

Interagency Recovery Coordination

Community Planning and Capacity Building Quarterly Webinar

August 29, 2024

Source: Plumas County

Housekeeping

- The webinar is being recorded
- Audience microphones are muted
- Ask questions using the Chat feature
- The slide deck will be emailed to attendees
- The slides and recording will be posted on www.caloes.ca.gov/RSF



Agenda

Time	Agenda Item	Responsible Party	Notes
3:00 PM	Introduction and Housekeeping	Sasha Jones	
3:05 PM	California Governor's Office of Emergency Services	JR DeLaRosa	Opening Remarks
3:10 PM	Federal Emergency Management Agency	Rosemarie Bradley Catherine Welker	FEMA National Resilience Guidance
3:25 PM	California Governor's Office of Planning and Research	Sarah Samdin Ankitha Doddanari	OPR Integrated Climate Adaptation and Resilience Program
3:40 PM	City of Santa Cruz	Tiffany Wise-West, PE, PhD	City of Santa Cruz Climate Adaptation Planning
3:55 PM	Q&A	All Speakers	
4:00 PM	Adjourn	Sasha Jones	





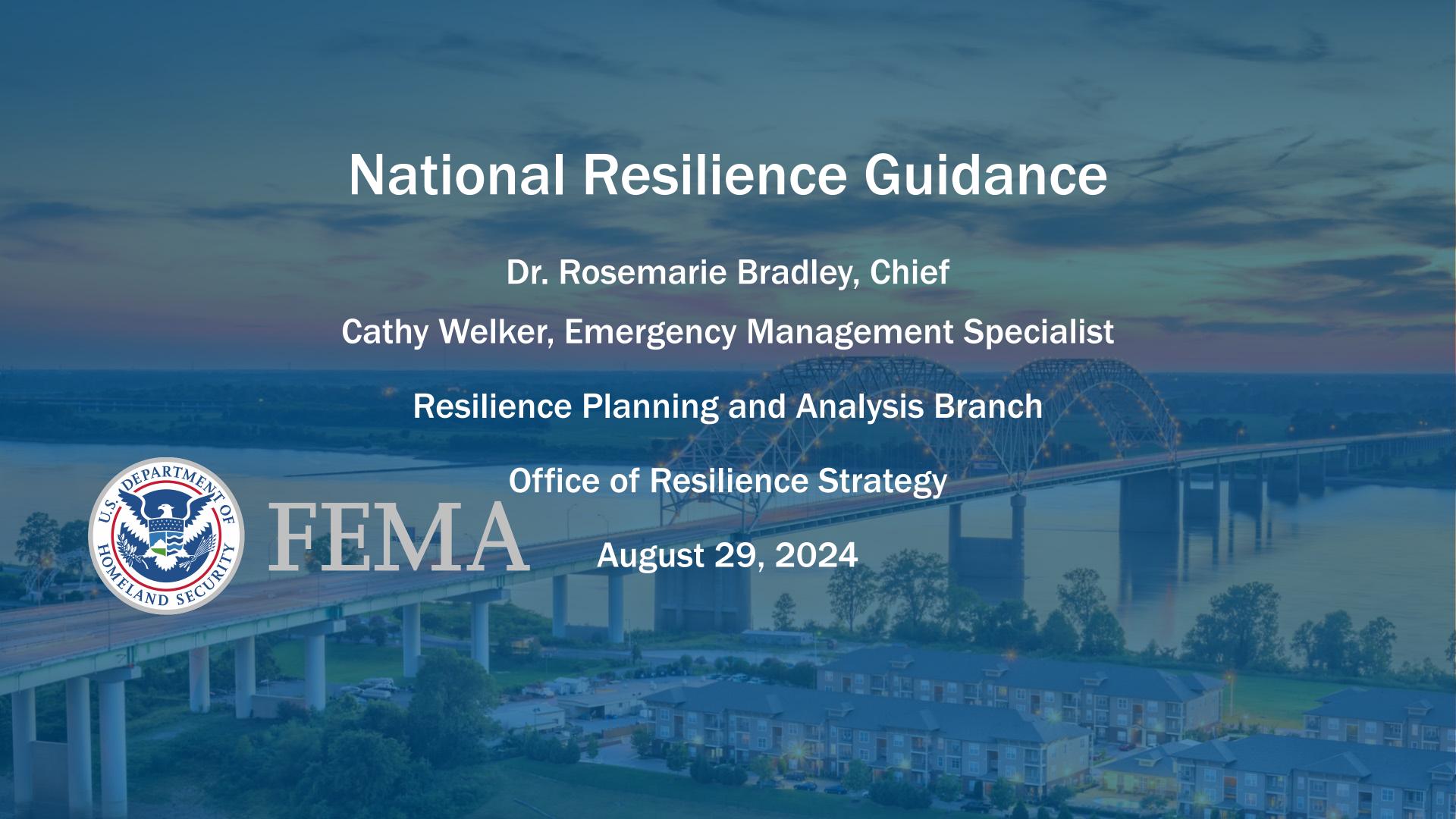




Rosemarie Bradley
FEMA



Catherine Welker FEMA



Today's Discussion

- Overview of National Resilience Guidance (NRG)
- NRG Implementation Phase

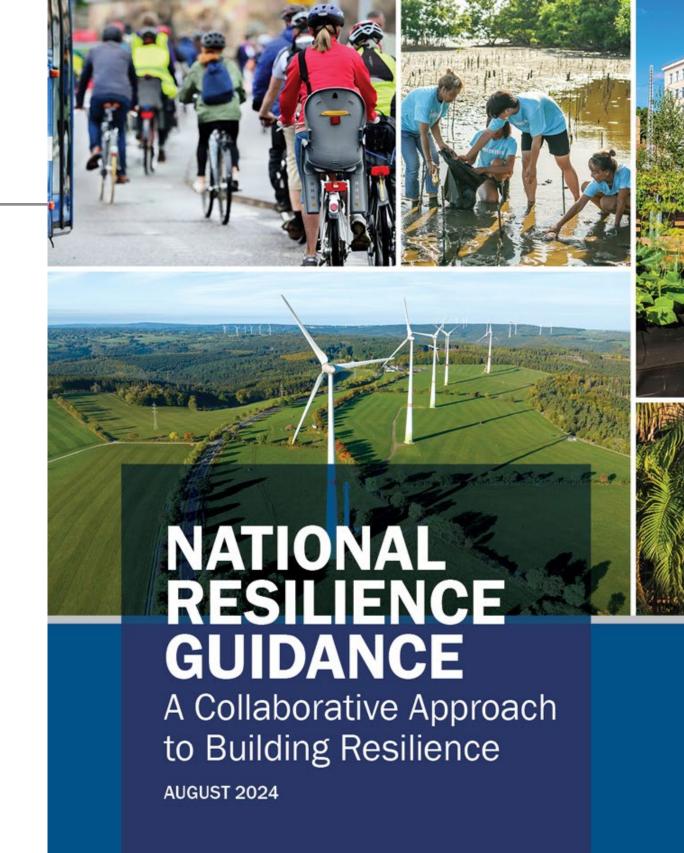
NRG launch – August 27!

- Please help us spread the word
- Watch the NRG webpage for details of upcoming engagements
- Collaborate with us!











National Resilience Guidance Overview

- Not just for emergency managers
- Provides a unifying vision across all resilience lenses
- Promotes comprehensive planning for shocks and stressors and their interdependencies

- Emphasizes a systems approach
- Relays the importance of building social trust





National Resilience Guidance – Implementation Phase

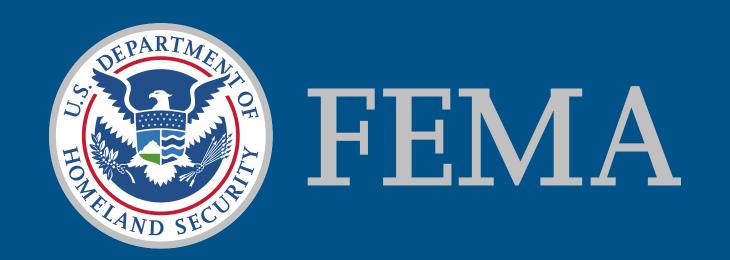
- Next steps: Operationalize resilience
- Develop supplemental materials
- Integrate NRG resilience concepts into exercises, training, guidance and programs
- Outreach and support to SLTT partners
- Explore emergency and disaster resilience opportunities
- Identify other agencies, organizations', and communities' resilience efforts and needs







nationalresilience@fema.dhs.gov









Sarah Samdin

OPR

Ankitha Doddanari

OPR



Agenda

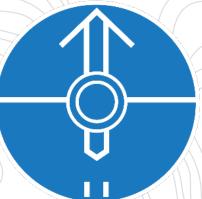
- I. ICARP Grant Programs
- II. Plan Alignment Toolkit
- III. Climate Services Portfolio
- IV. Q&A

Integrated Climate Adaptation and Resiliency Program (ICARP)



ICARP advances a climate-resilient California for all.

