

A small white map of the state of California is located in the top left corner. A white outline of the Central Valley region is superimposed on the map, indicating the area covered by the plan.

Regional Shoreline Adaptation Plan

An implementing project of **BAY ADAPT**

The Regional Shoreline Adaptation Plan

Bay Plan Amendment 1-24 Public Hearing

October 17, 2024

Jaclyn Perrin-Martinez, Senior Climate Adaptation Planner

Presentation Overview

- **Background on BCDC's regional sea level rise efforts and SB 272**
- **Planning process, outreach and engagement**
- **Overview of the draft Regional Shoreline Adaptation Plan**
- **Proposed changes to Bay Plan Climate Change Findings and Policies**
- **Next Steps**
- **Preliminary Staff Recommendation**

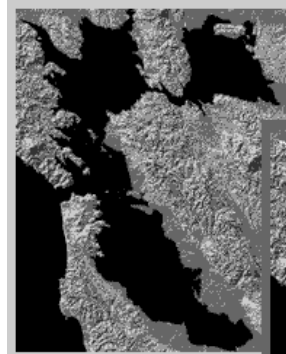
Legislation driving BCDC's role in climate adaptation

AB 2094 (2008)

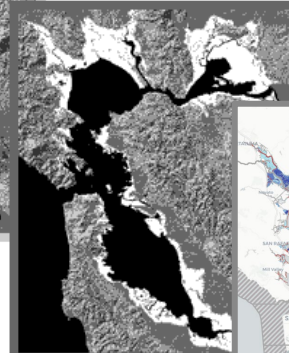
- BCDC may develop regional "strategies, as needed, for addressing the impacts of and adapting to, the effects of sea level rise"

SB 272 (2023)

- Develop guidelines for Bay shoreline subregional resiliency plans based on Bay Adapt Guiding Principles

