Agenda

- **Bay Area Regional Collaborative Overview**

- **Systems Mapping Project – Process, Case Studies & Maps**

- **Bay Area Climate Adaptation Network Technical Assistance Needs Assessment**

- **Emerging Observations and Next Steps**

- **Questions & Answers**

- **Breakout Groups & Discussion**

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BARC MEMBER AGENCIES

Association of Bay Area Governments (ABAG)

Bay Area Air Quality Management District (BAAQMD)

Bay Conservation and Development Commission (BCDC)

Metropolitan Transportation Commission (MTC)

California State Coastal Conservancy (SCC)

California Department of Transportation, District 4 (Caltrans-D4)

SF Bay Regional Water Quality Control Board (SFBRWQCB)

Bay Area Regional Collaborative

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Shared Work Plan Initiatives

Climate Adaption

1. Regional Adaptation Plan

2. Regional Technical Assistance

GHG Reduction

3. Zero Emission Transit Bus Infrastructure

Low-Carbon, High-Equity Neighborhoods

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Initiative 1:
Regional Multi-Hazard Adaptation Plan

Challenge Statement: The Bay Area faces increasing risks from climate hazards including sea-level rise, coastal and inland flooding, extreme heat, drought, and wildfires. The current lack of standardized and coordinated adaptation approaches across the region creates individualized local actions and disjointed approaches to managing risk. This environment also creates competition for funding and disparate resilience preparedness throughout the Bay, often leaving those most at risk at a further disadvantage.

Initiative 1: Regional Multi-Hazard Adaptation Plan

Description: *Work with partners and stakeholders to develop a Regional Multi-Hazard Adaptation Plan that supports the deployment of effective risk management strategies and equitable, multi-benefit climate adaptation projects at the appropriate geographic scale across the San Francisco Bay Area.*

Goals:

- Establish stakeholder engagement process to work together to develop a Regional Multi-Hazard Adaptation Plan that supports strong coordination among regional agencies, counties, cities, special districts and community leaders

- Outline and understand the distinct role(s) of regional agencies and those of other levels of government in managing different climate hazards

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Initiative 1: Regional Adaptation Plan (Year One)

"Systems Thinking" Analyses of regional agencies' existing roles, responsibilities, and activities	Tasks & Deliverables

	❑ Select Consultant team from MTC Bench
	  ➤ Final contract and scope of work
	
	❑ Gather information from agencies and key stakeholders
	  ➤ Preliminary Assessment Report
	  ➤ Systems Maps of Interrelations
	
	❑ Review findings with Governing Board, agency executives, partners & stakeholders
	  ➤ Final Assessment Report
	  ➤ Next Steps recommendations

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Initiative 2:
Regional Technical Assistance

Challenge Statement: Local governments have different levels of capacity and resources available to conduct adaptation planning and develop risk management strategies — especially those at the frontlines of risk and most in need of early interventions.

Initiative 2: Regional Climate Adaptation Technical Assistance

Description: *Work with partners and stakeholders to develop a regional climate adaptation technical assistance program to support local adaptation planning and project implementation.*

Goals:

- Clarify who is in charge of different aspects of climate adaptation at different scales.

- Develop a clearinghouse or "storefront" of adaptation data, standards, and guidance

- Develop easy-to-access technical assistance for local governments and community-based organizations.

Initiative 2: Regional Technical Assistance (Year One)

Outline types of climate adaptation technical assistance currently provided by the BARC member agencies, verified by key audiences

Tasks & Deliverables

❑ Gather information from agencies and key stakeholders
  - ➢ Outline and mapping of types of technical assistance provided
  - ➢ Matrix of Programs including key audiences/users

❑ Identify Gaps in Resources, particularly to frontline communities
  - ➢ Needs Assessment for key stakeholders

❑ Review findings with Governing Board, agency executives, partners & stakeholders
  - ➢ Final Assessment Report
  - ➢ Next Steps recommendations

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Project Overview & Objectives

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Climate Adaptation in the Bay Area

Climate Hazards

Major climate hazards already impacting the Bay Area include:

- 🌵 Drought
- 🌩️ Inland flooding
- 🌡️ Extreme heat
- 🌊 Coastal flooding
- 🔥 Wildfire
- 🐟 Water quality
- 💨 Air quality

Climate Adaptation

"Adjustments in ecological, social or economic systems in response to actual or expected climatic stimuli and their effects. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change."

Source: United Nations Framework Convention on Climate Change

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Regionalism and Adaptation

Photo Credit: European Space Agency

*"**The region is the one that has the big picture.** We see the patterns, we see the commonalities, we see the things that go wrong when people don't see the big picture. **We see the cascading impacts and the unintended consequences, and it's our job to understand those,** make those known, and set the standards that can prevent them from happening."*

– BARC member agency interview with AECOM

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Project Objectives

Map the Existing System

Delineate how **BARC member agencies** and **state and federal partners** currently address climate resilience and adaptation
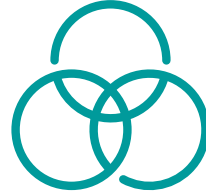
Identify Challenges & Opportunities

Identify **gaps, overlaps, and areas for improvement** to support regional adaptation planning and implementation

Lay the Groundwork

Consider next steps to help **advance adaptation planning and technical assistance** in the region

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Research Process – Regional Agencies & Stakeholders

To inform our project we, conducted interviews with BARC Member Agencies, and state and regional agencies for each of the key hazards in the Bay Area.