- Climate Services and Technical Assistance; FEMA Cooperative Technical Partners program
- Technical Advisory Council Public Forum
- California Climate Change Research Assessments
- Adaptation, Regional Resilience, & Extreme Heat Grant Programs

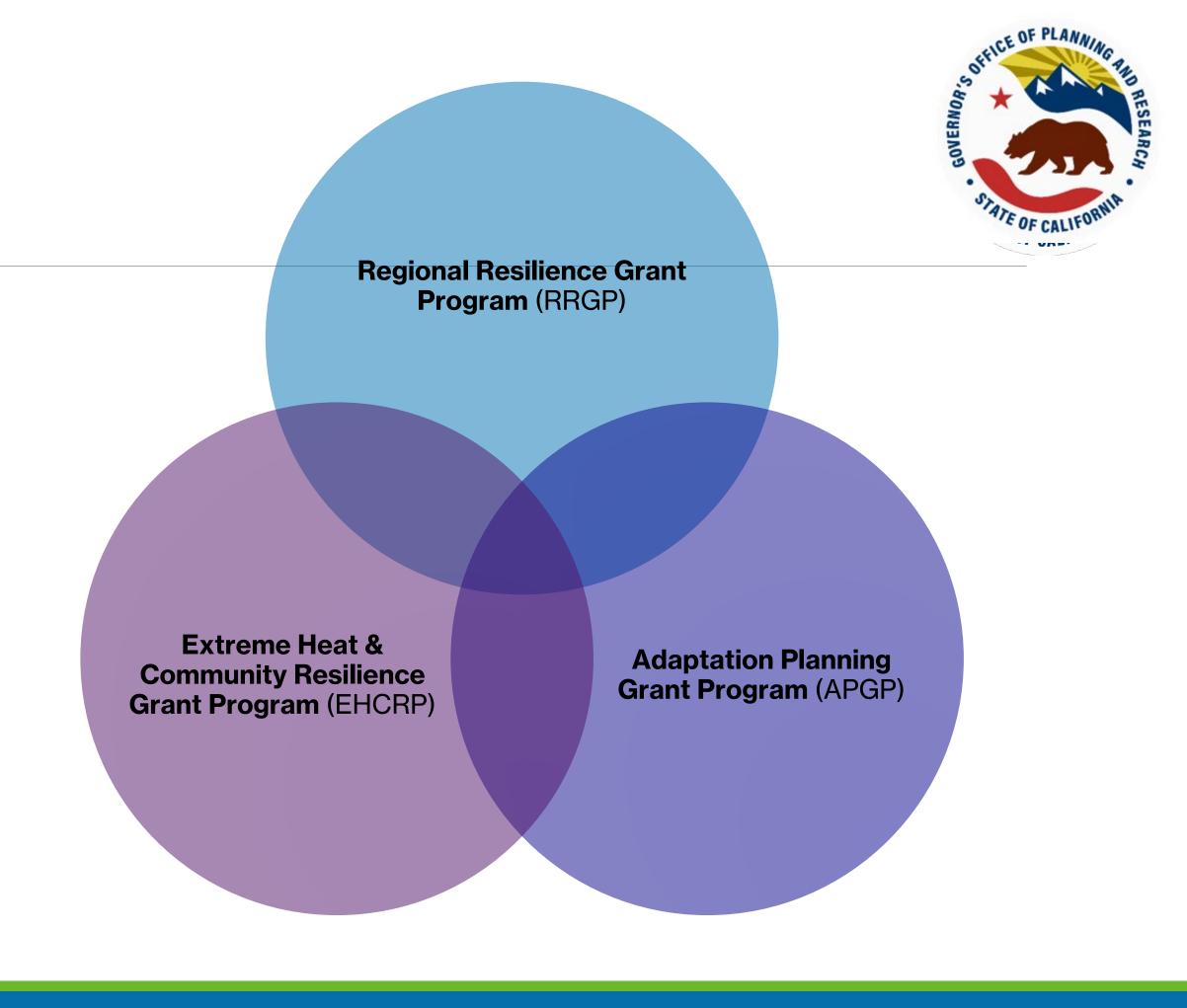


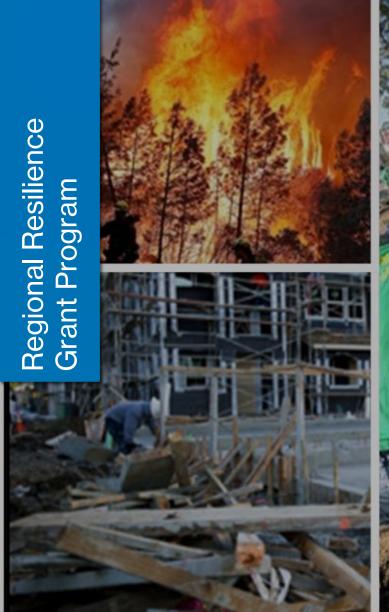




ICARP Grant Programs

The 2021 & 2022
Budget authorized ICARP to develop three new grant programs to fund local, regional, and tribal climate adaptation and resilience efforts across the state.









Key Program Priorities



- Support regional projects aligned with ICARP priorities that reduce climate risks from wildfire, sea level rise, drought, flood, increasing temperatures, and extreme heat events.
- Support projects or actions that address the greatest climate risks in the region, particularly in the most vulnerable communities.









Key Program Priorities

- Enhance Accessibility and Diversity
- Prioritize Vulnerable Communities-Centric Approach
- Emphasize Integrated Infrastructure Planning
- Build Community Capacity for Resilience
- Elevate Equity in the Planning Process









Key Program Priorities

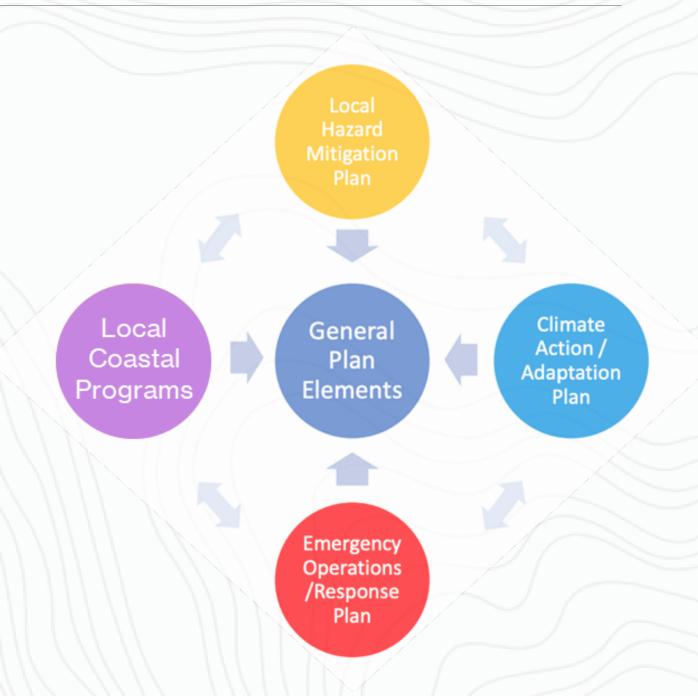
- **Equity:** Prioritize resilience resources for communities that have experienced historical and continuing disinvestment, often due to structural racism.
- **Support:** Support the state's efforts to address extreme heat and the urban heat island effect.
- Health Protection: Advance change to the environment, policy, and systems that protect and prevent the negative health impacts of extreme heat and the urban heat island effect for heat vulnerable communities.
- Statewide Capacity Building: Build statewide capacity to plan for and implement equitable planning strategies.



What is Plan Alignment?

Plan Alignment, in essence, is based on collaboration.

