San Francisco Bay Conservation and Development Commission (BCDC)

The RSAP Atlas
Data and mapping tool for planning

08.13.2025

Webinar

Regional Shoreline Adaptation Plan
An implementing project of BAY ADAPT

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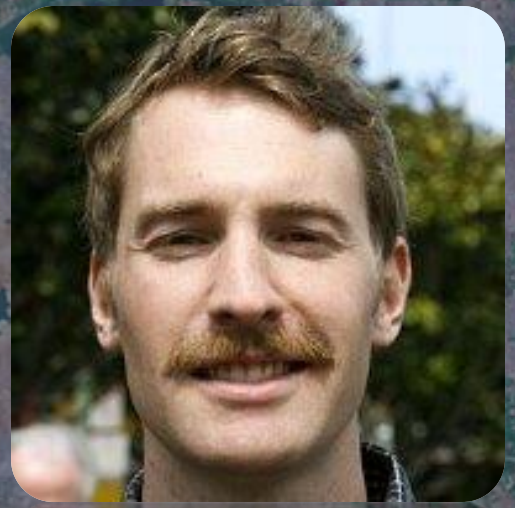
San Francisco Bay Conservation and Development Commission (BCDC)

Jackie Perrin-Martinez, Climate Adaptation Planning Manager

Danielle Flanagan, Climate Adaptation Planning Specialist

Katie Fallon, Environmental Scientist



Todd Hallenbeck GIS Specialist Lead

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Agenda

- **Introductions, goals, webinar 1 and 2 summary**
- **Part 1:** What is the RSAP Atlas?
- **Part 2:** What are the RSAP Coastal Flood Hazards?
- **Part 3:** How does the RSAP Atlas help me plan?
- **Takeaways**
- **Questions and answers**

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Webinar goals

1. Understand how the RSAP and RSAP Atlas are connected.

2. Be familiar with key tools and features in the RSAP Atlas.

3. Feel comfortable using the RSAP Atlas!

Refresh: Webinar 1 & Webinar 2

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Sea level rise requires a coordinated regional response.