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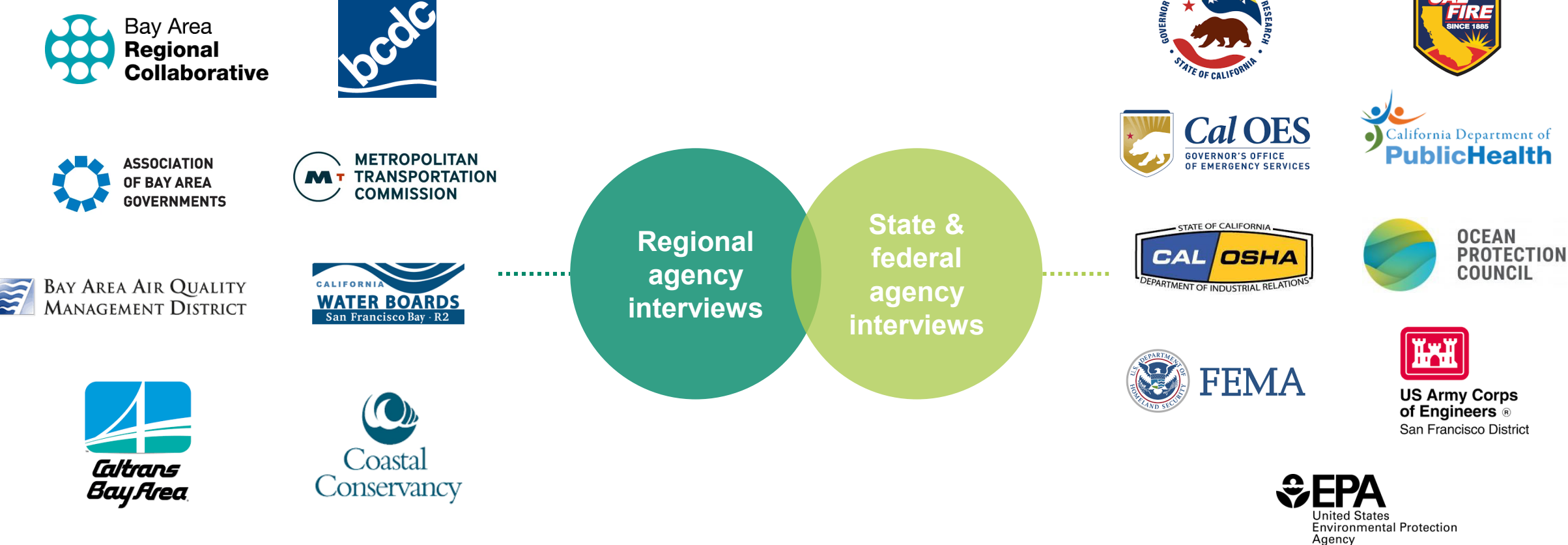
Case Studies and Regional Maps

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Systems Mapping

A visual way to map the landscape of adaptation in the Bay Area, identify key actors, illustrate complex relationships, and tell a story with structure.

State agencies

Planning & coordination
Research & monitoring
Policies & regulations
Action Deployment
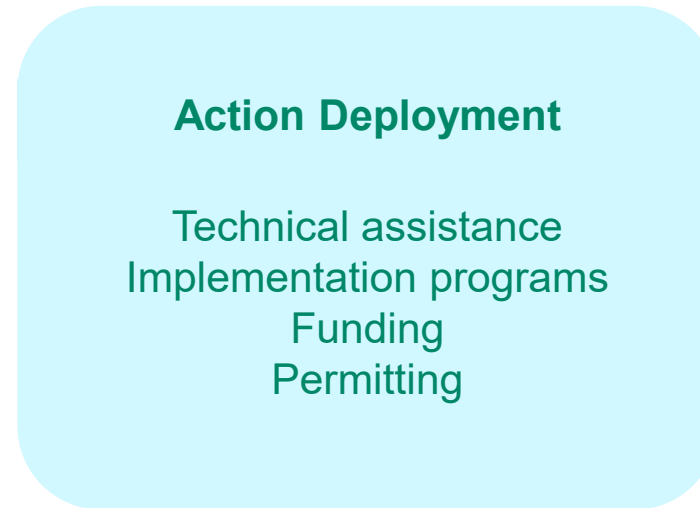
Arrows denote relationships (funding, partnerships, coordination, etc.)

BARC member agencies and other stakeholders

Planning & coordination
Research & monitoring
Policies & regulations
Action Deployment

Action Deployment

Technical assistance
Implementation programs
Funding
Permitting

Program recipients
(communities, local agencies, business)

