

Appendix G

Strategy Funding Sources and Timelines

The following tables provide additional details on the strategies described in Chapter 7, including their potential funding sources and estimated implementation timeline.

**TABLE G-1:
STRATEGY FUNDING SOURCES AND ESTIMATED TIMELINES**

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
B-1.01.01: Assess and seismically retrofit municipal buildings	X		X		X	Ongoing
B-1.01.02: Seismically improve the Port's Department Operations Control Center, Headquarters, and Joint Operations Control facilities	X		X		X	5 Yrs
B-1.02: Develop an earthquake risk improvement program for non-structural components of municipal buildings	X		X			7 Yrs
B-1.03: Develop a voluntary program for seismic retrofits of one- to four-unit wood frame soft-story buildings				X	X	10 Yrs
B-1.04: Implement the Tall Building Strategy to address the seismic vulnerability of buildings taller than 250 feet	X	X	X	X		10 Yrs
B-1.05: Extend and Improve the Building Occupancy Resumption program (BORP)		X	X	X		5 Yrs
B-1.06: Complete the Mandatory Soft-Story Retrofit program (pre-1978 buildings with 5+ units and 2+ stories)	X			X		2 Yrs
B-1.07.01: Develop a program (standards and guidance) to screen, evaluate and retrofit older steel buildings	X	X		X		10 Yrs
B-1.07.02: Develop a program to screen, evaluate, and retrofit non-ductile concrete buildings		X		X	X	5 Yrs
B-1.08: Implement the SFMTA Parking Strategy	X		X		X	10 Yrs

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
B-2.01: Develop multi-hazard resilience design guidelines for municipal buildings	X				X	3 Yrs
B-2.02: Review the Guidance for incorporating sea level rise into capital planning	X					1 Yrs
B-2.03: Develop a program to analyze, identify, and evaluate properties at risk of stormwater flooding	X				X	2 Yrs
B-2.04: Implement floodproofing and elevation projects for properties at risk of stormwater flooding citywide			X		X	10 years
B-3.01: Study emergency clean air and cooling capacity at key community facilities	X				X	5 Yrs
B-3.02: Increase privately-owned building weatherization rates				X	X	Ongoing
B-3.03: Support increased building electrification (fuel switching) and mechanical upgrades	X			X	X	Ongoing
B-5.01: Amend the capital improvement program for transportation facilities to consider hazard mitigation opportunities	X		X			5 Yrs
B-5.02: Install solar + storage systems at critical facilities	X		X	X		7 Yrs
B-5.03: Secure a resilient public safety training facility for SFFD			X		X	5 Yrs
B-5.04: Increase resilience and operation efficiency of maintenance yards	X		X		X	5 Yrs
B-5.05: Explore options to use Recreation Centers as public respite facilities	X	X				2 Yrs

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
B-5.06: Develop comprehensive and coordinated code amendments for multi-hazard resilience of private development	X				X	7 Yrs
C-1.01: Address seismic retrofit needs within San Francisco's affordable housing stock	X				X	15 Yrs
C-1.02: Develop a downtown recovery strategy	X				X	2 Yrs
C-1.03: Improve San Francisco's Implementation of the State's Safety Assessment Program	X				X	5 Yrs
C-1.04: Develop a post hazard open for business campaign	X				X	5 Yrs
C-1.05: Continue to meet housing production goals	X	X	X	X	X	5 Yrs
C-1.06: Develop a public outreach campaign and wayfinding plan for tsunami awareness and evacuation procedures	X				X	5 Yrs
C-1.07: Assess vertical evacuation options in high-hazard areas and guidance for large-building refuges	X				X	5 Yrs
C-4.01: Expand household hazardous waste collection efforts		X			X	5 Yrs
C-4.02: Replace mercury-containing lighting in preschools and daycare centers				X	X	5 Yrs
C-4.03: Explore toxins abatement workforce development programs	X				X	5 Yrs
C-4.04: Improve citywide resilience to pandemics and infectious diseases	X			X	X	5 Yrs

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
C-5.01: Identify and create Clean Air/Cooling Hub (CACH) Public Respite Facilities	X		X			5 Yrs
C-5.02: Develop a Homelessness Disaster Response Plan	X				X	5 Yrs
C-5.03: Support volunteer emergency preparedness, response, and recovery programs including the Neighborhood Emergency Response Team (NERT) and Auxiliary Law Enforcement Response Team (ALERT).	X				X	Ongoing
C-5.04: Create a program to coordinate existing City programs providing in-home and resident-facing services related to hazard and climate mitigation	X				X	5 Yrs
C-5.05: Develop a Preparedness Equipment Purchase Program to direct and fund the purchase of climate preparedness equipment			X		X	5 Yrs
C-5.06: Expand the Neighborhood Empowerment Network (NEN) Empowered Communities Program (ECP) to additional neighborhoods	X				X	3 Yrs
C-5.07: Perform Gap analysis of vulnerable populations (i.e. Access and Functional Needs) and available city services	X				X	3 Yrs
C-5.08: Develop Community Based Capacity Building Initiative	X				X	2 Yrs
C-5.09: Establish Evacuation Strategy for People with Access and Functional Needs	X				X	5 Yrs
C-5.10: Continue Small Business COOP Assistance	X			X	X	Ongoing