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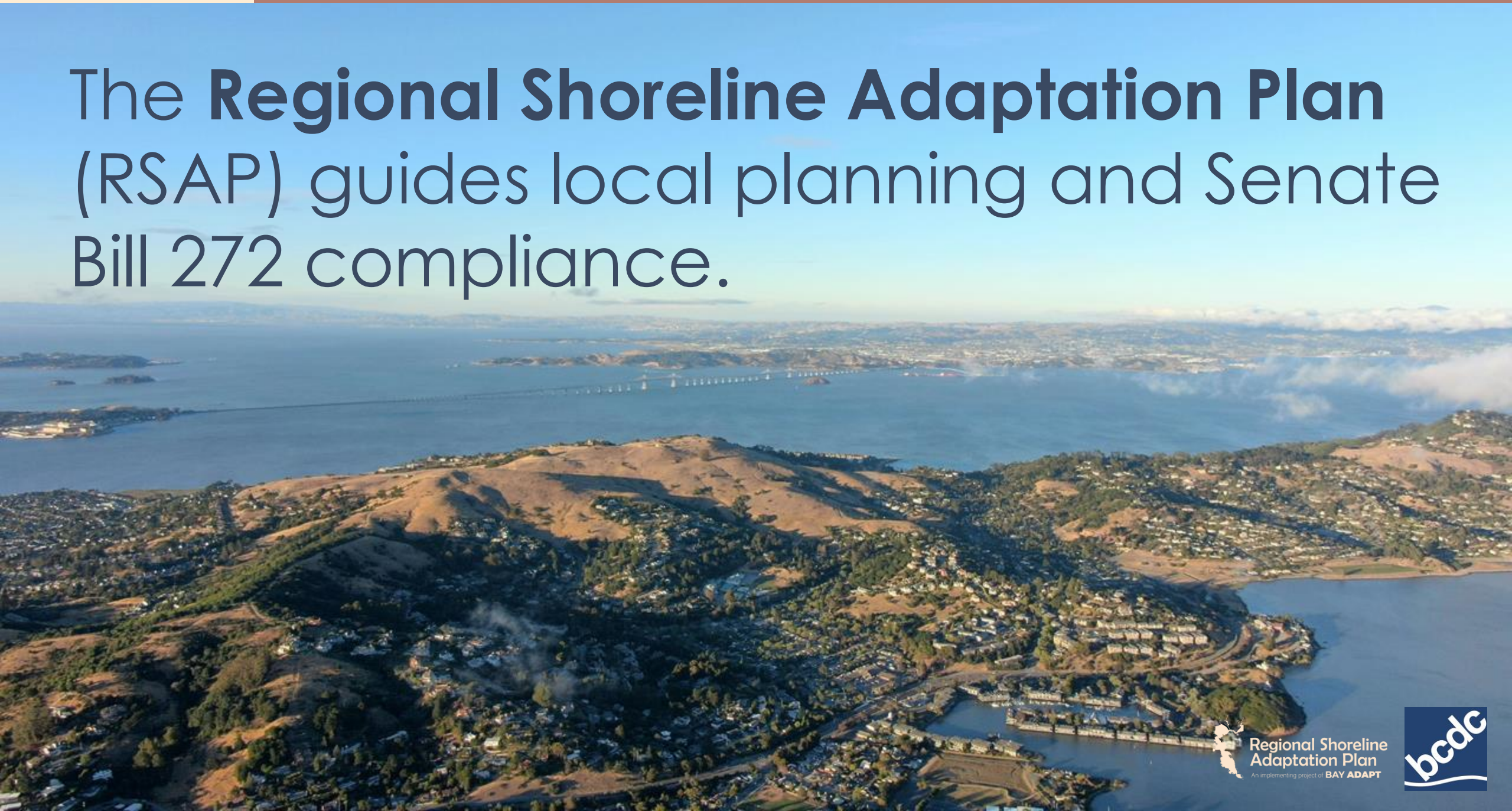
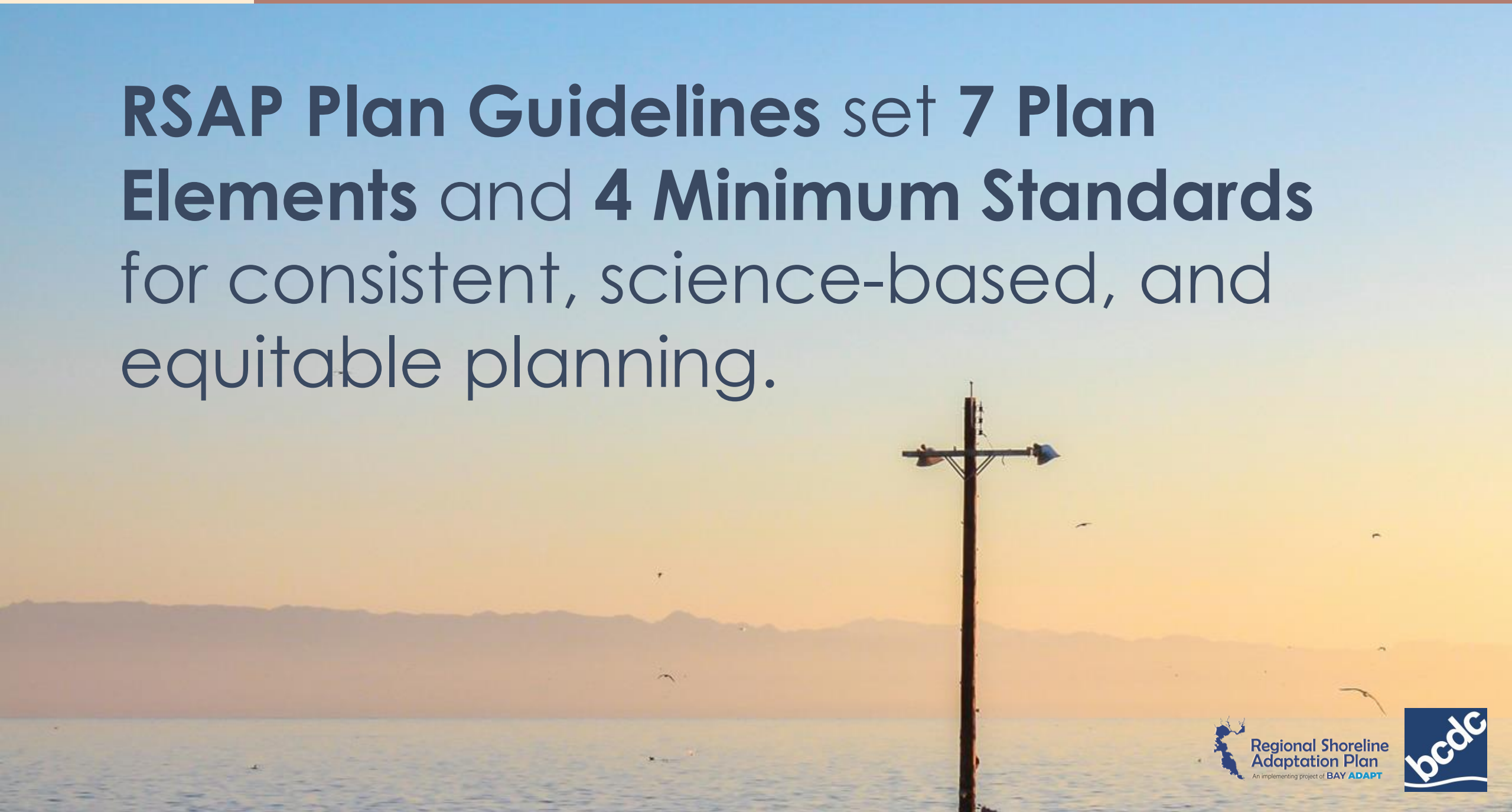
The **Regional Shoreline Adaptation Plan** (RSAP) guides local planning and Senate Bill 272 compliance.



RSAP Plan Guidelines set **7 Plan Elements** and **4 Minimum Standards** for consistent, science-based, and equitable planning.



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Subregional Plans
link local action to regional resilience.

Photo by Karl Nielson.