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Agencies Engaged in Sea Level Rise Adaptation
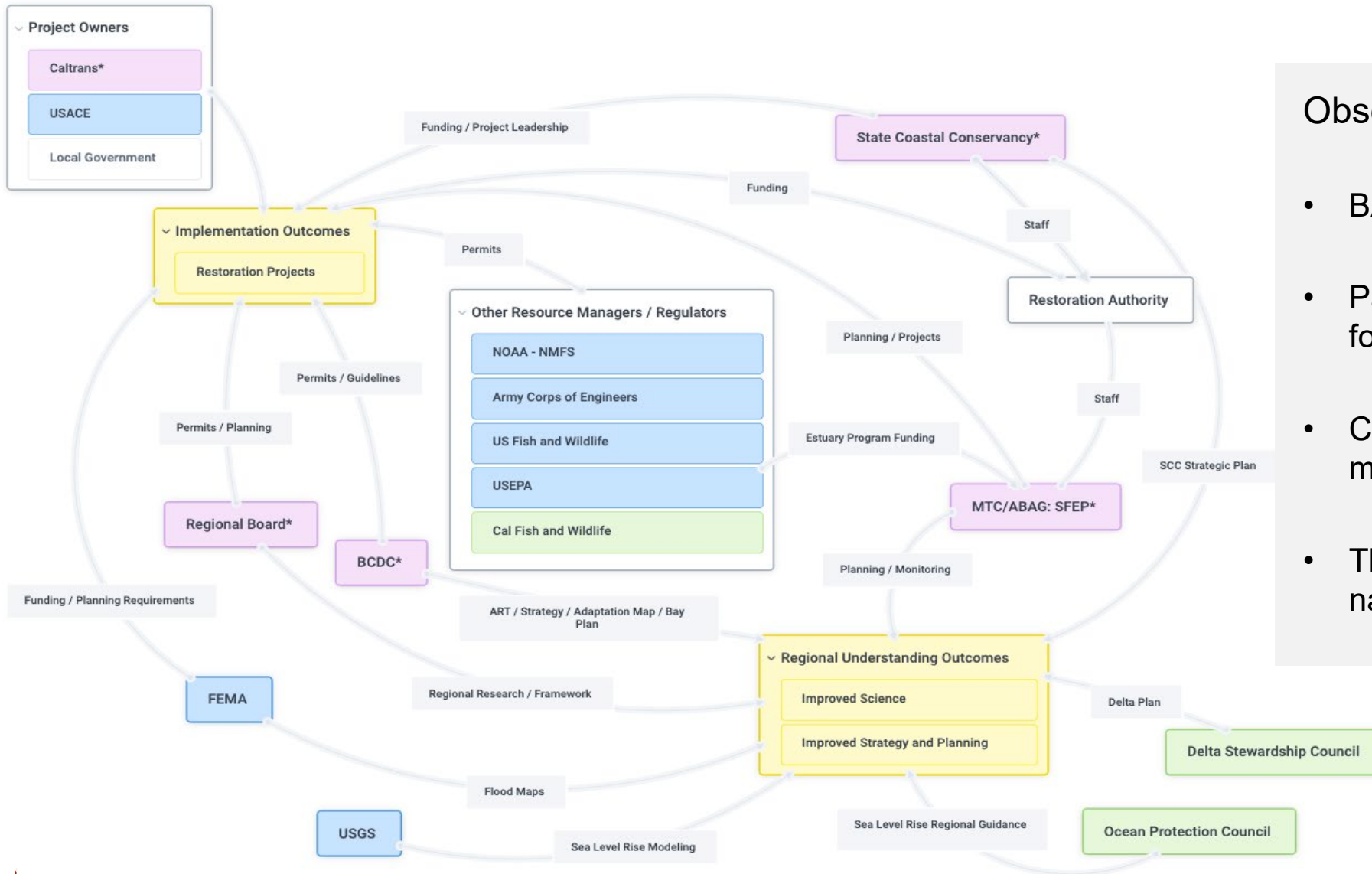
Observations:

- BARC members are highly engaged

- Partnering builds knowledge and fosters innovation

- Coordination takes time, staff, and money

- The burden is on project owners to navigate the system

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Agencies Engaged in Wildfire and Air Quality Adaptation
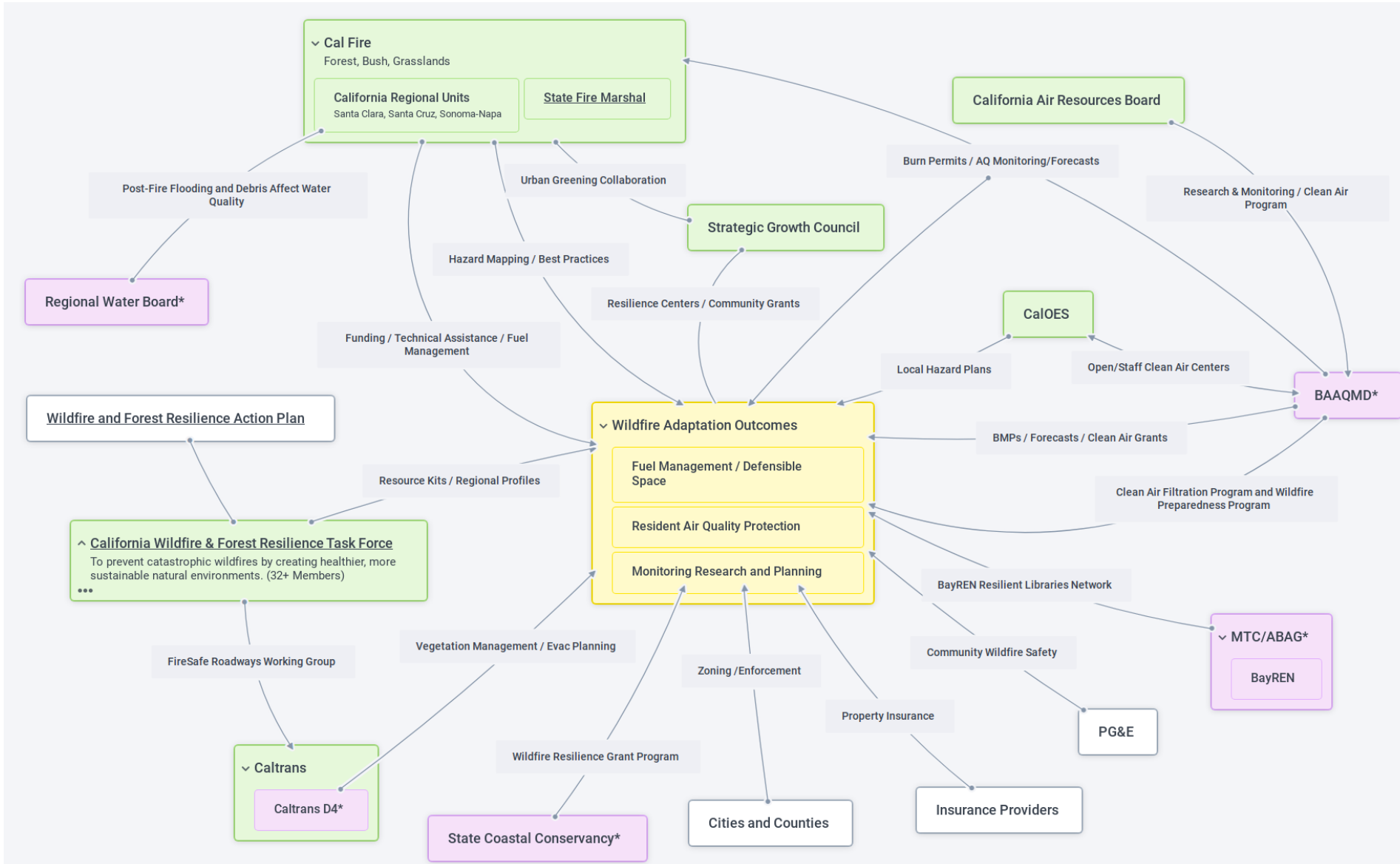
Observations:

