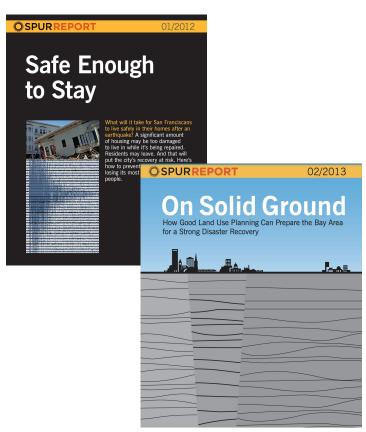


SPUR's Mission

Through research, education and advocacy, SPUR works to create an equitable, sustainable and prosperous region in which all people thrive.







SPUR's Multi-Hazard Resilience Reports

Since 2009, SPUR has led a comprehensive effort to retrofit the buildings and infrastructure that sustain city life, and prepare communities for future hazards.



SPUR's work

- Empowering local jurisdictions and households to address home retrofitting needs in the face of wildfires, flooding, earthquakes, extreme heat, etc. to achieve community-scale resilience (as well as upgrade building codes for new construction to address local hazard risks).
- Working with community-based organizations to address issues of shoreline contamination
- Supporting the development of collaborative cross-jurisdictional governance structures to address adaptation and infrastructure resilience needs.
- Financing emergency management, hazard resilience, and climate adaptation through leveraging public financing tools and mobilizing private investment.



Multifamily Seismic Retrofit Program Secures \$15 Million from State, But More Investment Is Needed

By Sarah Atkinson, Earthquake Resilience Policy Manager

Rising to the Challenge: A Flood-Resilient San Francisco

O Digital Discourse

12:00 to 1:00 p.m. | Thursday, January 16, 2025



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Sustainability + Resilience Policy Priority

Project: Support innovative financing partnerships & financing initiatives that fund hazard resilience priorities in the Bay Area & improve governance of projects for effective and coordinated regional action.

What have we done so far?

- a. Pass \$15M in state funding for Multi-family Seismic Retrofit Program (later pulled back due to state budget deficit)
- b. Pass 2024 Prop 4 Climate Bond
- c. Pass 2024 Measure MM Oakland Special Tax for Wildfire Mitigation

What's now?

 Understanding financing challenges across hazards-how are projects currently financed, what gaps exist, what is possible?

The Challenge: Overlapping Risks

Sea level rise (SLR) in the SF Bay Area

EXHIBIT 5

Sea levels could rise by about 1 foot in the Bay Area by the year 2060.

Source: California Ocean Protection Council, "DRAFT: State of California Sea Level Rise Guidal : 2024 Science and Policy Update," 2024, https://opc.ca.gov/wp-content/ uploads/2024/01/SLR-Guidance-DRAFT-Jan-2024-508.pdf?utm_medium=email&utm_ source=govdelivery.

Note: SPUR uses OPC's "Intermediate" sea level rise scenario to contextualize the future risk of flooding from sea level and groundwater rise. All values are median values of sea level rise scenarios, in feet, for San Francisco, used here as a proxy for East Palo Alto.