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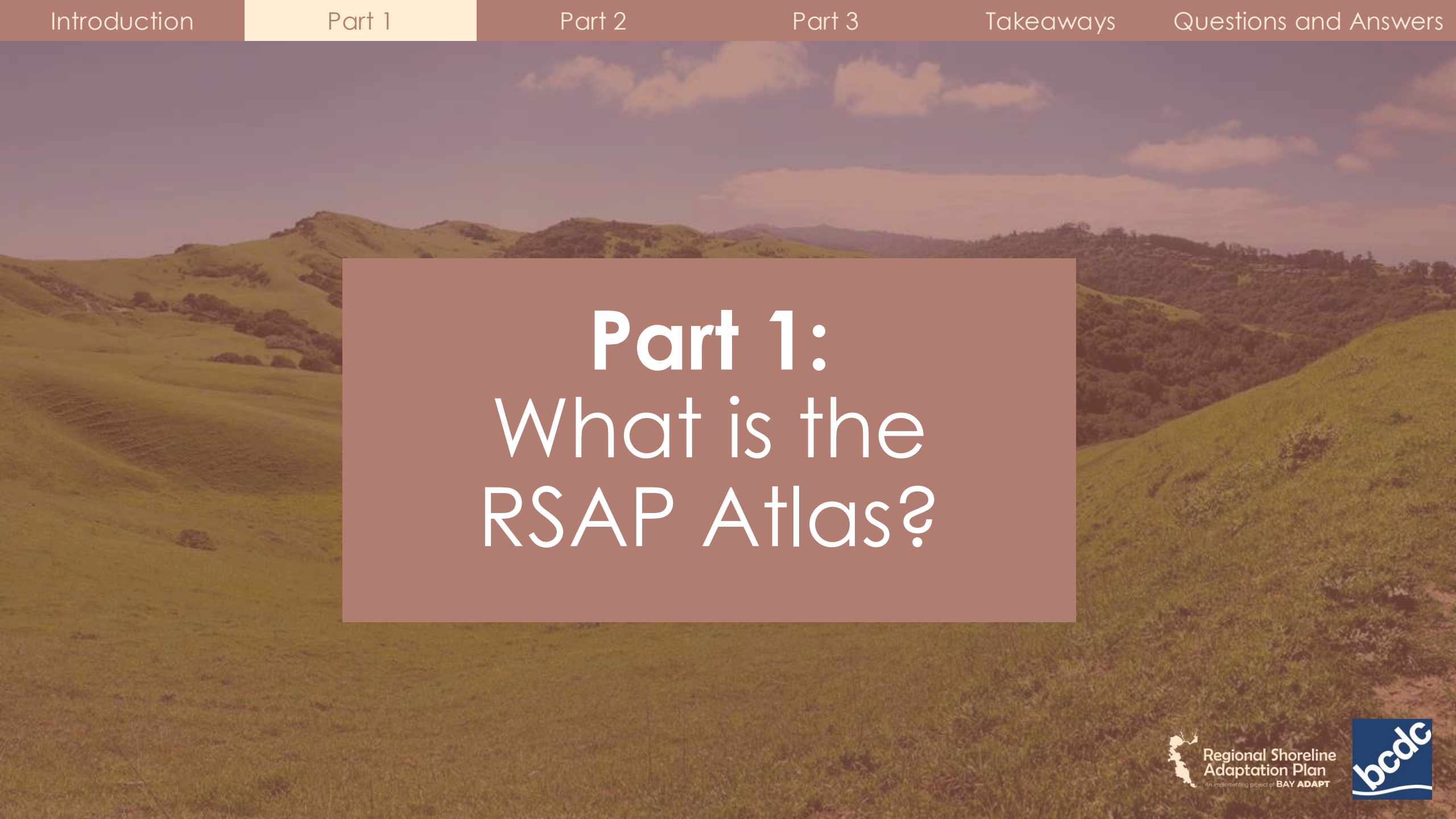

Part 1:
What is the RSAP Atlas?

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The issue

- Creating Plans requires extensive data analysis.
- Many jurisdictions lack access to datasets.
- Or jurisdictions lack the resources to compile them.

RSAP Atlas

A regional mapping tool to support Subregional Plan development and includes 65% of the data required in a Plan by the RSAP.

The RSAP Atlas allows you to:

- Map sea level rise impacts
- Generate plan submittals
- Download GIS data

rsap-atlas.bcdc.ca.gov

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What it does and what it does not

it does

- Serve as a voluntary tool with baseline data
- Offer regionally consistent data aligned with RSAP elements
- Provide a starting point for identifying adaptation priorities

it does not

- Create a complete Plan
- Replace local data or analysis
- Guarantee compliance with RSAP

Key audiences

- Local governments and public agencies
- Consultants and technical staff
- Community organizations

Photo by Karl Nielson.

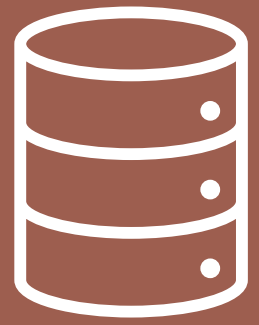
RSAP Atlas: Key Components

User Guides

Step by step guides to help you navigate the RSAP Atlas.

Map Explorer

Visualize data on sea level rise, groundwater, storm surge, and generate plan submittals



Data Downloads

Downloadable GIS data for technical users

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Data from trusted sources

- Data from over a dozen agency partners including NOAA, USGS, ABAG/MTC, and more.
- Ensures consistency with RSAP Guidelines.
- Updated periodically as new science become available.