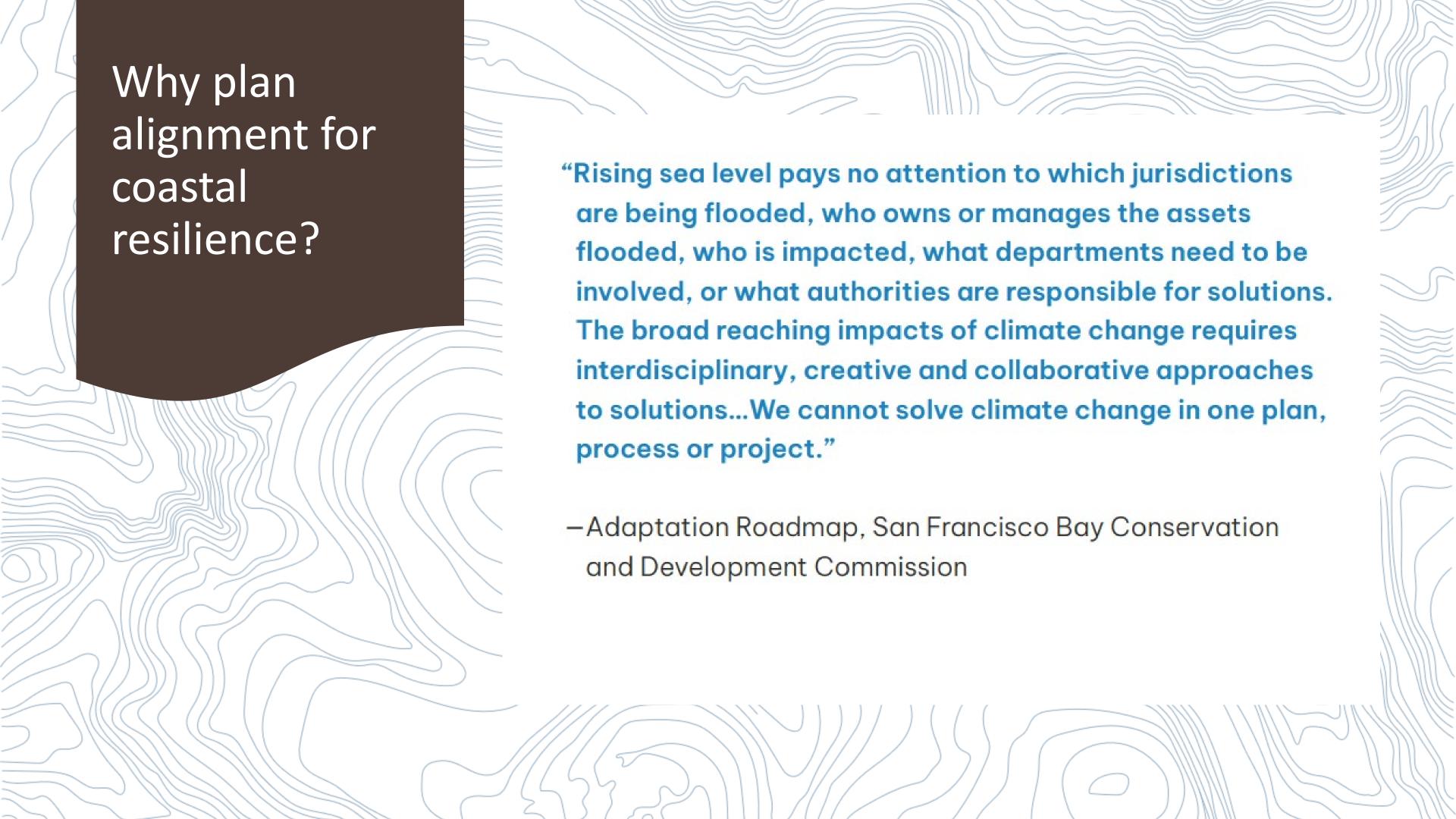
It's a shared understanding, process, and structure, and a suite of aligned plans.



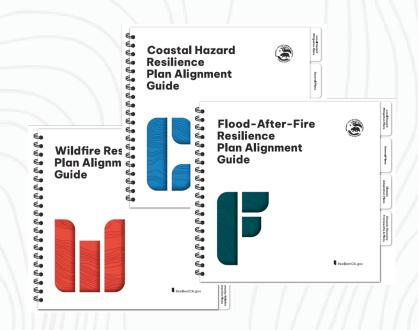
What are the benefits?

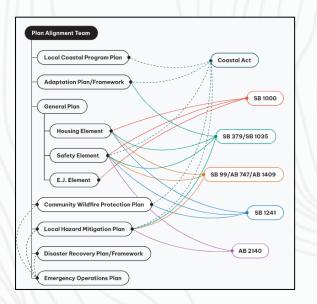
- Support plan implementation
- Community alignment and support
- Reduce barriers, duplication, and conflict
- Leverage resources





The Climate Resilience Plan Alignment Toolkit









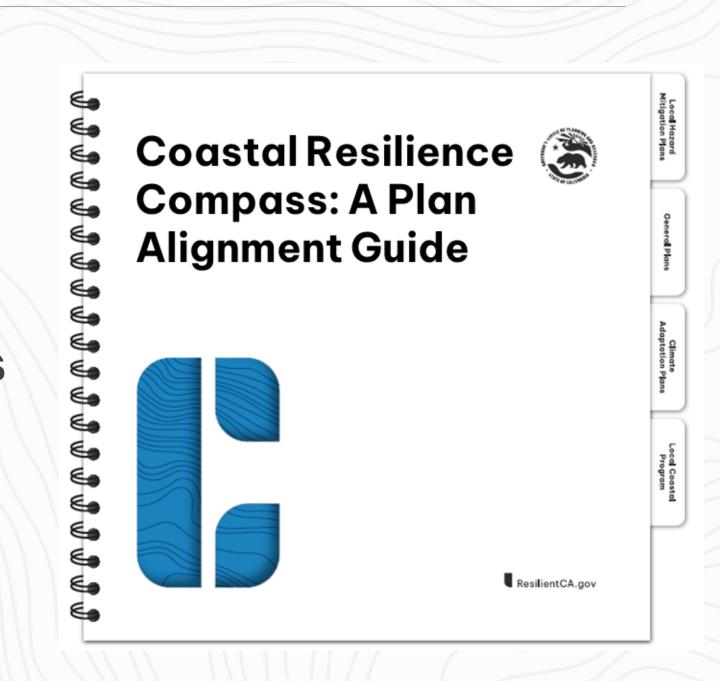
- 3 guides, available online, as PDF, and as a booklet
- 3 Case Studies
- Infographics
- Community Engagement Resources
- Online decision support tool
- Introductory information ("Big Ideas" & "Best Practices")

ResilientCA.org/plan-alignment

An alignment guide to advance cohesive coastal resilience.

Designed to help communities...

- meet state & federal planning requirements
- balance multiple local priorities
- conduct risk & vulnerability assessments
- advance equitable outcomes & community engagement
- build capacity to plan & implement solutions



The guide covers...

- why prioritize plan alignment for coastal resilience?
- ideas and best practices for effective alignment
- tips for overcoming challenges
- introduction to phased adaptation / adaptation pathways
- chapters on local coastal programs, hazard mitigation plans, adaptation plans, and general plans
- tips for implementation
- and so much more...

Local Plans & State Regulations

Visual summary of relationships between common local resilience planning documents in California and key resilience planning regulations.

Note: this graphic reflects both plan relationships reflected in statute, such as relationships between Local Hazard Mitigation Plans and General Plan Safety Elements, as well as plan relationships that are topically relevant, but not legally related, such as relationships between Community Wildfire Protection Plans and General Plan Safety Elements. The Figure does not show all possible connections between plans, and is subject to change as new statutes come into effect.