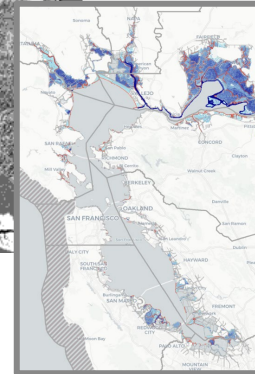


**The Bay in
1849**

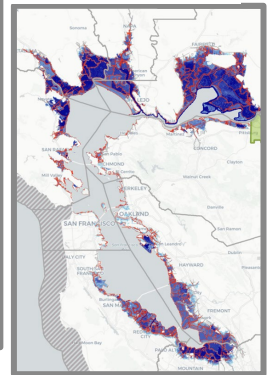


**Bay fill in
1965**

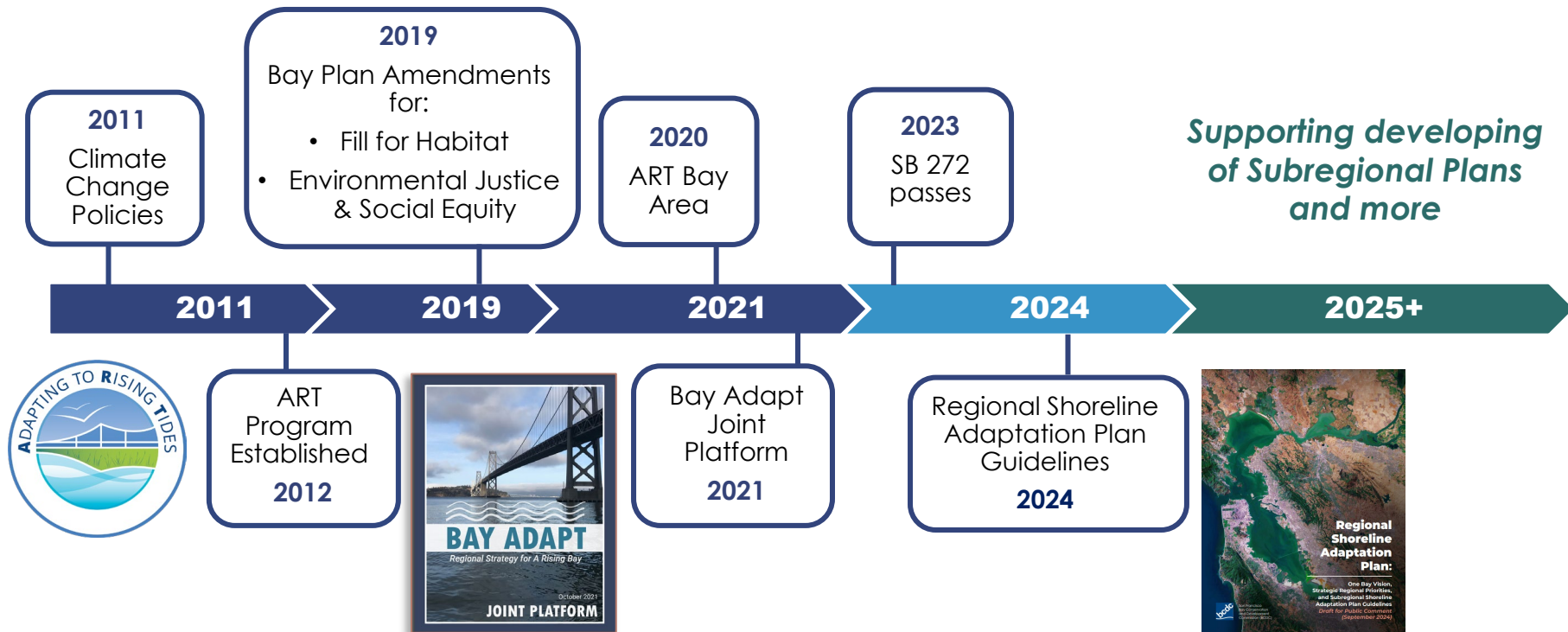
**Sea level rise
1 foot by
2050**



**Sea level rise
6 feet by...**



Climate Adaptation at BCDC



Bay Plan Climate Change Policies

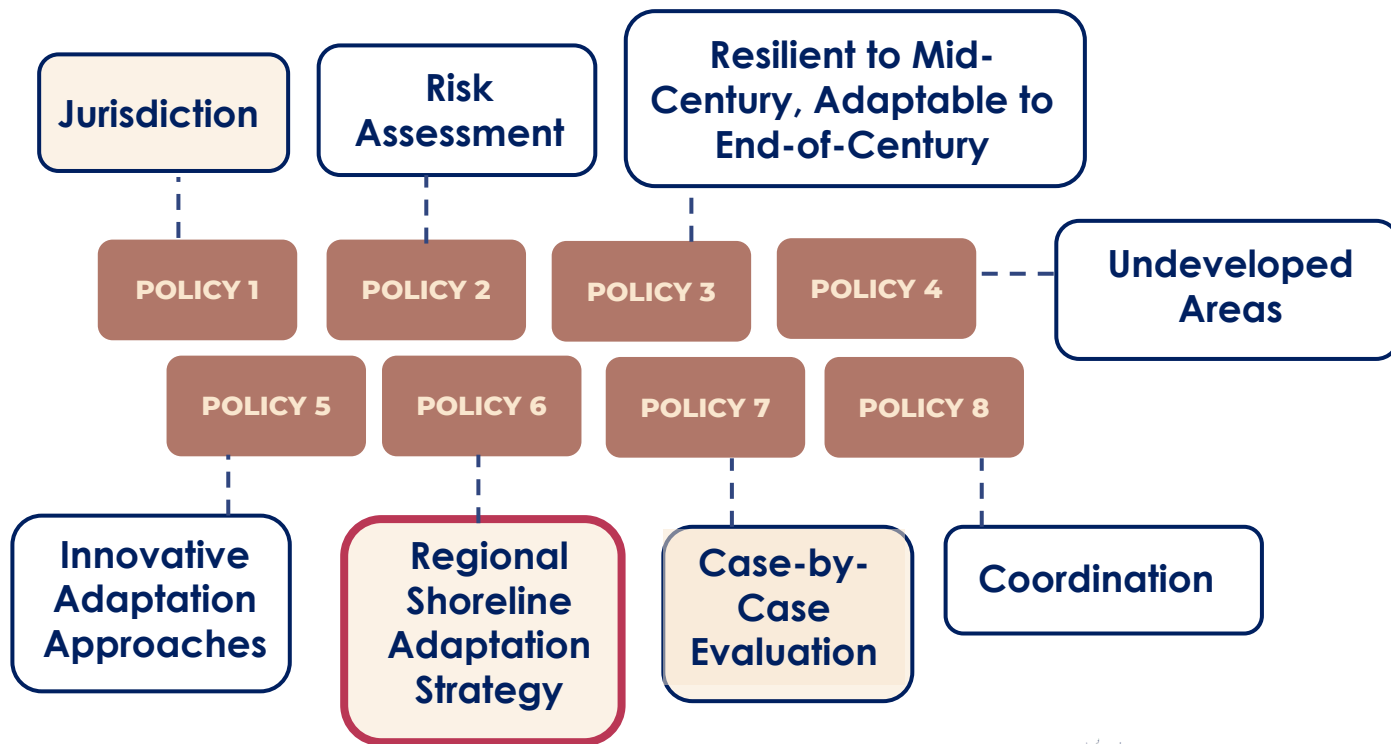


Photo by SF Baykeeper, Cole Robb
Most, and LightHawk.