- Most wildfire adaptation occurs through state and local agencies.

- **Is there a bigger role for regional entities?**

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Color Key | Federal | State | BARC * | Other | Outcome | Activity

Projects that cross jurisdictions and authorities are especially challenging, and necessary

| Resilient SR-37 Strategy and Segment Projects | ↔ | San Pablo Bay Restoration |

Photo by Sonoma Land Trust

An ecosystem-scale project with:

- At least 7 regulatory / resource agencies

- 4 counties and multiple transit agencies

- SR-37 Baylands Group (25+ members)

Narrow stakeholder authorities require partnerships to advance innovation.

Positive example of engagement and coordination – but can this approach scale effectively across many large-scale projects and geographies?

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SR-37 & San Pablo Bay Stakeholders

SR 37 Agency Partnership

To set expectations together transparently so that all with an interest in the future of SR 37 can see and understand how the signatories to this agreement are committed to the development and implementation of both near-term and long-term resilient SR 37 projects.

- Caltrans*
- MTC*
- Natural Resource Agency (BCDC / CalFW)

Regulatory / Resource Agencies

- CalDFW
- BCDC*
- EPA
- USACE
- USFW
- NOAA
- Regional Water Board*

State Coastal Conservancy*

Participate in

SR 37 Partnership Agreement
Commitments and Agreements

U.S. EPA Letter on Early Coordination

Water Board Design Alternatives Guidance

Coordination / Funding

SR 37 Baylands Group

Committed to ensuring that the redesign of SR 37 is compatible with and advances the ecological restoration and conservation goals for the San Pablo Baylands and improves the climate resilience of both the built infrastructure and natural ecosystems

Acts through

Defines

Position Paper / Guiding Principals

Transportation Agency SR-37 MOU
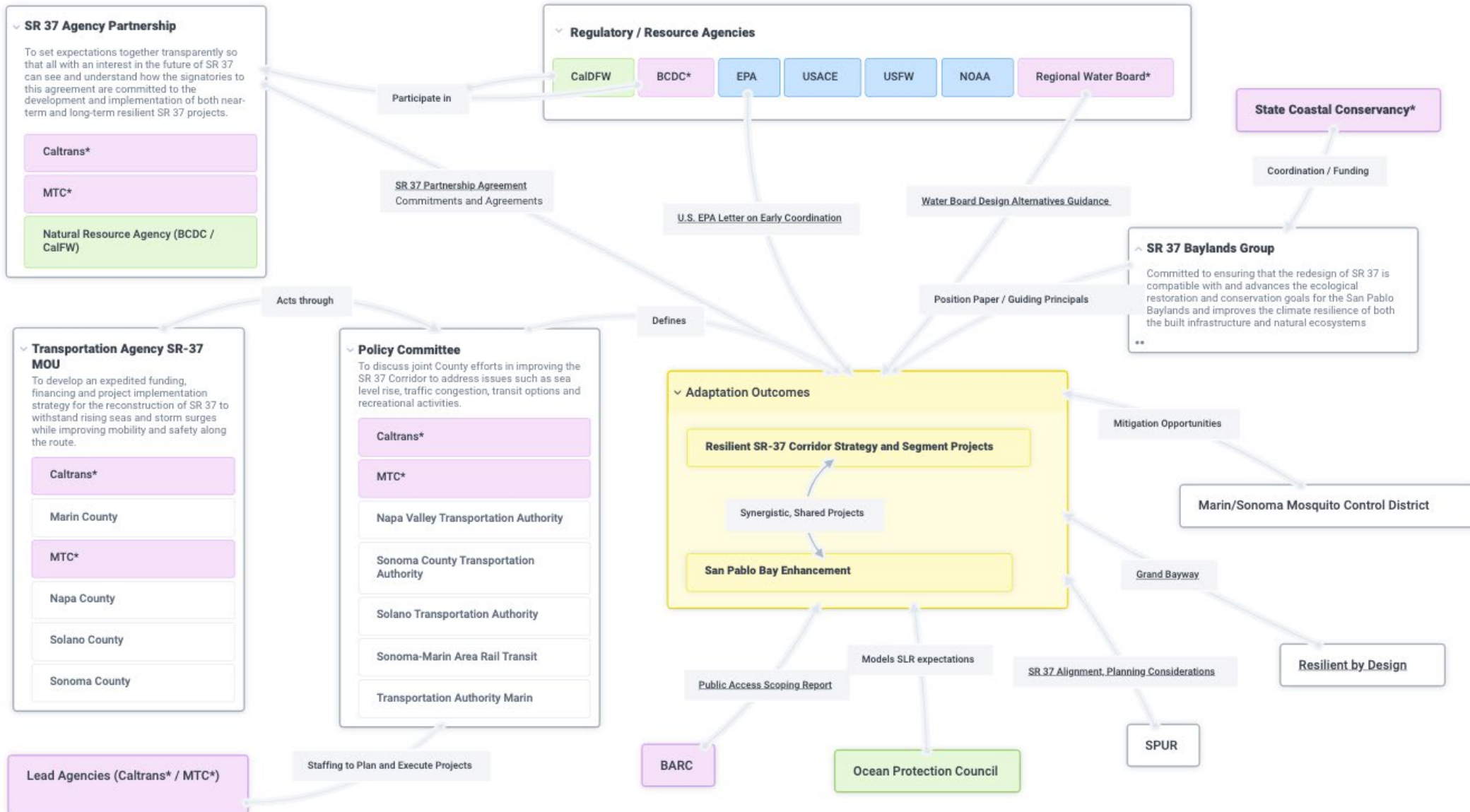
To develop an expedited funding, financing and project implementation strategy for the reconstruction of SR 37 to withstand rising seas and storm surges while improving mobility and safety along the route.