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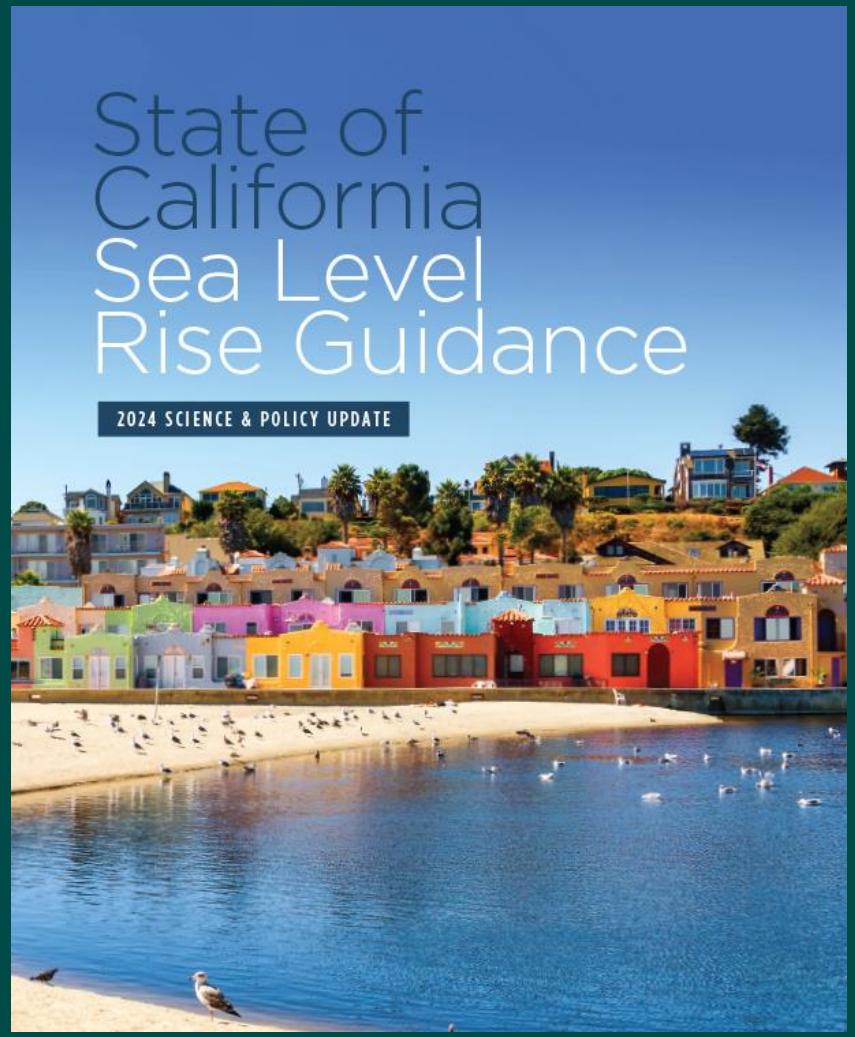
CHAT ACTIVITY

Are you someone who will start with **user guides**, jump into **explore maps**, or go right to the **data downloads**?

Drop your answer in the chat.

Part 2:
What are the RSAP Coastal Flood Hazards?

Statewide guidance sets the foundation



Minimum sea level rise scenarios required to use in Subregional Plans:

- **0.8 ft** (2050)
- **3.1 ft** (2100 Intermediate)
- **4.9 ft** (2100 Intermediate-High)
- **6.6 ft** (2100 High)

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The Atlas contains all required RSAP Coastal Flood Hazards.

Hazards that must be considered in Subregional Plans:

1. Tidal Inundation (MHHW)
2. Storm Surge
3. Emergent Groundwater
4. Shallow Groundwater

Data for hazards provided by ART and USGS (CoSMoS)

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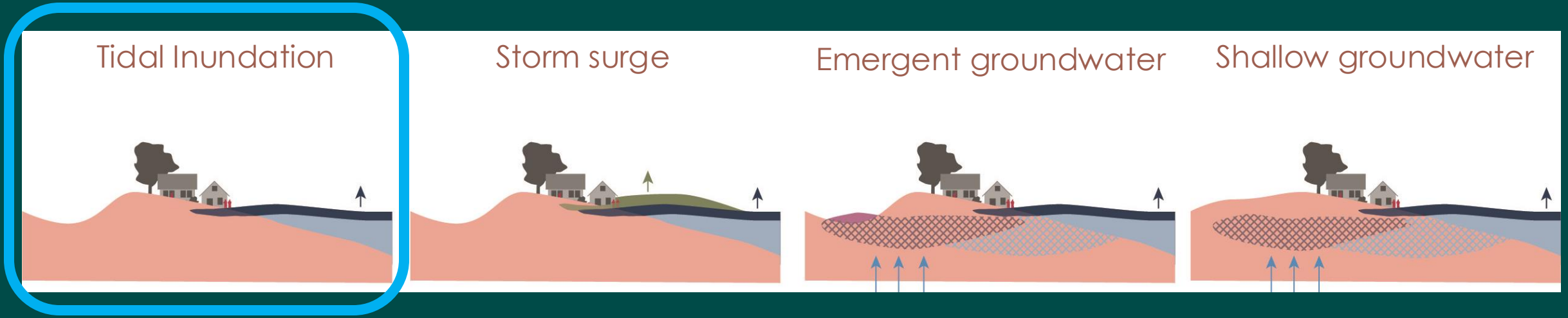
1

Tidal inundation



Permanent flooding from sea level rise as high tides move farther inland.

