

Public Workshop #1

Regional Shoreline Adaptation Plan (RSAP)

October 26, 2023 | Meeting Summary

RSAP Public Workshop #1 in Brief

BCDC's Bay Adapt initiative hosted its first Public Workshop for the Regional Shoreline Adaptation Plan (RSAP) to introduce the first phase of the project, the creation of RSAP Guidelines, to the public, share the efforts to date on developing a regional vision for sea level rise (SLR) adaptation and solicit further feedback and refinement on the vision statements that will guide the development of RSAP Guidelines.

The Public Workshop kicked off with the debut of a [new video](#) that showcases the Bay Area's unique natural landscapes and diverse communities - all of which are at risk from rising sea levels due to climate change. At the same time, our region has immense opportunities to come together and reimagine our relationship with the Bay, its shorelines, and with one another for a more resilient Bay for future generations.

BCDC's Commissioner Chair, Zack Wasserman, shared welcoming remarks, followed by an introductory presentation on BCDC's [Bay Adapt](#) initiative and the [Regional Shoreline Adaptation Plan \(RSAP\)](#) project. Following this presentation, participants broke into mini-discussion breakout rooms to learn more about various aspects of the RSAP. In the second half of the meeting, participants learned about the RSAP's ongoing research, outreach and engagement efforts to build a shared regional vision of sea level rise adaptation. This presentation included draft vision statements for the region as a whole, followed by individual statements for the eight topic areas of the RSAP Guidelines compiled from feedback from numerous stakeholder groups. These topic areas include: Community Health and Well-Being, Bay Ecosystem Health and Resilience, Transportation and Transit, Shoreline Contamination, Housing, Development, and Economics, Public Access and Recreation, Critical Infrastructure, and Governance. These vision statements will be further refined following feedback from this workshop, and a set of working vision statements will guide the development of the RSAP Guidelines.

The RSAP project began in early 2023 and the Guidelines are anticipated to be completed by September 2024. Two additional Public Workshops are planned for Spring and Summer 2024.

Overview of the Challenge

Rising sea levels from climate change are already encroaching along our shorelines and will only accelerate in the coming decades. The impacts of sea level rise – and resources to plan and prepare for them – are unevenly distributed across the nine-county Bay Area. If everyone “goes it alone,” we risk maladaptation – catastrophic consequences such as unintentional flooding of our neighbors, leaving behind communities most at risk and with the least resources to adapt, the loss of our essential and invaluable coastal habitats, and missing out on opportunities to find shared solutions that benefit both local communities and the region as a whole.

BCDC’s Bay Adapt initiative identified many of the challenges associated with planning and preparing for [a rising Bay](#), including supporting data from the [ART Bay Area: Regional Sea Level Rise Vulnerability and Adaptation Study](#) report and outlined why a regional approach is necessary. The Regional Shoreline Adaptation Plan is an implementing project of the [Bay Adapt Joint Platform](#).

The Regional Shoreline Adaptation Plan is funded by the Ocean Protection Council and State Coastal Conservancy and is intended to serve as a model for multi-jurisdictional climate resilience for regions across the State of California and beyond.

This first Public Workshop #1, held October 26, 2023, was one of many opportunities for practitioners, stakeholders, and interested members of the public to provide input on the development of the Regional Shoreline Adaptation Plan Guidelines, which is slated for completion September 2024.

Public Workshop Agenda

[Main Presentation Slide Deck here](#)

- 1:00pm** **Welcome and Debut Viewing of our New “[The Bay Area: Our Region’s Challenges and Opportunities with Sea Level Rise](#)” Video**
- 1:20pm** **What is the Regional Shoreline Adaptation Plan (RSAP)? An introduction to BCDC’s Bay Adapt and the Regional Shoreline Adaptation Plan**
Presentation by Jaclyn Mandoske, Senior Climate Adaptation Planner at BCDC
- 1:40pm** **World Café Breakouts: Exploring Different Aspects of the RSAP Project**
Participants can choose to attend two of five mini-discussions for 15-min deeper dives into different aspects of the project. The rooms include:
- [Want to learn more about the RSAP?](#)
 - [How are we building on existing Bay Area work?](#)
 - [What is SB 272, the Laird Bill, and how does it affect our work?](#)
 - [How are we embedding equity into the process?](#)
 - [How are data and tools being used in the RSAP?](#)

2:10pm **Short Break**

2:20pm **Vision for a Future Bay through Sea Level Rise Adaptation**

A presentation summarizing the feedback from the visioning phase of the project and sharing of new vision statements for the Regional Shoreline Adaptation Plan. Presentation by Tim Mollette-Parks, Mithun

2:35pm **Geographic Breakouts: Discussing How Different Parts of the Region Contribute to the Regional Vision**

Participants will select one of four geographic-based areas for 35-minute small-group conversations about how they see their geographies fitting within the regional vision, and discuss local challenges and opportunities. Geographic areas will include locations around:

- Suisun Bay
- San Pablo Bay
- Central Bay
- South San Francisco Bay

This session will end with an Interactive poll on the breakout group discussions.

3:25pm **Wrap Up and Next Steps**

Who joined us at the meeting?

Approximately 134 attendees joined the Regional Shoreline Adaptation Plan Guidelines Public Workshop #1. At the beginning of the meeting, we asked participants a series of questions, including how they would describe themselves, where they work in the region, and what brought them to this event.