- Caltrans*
- Marin County
- MTC*
- Napa County
- Solano County
- Sonoma County

Policy Committee

To discuss joint County efforts in improving the SR 37 Corridor to address issues such as sea level rise, traffic congestion, transit options and recreational activities.

- Caltrans*
- MTC*
- Napa Valley Transportation Authority
- Sonoma County Transportation Authority
- Solano Transportation Authority
- Sonoma-Marin Area Rail Transit
- Transportation Authority Marin

Adaptation Outcomes

- Resilient SR-37 Corridor Strategy and Segment Projects

  Synergistic, Shared Projects

- San Pablo Bay Enhancement

Mitigation Opportunities

Marin/Sonoma Mosquito Control District

Grand Bayway

Resilient by Design

Models SLR expectations

SR 37 Alignment, Planning Considerations

Public Access Scoping Report

SPUR

Lead Agencies (Caltrans* / MTC*)

Staffing to Plan and Execute Projects

BARC

Ocean Protection Council

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| Color Key | Federal | State | BARC * | Other | Outcome | Activity |

Funding mechanisms may have complex governance structures

State Coastal Conservancy*

MTC/ABAG*
SFEP

Measure AA
To restore and enhance local wetlands, improve water quality, and clean up trash and pollution. ($12/Parcel annually from 2017 - 2037)

Source Funds
~$25M per Year

Provide 22 Staff Roles

Advisory Committee
Individual appointees that represent the interests of the community and public agencies
Four meetings per year

County / Regional Agencies
- Alameda County Mosquito Abatement District
- Bay Conservation and Development Commission*
- East Bay Regional Park District
- MTC/ABAG*
- Mid Peninsula Regional Open Space District
- Regional Water Board*
- Santa Clara Valley Water District
- Solano Transportation Authority
- Sonoma County Water Agency

Federal
- National Marine Fisheries
- SF Bay National Estuarine Research Reserve
- USEPA

State
- Cal Department Fish and Wildlife

Other

Eligible Grantees
- Agencies (Fed, St, Local)
- Nonprofit Organizations
- Shoreline Parcel Owner/Operators
- Tribal Governments

Funds Available (2023)
$22M / Year
(No Max Award)

San Francisco Bay Restoration Authority
Raise and allocate local resources for the restoration, enhancement, protection, and enjoyment of wetlands and wildlife habitat in San Francisco Bay and along its shoreline, and associated flood management and public access infrastructure.

Competitive Grant Program
One per year NOFO open to all application process

Community Grant Program
Limited to CBO located in economically disadvantaged communities.

Funds Available (2023)
$600,000 / Year
($200,000 Max Award)

Economically Disadvantaged Communities
Community-based Organizations

Appoints Members

Governing Board
Oversees the management and funding allocations of the Authority.
In addition to the Chair and Vice Chair, individuals appointed to represent North, East, South Bay, a Bayside city, and Open Space Districts

Oversight Committee
To provide an unbiased annual analysis of the work of the Authority

| Alameda County | Contra Costa County | Marin County | Santa Clara County | SF County | Sonoma County |

Observations

- Governance structure fosters collaboration and oversight, but is also resource intensive

- Hybrid staffing model and multiple agencies engaged

- **Can this type of structure scale sufficiently to meet needs?**

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Technical Assistance

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Technical Assistance: BayCAN's Goal and Role

BayCAN's role as a regional convener, facilitator, and leader in climate adaptation information for the Bay Area makes them uniquely positioned to carry out the stakeholder engagement to both broad and targeted audiences.

Stakeholder Engagement

How are stakeholders using technical assistance programs and services, and what types of assistance do they need?

Outcomes

- Understand effectiveness of existing technical assistance programs, and how they can be improved

- Inform recommendations for development of new technical assistance programs and opportunities

Technical Assistance: Stakeholder Engagement Overview

Key questions:

Who are the key providers and recipients of technical assistance in the region?