For additional details and the most up-to-date information on local planning requirements, reference the following corresponding statutes:

AB 2140 (2006) (Gov. Code §§ <u>65302.6</u> and <u>8685.9</u>);

SB 379 (2015) and SB 1035 (2018) (Gov. Code, §§ 65302, subd. (g)(4) and (g)(6));

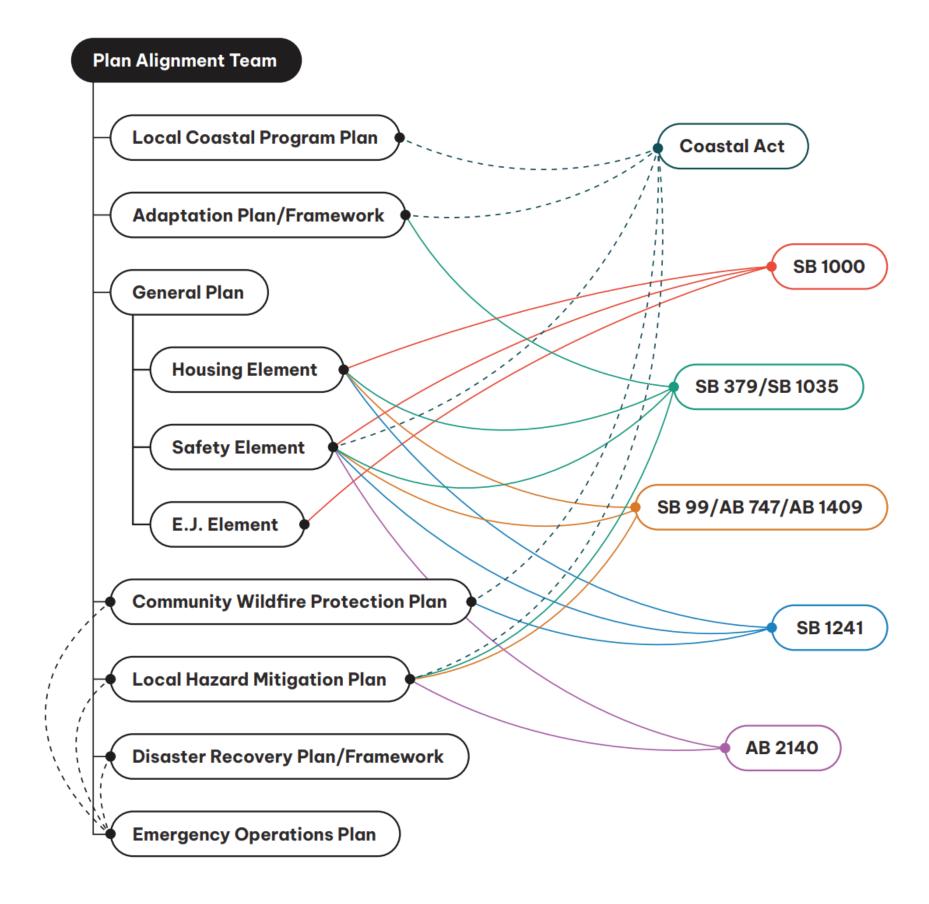
SB 1241 (2012) (Gov. Code, §§ <u>65302</u> and <u>65302.5</u>);

SB 1000 (2016) (Gov. Code, § 65302, subd. (h));

SB 99 (2019) (Gov. Code, § 65302, subd. (g)(5));

AB 747 (2019) and AB 1409 (2021) (Gov. Code, § <u>65302.15</u>);

California Coastal Act (Pub. Resources Code, § 30000 et seq.)



Phase 1: Explore, Define, and Initiate

- Develop a shared vision.
- Become familiar with planning processes and requirements.
- Treat the process as an outcome.
- Create an adaptable 5, 10, or 15+year strategy for updating multiple plans/elements over time.



Adaptation Pathways and Plan Alignment

A planning approach that addresses the uncertainty and challenges of sea level rise and climate change decision-making.

This approach, also called **phased adaptation**, enables consideration of multiple possible futures and more robust analysis of the benefits and downsides of adaptation solutions across those futures.

Timing Thresholds, Triggers, & Actions

Example 1: A trigger is used to indicate how close **Phases:** you are to a future threshold and indicates an action is needed. Trigger: A metric indicating action is **Short Term** needed to avoid passing a critical threshold: Lower Sea Levels X feet of sea level rise is reached. "Proactive" Action: Actions triggered well before a critical threshold is passed: Shoreline marshes are **Mid Term** restored that can absorb future storm surge. "Critical" Threshold: A threshold, also called a tipping point, that is highly undesirable to cross, **Long Term** after which adaptation is extremely difficult or no **Higher Sea Levels** longer possible: At 2x feet of sea level rise, shoreline neighborhoods will be permanently flooded.

In each Plan chapter....

Sections	General Plan Safety Element
Foundational information	 Requirements for Consultation, Review, & Approval Bills/ Statutes: SB 379, SB 1035, SB 99, AB 747 Required Components: Vulnerability Assessment Adaptation Strategies, Implementation Measures
Guidance	 Adaptation Planning Guide; Adaptation Roadmap; Critical Infrastructure at Risk
Post Drostices	When possible undete the Heusing Floment Cefety

Best Practices

When possible, update the Housing Element, Safety
Element, and/or local hazard mitigation plan
concurrently or sequentially to synchronize long-term
integration and meet SB 1035 requirements.

In each Plan chapter....

Sections	Examples from the General Plan Safety Element Chapter
Tips & Requirements for the Vulnerability Assessment	Consider the effects of sea level rise on fluvial/riverine flooding, shallow groundwater rise, and shoreline erosion/slope instability as well as subsidence and storm surge potential when updating the flood risk information in Safety Elements. Additionally, consider sea level rise impacts to maritime and waterfront facilities (e.g., wharfs, piers) in the vulnerability analysis
Alignment Opportunities	Where transportation infrastructure functions as part of

emergency evacuation routes, local governments should coordinate with transportation asset managers and emergency response planners to ensure consistency

Adaptation Pathways

See examples for how the General Plan can adopt an

See examples for how the General Plan can adopt an adaptation pathways approach

Alignment Team & See list of entities to engage or partner with Community Engagement

Coastal Resilience Planning in Santa Cruz

Plan Alignment Case Study

- An intersectional, equitable, and holistic approach can result in more effective, place-based adaptation strategies responsive to community needs.
- Leveraging academic partnerships is an important way to increase capacity, advance planning and analysis, and create new avenues to acquire funding.
- Incorporating adaptation pathways can help communities avoid undesirable planning outcomes. By creating a flexible, phased strategy system, communities can analyze and adopt the adaptation strategies that best fit their needs over time.

Catalyzing Coastal Resilience: A Plan Alignment Case Study

City of Santa Cruz

OVERVIEW

Region

Central Coast

City Population

61,950 (2021 US Census Bureau)

Plans Discussed

General Plan
Local Coastal Program
Local Hazard Mitigation Plan
Climate Adaptation Plan and Appendices
Sea Level Rise Vulnerability Assessment and
Social Vulnerability to Climate Change Analysis
Climate Action Plan
West Cliff Drive Adaptation and
Management Public Works Plan
Stormwater Management Plan
Wharf Master Plan
Parks Master Plan

Lead Agencies

City of Santa Cruz City of Santa Cruz, Manager's Office, and Planning and Community Development Department

Coastal Hazards and Climate Impact Areas

Sea Level Rise Erosion Coastal Storms Flooding Tsunamis



Integrated Climate Adaptation and Resiliency Program (ICARP)

Climate Services

Providing tools, guidance, and technical assistance for adapting to climate change.



Ben McMahan Manager, Climate Services

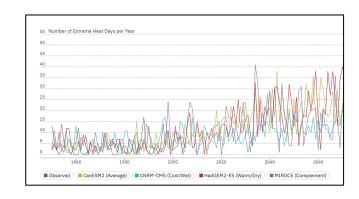
Ankitha Doddanari Staff Analyst, Vulnerable Communities Platform

ICARP Climate Services

Looking for the raw data?



Explore and analyze climate data from California's Climate Change Assessments.



Looking to incorporate equity?



Vulnerable Communities Platform

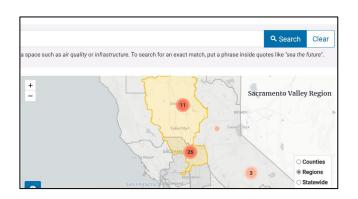
Identify frontline communities and explore factors contributing to climate vulnerability.



Looking for helpful resources?



Find the **resources** you need to adapt to climate change.



Need more help?