Present Day (MHHW) + Sea Level Rise

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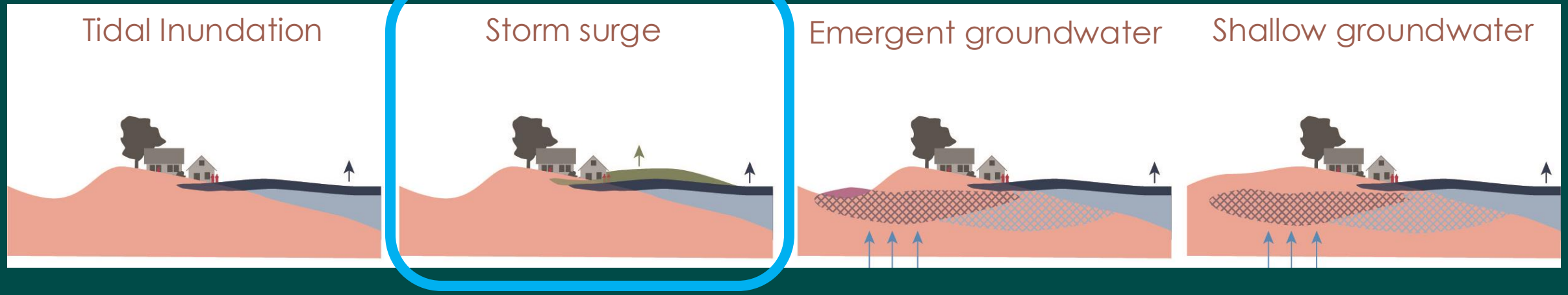
2

Storm surge



Temporary flooding from coastal storms pushing water onshore, worsened by higher sea levels.

Sea Level Rise + 3.5 feet

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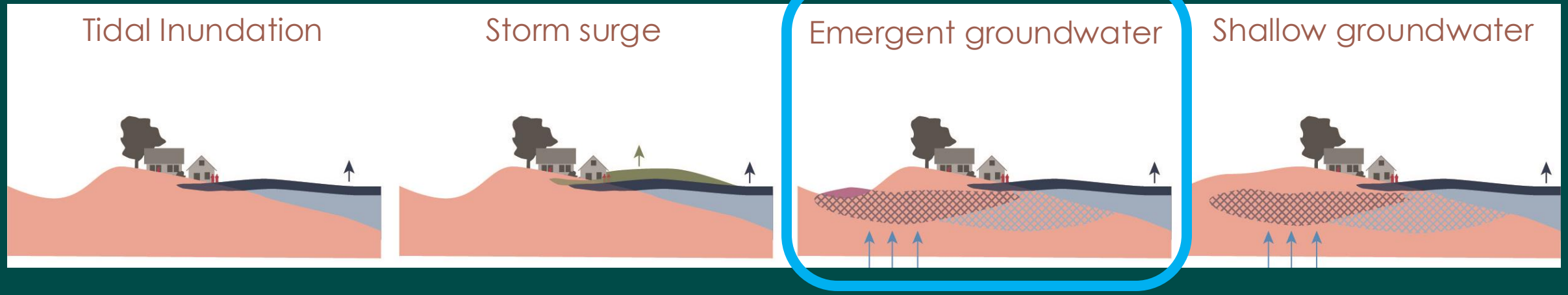
3

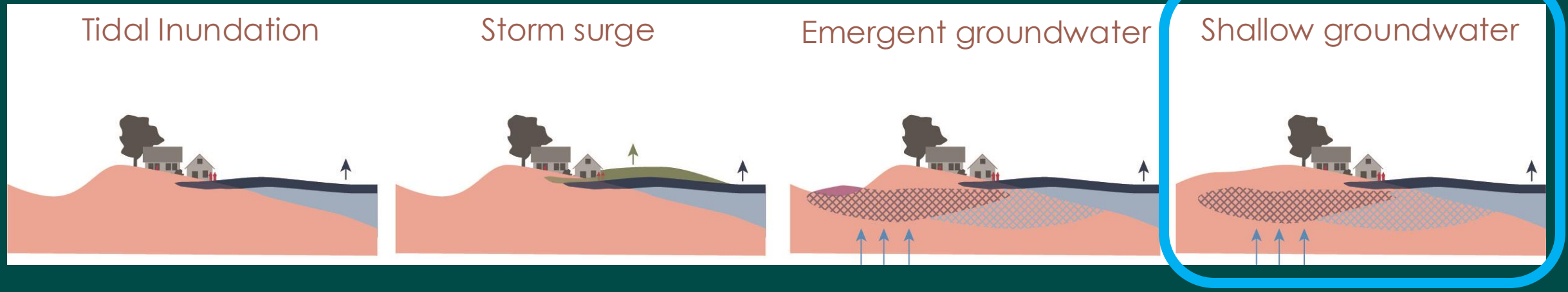
Emergent groundwater



Groundwater that rises to the surface and floods land from below as sea levels rise.

4

Shallow groundwater



Groundwater within 9ft of the surface that is influenced by corresponding sea level rise scenarios.

Why these hazards matter


Mill Valley, Sausalito Trail
CA King Tides Project

- Hazards often overlap creating compound risks.
- Adaptation must address these together to avoid unintended impacts.
- RSAP Atlas maps hazards and provides exposure summaries for Plans

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CHAT ACTIVITY

Which of these hazards are you least familiar with?

Respond in the chat

Part 3:
How does the Atlas help me plan?

