Hazards and Climate Resilience Plan

Melissa Higbee, Office of Resilience and Capital Planning March 11, 2021



Why the HCR Matters

- Provides a roadmap to improve resilience that captures previous and ongoing mitigation and adaptation efforts
- > Identifies projects for strategic funding
- Makes hazard information more accessible
- Focus on vulnerable communities, equity, and health
- Extensive department and stakeholder engagement





ENGAGEMENT SNAPSHOT

MONTHLY STEERING COMMITTEE MEETINGS

30 STRATEGY SESSIONS

TECHNICAL WORKING GROUP MET BI-WEEKLY

54

570 ORGANIZATIONS PARTICIPATED

597 SURVEY RESPONSE



PUBLIC PRESENTATIONS

Meets Federal, State, and Local Requirements

- Federal: Assures eligibility for FEMA disaster mitigation grants, and can reduce local cost share for Public Assistance
- State: Adheres to climate vulnerability assessment and adaptation planning
- Local: Climate adaptation component of Climate Action Plan

Adopted by Mayor and BOS on June 16, 2020

Approved by FEMA on July 21, 2020



HAZARDS

The HCR characterizes 13 natural hazards that impact San Francisco. The hazards are grouped into four different types: geological, weather-related, fire-related, and biological & toxic. This chapter also includes an overview of climate change science and how climate change influences hazards in San Francisco.

WEATHER-RELATED BIOLOGICAL & TOXIC GEOLOGICAL FIRE-RELATED FLOODING EARTHQUAKE HIGH WIND LARGE URBAN FIRE WILDFIRE **TSUNAMI** DAM OR RESERVOIR LANDSLIDE **EXTREME HEAT** DROUGHT POOR AIR QUALITY FAILURE

CHANGES IN THE GLOBAL CLIMATE INCREASE THE SEVERITY OF LOCAL HAZARDS

	INCREASING TEMPERATURES	RISING SEA LEVELS	CHANGING PRECIPITATION PATTERNS
Extreme Heat			
Drought			
Wildfire & Wildland-Urban-Interface Fire			
Poor Air Quality			
Coastal Flooding			
Stormwater Flooding			
Soil Liquefaction in an Earthquake			



Communities



HOUSING





BUILDING





Buildings





BUILDINGS



NEW DEVELOPMENT

Infrastructure



TRANSPORTATION



WATER AND WASTEWATER



COMMUNICATIONS AND POWER

Cross-Cutting



WATERFRONT



OPEN SPACE AND BIODIVERSITY



ASSESSMENT



Infrastructure

Transportation Invest in multimodal transportation Water and Wastewater: Modernize water utilities to support businesses and households **Communications and Power:** Enhance the reliability of communications and power in a disaster

Assess and develop an emergency response plan for the City's water infrastructure

Implement the Pipe Replacement Prioritization Program

Implement a coastal multimodal resilience

Implement the SFMTA Communications

Implement the SFMTA Asset Management & State of Good Repair Strategy

Implement the SFMTA Transit
Fixed Guideway Strategy

Implement a security strategy for the

Implement SFMTA's Traffic Signals Strategy

Conduct a multi-hazard vulnerability and

Amend the SFMTA capital improvement program to consider hazard

Increase the resilience of the municipal fiber

Increase the resilience of the 911 radio system

Increase the resilience of the 911 radio system

Develop redundant and resilient electrical power capacity and distribution at SFO

operational assessment for Muni

SFMTA's infrastructure

mitigation opportunities

Garage Strategy

optic network

Implement the SFMTA Parking

strategy for transit

& IT Strategy

Improve flood and earthquake resilience for regional dams and ancillary facilities

Diversify water supply options with new water sources and drought management

Assess and develop a long-term adaptation plan for the Hetch Hetchy Regional Water System