Our (in progress) Help Desk provides individual support that can assist general adaptation knowledge, using our tools and data, developing adaptation projects, connecting with specialized topic support, and finding funding sources

Vulnerable Communities Platform (VCP)





Map climate hazard and social sensitivity data



Compare existing resilience related tools



Provide entry-level primer to resilience resources



Display examples of communities using the VCP to create adaptation plans

Community Pilot Workplan



1) Develop training curriculum on using the VCP



2) Select trainee cohort of 10-15 CBOs and local government organizations statewide

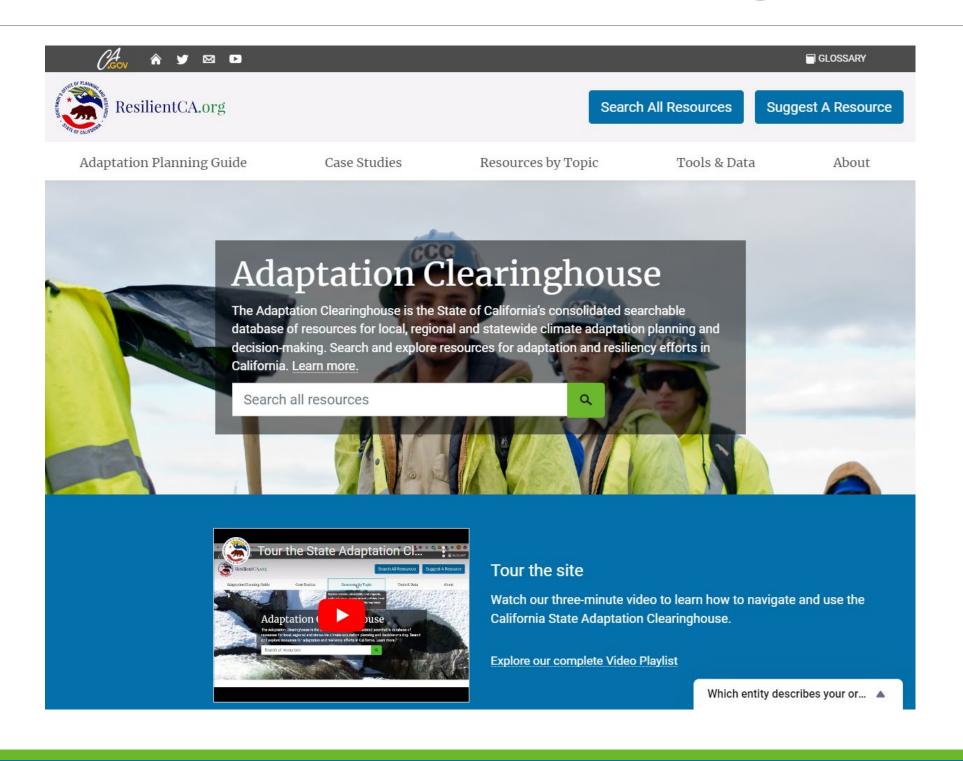


3) Facilitate training classes for cohort



4) Co-host workshops in cohort member communities to develop assessments of climate vulnerability that combine on-the-ground community experiences with data. Assessments will be used as case studies and consolidated into a VCP user guide.

Adaptation Clearinghouse



Searchable database of resources for climate adaptation

Includes planning guidance, case studies, and other resources intended to support decision making.



Challenges & Solutions

View curated ICARP Case Studies organized by solutions that practitioners are finding to a common set of challenges in adaptation. These challenges span the spectrum of community planning to project implementation.

Use our Suggest A Resource form to recommend an innovative effort for a case study.

Partnering with vulnerable and disadvantaged communities

Staff expertise

Working with many permitting authorities

Overcoming legal barriers

Developing plans and strategies

Aligning different plans

Scientific research to inform resilience

Building leadership and champions

Securing funding

Using the right science to inform planning and decisionmaking

Working across jurisdictional boundaries

Building public support

The ICARP team has written up case studies on past local, regional, and state projects that are organized into the clusters of common challenges in climate adaptation that they tackle.

Resources by Topic

All Adaptation Topics



One page summaries of major adaptation topic areas along with links to related resources and suggested adaptation strategies.



Plan Alignment



- Overview of state guidance, best practices, and adaptation pathways as well as an identification of key community, agency, regional, federal, and private stakeholder groups for climate adaptation plans, wildfire protection plans, housing elements, local hazard mitigation plans, and many more
- Identification of gaps and alignment opportunities for integrating climate adaptation and resilience strategies into various planning documents and policies



Adaptation Planning Guide (APG)



- Step-by-step process for developing adaptation plans, including assessing vulnerabilities, setting goals, identifying actions, and evaluating progress.
- Resources such as templates, checklists, questionaries, etc.
- Guidance on how to integrate equity and community engagement in al steps of the planning process

Thanks for Joining!

Ankitha Doddanari she/her)

Staff Analyst, Climate Equity and Resilience Engagement

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Sarah Samdin (she/her)

Senior Adaptation and Resilience Planner

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Local Hazard Mitigation + Climate Adaptation Planning in Santa Cruz

August 29, 2024



Dr. Tiffany Wise-West, P.E. Sustainability and Resiliency Officer twise-west@santacruzca.gov



Climate Hazards + Impacts







Natural Disasters **Air Quality Impacts**

Environmental Effects

More Frequent Heatwaves

Increased Sea level Rise. Flooding, Tsunamis, & Storms

More Intense Drought & Wildfires

Increased Pollution & GHG **Emissions**

Secondary Effects

Urban Heat Island Effect Saltwater Intrusion & Ocean Acidification

Decreased Food, Fuel, & **Energy Availability**

Property Loss

Increased

Water Contamination

Allergens

Infrastructure Damage

Heat Stroke

Dehydration

Aggravated Cardiovascular Illnesses

Aggravated Injury Respiratory Death Illnesses

Increased Allergy-Related Illnesses

Mental Health Considering the social cost of emissions, the City has estimated it experiences ≥\$25M per year in adverse impacts to the community already due to climate change.