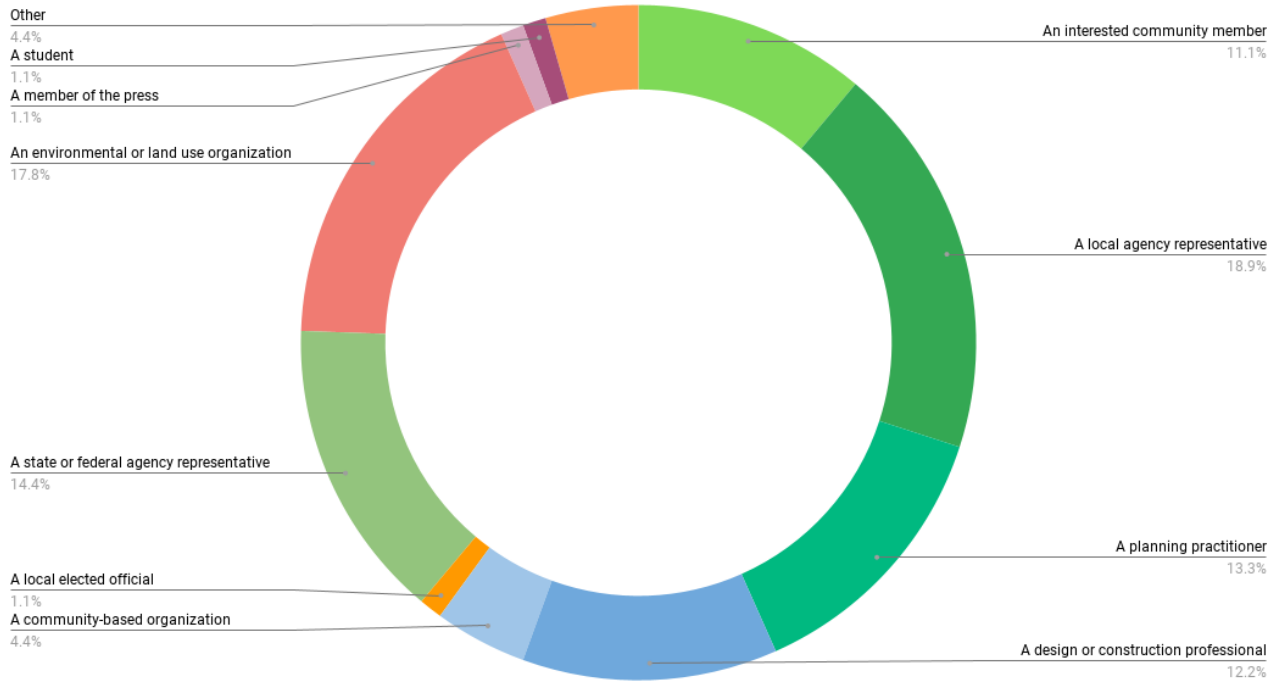
Participants at the workshop included residents and practitioners from eight counties within the nine-county Bay Area, and consisted of a range of stakeholders, from local and federal agency representatives, interested community members, planning practitioners and more, as seen in the breakdown below.



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PUBLIC EVENT #1 ATENDEES



Attendees had a range of reasons for joining the RSAP event, including regional coordination, curiosity, sea level rise adaptation, learning, SB 272, and working on sea level rise, among others seen in the word cloud below. The word cloud below displays participants' responses to **“In a few words, what brought you to this event?”**



For further information on the geographic and professional affiliation of attendees, a link to the interactive survey responses from the zoom session can be [found here](#).

What is the Regional Shoreline Adaptation Plan?

The Regional Shoreline Adaptation Plan is an implementing project of the [Bay Adapt Joint Platform](#) and is specifically advancing the following: creating a shared regional vision of adaptation rooted in communities, ecosystems, and economies; provide incentives for robust coordinate adaptation planning; incentivize projects that meet regional goals; and measure regional progress using metrics and share results. As an implementing project of the Bay Adapt initiative, it follows the Bay Adapt [Guiding Principles](#).

The Regional Shoreline Adaptation Plan will be 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. The intended outcomes of this project include:

- Achieving coordinated adaptation
- Ensuring resources are prioritized for frontline communities
- Maintaining the long-term health of wetlands and other habitats
- Advancing strategic implementation of adaptation for the region
- Creating common standards and methods
- Supporting a pipeline of funding
- Developing the ability to track and measure progress

The Regional Shoreline Adaptation Plan is made up of three components:

- (1) **Regional Guidelines:** Set consistent standards for local adaptation planning
- (2) **Subregional Shoreline Resiliency Plans:** Locally created plans that are consistent with the Regional Guidelines
- (3) **Online Mapping Platform:** Tool to support use and application of the Regional Guidelines and supporting tracking and monitoring of plan and project implementation progress

The newly passed statewide legislation, SB 272: Sea level rise adaptation and planning, now requires that BCDC develop Regional Guidelines by December 2024 to be used in subregional shoreline resiliency plans, which must be completed by Jan 1, 2034. The Regional Shoreline Adaptation Plan was developed with this legislation in mind and the project is aligned with the requirements of this bill, on track to meet these requirements within the timeline, and is linked to existing funding sources at the State and federal levels.

The Regional Shoreline Adaptation Plan is being led by a variety of leadership groups, including BCDC's Commissioner, a Rising Sea Level Commissioner Working Group, Local Electeds Regional Task Force, and Expert Advisory Group.

Breakout Rooms #1: World Cafe Style

Participants had the opportunity to select two out of five breakout rooms to engage in mini-discussions with BCDC staff on specific areas of the RSAP project. In the sections below,

there is a description of the content covered in each of the five breakout rooms, a link to the presentation, and a summary of the questions, answers, and comments from each room. Please note that the responses below have been edited for clarity. In instances where participant's questions were not answered during the meeting, BCDC staff responses are available below.



New to the RSAP?
Learn more

1



Building on
current work

2



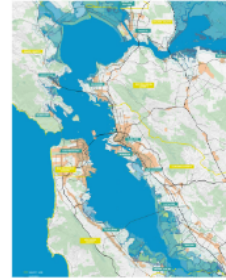
SB 272 and what it
means for RSAP?

3



Embedded equity
in this work

4



How data and other
tools can support

5

Want to learn more about the RSAP?

Breakout Room Presentation: [Want to learn more about the RSAP?](#)

The purpose of this breakout room was to provide additional opportunity to describe BCDC, the Regional Shoreline Adaptation Plan (RSAP) and general questions about the project. Information shared during this mini-discussion included a reminder that the RSAP includes three components: 1) Regional Guidelines, 2) locally-created subregional plans, and 3) an online mapping platform. The presentation also provided a more in-depth timeline of these three components. This discussion also included a description of how the RSAP is an implementing project of the Bay Adapt Joint Platform, and a reminder on the role of SB 272 in supporting this project. Lastly, the presentation included two process graphics that help demonstrate how the Guidelines are being created, including the development of a regional vision, measures of success, and defining subregional adaptation plans.

Questions (Q), Answers (A) and Comments (C) from this session included:

- Q: What is BCDC?
 - A: BCDC stands for the San Francisco Bay Conservation and Development Commission. We are a state agency with planning and regulatory authority in the San Francisco Bay. We permit projects on the shoreline and do regional scale planning, including for sea level rise adaptation.
- Q: For subregional plans, will each individual have to submit or will it be a region of the shoreline?
 - A: This is not yet defined. Our next phase of the project is to define what a subregional adaptation plan is, and we will address that question through that process.
- Q: Will there be funding support?
 - A: There is funding available from the Ocean Protection Council (OPC). There's also federal funding available for climate resilience projects.