Background on regional sea level rise and SB 272



What is the Regional Shoreline Adaptation Plan? (RSAP)

A region-wide plan for the Bay shoreline that guides the creation of coordinated, locally-planned sea level rise adaptation actions that work together to meet regional goals. It contains:

- ✓ One Bay Vision
- ✓ Strategic Regional Priorities
- ✓ Guidelines for Subregional Shoreline Adaptation Plans

Regional Shoreline Adaptation Plan:

One Bay Vision,
Strategic Regional Priorities,
and Subregional Shoreline
Adaptation Plan Guidelines
*Draft for Public Comment
(September 2024)*



San Francisco
Bay Conservation
and Development
Commission (BCDC)



OCEAN
PROTECTION
COUNCIL

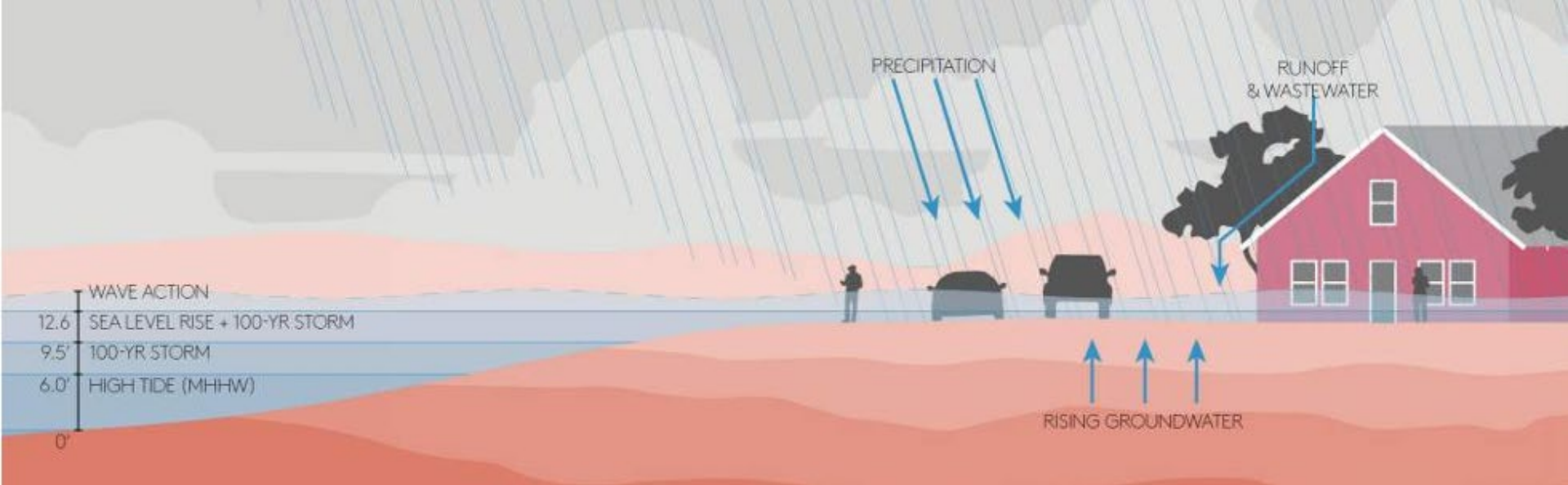


Coastal
Conservancy



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Addressing sea level rise and flood hazards

- Sea level rise is the increase in water levels in the ocean (and Bay) caused by climate change
- 0.8 ft is expected by 2050; 3.1 – 6.6 ft expected by 2100
- Sea level rise worsens existing hazards: high tides, storm surge, and rising groundwater
- The Regional Shoreline Adaptation Plan addresses all these hazards out to 2100 projected levels



What's at risk?*

- **20,000** acres of wetlands habitat **5 million** daily vehicle trips
- **60,000** daily rail commuters
- **13,000** existing housing units
- **70,000** new planned housing units
- **104,000** existing jobs
- **85,000** new planned jobs
- **28,000** socially vulnerable residents
- *ART Bay Area, 2020. Risks at 4' SLR

Cost of inaction**

- **\$230 billion** in damages
- **Funding and Investment Framework, 2023, costs include assessed property values and select transportation infrastructure at 4.9' SLR



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Photo by Sergio Ruiz courtesy of
California King Tides project.

