

Hazards and Climate Resilience Plan

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Why the HCR Matters

- Makes hazard information more accessible
- Science/data-driven approach with extensive department and stakeholder engagement
- Provides a roadmap to improve resilience that captures previous and ongoing mitigation and adaptation efforts
- Identifies projects for strategic funding
- Focus on vulnerable communities and equity



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

FEMA Comments



- "Excellent cross-cutting integration of the HMP, climate adaptation and community safety element."
- "Stakeholder engagement was incredibly thorough and well thought out."
- "Comprehensive set of mitigation actions in this plan shows a great commitment to risk reduction."
- "Clear maps...very useful for sharing information about hazards in the community"

Core Agencies and Planning Principles



San Francisco
Department of Public Health

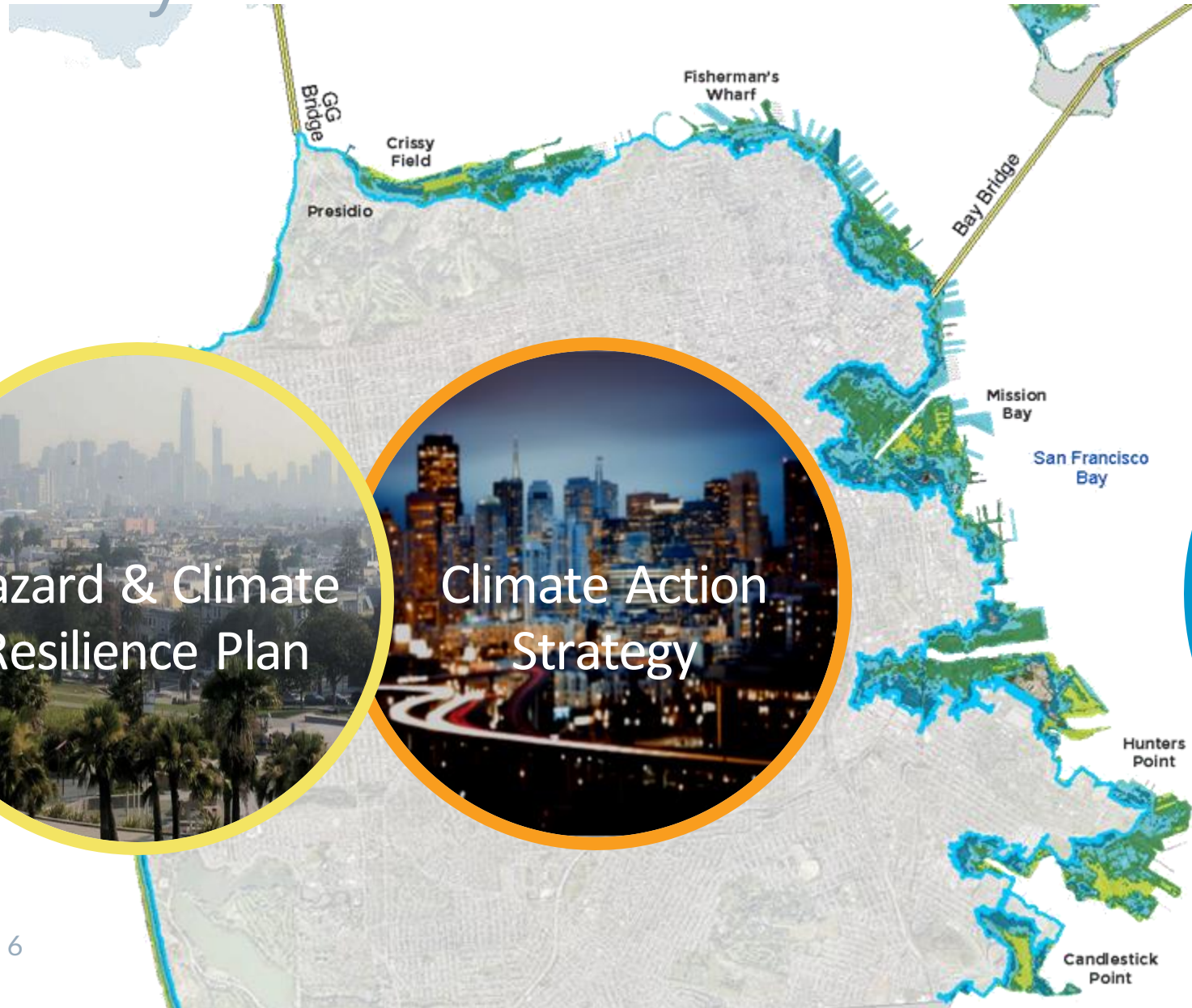
San Francisco
Planning



ONESF
Building Our Future

- Equity and Health
- Community Cohesion
- Affordability and Economic Vitality
- Climate Mitigation
- Biodiversity & Connection to Nature
- Science-Grounded Innovation
- Good Governance