- Q: If cities are starting to develop an adaptation and resiliency plan, should they pause their work while the RSAP Guidelines are in development, or is there an opportunity to work with BCDC staff to make sure we're aligned?
 - A: There is an opportunity to work with us. We understand there are planning processes that have already happened in communities or are in progress and we're happy to work with you, because we're doing this to support local jurisdictions.
- Q: When and how will priorities for subregional shoreline adaptation projects be developed, and who will be creating the metrics through which these projects will be approved?
 - A: The content of the Guidelines will be a big part of how we get to priorities. We also have a phase in the project in summer 2024 where we'll be thinking further about evaluation and prioritization, which will be based on data and understanding what's at risk, and reflect the priority values in the region. A lot of this is still to be determined in later parts of the project.
- C: It seems like it would help different jurisdictions if there's a priority list for shoreline adaptation projects, even if it's just a bullet point list.

How are we building on existing Bay Area work?

Breakout Room Presentation: [How are we building on existing Bay Area work?](#)

The purpose of this breakout room was to outline how the Regional Shoreline Adaptation Plan (RSAP) is building on existing regional work. In the presentation, BCDC staff described the importance of regional work to build consistency in shoreline adaptation planning across the Bay Area's local jurisdictions. A regional solution is crucial to address regional problems such as sea level rise and coastal flooding. Additionally, this presentation emphasized BCDC's key role in regional climate adaptation over the past decade, outlined the results from the ART Bay Area report, an analysis of sea level rise vulnerability across four systems that span across the region, and described the existing Bay Adapt program - a regional strategy for a rising bay. Finally, the presentation highlighted completed and ongoing work by our external partner organizations such as MTC, ABAG, SFEP and others.

Questions (Q), Answers (A) and Comments (C) from this session included:

- Q: Given that there are limited resources, how does prioritization fit into RSAP? How are we prioritizing things that are most important so that they get done first?
 - A: MTC/ABAG is developing a project priority list to identify where funding should go first. Additionally, the guidelines in the RSAP will be instrumental in guiding priorities and goals for how to address shoreline adaptation moving forward.
 - A: The Ocean Protection Council will be giving out funding for the development of plans. The criteria for funding are aligned with the Bay Adapt goals and principles and this process will ultimately guide the prioritization of available resources.
 - A: Through the RSAP, we are also asking individuals directly what are the topmost priorities in their communities.
- Q: What is the RSAP and how does it coordinate with SB 272?

- The RSAP is focused on developing consistent guidelines for the sub-regional plans required by SB 272. BCDC will not decide which projects go where, but BCDC is working to develop visions and guidelines to help guide project development by local jurisdictions.
- C: A shortcoming of the Plan Bay Area process is that their visioning process is strictly focused on the built environment, development, and infrastructure. We need to plan for Bay ecosystem habitats as well. For example, we need to consider where we will be moving wetlands and protecting existing wetlands.
- C: One issue that has not been addressed yet is that, as the bay level rises, we will need to acquire land along the shoreline so that marsh habitat can migrate inland.
- C: When we talk about nature-based solutions, there seems to be a lot of confusion around what that really means. For example, some developers build levees with vegetated surfaces and call that a nature-based solution. This type of intervention should not be considered a nature-based solution.

What is SB 272, the Laird Bill, and how does it affect our work?

Breakout Room Presentation: [What is SB 272, the Laird Bill, and how does it affect our work?](#)

The purpose of this breakout room was to introduce the new legislation, SB 272: Sea Level Rise Adaptation and Planning, and its relationship to the RSAP. The presentation provided additional details on SB 272, including an overview of what the new legislation does, including requiring BCDC, in coordination with others, to develop guidelines for subregional shoreline resiliency plans by the end of 2024. It also requires that BCDC must approve the subregional plans based on consistency with those guidelines by January 203, among other requirements. The presentation also noted that the RSAP Guidelines process is aligned, on track, and linked to funding to support implementation of the bill.

Questions (Q), Answers (A) and Comments (C) from this session included:

- Q: Is the current planned/proposed work that historically has been reviewed by BCDC now subject immediately to the guidelines being developed?
 - A: No, the guidelines have not been developed yet.
- Q: How is BCDC coordinating with the CA Coastal Commission so that the guidelines for coastal and Bay shorelines are aligned?
 - A: Yes, BCDC is already collaborating with the Coastal Commission.
- Q: Is the jurisdiction that is subject to this requirement defined in SB 272?
 - A: The bill itself says that "local jurisdictions" must prepare these plans. However, we know that many entities along the shore have an important role to play in this process.
- Q: Do you anticipate having distinct guidelines for each subregion that each of these subregions would need to comply with? Or is it one set of guidelines across the Bay?
 - A: This something we are looking at right now. We know that there are distinct parts of the Bay that might have different needs from other places. We will need to acknowledge differences across subregions.
- Q: What is BCDC's thinking about enforcement mechanisms?



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- A: The bill does prioritize state funding to the places that have plans, so that is an important carrot. The bill doesn't have a strong enforcement mechanism.
- Q: How are we thinking about how to include groups like the Bay Trail that are critical stakeholders but are not necessarily local govts?
 - A: This is something that BCDC will be working on very carefully. We understand that on a regional level, regional aspects of the plans should be considered and integrated into the process.
- Q: From the perspective of Caltrans District 4, as a regional state agency, we are also wondering how things like the regional transportation plan will interact with these new guidelines and requirements in SB 272. Caltrans would like to review those guidelines. Appreciate that this is happening, but also some nervousness about the process and how this will be implemented.
 - A: Understood, we hear all this. That is why we are going to collaborate closely on the development of the guidelines over the next year. We will also be looking at our regulatory program to make sure that there is consistency with the guidelines.
- Q: The timing for this conversation is great, some cities like ours (Palo Alto) have already started some sea level rise plan development. Who do we speak with to talk about this in more detail?
 - A: reach out to Jessica or someone at BCDC staff to chat.

Below are additional questions from the session that were not answered during the session.

Please see below BCDC new staff responses following the workshop:

- Q: Is BCDC thinking about how these plans might align with the Federal Flood Risk Management Standard?
 - A: Yes, we want to ensure our the Guidelines align with existing processes wherever possible, including FEMA (Federal Emergency Management Association) standards and guidelines.
- Q: How and when will BCDC be defining priority guidelines and scoring?
 - A: Developing the content of the Guidelines will be a big part of how we get to priorities. We also have a phase in the project in summer 2024 where we'll be thinking further about evaluation and prioritization, which will be based on data and understanding what's at risk, and reflect the priority values in the region. A lot of this is still to be determined in later parts of the project.
- Q: How are existing sub regional plans accounted for?
 - A: We have been conducting background research to
- Q: How does the SB 272 requirement relate to AB 691?
 - A: [AB 691: Local Trustees Prepare for Sea Level Rise | CA State Lands Commission](#) is a bill that requires local trustees of state lands to assess the impacts of sea level rise on the state lands and public trust assets they manage and propose adaptation strategies to build resiliency to coastal climate change impacts. Given the recent passing of SB 272, our staff are working with the State Lands Commission staff to evaluate how to acknowledge and incorporate existing efforts and build upon them through the SB 272 requirements.
- Q: How are you planning to allocate the resources for developing the plans?