- **Coordinated** adaptation
- Priority resources to **frontline communities**
- Long-term **health of wetlands**
- **Strategic** implementation
- Common **standards and methods**
- Advance priority **projects** and **funding**
- Track and **measure progress**



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Why do we need a regional approach to adaptation planning?



What are cities and counties required to do to plan for sea level rise adaptation?

- SB 272 (Laird, 2023) mandates that **local governments within BCDC's jurisdiction must complete a Subregional Shoreline Adaptation Plan** by January 2034
- BCDC is charged with developing the guidelines for these Subregional Plans by December 2024 – **Subregional Plan Guidelines are included in the RSAP**
- Local governments will submit completed plans to BCDC **for review and approval**
- Local governments are eligible for **SB1 funding to complete plans** and completed plans unlock implementation dollars

*Lots of flexibility to
use and build upon
what you've
already done*

Minimum Requirements of SB 272

- Best available science
- Vulnerability assessment, including at-risk communities
- Adaptation strategies and projects
- Planning and implementation leads
- Timeline for updates
- Economic impact analysis for critical infrastructure

The RSAP goes above and beyond by creating the guidelines collaboratively and emphasizing equity, the economy, and nature-based solutions



Cities and Counties in BCDC's jurisdiction

*Local government not in BCDC's jurisdiction but impacted by near-term coastal flood hazards

Lots of flexibility in how to create your plans with and across jurisdictions

Counties with BCDC Jurisdiction

Alameda

Contra Costa

Marin

Napa

San Francisco

San Mateo

Santa Clara

Solano

Sonoma

Cities with BCDC Jurisdiction or impacted by near-term coastal hazards

Alameda
Albany
Berkeley
Emeryville
Fremont

Concord*
El Cerrito*
Hercules
Martinez

Belvedere
Corte Madera
Larkspur
Mill Valley
Novato

American Canyon*

San Francisco

Belmont
Brisbane
Burlingame
East Palo Alto
Foster City
Menlo Park

Milpitas
Mountain View
Palo Alto

Benicia
Fairfield*

Petaluma

Hayward
Newark
Oakland
San Leandro
Union City

Pinole
Pittsburg*
Pleasant Hill*
Richmond

Ross*
San Rafael
Sausalito
Tiburon

Napa*

Millbrae
Redwood City
San Bruno
San Carlos
San Mateo
South San Francisco

San Jose
Santa Clara*
Sunnyvale

Suisun City
Vallejo

Photo by Karl Nielson.

A group of approximately 20 people, including men and women of various ages, are walking along a dirt path. They are dressed in casual attire, with some wearing hats and sunglasses. In the background, a large, tilted solar panel array is visible, supported by a metal frame. Behind the solar panels is a tall, lattice-structured tower. The scene is set in an open, grassy area with some trees and utility poles in the distance. The sky is clear and blue. The overall atmosphere is one of a community walk or tour.

Planning Process, Outreach, and Engagement



Advancing equity in the RSAP

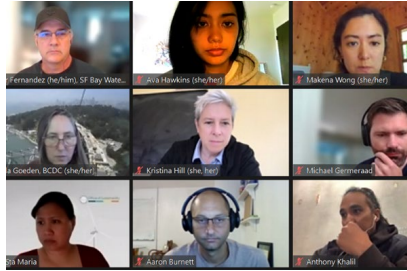
- Environmental Justice and Equity Representatives
- Equity Strategy
- Communications and Outreach
- Community Builders and Meeting Agreements
- Community Partnerships and Local Workshops
- Equity Subcommittee
- Equity Assessment Standard



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Many voices have shaped this draft



- **6** Advisory Group meetings
- **40+** Subcommittee meetings
- **10** Community events
- **6** Local Electeds Regional Task Force
- **3** Bay Adapt Implementation Coordinating Group
- **6** BCDC Commission meetings
- **6** Rising Sea Level Commissioner Working Group meetings
- **2** Design Review Board
- **2** Engineering Criteria Review Board
- **10** Community events
- **1** Online survey
- **1** Public workshop
- **4** Focus Groups
- **5** Local workshops
- **1** Practitioner workshop
- **4** Conferences
- **9**-County local elected road show
- **4+** Interagency Meetings
- **1** Tribal consultation

Bottom three photos by Karl Nielson.