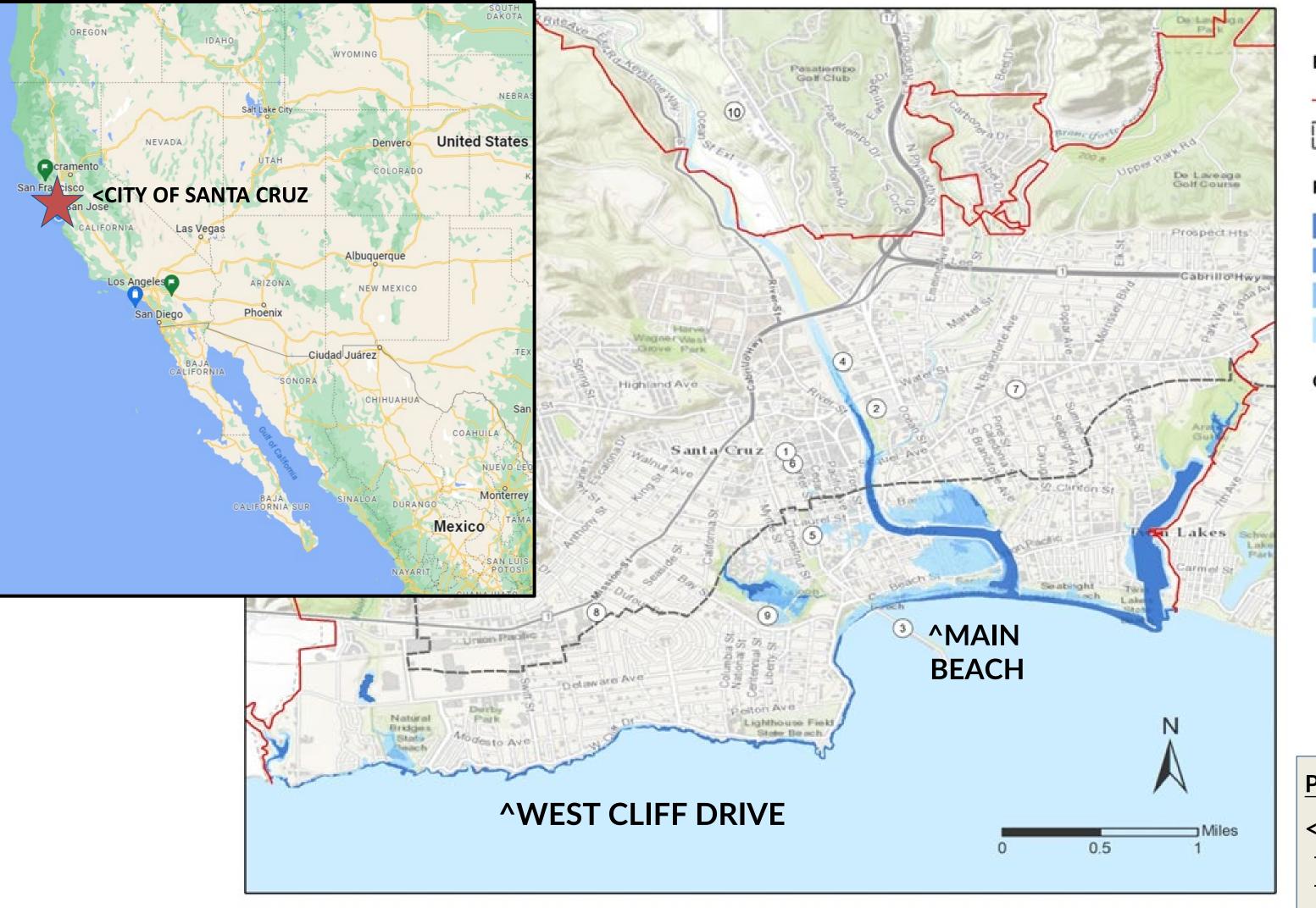






Background





Boundaries

- SC City Limit

Coastal Zone Boundary

Rising Tides Hazard Zones

Existing

2030 (.3 ft SLR)

2060 (2.4 ft SLR)

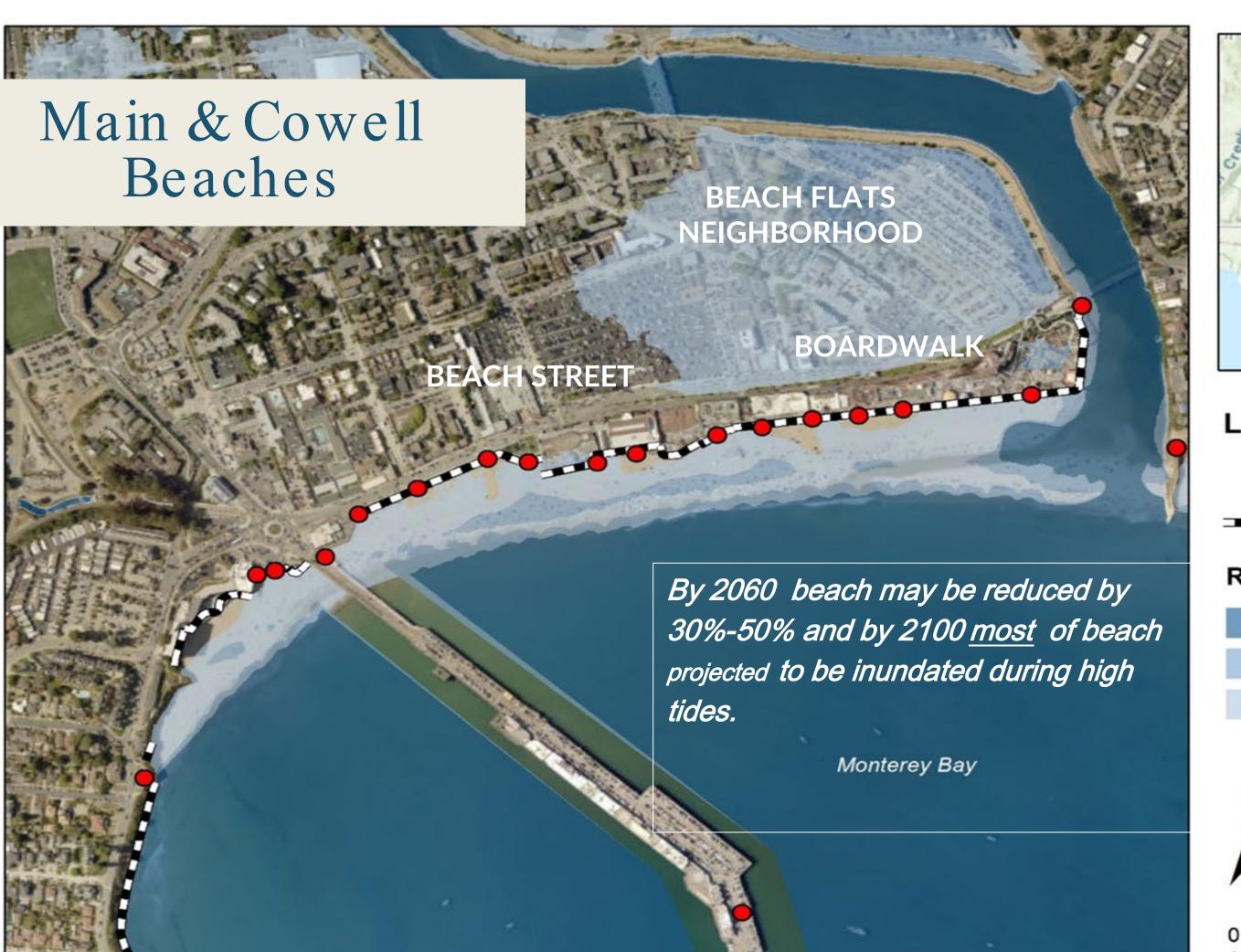
2100 (5.2 ft SLR)

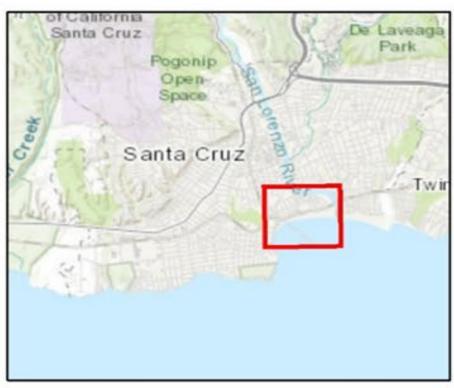
Critical Facilities

- City Hall
- 2 County Government Center
- 3 Lifeguard Headquarters
- 4 PG&E Substation
- 5 Police Department
- 6 Santa Cruz City Fire 1
- 7 Santa Cruz City Fire 2
- 8 Santa Cruz City Fire 3
- Wastewater Plant
- 10 Water Treatment

PROJECTIONS/MAPS:

- << SEA LEVEL RISE
- + EROSION
- + COASTAL STORMS





Legend

Coastal Access

Coastal Armoring

Rising Tides Hazard Zones

2030 (0.3 ft SLR)

2060 (2.4 ft SLR)

2100 (5.2 ft SLR)



250 500 1,000 Feet

APPENDIX J CROSSWALK OF LOCAL HAZARD MITIGATION PLAN AND CLIMATE ADAPTATION PLAN UPDATE

Hazards	LHMP		CAP	
	Impact	Mitigation Strategy	Impact	Adaptation Strategy
Earthquakes and Liquefaction	Ch. 4	Ch. 13	Not Addressed	NA
Wildfires	Ch. 5	Ch. 13	Ch. 3	Ch. 4
Floods and Associated Coastal Storms	Ch. 6	Ch. 13	Ch. 3	Ch. 4
Drought	Ch. 7	Ch. 13	Ch. 3	Ch. 4
Tsunami	Ch. 8	Ch. 13	Not Addressed	
Coastal Erosion	Ch. 9	Ch. 13	Ch. 3, Appendix D	Ch. 4, Appendix G
Dam Failure	Ch. 10	Ch. 13	Not Addressed	Ch. 4,
Landslide	Ch. 11	Ch. 13	Not Addressed	Ch. 4, Appendix A, G
Sea Level Rise	Ch. 6, 9	Not Addressed	Ch. 3	Ch. 4
Severe Storm/Weather Events	Ch. 6,11	Not Addressed	Ch. 3	Ch. 4
Ocean Acidification	Not Addressed		Ch. 3	Ch. 4
Salt Water Intrusion	Not Addressed		Ch. 3	Ch. 4
Increasing Temperature	Not Addressed		Ch. 3	Ch. 4
Food and Fuel Availability	Not Addressed		Ch. 3	Ch. 4
Impacts to Ecosystems	Not Addressed		Ch. 3	Ch. 4