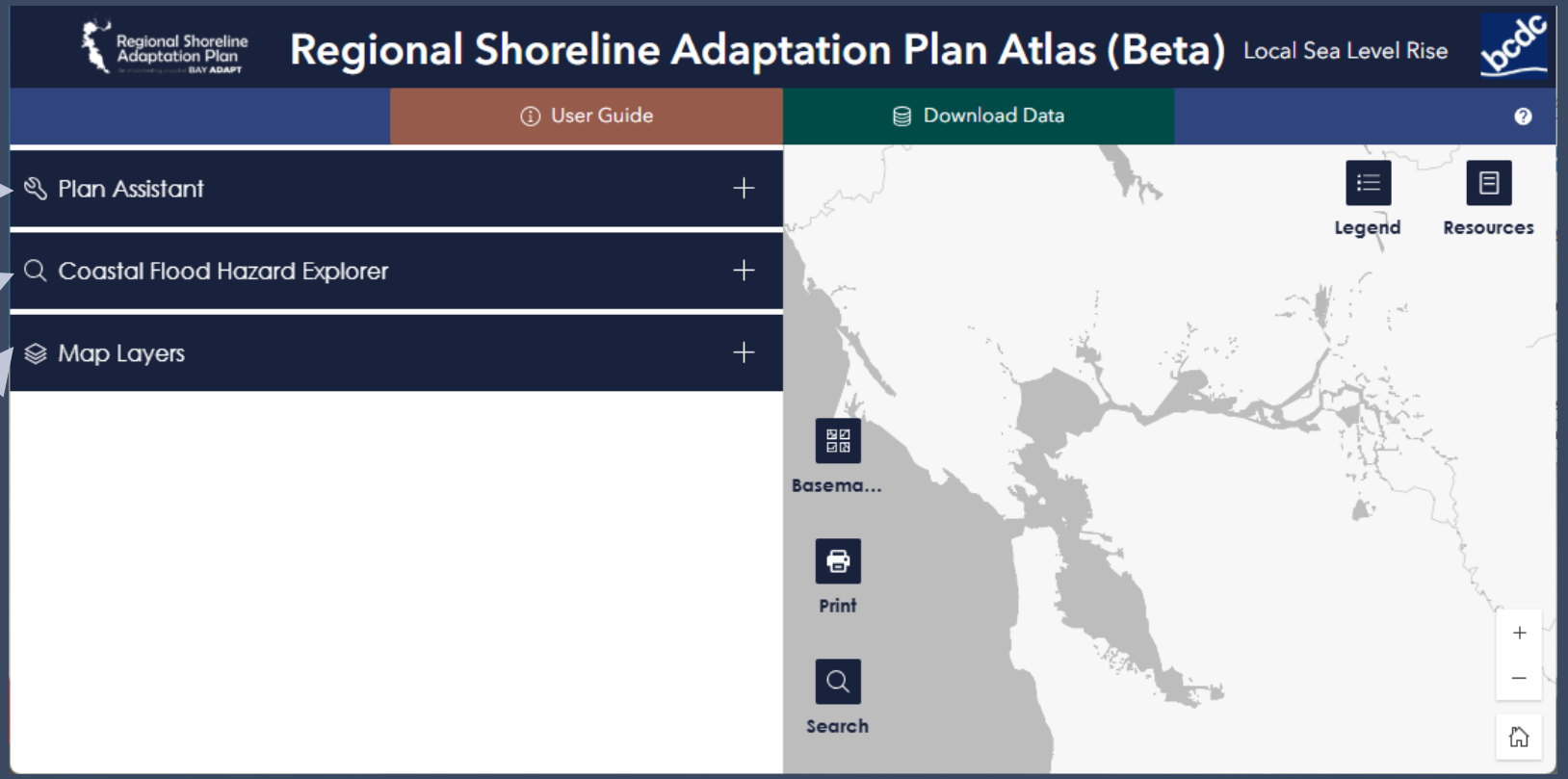
Explore Map

Visualize data on sea level rise, groundwater, storm surge, and generate plan submittals.