A large flock of birds, likely terns, is captured in flight over a body of water. The birds are silhouetted against a light blue sky, creating a dense pattern of wings. Below them, the water is a deep blue, and several small, green, grassy islands or peninsulas are visible. The overall scene is serene and naturalistic.

Photo by Stanislav Sedov, CC BY 2.0.

The Draft Regional Shoreline Adaptation Plan

The RSAP is designed to drive effective local adaptation

- ✓ Flexible
- ✓ Aligned
- ✓ Right-Sized
- ✓ Building on Existing Efforts
- ✓ Effective



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Three sections of the draft RSAP

SECTION 1: INTRODUCTION

Context for planning: This section lays out the laws, policies, and concepts that provide foundational context for subregional shoreline planning.

SECTION 2: ONE BAY VISION

One Bay Vision: This section sets the desired and forward-thinking outcomes for adaptation in the region. The development of local visions must align with the regional vision.

Strategic Regional Priorities: This section identifies regionally-significant issues with spatial components that must be addressed in local planning. These SRP's contribute to both local and regional adaptation outcomes.



SECTION 3: SUBREGIONAL SHORELINE ADAPTATION PLAN GUIDELINES

Subregional Plan Elements: This section contains plan requirements that local governments within BCDC's jurisdiction must meet when submitting Subregional Plans. The plan requirements are organized into the following elements:

- A Planning Process
- B Existing Conditions
- C Vulnerability Assessment
- D Adaptation Pathways
- E Land Use and Policy Plan
- F Implementation Plan
- G Project List

Minimum Standards: Certain Guidelines require compliance with common standards. The Standards outline the minimums that must be met to comply with the Guidelines. The Minimum Standards provide regional consistency for the following:

-  Coastal Flood Hazards and Sea Level Rise Scenarios
-  Minimum Categories and Assets
-  Equity Assessment
-  Adaptation Strategy Standards

Requirements related to plan development, responsibilities, submission and approval can be found in later sections of Section 3, as well as checklists, resources, and direction for regionally available datasets that should be used to meet the Guidelines.

A LOCAL JURISDICTION'S
SHORELINE ADAPTATION PLAN

Figure 1—1. How the RSAP sections guide development of a local jurisdiction's Shoreline Adaptation Plan

REGIONAL ONE BAY VISION

As sea levels rise, the Bay Area's diverse communities come together to transform how we live, work, plan, and adapt along our changing shorelines...

Communities are healthy and vibrant.



Healthy Baylands ecosystems thrive.



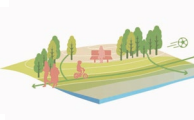
Places are designed for changing shorelines.



Critical services are reliable.



The Bay shoreline is accessible to all.



Safe and reliable transportation connects us all.



People and ecosystems are safe from contamination risks.



Regional collaboration drives efficient and effective adaptation.



DRAFT



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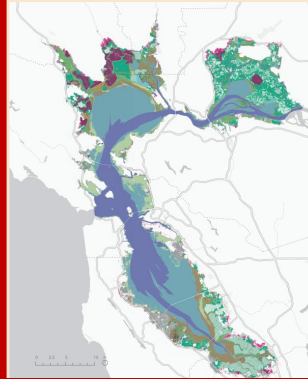


Strategic Regional Priorities to be solved together

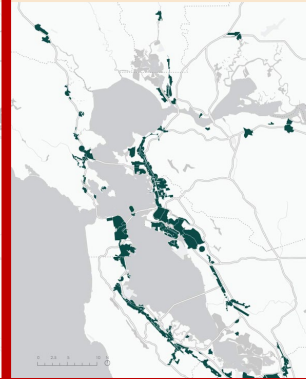
Reduced
involuntary
displacement
risk



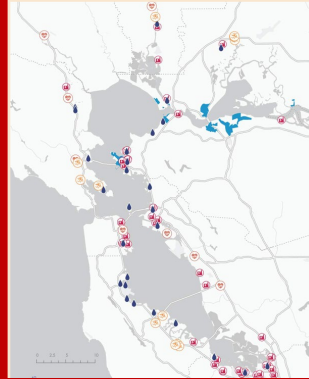
Complete and
connected
ecosystems



Safe and strategic
growth and
density



Reliable critical
and emergency
services



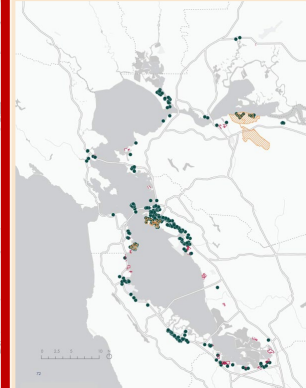
Connected
regional shoreline
access



Regional
movement of
people and goods



Reduced
contamination in
EJ communities



Cross-
jurisdictional flood
risk reduction



Subregional Shoreline Adaptation Plan Guidelines

Plan Element Requirements

- A** Planning Process
- B** Existing Conditions
- C** Vulnerability Assessment
- D** Adaptation Strategies and Pathways
- E** Land Use and Policy Plan
- F** Project Implementation and Funding
- G** Project List