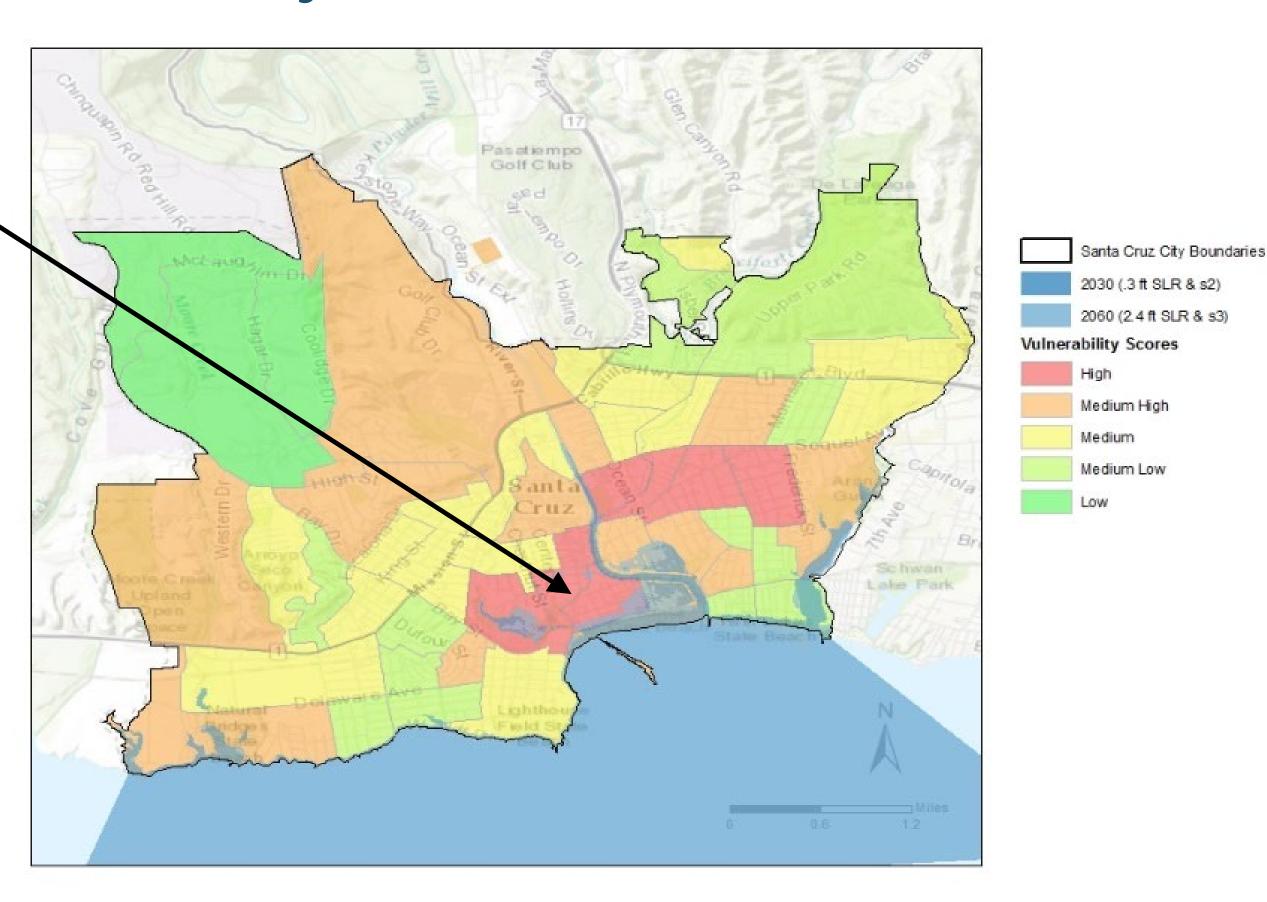
Social Vulnerability to Coastal Hazards

High Social Vulnerability:

- Beach Flats
- Downtown/South of Laurel

Social Vulnerability Score

- Elderly
- Poverty
- Crime incidence
- English is 2nd language
- Differently abled



Experimentation with Robust, Innovative Engagement





Collection

Resilient Coast Santa Cruz - Input on Coastal Adaptation

Learn about Santa Cruz's coastal vulnerabilities on adaptation pathways and strategies for West Cliff Drive and adjacent beaches. (Summer 2020) More information at: cityofsantacruz.com/ResilientCoast









1 Natural Bridges State Beach

Main & Cowell Beaches

3 Seabright State Beach



4 West Cliff Zone #1: Pyramid Beach



5 West Cliff Zone #2: Mitchell's



West Cliff Zone #3: Lighthouse
 Point to Its Beach



West Cliff Zone 4: Pelton Ave to Bay St.



8 West Cliff Drive Transportation Strategies





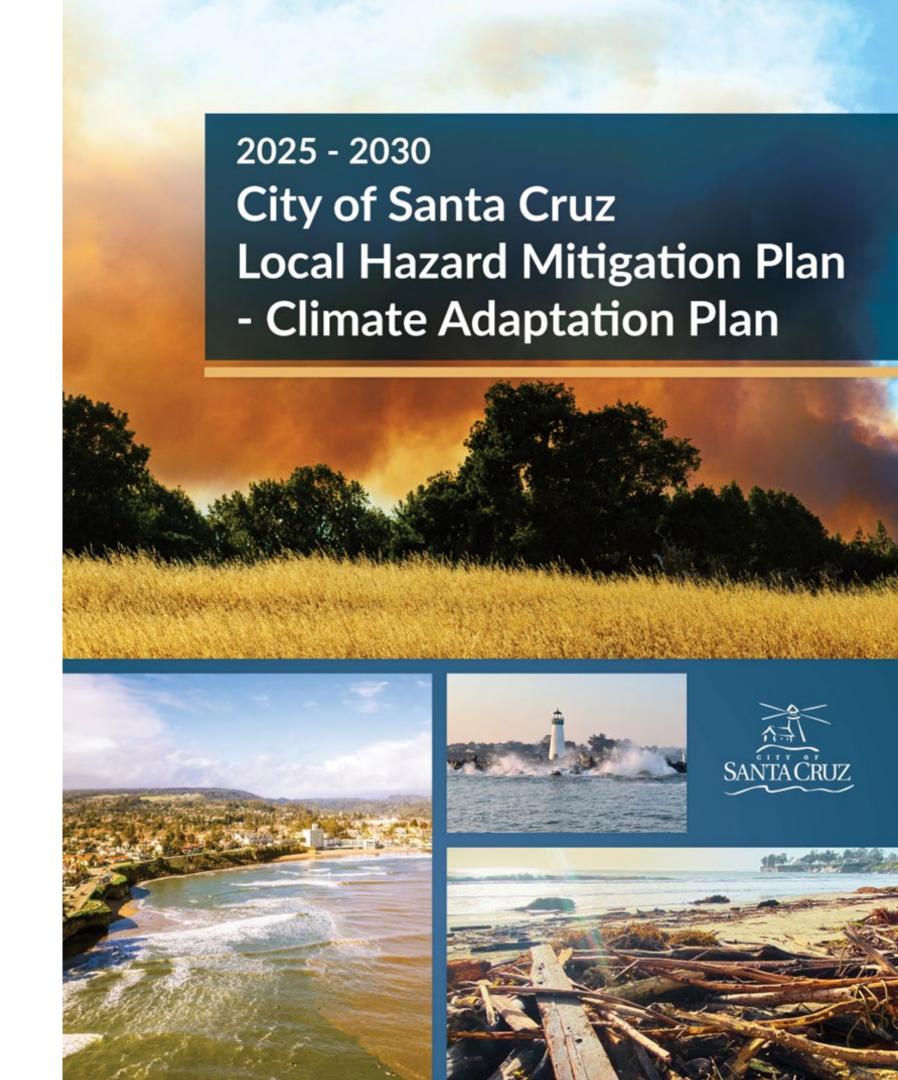
Link to youtube: https://www.youtube.com/watch?v=VaGazU5pxDM

Climate Acts Dance Performance at Earth Day ^^

CoastSnap pilot ^^

NEW LHMP + CAdapt Plan:

- Major overhaul
- One integrated document
- Adaptation pathways approach
- Includes extreme heat for the first time
- Will develop NOIs for priority projects
- Will address combinations of hazards
- Complete by spring 2025