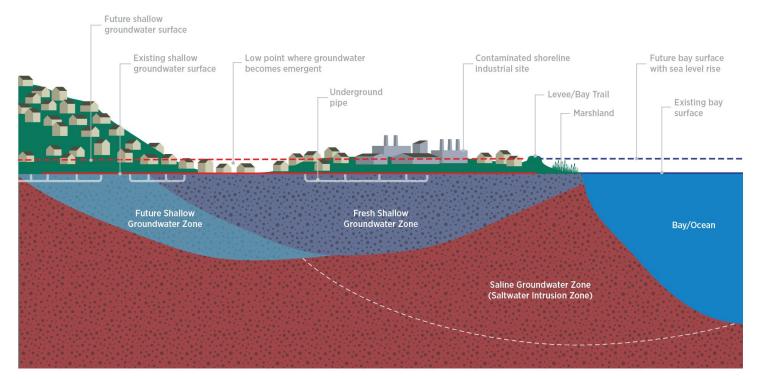
Source: SPUR Look Out Below Report

YEAR	LOW	INT. LOW	INTERMEDIATE	INT <mark>-</mark> HIGH	HIGH
2020	0.2	0.2	0.2	0.3	0.3
2030	0.3	0.4	0.4	0.4	0.4
2040	0.4	0.5	0.6	0.7	0.8
2050	0.5	0.6	0.8	1.0	1.3
2060	0.6	0.8	1.1	1.5	2.0
2070	0.7	1.0	1.4	2.2	2.9
2080	0.8	1.2	1.8	3.0	4.1
2090	0.9	1.4	2.4	3.8	5.3
2100	1.0	1.6	3.1	4.8	6.5



The Challenge: Overlapping Risks

Groundwater Rise (GWR) Risks





Sea Level Rise: Adaptation Solutions

- Hardening/"grey infrastructure: sea walls, rip rap, river channeling, armoring, levees, etc.
- Nature based solutions: living shoreline, restoration of tidal marshes and beach dunes, urban street-side rain gardens, removal of high hazard dams, replacement of undersized road culverts, etc.
- Hazard mapping/building codes: overlaying groundwater rise an SLR zones with building codes and design elements that support adaptation
- Managed retreat: state voluntary buyout programs
 (e.g. Massachusetts, Connecticut, NY) and
 limit/de-incentivize development within areas at risk of
 future flooding while increasing density outside of risk
- Regional Shoreline Adaptation Plans (RSAPs)



The Bay Area is estimated to need over \$100B for SLR adaptation

Figure 4. County Need Estimates by Project Type

Source: BCDC Adaptation Funding Framework

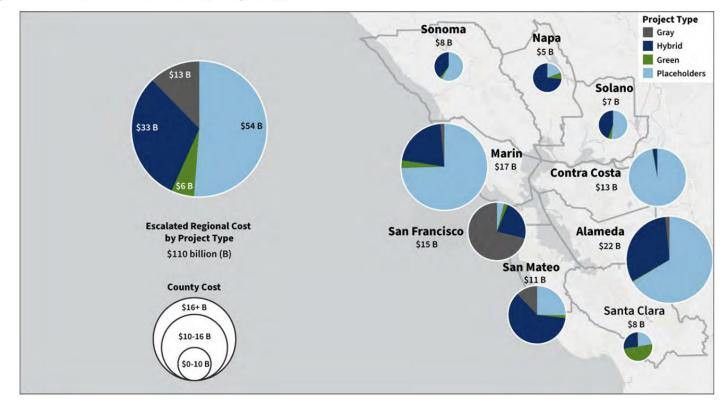


Table 3. Existing Revenue Estimate by Funding Source

Existing government funding sources (prior to federal cuts) are limited

Funding Source	Estimated Funding Timeline	Revenue Estimate (in millions Year of Expenditure)	
Local Adaptation Bonds	One-time	\$520	
Committed Project Funding Estimate	One-time	\$980	
Measure AA	Through 2037	\$430	
State Bonds	One-time	\$90	
2021 and 2022 State Budgets	One-time	\$600	
NOAA	Through 2050	\$70	
EPA	Through 2050	\$110	
FEMA	Through 2050	\$970	
U.S. Army Corps of Engineers	Through 2050	\$1,590	
Infrastructure Investment and Jobs Act (IIJA)	One-time	\$70	
Inflation Reduction Act (IRA)	One-time	\$30	
Other State and Federal Sources	Various	\$60	
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Total

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Source: BCDC Adaptation Funding Framework

The Challenge: Adaptation is Costly

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Various	Other State and Federal Sources	Various	\$60	
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Source: BCDC Adaptation Funding Framework



The Challenge: Adaptation is Costly

Federal & State funding pullbacks have widened the gap

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Source: BCDC Adaptation Funding Framework



Federal Headwinds

- GGRF rollback: In July 2025, Trump repealed the \$27 billion federal financing program to address the climate crisis with a mandate that 40% of funding benefit disadvantaged communities.
- Systematic dismantling of the Federal Emergency Management Agency (FEMA) that coordinates disaster relief and emergency assistance as well as provides federal funding for hazard mitigation.
- Federal rollback of equity and environmental justice considerations...