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- A: Funding for developing the subregional plans and implementing projects within approved plans will be available through the Ocean Protection Council SB 1 funding.
- Q: Can we presume that there will be a public process for plan approvals (in addition to guideline development)?
 - A: Yes, but we haven't worked out what that process will be.
- Q: Why doesn't the Vision for the Future put Ecosystem Health first? If you don't like the ecosystem, just stop breathing!
 - A: The vision statements are not in a prioritized order.

How are we embedding equity into the process?

Breakout Room Presentation: [How are we embedding equity into the process?](#)

The purpose of this breakout room was to outline the Regional Shoreline Adaptation Plan's equity strategy as well as familiarize participants with BCDC's Shoreline Leadership Academy. The presentation covered both Equity in the process - through the funding and inclusion of Environmental Justice and Equity representatives in the RSAP advisory group, as well as extensive outreach efforts; and equity in the RSAP Guidelines.

Questions (Q), Answers (A) and Comments (C) from this session included:

- Q: How do we measure success? When we talk about building equity into our plans and policies, how are we measuring that?
 - A: We are at the beginning of this process, but a big part of this is thinking about who is represented and where are they from.
- Q: What criteria go into your equity assessments?
 - A: We're developing equity checks throughout the process. We are making sure impacts are mitigated and we are putting community first. We are working with the equity subcommittee to develop these assessments.
- Q: Interested in how we arrived at compensating the Environmental Justice and equity representatives. What lessons have we learned about what works and how much money should be provided?
 - A: Environmental Justice and equity representatives want to be paid equivalent to an engineering consultant. Community input is just as valuable as what others would contribute. We went through some negotiations about what level of compensation felt comfortable for the equity reps.
- Q: Will guidance be provided about who and how to connect with in regard to social equity in local SLR plans?
 - A: We have a Community-Based Organization (CBO) mapping tool to connect people to CBO's. You can fill out a survey if your CBO is not on the list.
 - A: The funding available to local jurisdictions to support SB 272 includes community participation and outreach.
- Q: What is the status of the Shoreline Leadership Academy? Are there funding/support/programs in place? What is the ultimate goal?
 - A: The Shoreline Leadership Academy first occurred in Oakland and we are working with partners and hoping to expand it to Marin, San Francisco, and

Contra Costa. Shoreline Leadership Academy participants were paid \$25 a month to be a part of the process. They met two Saturdays a month (once on zoom and once on the shoreline). Half of the participants ended up being advisors on various committees after the completion of the academy. A main goal of the academy is to train people to serve on committees and be leaders in planning processes. BCDC is currently applying for grants to build on the Oakland pilot program. We are currently planning to apply to Outdoor Equity for All, Whale Tail, and the Coastal resiliency grant program. We are talking to folks in San Francisco, Contra Costa, Marin about starting up Shoreline Leadership Academies.

- Q: How do you go about getting prospective students for Shoreline Leadership Academy?
 - A: We are relying a lot on community partners, doing recruitment through local agencies to get youth involved. We are already working with San Francisco, the Port, and Exploratorium to hopefully create a San Francisco Shoreline Leadership Academy.

How are data and tools being used in the RSAP?

Breakout Room Presentation: [How are we embedding equity into the process?](#)

The purpose of this breakout room was to discuss how data and tools will be used to support the development and implementation of the RSAP. The presentation highlighted several key questions that data and tools will inform. These include:

- What flood hazards will impact our shoreline?
- What topic area assets are at risk, and how that risk is changing over time.
- What are the guidelines and where should they apply?
- What data and tools are necessary to inform effective subregional plans?
- What data should be used to track and communicate progress?

In particular, the presentation focused on the development of a regional Online Mapping Platform. After the presentation, participants were asked to complete a short survey describing their technical needs.

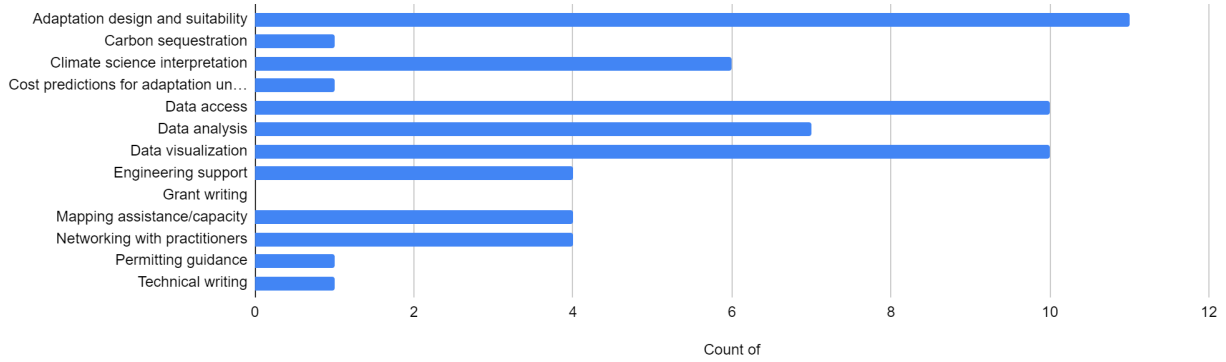
The following information summarizes the outcomes of a short survey that participants took during this session:

Which type(s) of technical assistance would be most useful to you for engaging in shoreline adaptation planning?