Does the provided assistance meet the needs of recipients, and how can it be improved to better serve local agencies and CBOs?

What are the most desired types of technical assistance?

Methods: Survey + focus groups

Focus group meetings
In-depth discussion with specific stakeholders groups

- Local governments
- CBOs
- TA Providers

BayCAN Regional Meetings
Introduce the project and outreach questions and process

Online survey
5-10 min survey widely distributed among Bay Area practitioners

- To be distributed broadly
- Gathers data to inform project and focus groups

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Technical Assistance: Definition

For the purpose of this project, we define technical assistance (TA) in the climate adaptation space as:

Services provided to help intended audiences have the knowledge, ability, or capacity to achieve specific goals and outcomes related to climate adaptation.

TA can address different needs:	TA can take different forms:	TA can have different qualities:
• Capacity-building • Data & information • Accessing funding • Grant implementation • Planning • Project development • Regulatory Compliance • Staff development	• Online documents, information, and research • Data, models, and tools • Best practices • Trainings • Workshops • One-on-one engagement • Other	• General, or targeted to specific kinds of organizations, programs, or needs • Proactive, active, or passive • Acute or broad • Short-term or long-term

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Technical Assistance: Categories and Spectrum

Knowledge

Generalized information and guidance to site specific technical datasets

Sponsorship

Project participation from a trusted entity to provide credibility, visibility, improve opportunities, or secure community support.

Guidance

Wayfinding and strategic guidance to resolve barriers and establish a path to move work forward.

Ability

Information and tools that enhance planning and analysis capabilities.

Capacity

Enhances recipient's staff, financial, organizational, or technical capacity.

TA Interaction Spectrum

Low touch
Ex: Posted data, reports, for self-directed use

High touch
Ex: Individualized, one-on-one support provided directly for specific projects

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Technical Assistance: Findings on Access and Engagement

- High-touch TA is a highly valuable and in-demand form of TA.

- TA can be difficult to find and access.

- Capacity constraints limited potential recipients' ability to access TA and providers ability to provide services.

- Demand for TA is greater than capacity to supply TA.

- Community based organizations (CBOs) are not as involved in TA as they would like to be.

Photo: Cal FIRE

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Technical Assistance: Findings on TA Providers and Content

- Perceptions on equity differ between TA providers and CBOs.

- There is demand for more tailored TA to fit the needs of specific audiences.

- Some TA is patching underlying complexity that could be resolved at the source.

- Informal relationship-building and convenings provide valuable connections.
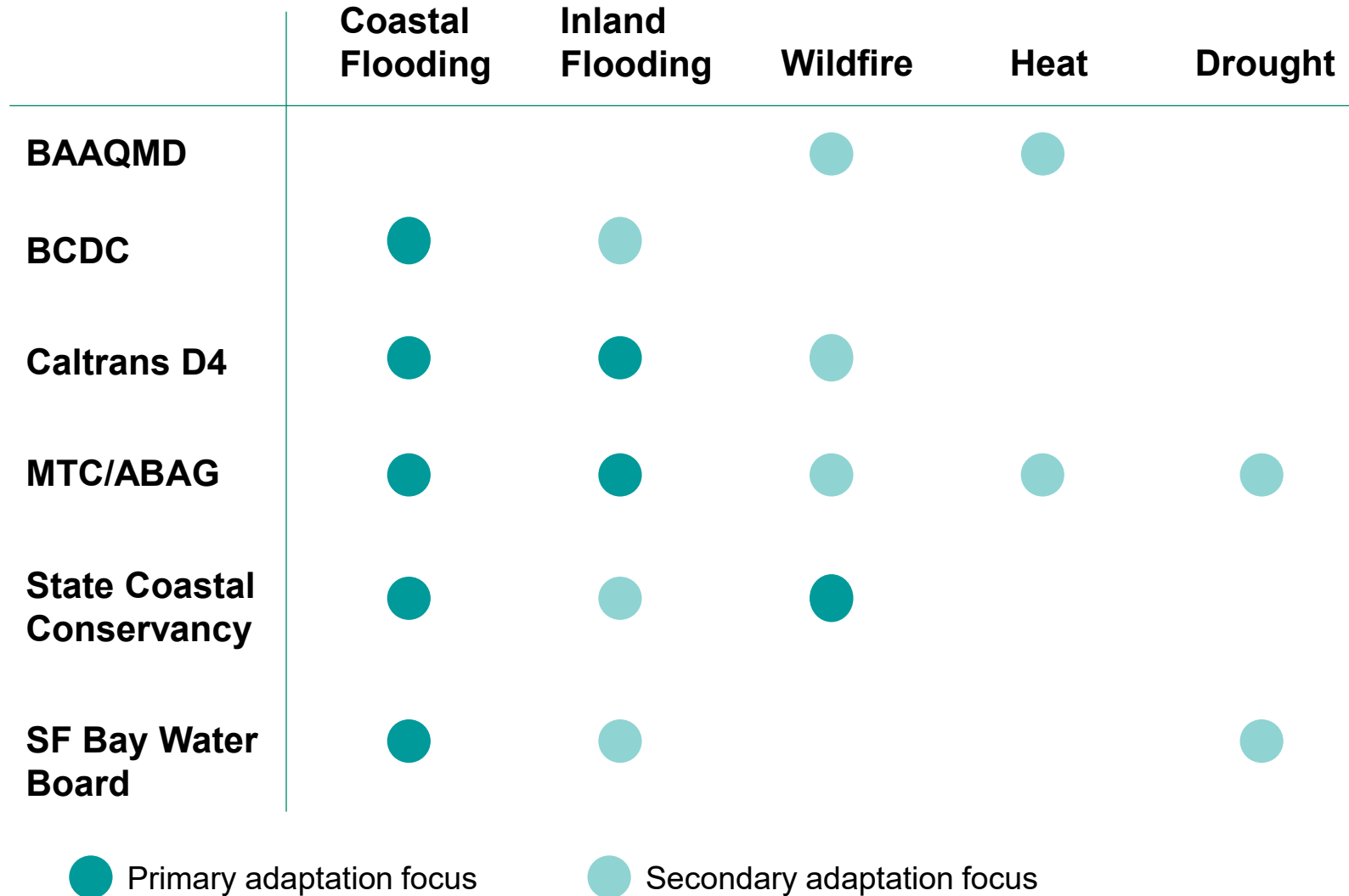
- Existing TA does not cover all hazards.