After Decades of Failure, the Trump Administration is getting FEMA Back on Track

Release Date: August 29, 2025

Under President Trump, FEMA is 100% faster in getting boots-on-the-ground to respond to disasters

In just 200 days, President Trump and Homeland Security Secretary Kristi Noem have successfully reformed federal disaster response after decades of failure and neglect.

For too long, disaster response has been bogged down by red tape, inefficiency, and a one-size-fits-all approach that left too many Americans waiting for help that came too late. Below are just some examples of how the Federal Emergency Management Agency (FEMA) has been realigned with its core mission:

FEMA had Been Failing the American People Since Hurricane Katrina.

Challenge: Dismantling of FEMA

- Staff reductions
- Termination of the BRIC grant program
- Delayed approvals of Hazard Mitigation Grant Program (HMGP) funding
- New approvals for expenditures over \$100,000, causing increased admin burden
- Twenty states are suing FEMA over the cancellation of the BRIC program

FEMA's Primary Hazard Mitigation Assistance Grant Programs

The fate of FEMA's hazard mitigation assistance programs remains unclear. The proactive Building Resilient Infrastructure and Communities program was recently canceled, even though FEMA's own research acknowledges that federal mitigation investments are highly cost-effective.

Grant program	Enabling legislation	Year started	Available only after a presidentially declared disaster?	Funding source	Funding approved FY 2023	Current status
Hazard Mitigation Grant Program	Stafford Disaster Relief & Emergency Assistance Act of 1988 (Stafford Act)	1989	Yes	Disaster Relief Fund (DRF)	\$140.7 million	Unknown; recent grants not approved
Flood Mitigation Assistance	National Flood Insurance Reform Act of 1994	1997	No	NFIP policy- holders and Infrastructure Investment and Jobs Act	\$800 million (NOFO)	Inactive for 2025
Pre-Disaster Mitigation (PDM)	Disaster Mitigation Act of 2000	2003	No	DRF	*\$233 million made available for 100 Congressionally directed projects	Inactive after 2023; BRIC replaced part of PDM in 2018
Building Resilient Infrastructure and Communities (replaced PDM)	Stafford Act, Disaster Recovery Reform Act of 2018	2020	No	6% set-aside from DRF	\$1 billion (1)	2020– 2023 grants canceled in April 2025

Bay Area Impacts — BRIC Cancellation

Cancellation of BRIC has led to the loss of \$350 million across the Bay Area for climate resilience projects. Including:

- the SAFER Bay Project in Menlo Park for flood protection, \$50M million)
- wildfire resilience investments in Napa and Sonoma counties, \$70M
- San Francisco's Downtown Coastal Resilience Project, \$50M
- the Oakland-Alameda Adaptation Committee's Adaptation Project, \$50M
- the Beach Boulevard Resiliency Project in Pacifica, \$50M
 (Statewide) Plus, the California Earthquake Authority Soft-Story Retrofit Program, \$40M

FEMA Is Eliminating Hazard Mitigation Programs, Leaving Americans Nationwide at Risk as Disasters Worsen

Will Curran-Groome, Andrew Rumbach, Sara McTarnaghan

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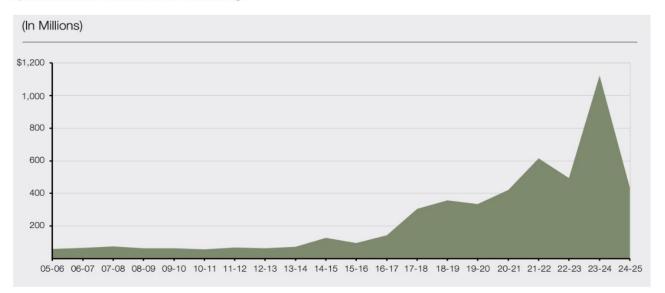
Delayed/Withheld HMGP Funds: The City of San Jose has delayed the rollout of its seismic retrofit program for multifamily soft-story buildings due to cancellation of a \$33 million HMGP FEMA grant.

The Challenge: Adaptation is Costly

The State Government is driven by public interest, which tends to follow disasters, instead of preempting them...