Plan Assistant

Coastal Flood Hazard Explorer

Map Layers



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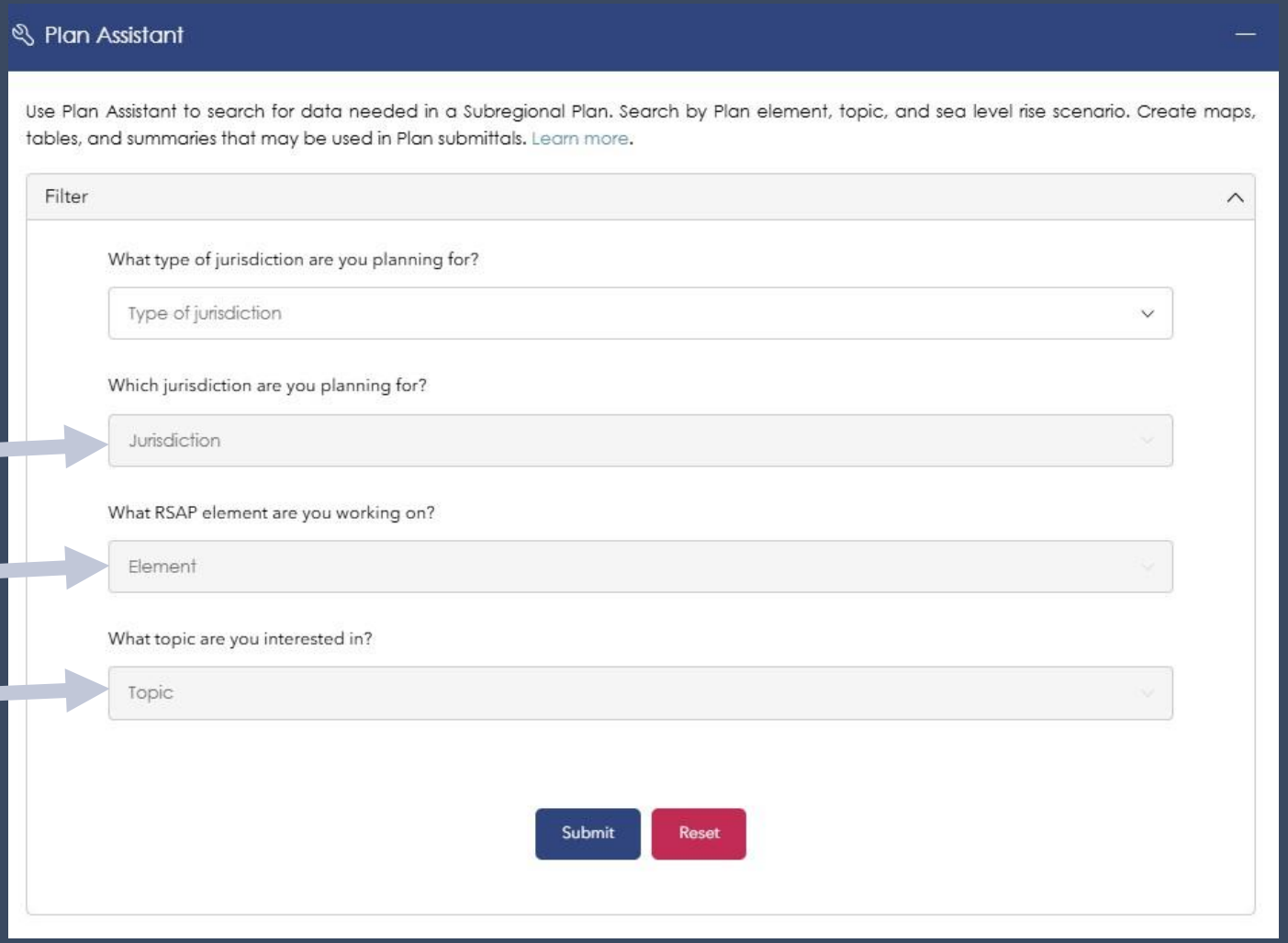
The Plan Assistant

Helps you find the data needed to meet RSAP requirements.

Search by:

- Jurisdiction
- Plan Element
- Topic +
  Sea level rise scenario



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Plan Elements

Element A: Planning Process

Document the planning process.

Element B:
Existing Conditions

Element C:
Vulnerability Assessment

Element D:
Adaptation Strategies and Pathways

Element E:
Land Use and Policy Plan

Element F:
Implementation Plan

Element G:
Project List

Understand the local context and conditions of vulnerability.

Select adaptation strategies and advance strategies through appropriate avenues.

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The Atlas informs Plan Elements A-C

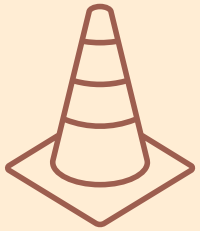
Use the Plan Assistant to:

Element A:
Planning Process

- ✓ Define planning area
- ✓ Identify partners
- ✓ Explore coordination opportunities
- ✓ Map vulnerable communities

Element B:
Existing Conditions

- ✓ Map existing conditions
- ✓ Identify Strategic Regional Priorities
- ✓ View data gaps



Element C:
Vulnerability Assessment

- ✓ Visualize hazards
- ✓ Analyze flood exposure
- ✓ Summarize key exposure findings

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Demo

Regional Shoreline Adaptation Plan Atlas (Beta)

Local Sea Level Rise Plans

User Guide | Download Data

Plan Assistant

Use Plan Assistant to search for data needed in a Subregional Plan. Search by Plan element, topic, and sea level rise scenario. Create maps, tables, and summaries that may be used in Plan submittals. Learn more.

Filter

What type of jurisdiction are you planning for?

Type of Jurisdiction

Which jurisdiction are you planning for?

Jurisdiction

What RSAP element are you working on?

Element

What topic are you interested in?