Minimum Standards

-  Coastal Flood Hazards and Sea Level Rise Scenarios
-  Minimum Categories and Assets
-  Equity Assessment
-  Adaptation Strategy Standards

*Provides a cheat sheet for
how to do good planning*

Subregional Shoreline Adaptation Plan Guidelines

Plan Element Requirements

- | | | |
|----------|--|---|
| A | Planning Process ----- | ✓ Describe your plan partners, planning area, and equitable community engagement strategy |
| B | Existing Conditions ----- | ✓ Describe existing plans, policies, physical and social conditions that create the context for your plan |
| C | Vulnerability Assessment ----- | ✓ Assess the vulnerability of critical assets and populations to coastal flood hazards |
| D | Adaptation Strategies and Pathways --- | ✓ Identify and evaluate adaptation alternatives and select a preferred approach |
| E | Land Use and Policy Plan ----- | ✓ Summarize necessary land use changes and new or adjusted policies to achieve adaptation pathways |
| F | Project Implementation and Funding --- | ✓ Describe implementation including responsible parties, timeline, costs, and potential funding sources. |
| G | Project List ----- | ✓ Provide a list of priority projects |

Subregional Shoreline Adaptation Plan Guidelines

Minimum Standards



Coastal Flood Hazards and
Sea Level Rise Scenarios
Standards -----

- ✓ Sea level rise inundation
- ✓ 100-year storm surge
- ✓ Shallow and emerging groundwater
- ✓ 0.8 ft, 3.1 ft, 4.9 ft, and 6.6 ft scenarios



Minimum Categories and
Assets Standards -----

- ✓ Required assets (certain data available by BCDC)



Equity Assessment Standards -----

- ✓ Equity-focused questions across the plan elements
- ✓ Maximize benefits of water-dependent shoreline uses and Baylands habitats



Adaptation Strategy Standards ----

- ✓ Improve community health, economic development, infrastructure and housing needs
- ✓ Create pathways to respond to changing flood risks over time

Adaptation Strategy Standards

Represent key outcomes of adaptation while allowing flexibility for how local strategies achieve them.

Maximize benefits of water-dependent shoreline uses and Baylands habitats.

- 1. Improve public access and connection to the shoreline.
- 2. Improve connected regional shoreline access.
- 3. Prioritize water-dependent uses along the shoreline.
- 4. Improve Baylands habitats and facilitate their long-term survival.
- 5. Ensure complete and connected ecosystems.

Improve community health, economic development, infrastructure, and housing needs.

- 6. Reduce flood risk in areas with existing development.
- 7. Include actions to mitigate involuntary displacement risk.
- 8. Promote safe, sustainable and strategic growth and density.
- 9. Maintain reliable critical and emergency services.
- 10. Maintain regional movement of people and goods.
- 11. Reduce contamination risks in Environmental Justice communities.
- 12. Use nature-based adaptation where feasible.
- 13. Appropriately utilize Bay fill for shoreline protection.
- 14. Integrate multiple benefits into adaptation.

Create pathways to respond to changing flood risks over time.

- 15. Preserve natural, undeveloped, and open space.
- 16. Incorporate climate-responsive standards and codes for adaptive design.
- 17. Plan for changes in land use, removal of assets, and/or equitable relocation.
- 18. Identify actions necessary to enable future adaptation decisions, if currently not available.
- 19. Develop and maintain cross-jurisdictional flood risk reduction.
- 20. Evaluate and minimize consequences of failure.