Monterey Bay Regional Climate Project Working Group

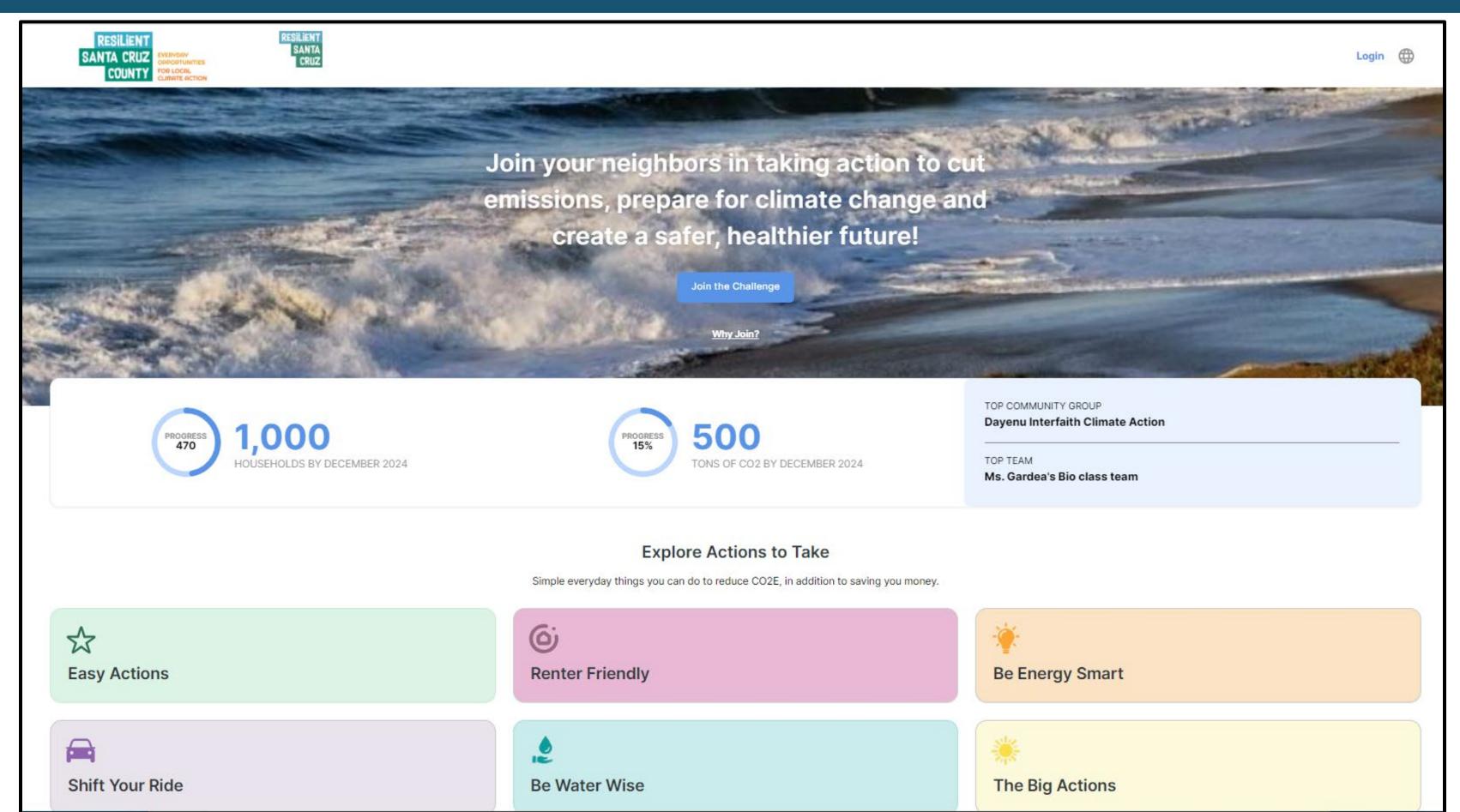


MISSION: Collaborate among groups and organizations in the Monterey Bay Area region, including Santa Cruz, San Benito, and Monterey Counties, to develop, prioritize, secure funding for, and effectively and equitably advocate for and implement regionally beneficial climate mitigation and adaptation projects and programs.

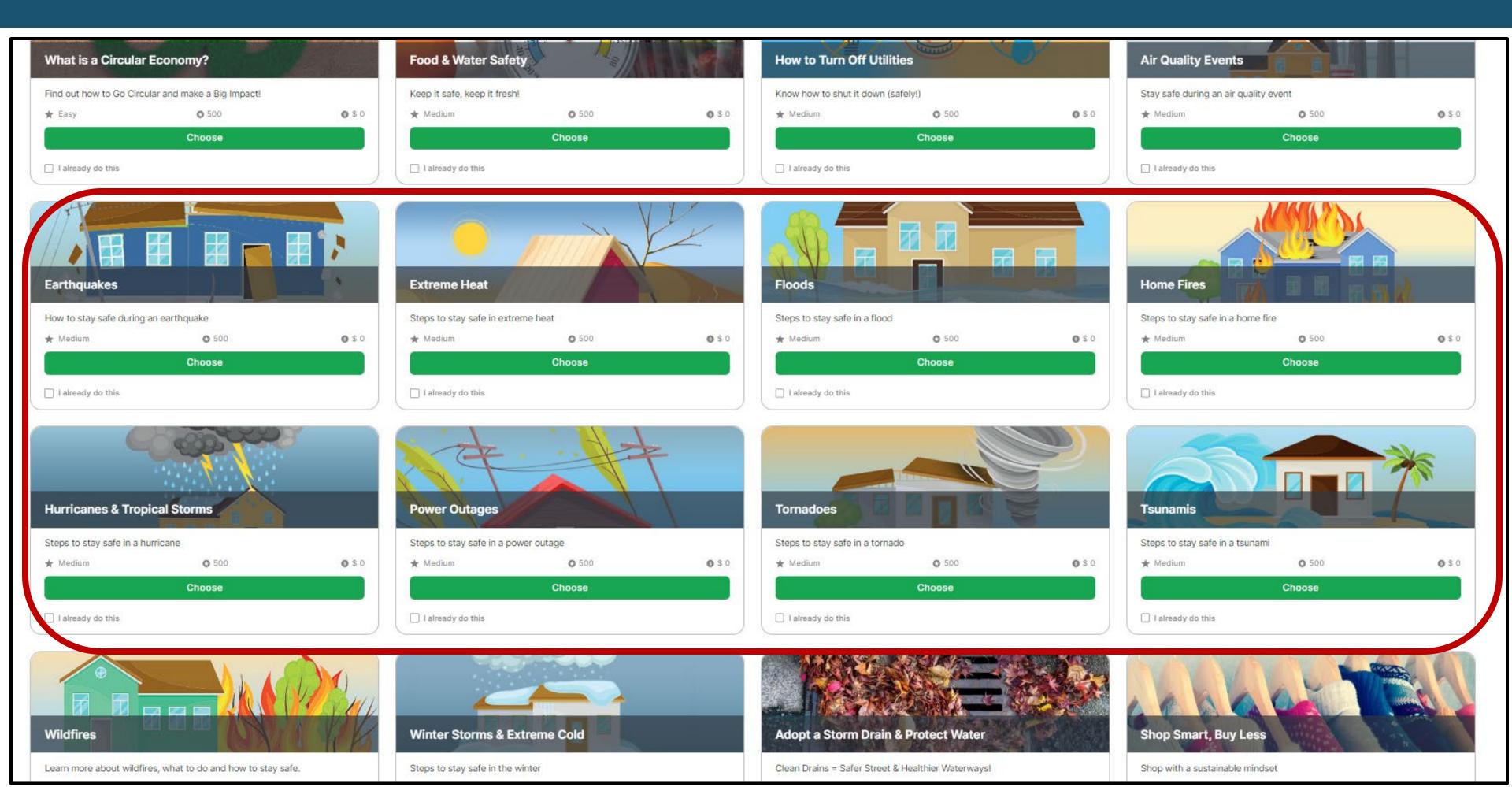
UPCOMING: Monterey Bay Adaptation and Resilience Implementation and Funding Roadmap Funded by Governor's Office of Planning & Research

Activating the Community





Activating the Community - Resilience Measures







Thank You!

Learn more about the City's hazard mitigation and resilience planning alignment efforts at the Santa Cruz Case Study prepared by the Governor's Office of Planning and Research:

https://opr.ca.gov/publications/docs/20230804-ICARP_Costal_CaseStudy.pdf





Cal OES Contact

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Recovery Support Functions

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<u>www.caloes.ca.gov/RSF</u>