Challenges in TA

Category	
Other	~8
High barriers to access	~11
Poor communication around TA	~11
Limited capacity to access TA	~14
Need better interpretation/guidance	~20
TA too general	~25

Percent of Respondents
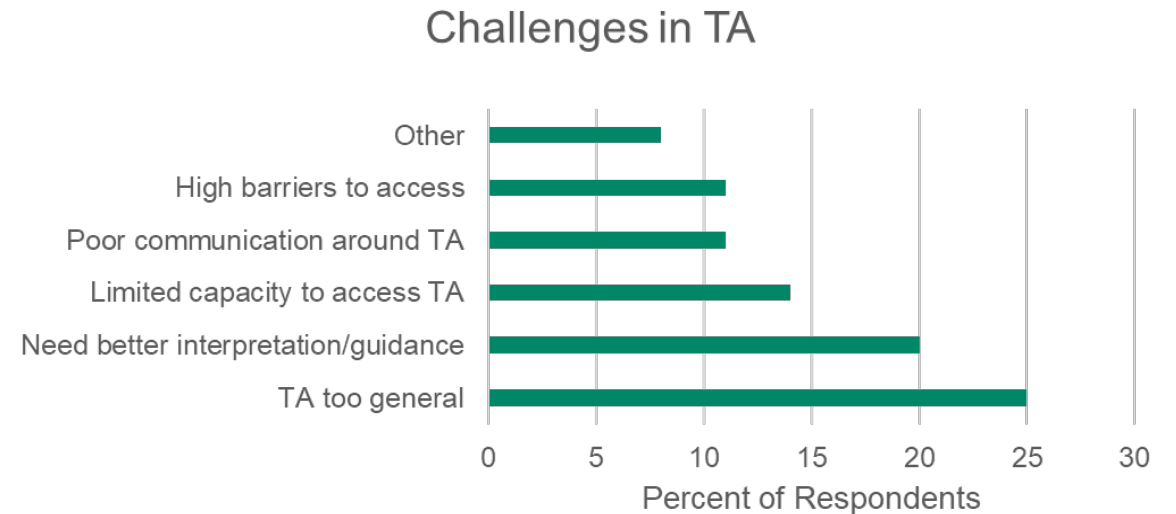
Technical Assistance: Recommendations

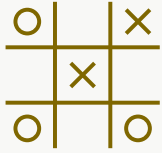| Recommendations for TA Improvement	
Clarify goals of TA and intended audience	By having a clear audience and specific objective clarified before the provision of TA, providers may be able to better tailor their offering for more effective use by recipients
Address underlying complexities to reduce need for TA	Some TA exists to simply navigate complex or opaque government practices, programs, or processes. Streamlining these through simplified language, developing common applications, and other recommendations could reduce the need for TA and make processes more equitable.
Measure and monitor TA effectiveness	Tracking costs, objectives, and effectiveness of TA materials among recipients could improve existing TA.
Align equity expectations and prioritize equity in TA process	Incorporate equity and accessibility in development, communications, delivery, and evaluation of TA to ensure CBOs and frontline communities are benefiting from TA services as recipients or providers

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Observations

Regional adaptation activity varies greatly by climate hazard

	Coastal Flooding	Inland Flooding	Wildfire	Heat	Drought
BAAQMD			○	○	
BCDC	●	○			
Caltrans D4	●	●	○		
MTC/ABAG	●	●	○	○	○
State Coastal Conservancy	●	○	●		
SF Bay Water Board	●	○			○

● Primary adaptation focus   ○ Secondary adaptation focus

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Existing adaptation efforts are often piecemeal, despite substantial coordination

Agency adaptation efforts are limited by their authorities and jurisdictional boundaries.
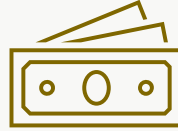
Available resources, grant cycles, and funding drive much of current adaptation efforts – not strategic planning and needs on the ground.

With limited capacity and resources, agencies are often in emergency management mode in responding to climate hazards.

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Barriers to scaling up adaptation planning and implementation

Inherent uncertainty about the scale and timing of climate impacts leads to uncertainty about the **sequencing, timing, and prioritization of adaptation actions**

Agencies, partners, communities face **a lack of capacity and expertise**.

The current adaptation funding system is not designed to deliver funding **equitably and effectively at the scale we need.**

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Thank You!