- Refers to standards that apply only when a local jurisdiction contains that Strategic Regional Priority

Process for local governments and BCDC to complete a Subregional Shoreline Adaptation Plan



SUBREGIONAL PLAN DEVELOPMENT PROCESS

PLAN REVIEW AND APPROVAL PROCESS

LOCAL GOVERNMENT RESPONSIBILITIES

NOTICE OF
INTENT

NOTICE OF
PLAN
INITIATION

LOCAL
APPROVAL

PLAN SUBMITTAL
AND REQUEST
FOR APPROVAL

CONSULTATION
MEETINGS BETWEEN
LOCAL STAFF AND BCDC

CEQA MAY BE
NECESSARY BY A LOCAL
GOVERNMENT

CONFIRM
COMPLETION
OF
SUBMITTAL

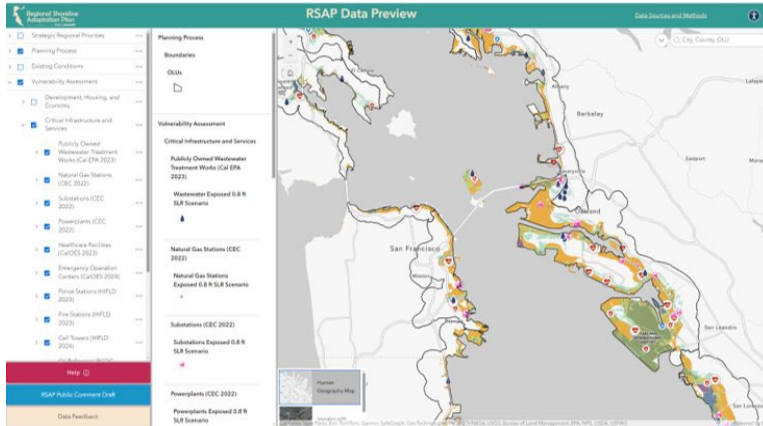
NOTICE OF
PUBLIC
HEARING

VOTE TO
APPROVE
PLAN

BCDC RESPONSIBILITIES

BCDC Resources in Development for Plan Support

Mapping Platform



Draft data viewer is currently available to provide regionally-accessible data. The Mapping Platform is scheduled for release February 2025 and will include:

- ✓ Maps
- ✓ Downloadable datasets
- ✓ Jurisdiction Reports

Local Assistance Program



Photo by Karl Nielson.

BCDC provide support for cities, counties, and communities. Local assistance may include:

- ✓ Templates for plan submittals
- ✓ Shoreline leadership academies
- ✓ Resources to support adaptation

Funding and Support Are Available Today!

Senate Bill 1 Grant Program

- ✓ Funding for local and regional governments to develop SLR adaptation plans and projects
- ✓ Applications are accepted on a quarterly rolling basis
- ✓ Next deadline is December 20
- ✓ A technical assistance program is available to help Environmental Justice communities, Tribal communities, and small and rural communities access funds

Technical Assistance for the Program

Provide a range of services:

- ✓ Understanding grant requirements
- ✓ Grant writing review
- ✓ Support budget development
- ✓ Assessing stakeholders
- ✓ And more!

If you have any questions, please send an inquiry to OPCSB1TA@coastal-quest.org.



Apply for technical assistance for the SB1 Grant Program by scanning the QR code or following this link:
<https://opc.ca.gov/sb-1-funding/>

- Lots of flexibility in how to create plans with and across jurisdictions
- Build upon past and existing research and decisions at the local and regional level
- Provides a cheat sheet for how to do good planning



The RSAP aims to build upon existing plans and efforts



What we can achieve together

- Prioritizing equitable processes and resources to **frontline and Environmental Justice communities**
- Reducing flood risk to **homes, jobs, and neighborhoods**
- Ensuring flood safety for **new development**
- Continuing to enjoy **recreation areas, healthy Bay habitats, and access to nature**
- Continuing to rely on **services, movement of goods and people**, and other systems
- Prioritizing **cleanup of contaminated sites**, especially in areas of groundwater rise
- Creating **collaborative governance** to respond to changing risks

Photo by SF Baykeeper, Robb Most, and LightHawk..



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Changes to Bay Plan Climate Change Findings and Policies

Overview of Proposed Bay Plan Changes

- Adopting the Regional Shoreline Adaptation Plan as a plan addressing special needs incorporated by reference within Bay Plan Climate Change Policy 6.
- Updating BCDC Climate Change Findings and Policies to reflect new best available science and information.
- This does **not alter** BCDC's permitting authority.





Photo by Karl Nielson.

Changes to Climate Change Policies

Policy 1 Proposed Changes

- Clarifies that the RSAP does not change how projects are reviewed for consistency with Climate Change policies.

Policy 6 Proposed Changes

- Establishes the Regional Shoreline Adaptation Plan to direct local governments in their preparation of Subregional Shoreline Adaptation Plans, as required by SB 272.
- Directs the Commission to provide technical and policy assistance to support local governments in developing plans.
- Describes major goals for the Commission's ongoing resiliency planning.