Topic

Sub

Coastal Flood Hazard Explorer

Map Layers

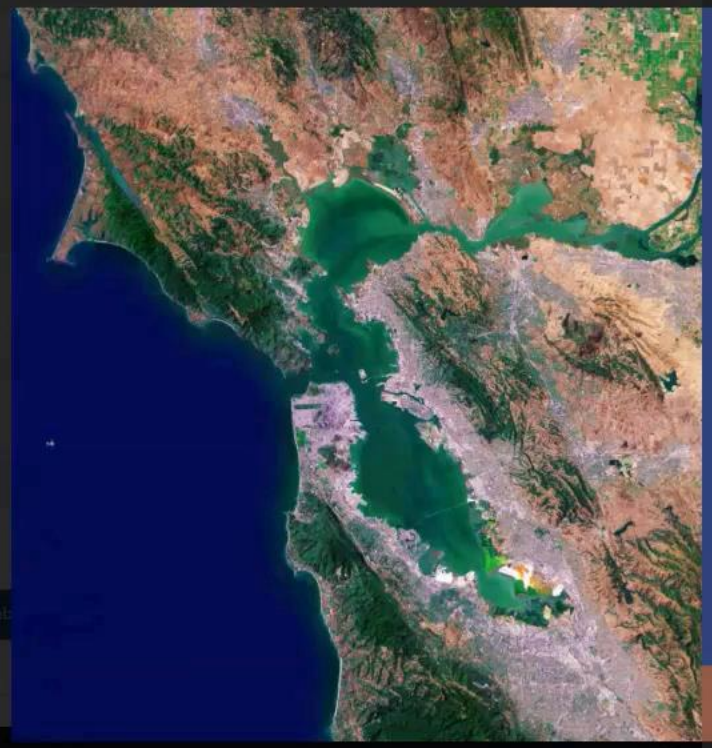
Legend

No legend

Basemap

Print

Search



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Regional Shoreline Adaptation Plan Atlas (Beta)

The Regional Shoreline Adaptation Plan (RSAP) is a regional plan to address rising sea levels in San Francisco Bay. Local governments in the Bay Area are required to develop Subregional Shoreline Adaptation Plans (Plans), per SB 272. The RSAP Atlas is a tool to help create Plans that comply with these requirements. It includes region wide data on coastal flood hazards, community vulnerability, existing conditions, Strategic Regional Priorities, and nature-based adaptation suitability.

The RSAP Atlas allows you to:

1. Map how sea level rise might affect your community
2. Generate Plan submittals
3. Download GIS data

This is the Beta Version of the RSAP Atlas. How is it working? **We want to hear from you!** Reach out to GIS@bcdc.ca.gov with your questions or feedback.

Map layers may be slow to load. Viewing on a screen with a minimum resolution of 1000x800 is recommended.

User Guide | Explore Map | Download Data

The takeaways

The takeaways

1. The Atlas is a tool to support Subregional Plan development, not a substitute for local analysis or planning.
2. The Atlas includes much of the data needed, but not everything.
3. The Atlas maps the four required coastal flood hazards and uses consistent, science-based sea level rise scenarios.
4. The RSAP Atlas will evolve and change based on user needs and best available science.

RSAP Atlas resources

RSAP Atlas

User Guides

Data Downloads

RSAP-Atlas.bcdc.ca.gov

This is the Beta Version of the RSAP Atlas. How is it working? **We want to hear from you!** Reach out to GIS@bcdc.ca.gov with your questions or feedback.

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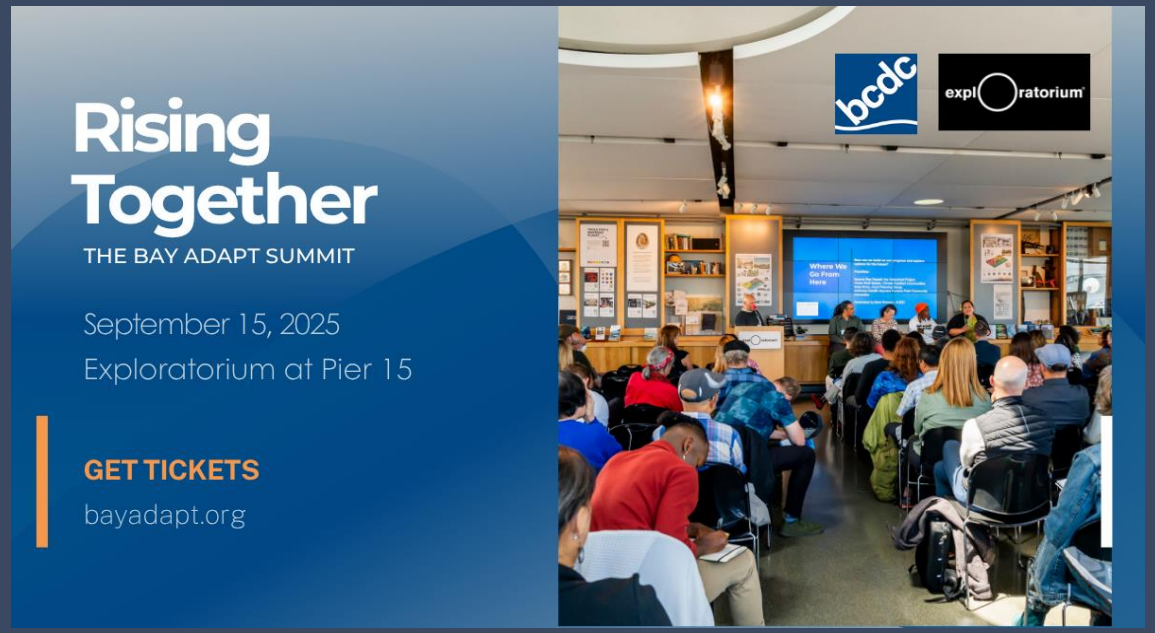
BCDC's role and resources

- Consultation meetings
- Subregional liaisons
- Office hours
- BCDC website
- RSAP Atlas
- Bay Adapt Currents

Photo by Karl Nielson.

Next Steps

Register for upcoming events!



RSAP Webinar #4
September 17
1:00pm – 2:00pm
Getting Started: Engage, Fund, and Initiate Plans

Register for both events on the BayAdapt.org website.

Take our feedback survey!

Sign-up for our newsletter.

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Questions and Answers

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