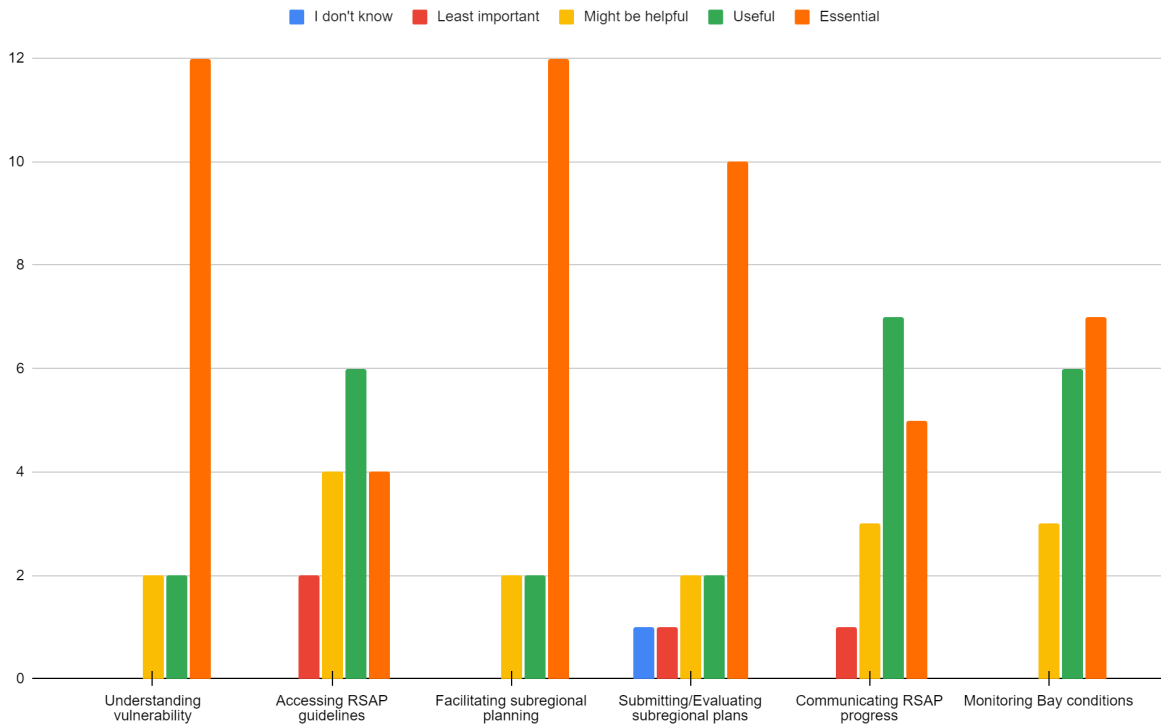


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Please rate the key functionalities of a mapping platform that will be of greatest use to you.

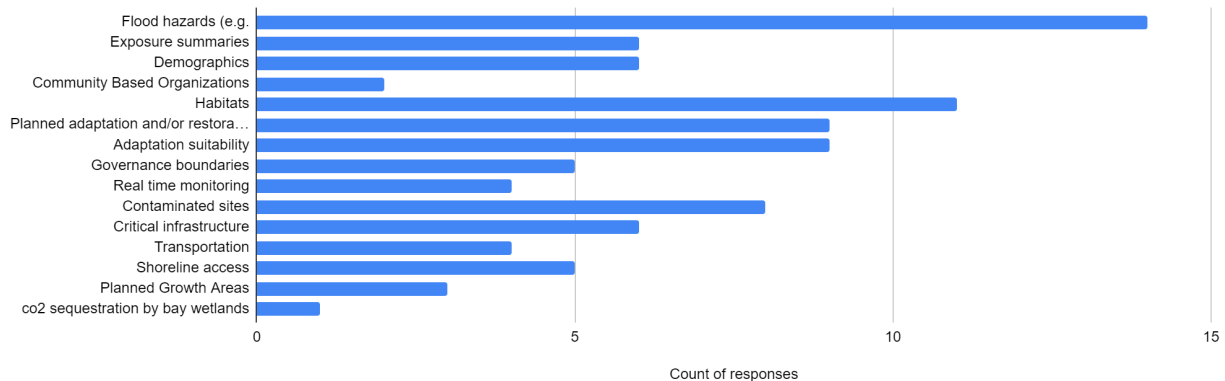


Which types of data would you like to see in the online mapping platform?



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Questions (Q), Answers (A) and Comments (C) from this session included:

- C: I would like to recommend that data about adaptation suitability from SFEI's Adaptation Atlas, including Operational Landscape Units is reflected in the Online Mapping Platform. It is data that could also emphasize the importance and risk to Bay habitats like mudflats and marshes. I would like to see the RSAP and Online Mapping Platform map lands that should be acquired and protected to create tidal marsh migration space. In terms of shoreline hazards, it would be very important for the RSAP and Subregional Plans to address liquefaction risk and levee failure.
- C: Restoration is resilience for communities and ecosystem health. The RSAP should include mapping that depicts threats to habitats that provide societal benefits.
- C: The Online Mapping Platform should help subregions understand how the different flood hazards and topic area assets interact. For example, sea level rise influences groundwater rise, which will cause toxins to spread and habitats will be affected.
- Q: How do we ensure consistency in the application of sea level rise models and assumptions?
 - A: RSAP will likely set some minimum guidelines for flood modeling based on best available science. We will be providing regional datasets and exposure analysis to help inform subregional planning, but also looking for ways to allow subregions to use higher quality data or analysis where available.
- Q: How will the RSAP address jurisdictions that are both in the Bay and Delta for subregional planning requirements and flood modeling (i.e. Contra Costa County)?
 - A: With regard to flood modeling, new flood maps have been created to help understand risk in the Delta by the Delta Stewardship Council (DSC). They are also leading adaptation planning in that area through the Delta Adapts effort. We would be looking to continue to coordinate with DSC.
- Q: How is the RSAP working to integrate the San Francisco Bay Joint Venture (SFBJV) 2022 Implementation Strategy numbers and maps to track and measure progress?
 - A: The RSAP Data Inventory and concepts for the Online Mapping Platform both include sources of data that have been used by the SFBJV, including restoration projects and habitat data from EcoAtlas and Project Tracker.

Vision for a Future Bay through Sea Level Rise Adaptation

This section included a report out of draft vision statements for the RSAP and each of its Topic Areas to lay the groundwork for review and feedback in Breakout Room Activity #2. A number of sources informed these draft visions, starting with BCDC documents that defined the overall intent of the Regional Shoreline Adaptation Plan (RSAP). Vision content was gathered from the RSAP Advisory Group and Subcommittees, and further informed through background research of approximately 90 existing Bay Area planning documents. Priorities expressed in public survey results and in-person community pop-up events led to further confirmation and adjustment of this content. Language was also refined through internal BCDC team review. The draft visions shared included a holistic draft vision for the future of San Francisco Bay:

The San Francisco Bay is the largest Pacific estuary in the Americas, supporting beautiful and diverse habitats. For thousands of years, humans have lived along its banks. Sea level rise puts this one-of-a-kind place, and the life it supports, at risk.

Acting together to address the intersecting challenges of sea level rise, habitat loss, contamination and environmental injustice, we can all support a shared vision: A dynamic Bay shoreline, with thriving communities living in reciprocity with healthy Bay ecosystems for generations to come.

In addition, eight draft visions were shared corresponding to the eight topic areas currently being considered in the development of the RSAP.

Draft Topic Areas



The Draft Vision Statements for Each Topic Area include:

Ecosystem Health & Resilience:

Bayland habitats retain or improve their scale, function and biodiversity by prioritizing

nature-based solutions, ecosystem migration, and habitat connectivity across all aspects of shoreline planning.