Citywide Multi-Hazard Effort



Framework for Project Scale Efforts



Ocean Beach
Master Plan
Implementation



Major Plan Areas & Developments



Embarcadero Visioning & Seawall Program

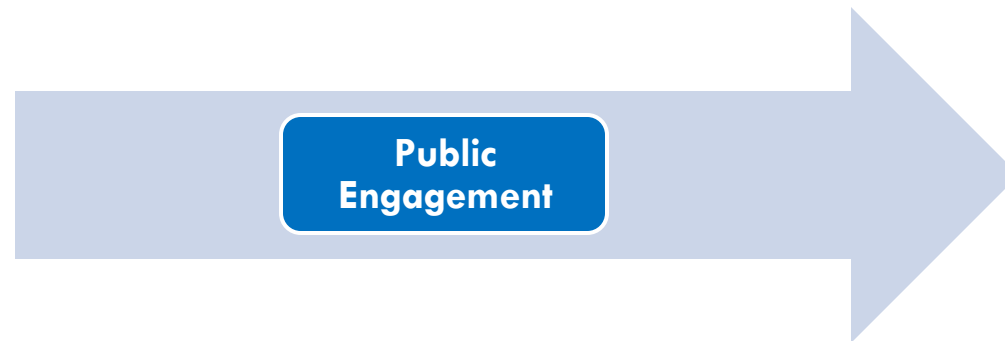


Southern Waterfront
Assessment
& USACE/Port Flood Study

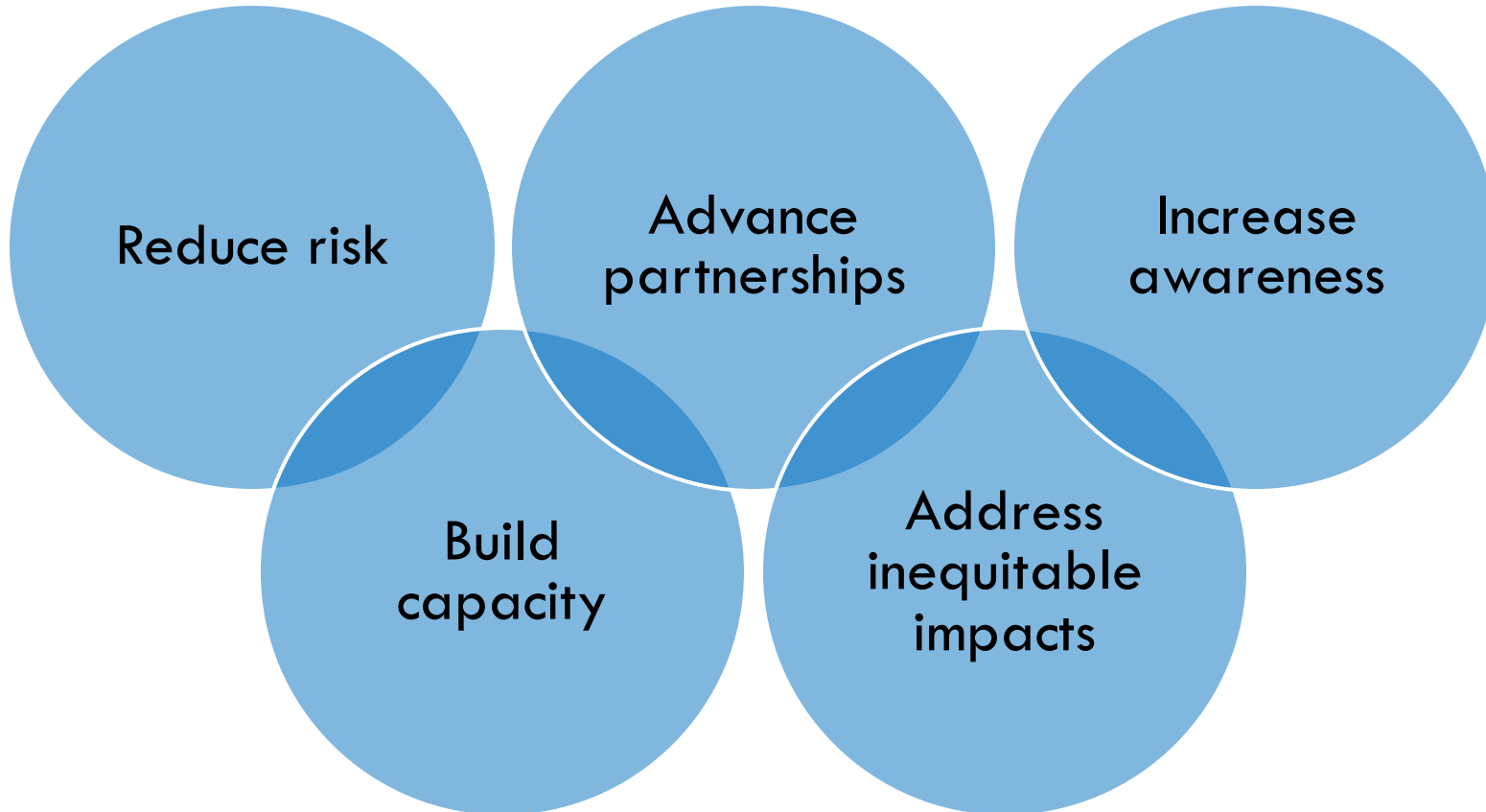