Increasing CalFire Wildfire Resilience and Prevention Spending

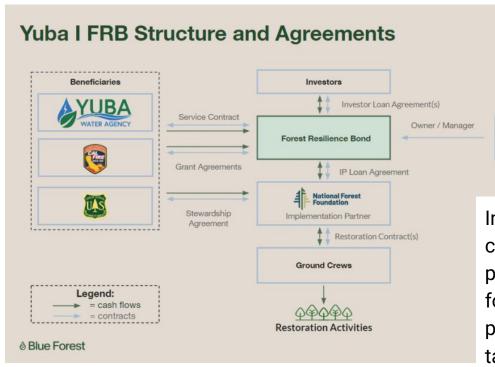
Until recent years, the state historically underinvested in resilience activities such as forest health, prescribed burns, defensible space, science research, and home hardening.



Source: SPUR Article



Model: The Forest Resilience Bond (Public-Private Partnership)

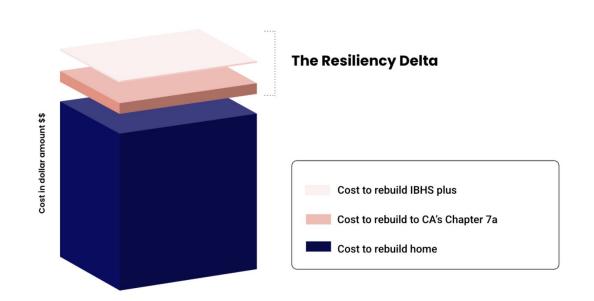


Investors including utilities, insurance companies, philanthropic foundations, and private companies provide upfront capital for forest management projects that are already planned for a region, but that may otherwise take years to complete based on public funding timelines and capacity constraints.

Blue Forest

Project Sponsor

Model: The LA Resilience Delta Fund (Public-Private Partnership)



Structured as a \$250 million blended-capital Special Purpose Vehicle, the Fund will combine loan capital with grants (especially for income-qualifying households) to ensure widespread access. This fund will be available to LA residents impacted by the fires who want to upgrade their homes to the IBHS Wildfire Prepared Home Plus standard.

Source: Resilient Los Angeles



Model: Green Banks, similar to CA's IBank, CT's and MD's Green Banks

CT: Environmental Infrastructure Bank, "Property Assessed Resilience"

- allows homeowners to borrow for flood protection upgrades and benefit immediately from increased property valuations and reduced insurance premiums.
 - They can repay over decades through modest increases in their property tax bills, insurance savings

Maryland: Montgomery County Green Bank Resilience Dedicated

Fund—public/private partnership for low-interest loans to affordable
housing and developers to invest in resilience alongside capital
improvements

- Borrowers can use a portion of the loan toward needed capital improvements to make repairs and maintain their buildings
- Every capital improvement investment must be paired with a resilience investment





Model: Special districts

BLACKHAWK

GEOLOGIC HAZARD ABATEMENT DISTRICT

- 1) Climate Resilience Districts (CRDs), SB 852: A new type of financing district available to local governments and special districts, with the goal of fostering collaboration among public/private sectors and est. a predictable flow of \$\$\$ instead of grants/loans
 - Tax increment financing, voter-approved supplemental property taxes, benefit assessments, or fees
 - b) CRDs can receive federal, state, local or private funding
- 2) Geological Hazard Abatement Districts (GHADs), 1979 Beverly Act: Independent public agencies that provide a management structure and funding source to protect from landslides, erosion, liquefaction, flooding, and other hazards. ~50 in CA
 - a) Can encompass both private and public lands in hazardous areas
 - b) GHADs can own/acquire land, CEQA exempt
 - Ex: Oakland GHAd, Blackhawk GHAD, Wilder GHAD in Orinda, Santa Cruz GHAD



Where do we go from here?

Regardless of whether federal hazard mitigation grants are restored, California and Bay Area governments must improve existing public financing (and governance) mechanisms while pursuing innovative tools to expand resources for planning and implementation projects.

We do not have the luxury of waiting until federal funding is available, nor will federal funding cover our growing costs.