Transportation & Transit:

Transportation systems, stations and airports are adapted or planned for future upland locations to maintain continuity of reliable, affordable service for residents, visitors and the Bay Area economy. Nature-based solutions offer habitat co-benefits wherever possible.

Shoreline Contamination:

Contaminated shoreline areas that are exposed to flooding and groundwater intrusion—and the risks they pose to people and habitats—inform community-defined priorities for remediation and habitat restoration. Additional risks of the remediation process are identified and reduced.

Community Health & Well-being:

Residents in vulnerable Bay communities benefit from adaptation planning that acknowledges past harm to advance community health, well-being and self-determination to protect from further harm.

Housing, Development & Economics:

Existing development, new development, and shoreline uses are adapted in place, reconfigured, or located upland to balance affordable housing, local employment, and Bay ecological health.

Public Access & Recreation:

The unique human experiences on the shoreline are supported and enhanced through adaptation, with no net loss of shoreline recreation space, and access that is open, equitable and inviting to a diverse community of visitors. Adaptation for recreation and habitat are considered in tandem to balance human enjoyment and ecosystem function.

Critical Infrastructure:

Improvements to power, water, wastewater and stormwater systems address deficiencies in environmental justice communities and maintain service continuity for everyone, by using nature-based approaches to adapt existing infrastructure whenever possible, and siting new critical assets outside of coastal inundation zones.

Governance:

Local governance structures for sea-level rise adaptation are developed with community participation, particularly those historically left out of decision-making. Governance bodies include or collaborate with related agencies, and provide capacity for fundraising to adaptively manage built projects into the future.

Feedback from Public Workshop #1 was recorded during the event, and the team is currently

compiling and analyzing these comments by topic area to further refine the visions, alongside results from the final survey after its close on November 3rd. The confirmed visions will shape the guidelines that each subregion will address, as well as the overarching regional goals. Progress toward these goals will be evaluated by a set of success measures. The BCDC team, consultants, and advisory group plans to develop these guidelines and success measures for each vision over the winter and spring, test them within specific geographies, and allow time for feedback and public comment during the Spring 2024 public event.

Breakout Rooms #2 Geographic-Based Discussion

Participants had the opportunity to join geographic-based breakout rooms to reflect upon the vision statements and discuss how the regional vision statements and topic area vision statements may be particularly relevant to the shoreline areas in which they live or work. In the sections below, notes have been compiled on the feedback from each of the geographic-based area breakout rooms. Please note that some geographies had multiple breakout rooms and the responses are combined below.



Suisun Bay Discussion Summary (1 Room)

- **Which of these visions and topic categories are most relevant to you and where you live or work? What makes your part of the region uniquely suited to carry forward any one of these visions?**
 - **Critical infrastructure:**+1
 - **Community Health and wellbeing:** Contra Costa County is working on a subregional plan and has found it difficult to build capacity across the county but especially on the Suisun part of the county. The San Pablo Bay part of Contra Costa has community health and well being much more well established.
 - **Governance:** One Solano county resident thinks a lot about the duck club owners who are managing their land and ways that we can loop landowners into the conversation. Suisun faces different types of climate challenges which require leaders from different sectors.
 - **Shoreline contamination:** Suisun Bay has nearly all of the refineries which is going to become a growing problem as the process of a just transition continues. What will happen to this aging infrastructure?

- **Which of these visions and topic categories feels most difficult to achieve in your part of the region? Why?**



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- **Critical Infrastructure and Shoreline Contamination**, due to the oil refineries.
 - **Critical Infrastructure**: Soooo many industrial sites along the shoreline. Shoreline contamination is going to be massive.
 - Saltwater intrusion/salinity. If the water tunnels are approved and water is taken to Southern California, how will that affect the bay region? What's the plan for saltwater intrusion?
 - We need to prioritize any potential contamination if we contaminate the water.
 - This is a unique challenge to Suisun bay
 - Until there is a reverse flow, the effluence from so many polluting areas, the less flow we have pushing back, the less effluence there is going to be. strong element of BCDC
 - **Ecosystem health** is going to be very difficult because we have so much concrete and asphalt all along the water, getting local jurisdictions to recognize this as important.
 - **Community health and well being**: Need to get more people involved, need to create a wider network of people who care about this issue.
 - Aggressive stakeholder outreach would be fantastic.
 - Community education and engagement is critically important as a first step in Suisun.
- Other comments:
 - Managed retreat, just transition, how is this being talked about?
 - Misstatement: that it's possible to have a healthy bay ecosystem without a healthy delta system, there is a mixing and meshing of these systems. There's a healthy area where that can be, but at a certain point that will be unhealthy when you get the saline moving inland
- **What tools or resources do you need to better address adaptation across these categories?**
 - More financial resources to build capacity in cities and CBOs to engage in breaking down silos and getting involved in planning practices.

San Pablo Bay Discussion Summary (1 Room)

- **Which of these visions and topic categories are most relevant to you and where you live or work? What makes your part of the region uniquely suited to carry forward any one of these visions?**
 - **Shoreline Contamination**: It's super important but do we collectively have the tools and what is the state of it all, "I don't know." Who are the responsible parties?
 - We have a mapping tool that shows you in which site who are the responsible agents. Not all contaminants are the same, some travel or dissolve differently. Just because the map says a certain agency regulates



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it, there shouldn't be an immediate leap of faith that it will be fine. Strongly recommend going to the website on shoreline resilience at the DTSC website.

- The challenges of contaminants will be an issue for Richmond.
 - Maybe it's in transportation and transit but how will this plan look at the working shoreline like the Ports? Is this regional plan going to consider these working shorelines as well? Is there an acknowledgement that Ports are critical infrastructure to the region and how do we make them resilient to sea-level rise?
- **Governance:** If you're a developer and there's already a RSAP, are you good if there's an approved subregion plan?
 - One of the stakeholders brought up that MTC/ ABAG and BCDC planning is so important to work together. It's important that the PCA intersects with the BCDC project because we can take a look at ecosystems that need to be protected.
- **Infrastructure:** Utility infrastructure, linear infrastructure like pipes and wires, need to be in these plans because they cover multiple jurisdictions and can be a challenge for subregional plans. How will those subregional agencies collaborate and deal with these things? Will they need to work with BCDC or can they do it on their own?
 - Highway 37, advocacy around lifting roadway infrastructure, some conversations could weave in together because they face the same obstacles when prioritizing ecosystem functions. What are the opportunities as we re-envision infrastructure. Not only transportation but other critical infrastructure, energy, transmission, etc.
- Other Comments
 - Education: There are many opportunities to coordinate with schools and universities. The groundwater stuff. There's so much science to be done.
- **Which of these visions and topic categories feels most difficult to achieve in your part of the region? Why?**
 - Governance and Infrastructure

Central Bay Discussion Summary (4 Rooms)

The following summaries include feedback from participants from across multiple rooms.