Islais Creek Mobility & Adaptation Strategy

Major Waterfront
Developments **ONESF**
Building Our Future

Scope and Timeline



Goals & Contents

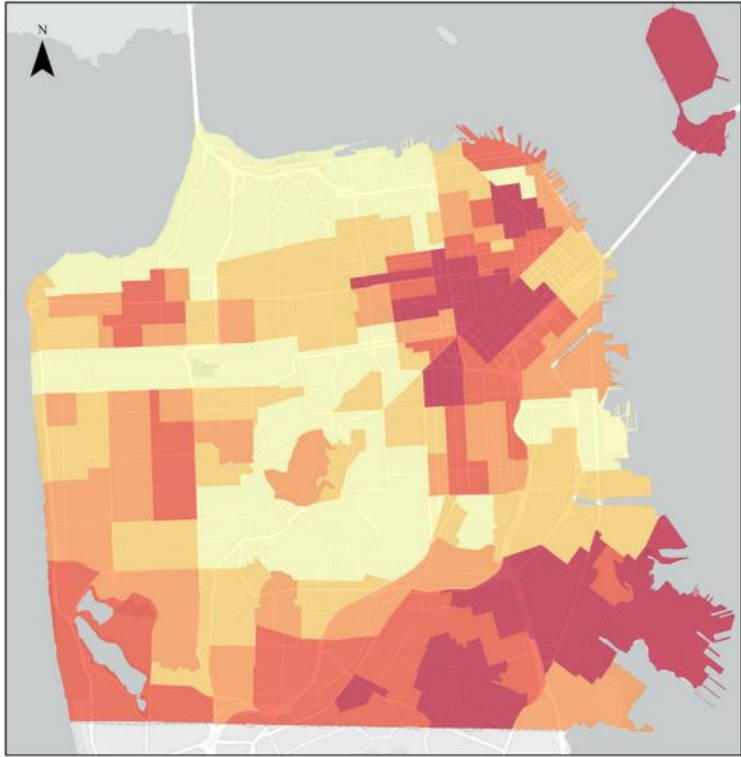


Chapters

1. Introduction
2. Planning Process
3. Risk Landscape
4. Hazard Analysis
5. Vulnerability & Consequences
6. Capabilities
7. Strategy
8. Plan Maintenance