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
C-5.11: Support the Small Business Development Center	X	X			X	5 Yrs
C-5.12: Establish disaster relief funding and small business resilience fund	X				X	5 Yrs
C-5.13: Expand layoff outplacement services	X				X	5 Yrs
C-5.14: Expand Women's Entrepreneurship Fund	X				X	5 Yrs
C-5.15: Study the overlap between vulnerable populations and vulnerable buildings	X	X			X	5 Yrs
C-5.16: Develop and manage a system for hazard and climate resilience data	X					5 Yrs
C-5.17: Develop a communications strategy for citywide climate resilience efforts	X					5 Yrs
C-5.18: Improve San Francisco's climate health research capacity	X				X	2 Yrs
C-5.19: Develop and Implement a Centralized Air Quality and Extreme Heat Preparedness Campaign	X				X	5 Yrs
C-5.20: Implement SFMTA's Traffic Signals Strategy	X	X	X			7 Yrs
IN-1.01: Conduct a seismic assessment of critical City assets along the Southern Waterfront	X		X		X	3 Yrs
IN-1.02: Conduct a research project for earthquake mitigation of marine structure piles	X				X	5 Yrs

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
IN-1.03.01: Develop technologies, systems, and capacity to treat sanitary sewage at SFO			X			2 Yrs
IN-1.03.02: Develop redundant and resilient electrical power capacity and distribution at SFO			X			2 Yrs
IN-1.04: Conduct a Risk and Resilience Assessment and Emergency Response Plan for the City's water infrastructure system	X				X	2 Yrs
IN-1.05: Complete the Lifelines Restoration Performance Project and implement recommendations	X		X			5 Yrs
IN-1.06: Increase the Resilience of the Municipal Fiber Optic Network	X		X		X	5 Yrs
IN-1.07: Increase the Resilience of the 911 Radio System	X				X	5 Yrs
IN-1.08: Implement multi-hazard mitigation improvements for harbor dock infrastructure		X	X		X	5 Yrs
IN-1.09: Develop a hazard mitigation and emergency response evacuation plan for at SF Zoo		X	X		X	5 Yrs
IN-1.10: Implement the East Harbor Renovation Project			X		X	5 Yrs
IN-1.11: Implement SFMTA Security Strategy	X		X			5 Yrs
IN-2.01: Develop projects to address flooding around Islais Creek	X		X		X	10 Yrs
IN-2.02: Develop a process to move utilities from under pier structures			X		X	10 Yrs

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
IN-2.03: Continue to implement the Ocean Beach Master Plan	X		X		X	10 Yrs
IN-2.04: Adapt shoreline parks to sea level rise and salt water intrusion, using marshes and plant diversity		X		X	X	30 Yrs
IN-2.05: Assess the current stormwater catchment potential of open space managed by the Recreation and Parks Department			X			7 Yrs
IN-2.06: Expand the StreetTreeSF Climate Resilient Tree Planting Initiative	X		X		X	5 Yrs
IN-2.07: Complete the Extreme Precipitation Study	X					2 Yrs
IN-2.08: Complete a comprehensive assessment of combined flood risks for San Francisco	X				X	5 Yrs
IN-2.09: Participate in US Army Corps of Engineers (USACE)/Port Flood Study	X				X	5 Yrs
IN-2.10: Explore Increasing shade in Parks	X		X			5 Yrs
IN-2.11: Assess current plant palettes and tree canopy needs to increase consideration of future climate conditions in the selection options	X	X				5 Yrs
IN-2.12: Diversify water supply options year-round by improving the use of new water sources and drought management			X		X	30 Yrs
IN-2.13: Develop a strategy to conserve and monitor water use by capital projects	X		X			5 Yrs

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
IN-2.14: Develop a Long-term Vulnerability Assessment and Adaptation Plan for the Hetch Hetchy Regional Water System	X	X	X			2 Yrs
IN-2.15: Implement a Coastal Multitmodal Resilience Strategy	X		X		X	5 Yrs
IN-2.16: Strengthen citywide efforts to conserve, restore, and steward biodiversity	X			X	X	Ongoing
IN-3.01: Complete studies, analysis, and capital projects to improve and expand the Emergency Firefighting Water System (EFWS)	X		X	X		10 Yrs
IN-3.02: Improve the capacity of the Portable Water Supply System to fight fires following earthquakes and other large urban fires	X				X	5 Yrs
IN-3.03: Continue to mitigate wildfire hazards in SFPUC owned-watersheds to protect source water quality and minimize risk to SFPUC water and power infrastructure.	X	X				On-going
IN-3.04: Improve Fire Prevention in Recreation Areas	X	X				Ongoing
IN-5.01: Conduct a system wide multi hazard vulnerability and operational assessment for Muni	X				X	5 Yrs
IN-5.02: Reduce seismic and flood risk along three miles of the San Francisco Waterfront from Fisherman's Wharf to Mission Creek	X	X	X	X	X	3 Yrs
IN-5.03: Continue to advance Sewer System Improvement Program (SSIP) projects to meet level of service objectives	X		X			30 Yrs

Strategy Code/Title	Potential Funding Source					Estimated Timeline for Completion
	General Fund	Special Funds	Debt	Privately Funded	Grants	
IN-5.04: Implement the Pipe Replacement Prioritization Program	X		X			Ongoing
IN-5.05: Continue to improve power distribution infrastructure to support new development and increase resiliency		X	X	X		5 Yrs
IN-5.06: Improve Resilience and Sustainability for regional dams and ancillary facilities from probably maximum flood (PMF) and maximum credit earthquake (MCE) events			X		X	10 Yrs
IN-5.07: Develop a Citywide Climate Resilience Framework	X					5 Yrs
IN-5.08: Implement SFMTA Communications & IT Strategy	X		X			5 Yrs
IN-5.09: Implement SFMTA Asset Management & State of Good Repair Strategy	X		X			10 Yrs
IN-5.10: Implement SFMTA Transit Fixed Guideway Strategy	X		X			5 Yrs