- **Which of these visions and topic categories are most relevant to you and where you live or work? What makes your part of the region uniquely suited to carry forward any one of these visions?**
 - **Ecosystem Health and Resilience** is a big issue on the San Mateo shoreline. Keep investing in infrastructure that is already under water, Should be moving it uphill.
 - **Public access and recreation** is at the top, also **Transportation and community health** and well being.

- **Critical Infrastructure:** Foster City has had large issues with power outages, most of it is already underwater due to inundation. Need to come up with a plan to make sure data and power stay on.
- **Governance** is Key. The central bay is huge, there are so many types of communities in this region and they all have at least one of these 8 topic areas they need to focus on.
- **Critical infrastructure:** We're not going to be able to keep everything from flooding, so we should emphasize finding room for places that flood. Appreciate that siting assets uphill is in there.
- **Community & Health:** Want to make sure we're focused on community outcomes.
- **Ecosystem Health and Resilience:** The Central Bay used to have thriving fisheries. Now the Central Bay is overlooked for preservation/conservation. We need to ensure we don't just give up on the Central Bay's habitats, they're still there. The carbon sequestration of wetlands is another area we should pay attention to – if we lose wetlands, we're digging ourselves a deeper hole. But if we increase them, we're helping ourselves.
- **Shoreline contamination:** I think we could emphasize the ecosystem and subsistence/commercial impacts of mobilizing contamination?
- Living in Berkeley, **community & health** will be impacted significantly by sea level rise because the well-being of the Bay affects my overall well-being and recreation ability.
- As an Oakland resident, **public access and recreation** are super important!
- **Shoreline contamination** is something to address along the Oakland shoreline.
- **Ecosystem health and resilience** also needs to happen. For example, the Emeryville Crescent is one space that needs to be protected.
- The challenge for Marin will be to move on equal speed for all the priority issues.
 - There is important habitat along the bayshore of Marin, and also disadvantaged communities as well as **shoreline contamination**.
- **Housing, development, and the economy** is very intertwined with SLR. Housing along the shoreline in Sausalito is very dense and creates significant issues for housing affordability compounding overall resilience challenges.
- **Which of these visions and topic categories feels most difficult to achieve in your part of the region? Why?**
 - **Governance** will be the hardest to achieve. Best case for the Bay in thinking about governance is maximizing external funding and minimizing local funding. Multiple agencies but need to learn how to speak with a single voice. Our government is not incentivized for long-term decisions, especially when the news is not good. +3
 - **Governance:** Suggestion that "Governance and Finance" is the name of the topic area, instead of just "governance." The issue of how we finance this work is going to be a real challenge. This continues to be an overlooked aspect of this challenge in planning.



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- **Contamination:** Who pays for it? How can it be done safely?
- How are we thinking about **historic assets**? In San Francisco, we need to think about how to reconcile historic and cultural assets and sea level rise planning.
- **Funding** not just for implementation, but even just for planning, is a major challenge.
- **Contamination:** Inequity and shoreline contamination is an area of big concern.
- **Critical Infrastructure:** There's a big maintenance cost for infrastructure over the long-term that we need to think about.
- In Oakland, **critical infrastructure** is a challenging issue. The EBMUD treatment plant is in Oakland very close to the shoreline and needs to be moved, but where will it be moved? Additionally, the freeway will definitely be impacted by SLR and need to move, how do we address this?
- **Transportation and transit** are the most challenging. For example, by the ferry building in San Francisco the flooding of the muni tunnels is a serious issue to consider.
- **Transportation and transit** is important. Amtrak along the Contra Costa County shoreline is two feet away from the shoreline and the capitol corridor is incredibly vulnerable to SLR.
- Another challenge with **critical infrastructure** is that we are already facing capital/governance challenges to fund maintenance and upkeep. Reinvestment in infrastructure that has been historically underfunded will be challenging.
- One thing I might add to **community health and well-being** is that community cohesion is also tied to health.
- **Transportation and transit** receives significant funding and so some of the other pieces that typically receive less funding would benefit from more funding.
- Cultural resources are very important such as in a couple of cases where shellmounds were located on the shoreline and they've been destroyed. They haven't been protected and so we need to be more aware of cultural resources that are in danger.
- **What tools or resources do you need to better address adaptation across these categories?**
 - We need better cost estimation tools.
 - We need to create more rigorous assessments that give us better cost/benefit analysis that include social/infrastructural costs.
 - Need better governance. We have such drastic inequality across municipalities to address these issues.
 - Intergovernmental communication needs to be improved.
 - Governance and funding need to come together or else you will have a patchwork response to SLR.
 - Cost-sharing is where we hit roadblocks and obstacles. Developing best practices and methodology in terms of how you assign costs for these projects that involve multiple jurisdictions, that would help.



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- Future sea level rise and groundwater rise is going to require additional pumping in low-lying areas, specifically for groundwater rise. We need solar powered pump stations.
- A key basis to tools and resources will be to agree on the science and maintain consistency across the board.
- A regional process should create a common language and decision-making criteria.
- Conducting cost assessments and space assessments would be useful. Right now it's difficult for communities to test different adaptation approaches and envision different adaptation results in their communities.
- We need to have clear and consistent mapping for sea-level rise and simplify the various SLR scenarios.
- A basic data need is making water levels and a known vertical datum to link to land.
- We need to improve permitting processes for nature-based infrastructure. Nature-based infrastructure typically takes up more land area which increases permitting requirements significantly.
 - Maryland has implemented policies that reduce the time it takes to permit nature-based infrastructure projects.
- **Are there particular areas where you're looking for consistency, baselines, or further guidance and tools related to shoreline adaptation planning?**
 - For **Ecosystem Health and Resilience**, we need to consider subtidal areas—water quality and the Bay's health, not just the shoreline.
 - For **Community & Health**, it would be helpful to remind people that the health of the Bay doesn't just help critters, it also helps our own health.
 - It would help to portray these topic areas as interconnected more visually.
 - **Critical Infrastructure**, particularly for our storm drain system. We have many municipalities with storm drain outfalls that are already getting inundated during storm events and high tide events. One of the things this plan could develop is a blueprint for how storm drain systems could be retrofitted throughout the Bay.
 - Issues of consistency: the models that are used to predict where flooding will occur have some variability and uncertainty associated with them. There's inconsistency in models. I'm looking forward to BCDC adopting a consistent model versus the multiple models that are out there. Similar issues with use of sea level rise projections.
 - **Governance** - How/who will pay for adaptation improvements and maintenance.
- **Other**
 - Take advantage of areas that will be flooded in the future to create nature-based solutions, such as horizontal levees above riprap.
 - There is data and tools for us to begin to measure the sequestration performance of landscapes (adaptation projects, like De-Pave park).
 - It would be nice to see a GHG mitigation hook in some of these vision topic areas as well. Transportation & Transit is the obvious one.