Hazards Analysis

Climate change analysis incorporated into relevant hazards



Vulnerable Populations
 Extreme Heat Health Vulnerability
 Some Health Impacts
 Most Health Impacts

Sample map

Earthquake	Tsunami	Landslide	Dam or Reservoir Failure	Flooding	High Wind	Extreme Heat	Drought	Large Urban Fire	Wildfire	Poor Air Quality	Pandemic	Hazardous Materials
Geological				Weather-Related				Combustion-Related			Biological & Toxic	

Asset Inventory



People



Emergency Response



Housing



Business & Industry



Public & Community Services



Transportation



Utilities & Infrastructure



Parks & Open Space

Over 95 Strategies To Mitigate Risks

Searchable dashboard at onesanfrancisco.org

Strategies by Domain

Resilient Buildings

Resilient Infrastructure

Resilient Communities

Strategy Name	Responsible Agency
Support volunteer emergency preparedness, response, and recovery programs including the Neighborhood Emergency Response Team (NERT) and Auxiliary Law Enforcement Response Team (ALERT).	SFFD,SFPD
Support the Small Business Development Center	OEWD
Support increased building electrification (fuel switching) and mechanical upgrades	SFE
Study the overlap between vulnerable populations and vulnerable buildings	Planning,DPH,ORCP
Study emergency clean air and cooling capacity at key community facilities	DPH
Strengthen citywide efforts to conserve, restore, and steward biodiversity	SFE
Seismically improve the Port's Department Operations Control Center, Headquarters, and Joint Operations Control facilities	Port,SFPD,SFFD,CPC
Secure a resilient public safety training facility for SFFD	SFFD
Review the Guidance for incorporating sea level rise into capital planning	ORCP
Replace mercury-containing lighting in preschools and daycare centers	SFE
Reduce seismic and flood risk along three miles of the San Francisco Waterfront from Fisherman's Wharf to Mission Creek	Port
Perform Gap analysis of vulnerable populations (ie. Access and Functional Needs) and available city services	MOD
Participate in US Army Corps of Engineers (USACE)/Port Flood Study	Port
Install solar + storage systems at critical facilities	DPW,Varies
Improve Resilience and Sustainability for regional dams and ancillary facilities from probably maximum flood (PMF) and maximum credit earthquake (MCE) events	SFPUC,DSOD
Increase the Resilience of the Municipal Fiber Optic Network	SFDT
Increase the Resilience of the 911 Radio System	SFDT
Increase resilience and operation efficiency of maintenance yards	DPW
Increase privately-owned building weatherization rates	SFE
Improve the capacity of the Portable Water Supply System to fight fires following earthquakes and other large urban fires	SFFD
Improve San Francisco's Implementation of the State's Safety Assessment Program	ORCP,DBI
Improve San Francisco's climate health research capacity	DPH

Strategies by Hazard Types

5. All-Hazards

2. Weather-Related

1. Geological

3. Combustion-related

4. Biologic...

Sample Strategy

DOMAIN: RESILIENT COMMUNITIES (C)

Primary Hazard Group: All Hazards

C-5.15			Study the overlap between vulnerable populations and vulnerable buildings		
KEY PLANNING ISSUES: Housing, Existing Building		VULNERABILITY ADDRESSED: Private buildings (residential, commercial and industrial) are not designed 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	

Relationship to COVID-19

- Health and equity criteria used for strategy evaluation
- Key strategy to learn from City's response to COVID-19 improve resilience to pandemics
- Key strategy to continue efforts to improve police and community relations
- 31 strategies are related to COVID-19 efforts
- Majority of strategies are supported by General Fund
- Multi-hazard risk reduction as critical as ever, especially as people shelter-in-place

Next Steps

- BOS adoption
- FEMA final approval
- Continued public outreach
- Annual reporting





Thanks!

Any questions?

You can find us at:

<https://onesanfrancisco.org/hazard/overview>

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