthy air quality day or earthquake. Workshop participants requested more concise information about how the organizations, businesses, and facilities in which they work should prepare for emergencies with specific recommendations based on location in the city and the people served (e.g., how much water an afterschool program should store on site relative to the number of children served, what supplies are most important for managers of single-resident occupancy/SRO hotels to have available).

**Experience with the Impacts of Hazards in San Francisco.** More than half of survey participants shared how they, their homes, their workplaces, and their neighborhoods had been impacted by poor/unhealthy air quality, extreme heat, and earthquakes. Many respondents also reported how wind, storm flooding, hazardous materials, and urban fires have impacted them and their communities.

### ***Presentations at Existing Public Meetings***

City staff presented the Hazards and Climate Resilience Plan at several public meetings, including:

**TABLE 2-5: PRESENTATIONS AT EXISTING PUBLIC MEETINGS**

<b>Date</b>	<b>Meeting Title</b>	<b>Notable Feedback</b>
<b>May 15, 2018</b>	Disaster Council	Interest in future updates
<b>Dec 11, 2018</b>	Port Commission	Interest in future updates
<b>April 10, 2019</b>	Municipal Green Building Task Force	Interest in building codes that incorporate future climate conditions
<b>May 6, 2019</b>	Richmond Community Health Fair	n/a

Date	Meeting Title	Notable Feedback
October 22, 2019	Port Commission	Interest in future updates
November 14, 2019	SPUR Lunch Panel	Interest in planning for SLR, inclusion of businesses in strategy implementation, support for agency coordination
December 9, 2019	Capital Planning Committee	TBD
December 10, 2019	Public Utilities Commission	TBD

## Engagement with Other Regional, State, and Federal Agencies

These agencies/jurisdictions were notified of the draft Plan and offered the opportunity to provide comment.

- Presidio Trust
- San Mateo County
- Daly City
- Oakland
- Alameda County
- Marin County
- GGNRA
- SPUR
- Bay Area Council

## 2.4 Existing Reports, Plans, and Other Resources

A key element of the planning process included drawing on existing resources regarding hazards, vulnerabilities, and potential strategies. The hazard analysis in Chapter 04 and

Vulnerability & Consequence Profiles in Appendix A include citations of source material and this section provides an overview of some of the key resources referenced in this Plan. Please note that this is not a complete bibliography and see footnotes/references section for additional resources used.

## **Local Resources**

The following section highlights existing reports and studies developed by the City and County of San Francisco used during the Planning Process.

### **Sea Level Rise Vulnerability and Consequences Assessment (2019)**

The Sea Level Rise vulnerability and consequences assessment was launched in response to the findings from the 2016 Sea Level Action Plan, to move the San Francisco towards the goal of having a citywide Sea Level Rise Adaptation Plan. The assessment identifies publicly owned infrastructure within the SLR Vulnerability Zone and assesses its vulnerability to short- and long-term inundation from coastal flooding and storm surges. Following this, consequences were identified for people (through the lens of society and equity), the economy, the environment, and governance. The resulting information was then consolidated into neighborhood profiles to describe the impacts to neighborhoods over time. Future efforts will develop neighborhood based adaptation solutions, incorporating robust neighborhood engagement.

### **Lifelines Restoration Project (2019)**

The Lifelines Restoration Project aims to help the City and County of San Francisco recover more quickly from a major earthquake by assessing and improving the restoration performance of a variety of interdependent lifeline infrastructure systems. These systems include: electric power, natural gas, water and wastewater, telecommunications, highways and local roads, fuel, transit, airport, port, and fire suppression. These systems are critical for the recovery of hospitals, homes, businesses, non-profit organizations, and city government following a disaster. The project benchmarks current expected restoration performance based on interviews with subject matter experts, determines desired restoration performance based on public expectations and existing goals, and details prioritized strategies to achieve performance goals through a restoration performance improvement plan.