Policy 7 Proposed Changes

- Allows the Commission to consider the RSAP and Subregional Plans in an advisory capacity for permitting.

Environmental Assessment

- Adoption of the RSAP will not cause a direct physical change to the environment.
- Does not have potential to cause a reasonably foreseeable indirect physical change to the environment.
- Conclusion: the RSAP will have no significant adverse or irreversible environmental impacts, and so no mitigation measures or alternatives are required to be considered.
- Neither requires nor precludes future CEQA at the local level.

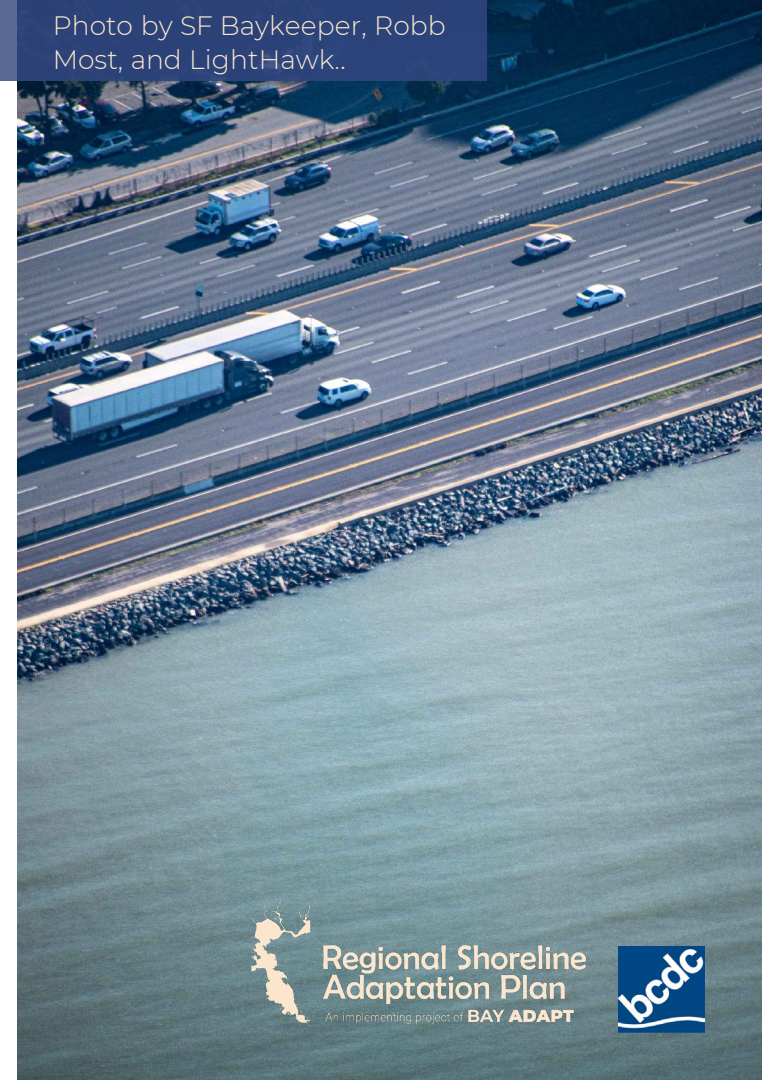


Photo by TJ Gehling licensed under CC
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Next Steps for BCDC



Emerging Themes to Far

- Emphasize **habitat restoration and nature-based** solutions
- Increase **flexibility to use existing plans** and processes
- Address the **Bay Area's critical housing crisis** and the role of private investment
- Allow for **balancing of tradeoffs** for adaptation solutions based on local conditions
- **Track progress** on adaptation and plan implementation



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Regional Shoreline Adaptation Plan Timeline



Access and comment on the draft RSAP, visit:
<https://www.bayadapt.org/regional-shoreline-adaptation-plan/>

BPA No. 1-24 Preliminary Staff Recommendation

Staff preliminarily recommends that the Commission:

- Adopt the Regional Shoreline Adaptation Plan as a plan addressing special needs incorporated by reference within the San Francisco Bay Plan.
- Amend San Francisco Bay Plan Climate Change Findings C, E, O, P, R, U, and W, and establish new Climate Change Findings X, Y, and Z.
- Amend San Francisco Bay Plan Climate Change Policies 1, 6, and 7.
- Make necessary findings that this amendment to the San Francisco Bay Plan conforms to all applicable findings and declarations of policies in the McAteer-Petris Act.
- Make necessary findings regarding the Environmental Assessment.