South Bay Discussion Summary (2 Rooms)

The following summaries include feedback from participants from across multiple rooms.

- **Which of these visions and topic categories are most relevant to you and where you live or work? What makes your part of the region uniquely suited to carry forward any one of these visions?**
 - **Infrastructure** primarily and secondarily **governance** and **public access** are most relevant. Less so housing and transportation.
 - From a city perspective all topic categories are relevant. For the residents, some things are considered “critical” that do not fall under “critical infrastructure,” such as public access and parks.
 - Concern was shown about the South Bay’s ability to retain wetlands which provide critical services and biodiversity. **Ecosystem health** was a top priority for many individuals and organizations.
 - **Transportation** and **critical infrastructure** were very important. Concerned that the focus on nature based solutions could be an issue near some critical infrastructure. Some places like airports may require gray infrastructure.
- **Which of these visions and topic categories feels most difficult to achieve in your part of the region? Why?**
 - The South Bay has key needs for adaptation for **Housing Development and Economy** and **Transportation/Transit**.
 - There are many **legacy contaminants** close to the shoreline in the South Bay and groundwater intrusion is also a key issue.
 - There’s a concern that **ecosystem health and resilience** will be overshadowed by competing needs of people (e.g. housing). Our neighbors have a voice but the birds do not, so we need to keep them in mind.
 - Some visions are in conflict with one another:
 - **Contamination** may present challenges for **ecosystem** and **critical infrastructure**.
 - **Public access** may be in conflict with **ecosystem health**.
 - Actions of regions may also conflict with one another (i.e. one city’s actions negatively affect the opposing shoreline).
 - Topic areas are also not mutually exclusive, for example natural flood protection for **critical infrastructure** can help **ecosystems**.
 - **Governance** and updating government operations will be a challenge.
 - Consider renaming “Governance” to “Governance and Collaboration.”
 - Some were concerned about development along the shoreline, that the plans will develop too slowly, and development will come before the 2034 SB272 deadline.
 - SB272 in its current form didn’t include incentives to submit plans more swiftly, can those be created?



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- Gray infrastructure will be needed in some places, but we need to protect undeveloped land that has a high opportunity for wetland migration. Maybe we can negotiate trade-offs across the region. Maybe there can be mitigation swaps? BCDC should open these conversations so that even if you don't have nature based solution options locally, you can protect the bay broadly.
- We are ripe for conflict regarding economy and housing since it is so expensive. In San Mateo county a majority of new housing is within the 100 year floodplain and cities off the bay have been very resistant to building densely. Fitting densification where it makes sense and not onto the shoreline is needed. Politically this is hard.
- **What tools or resources do you need to better address adaptation across these categories?**
 - We need guidance about how we do assessments because depending on the scope, the cost may vary drastically. It would be essential to have this guidance answer questions like:
 - What is included in critical infrastructure?
 - What is needed for an economic impact assessment?
 - More guidance on how to use existing tools, for instance the Operational Landscape Units from SFEI - how should those be used?
 - One thing that hasn't been reflected in a lot of mapping is how communities can impact other communities. CHARG did some work on that, more tools would help.
 - We need updated precipitation estimates. We still base our 100 year events on historical data.
- **Are there particular areas where you're looking for consistency, baselines, or further guidance and tools related to shoreline adaptation planning?**
 - How are other regional efforts compatible with the RSAP approach (e.g. Resilient by Design)?
 - Can we come up with a common set of assumptions or baseline from a planning perspective? For instance, can we all agree that the South Bay shoreline levee project underway should be finished and then decide together what should go inside the levee?
 - Can we get consensus on a big picture approach and projects and then decide together how to fill in the gaps?
 - Consider using the [Bay Area IRWM](#) structure and its subregions for planning subregions because they have been in place since 2005 with lots of engagement.

Meeting Close-Out and Next Steps

At the end of the meeting, each group shared via interactive survey what their breakout rooms thought was most important to emphasize in their specific geography, as well as what their group discussed as the biggest challenge or barrier to achieving the visions in their geography.



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The word clouds below show a portion of that report out. Full answers to those questions can be found [at the link here](#).

Suisun Bay - What did your group think was most important to emphasize in your geography?



San Pablo Bay - What did your group think was most important to emphasize in your geography?



Central Bay - What did your group think was most important to emphasize in your geography?

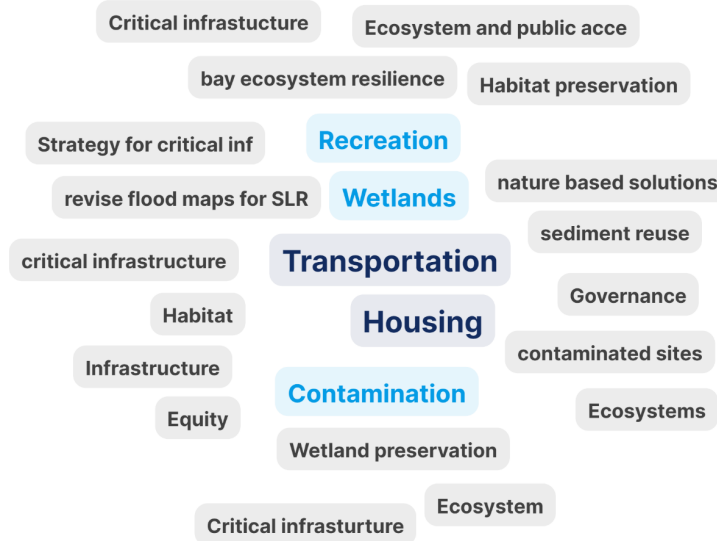


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South Bay - What did your group think was most important to emphasize in your geography?



Project Next Steps

The next steps in the project include finalizing feedback on the regional vision statement and topic area vision statements by early 2024. The RSAP Guidelines project is now transitioning into defining subregional shoreline resiliency plans. Additionally, we are preparing for a series of place-based workshops in the Spring of 2024 in partnership with Community-Based Organizations and local government partners. Stay updated about the project by signing up for the RSAP email list at <https://lp.constantcontactpages.com/su/llCNWAb>.

For questions or comments, please contact Jaclyn Mandoske, Project Manager for the Regional Shoreline Adaptation Plan at jaclyn.mandoske@bcdcd.ca.gov.