## Here Today—Here Tomorrow: The Road to Earthquake Resilience in San Francisco, Community Action Plan for Seismic Safety (CAPSS) (2010)

The CAPSS provided information on the extent and impact of seismic-related hazards on San Francisco. The results of this analysis set the stage for the future actions and strategies that the City and County of San Francisco plans to pursue to furthering seismic resiliency.

## Earthquake Safety Implementation Program: Workplan 2012–2042, City and County of San Francisco Workplan 2012–2042 (2011)

This document lays out a 30-year program of mitigation strategies and projects to be undertaken by the City and County of San Francisco to improve its seismic safety and resiliency; in essence, it operationalizes the insights and suggested strategies from the aforementioned CAPSS study.

## Tall Buildings Safety Strategy (2019)

The Tall Building Safety Strategy is a part of the ongoing effort to improve the City's preparedness and ability to recover from major earthquakes. This strategy is comprised of 16 recommendations developed through the study of 156 tall buildings in San Francisco and represents a first-of-its kind effort to characterize and address the unique seismic risks of this subgroup of buildings. The initiatives suggested as a part of the Tall Buildings Strategy were integrated into the suggested strategies for hazard mitigation in the HCR .

## Lifelines Interdependency Study (2014)

This study involved convening lifelines service providers, a lifelines Council, and the City and County of San Francisco to collaborate on disaster planning, restoration, and response to improve lifeline system reliability and post-disaster function.

## SFPUC Climate Adaptation Plan (Draft)

This briefing booklet explains how climate change will impact SFPUC, its SSIP program, and San Francisco at large. The briefing booklet evaluates the climate-related vulnerabilities and risks across the entire combined stormwater and wastewater system, identifying assets that are at risk over the next century in order to recommend adaptation strategies to reduce those risks and protect those assets.

## State and Regional Resources

### 2018 State Hazard Mitigation Plan

This draft report provides important current and historical information on the hazards facing the State of California, as well as the actions, resources, goals, and priorities the State takes into consideration when mitigating these hazards. For the 2019 HCR, hazard information was integrated where relevant to the City and County of San Francisco, for example, in the Large Urban Fire hazard profile.

### Cal-Adapt

Cal-Adapt provides local jurisdictions across the state with robust information produced by the State of California’s scientific and research community. In this way, it is a valuable and essential resource to glean local climate change impacts and facilitate understanding of the latest science and projections as the science advances. For the HCR, this was most essential for understanding projected changes in extreme heat and precipitation patterns, for integration into relevant hazard profiles.

### California Adaptation Planning Guide (2013)

This planning guide is comprised of four complementary documents that support communities through an adaptive planning process to address climate change. It walks through an in-depth understanding of climate change impacts, with a focus on regional characteristics that vary across the state, as well as environmental and socioeconomic considerations. The guide also assists in thinking through the selection of adaptation strategies.

### Hazard Mitigation and Climate Adaptation Risk Assessment (ABAG) (2017)

This document was created for the nine-county Bay Area in order to characterize its risk profile. This assessment provides vital information on the required information to perform actionable resilience, adaptation, and mitigation planning. The hazards addressed by ABAG overlap heavily with those addressed in the 2019 HCR, so provided a valuable starting point.

## Integration with Current and Future Planning Processes

The HCR is a critical element in the City’s climate resilience planning efforts, as illustrated in Figure 2-4. Findings from the Sea Level Rise Vulnerability & Consequences Assessment have been incorporated into the HCR, especially in Chapter 05 and

Appendix A. The ongoing effort to update the City’s Climate Action Strategy (CAS) is coordinating with the HCR through a new Inter-Agency Climate Resilience Program aimed at improving the integration of climate adaptation and climate mitigation (greenhouse gas reduction) efforts. Upon the completion, key synergistic CAS and HCR strategies will be identified and pursued through a Citywide Climate Resilience framework.

**FIGURE 2-4: RESILIENCE PLANNING AT THE CITYWIDE SCALE**



The HCR also provides a framework for the City to track and communicate multi-hazard efforts at the project scale, such as the examples shown in Figure 2-5. These projects are also included as strategies in Chapter 07.

**FIGURE 2-5: RESILIENCE PLANNING AT THE PROJECT SCALE**