Mitigate wildfire hazards in SFPUC-owned watersheds

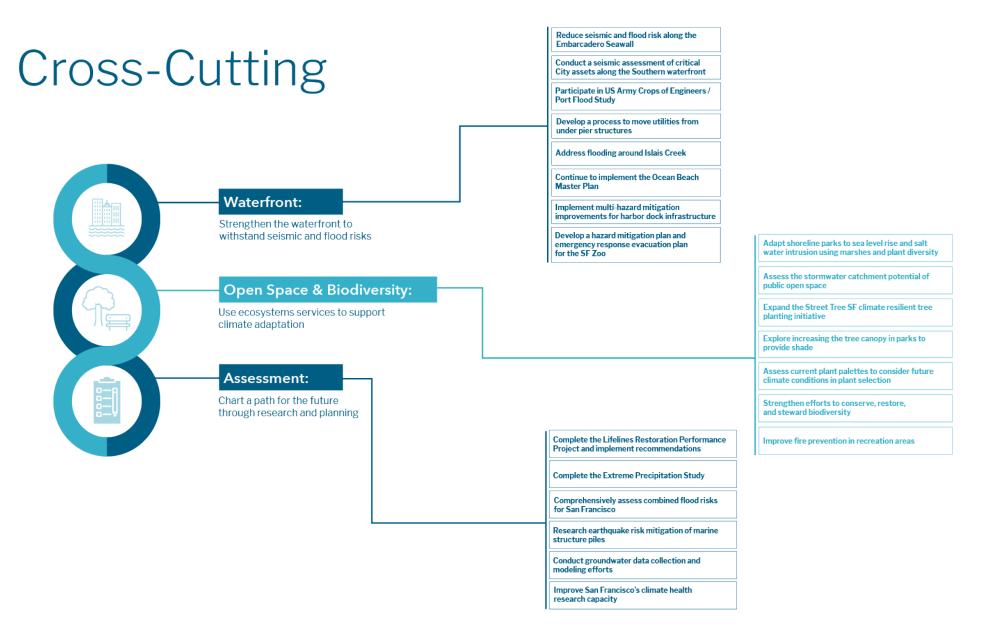
Study, improve, and expand the Emergency Firefighting Water System

Improve the capacity of the Portable Water Supply System

Advance Sewer System Improvement Program projects

Develop technologies, systems, and capacity to treat sanitary sewage at SFO







Over 95 Strategies To Mitigate Risks

DOMAIN: RESILIENT COMMUNITIES (C)

Primary Hazard Group: All Hazards

C-5.15	Study the overlap between vulnerable populations and vulnerable buildings	
KEY PLANNIN	IG ISSUES:	VULNERABILITY ADDRESSED:
Housing, Exis	sting	Private buildings (residential, commercial and industrial) are not designed
Building		to accommodate flooding, future heat impacts, poor air quality, and other

to accommodate flooding, future heat impacts, poor air quality, and other natural and climate hazards. Vulnerable populations are disproportionately impacted by climate and other natural hazards and have fewer resources to make climate resilient home and business improvements.

LEAD:

Planning/ DPH/ORCP

PARTNERS:

DBI, SFPUC, SFE, MOHCD.

STRATEGY SUMMARY:

Study the overlap between vulnerable populations and vulnerable building types for natural and climate hazards. This will help identify property types and locations that may be particularly vulnerable (such as permanent affordable housing, SRO's, etc.) to hazards and may need public subsidy or technical support to equitably pursue resilience measures. Public engagement efforts to date have identified specific vulnerabilities to consider, from San Franciscans who rely on electricity for their medical needs, to inaccessible routes of emergency evacuation.

COST:

Low: \$0-500K

SF GOVERNMENT ACTIVITY:

Research, Planning & Guidance

STATUS:

New





















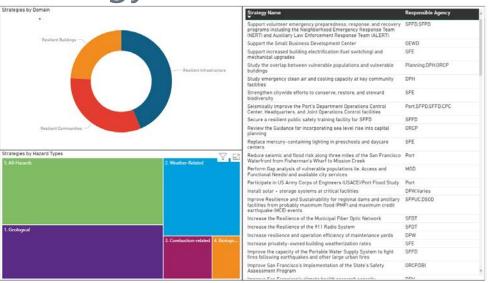


Sample Strategy



Additional resources @ OneSF.org

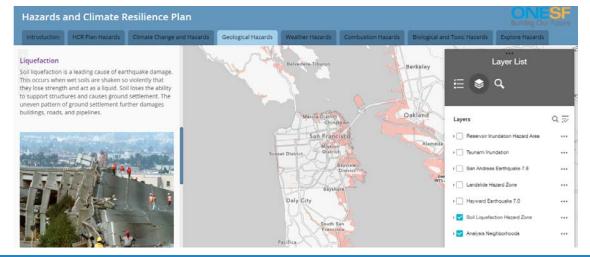
Strategy Dashboard



Summary Report



Storymap









MARCH 15-19

MARCH 22-26, 2021

Learn more at: sfplanning.org/general-plan



Questions?

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