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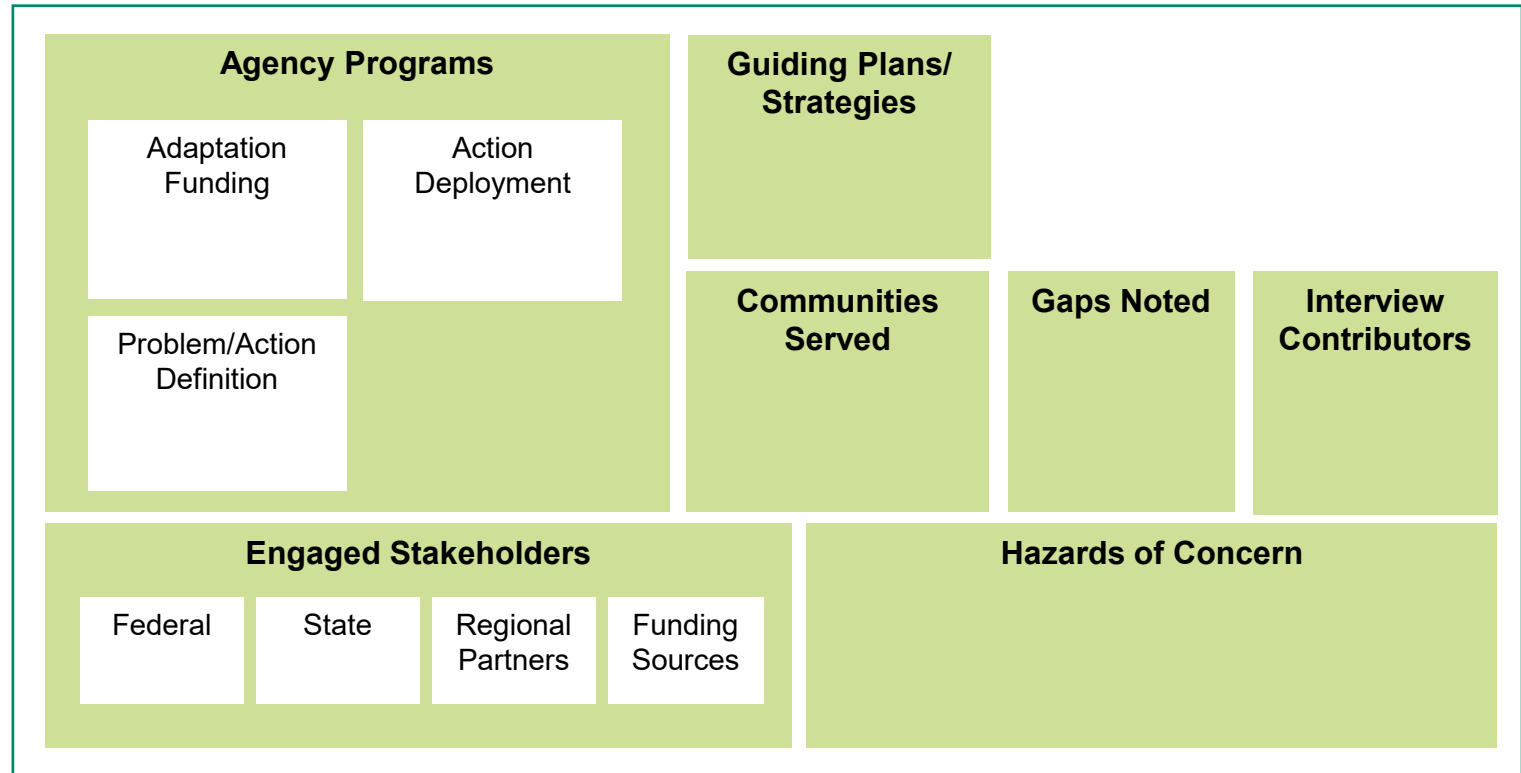# Questions

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Key Questions for Discussion

1. In an ideal world, what is your holistic vision for regional multi-hazard adaptation (near- and long-term)? Who is participating, how are decisions made, how are resources allocated?

2. What roles and activities are best-suited for regional agencies to achieve this vision?

3. What capacity do you need to get to that vision? What do you need from other entities to get to this vision?

4. What is needed (beyond $) to increase capacity to accelerate the pace of climate adaptation planning and implementation?

5. What is needed to "get over the hump" from adaptation planning to project implementation?

6. Based on existing capacity and data, how would you identify priority projects in your region?

7. What process metrics and reporting are needed to know what's working, or not?

8. What examples of climate adaptation collaboration are working right now? What makes them successful?

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Appendix

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Agency Map Layout

- **Agency Programs:** Only adaptation programs are included here, not mitigation programs or general operations.

- **Guiding Plans:** Key documents that inform adaptation strategy and implementation. The list is not intended to be comprehensive.

- **Communities Served:** Primary audiences of each program, with the understanding that most programs touch most audiences in some way.

- **Gaps:** Gaps raised during agency interviews.

- **Engaged Stakeholders:** An agency's relationships, including funders, collaborators, and regulators, etc. Specific links are illustrated with a colored dot when known. County/municipal stakeholders are generalized due to the number involved.

- **Hazards of Concern:** Primary hazards are indicated with a thick arrow. Other hazards considered have a thin arrow.

Agency Programs

| Adaptation Funding | Action Deployment |

Problem/Action Definition

Guiding Plans/ Strategies

Communities Served

Gaps Noted

Interview Contributors

Engaged Stakeholders

| Federal | State | Regional Partners | Funding Sources |

Hazards of Concern

Regional Agency Systems Maps

System maps of each of the regional agencies are linked below. You do not need a Plectica account (free) to view.

- BAAQMD

- BCDC

- Caltrans D4

- MTC-ABAG

- MTC-ABAG – SFEP

- SCC

- SF Bay Water Board

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