BAY ADAPT

Regional Strategy for A Rising Bay

October 2021

IMPLEMENTATION BRIEF

How do we Get There?

Looking out across one of the many piers in San Francisco.
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Who will implement the Joint Platform?

While the Joint Platform is built on the principles of shared goals and consensus, the way the tasks are ultimately planned and implemented will inform just how well Bay Adapt meets its goals. Specifically, keeping the Guiding Principles at the forefront of implementation will ensure that shared values are imbued in adaptation planning throughout the region.

Implementing the Joint Platform will require many actors taking on responsibilities independently as well as working together. There is no one player that is "in charge" of this entire process – it is too large and too complex, with too many varying goals. The following preliminary Joint Platform Implementation Chart begins to map out implementation roles and responsibilities. It was developed based on discussions between BCDC staff and LAG members, including a preliminary evaluation of their suitability based on their jurisdiction, authority, expertise, capacity, and funding. It identifies possible lead and support entities for each of the Bay Adapt actions. It also links actions with one of several multi-stakeholder working groups – spaces for ongoing collaborative development with diverse stakeholders.

Distributed Leadership

BCDC will continue to serve as a "backbone agency" or "quarterback" for Bay Adapt, providing staff resources and leadership to plan, manage, and support ongoing facilitation of coordination, tracking of accomplishments, and coordinating logistical and administrative tasks. BCDC has also committed to lead or co-lead certain tasks, as formalized by signing on to BARC's Joint Work Plan as outlined in the Joint Resolution to Address Climate Change, adopted by BARC's board on September 17, 2021.

However, while BCDC may lead or co-lead certain tasks suitable to the agency, many tasks are better suited to be led by others. Tasks may also be co-led by multiple entities. **"Lead"** or "co-lead" entities will be responsible for:

- Formally agreeing to commit to a substantial community engagement process and use of the Community Engagement Best Practices (page 3) and Equity Checklist (page 4).
- Developing a work plan for implementing the task and reporting on progress within the Working Group and other regional venues.
- Participating in the applicable Working Group and with support partners to ensure coordination.
- Leading the securing funding for the implementation of the task either through existing or new funding sources or via Bay Adapt funding sources.
- Committing staff time and resources to implementation of the task.
- Reporting out to the LAG and others, as necessary.
- Working with the Regional Climate Equity Consortium and local elected officials to ensure equity voices and local voices are reflected in both the work plan and ongoing implementation activities.
- Connecting across other Working Groups, as applicable

Entities that may not have the capacity or authority to lead tasks but still have significant expertise or resources to contribute can participate in the implementation of tasks.

"Participate" entities will be responsible for:

- Formally agreeing to participate in a substantial community engagement process and use of the Community Engagement Best Practices (page 3) and Equity Checklist (page 4).
- Participating in the applicable Working Group.
- Supporting the lead agency in developing a work plan and securing funding, making presentations, and coordinating across committees and working groups.
- Committing staff time, as needed, to support implementation of the task.

Lastly, entities that do not have the capacity or authority to participate, but that still can contribute relevant expertise, may advise on tasks. **"Advise"** entities will be responsible for:

- Adhere to the Community Engagement Best Practices (page 3) and Equity Checklist (page 4) as implemented by the Lead.
- Participating in Working Groups or other forums, as available.
- Consulting with task Leads and Participants by providing expertise.

Working Groups

Much like multi-stakeholder working groups helped to draft the Joint Platform actions, a continued set of Working Groups can be the "working space" where specific Bay Adapt Actions are further developed. This groups can be flexible and ad-hoc. To start, the following 5 Working Groups have been proposed, but there may be additional Working Groups that can be added or subtracted over time. Working Groups would be comprised of stakeholders interested in "rolling up" their sleeves. Working Groups would report back to the LAG periodically. See the Implementation Chart that describes which actions each working group could take on.

Climate Adaptation Legislation Working Group

- This group could serve multi-hazard adaptation legislation and build on the piloting of this strategy in 2021.

Community, Equity and Planning Working Group

- Include CBOs, local planners and staff, and interest groups.
- Focus on tasks such as: "One Bay" vision, elevating communities to lead, aligning local and regional plans, improving adaptation project delivery and tracking progress.

Science, Environment & Education Working Group

- Include scientists, ecologists, EJ groups, education specialists, technical assistance providers.
- Focus on tasks such as: storytelling, climate literacy, filling data gaps, technical assistance, consultants bench development, and monitoring.

Financing the Future Working Group

- Use BCDC's existing Financing the Future Working Group to develop funding plan ideas.

Regulatory Working Group

- Include regulators, stakeholders, applicants, and communities.
- Tasks related to accelerating permitting, modifications to regulations, and construction barriers for nature-based projects.

Centering Equity

When community voices are not represented, the region misses the opportunity to create equitable and meaningful adaptation actions. The region needs new processes for community-government collaboration, as well as funding to enable sustained, community-led leadership. One part of the solution could be the creation of a **Regional Climate Equity Consortium** comprised of representatives from frontline communities from around the Bay. Paramount to the success of this Consortium is sufficient funding and support.

Objectives:

- Ensure that the implementation of Joint Platform tasks reflects equity in both implementation processes as well as task outcomes.
- Advisory body to one or multiple regional agencies, like BCDC's EJ Advisors or MTC's Regional Equity Working Group, or an independent role, potentially with BayCAN's Equity Working Group as a convener.

Tasks:

- Consulting with various regional agencies on climate planning activities, outreach and engagement.
- Leading development of trainings and equity planning best practices. It must include funded roles for participants.
- Reporting out to the Leadership Collaborative and Coordinating Body on a regular basis.

Community Engagement Best Practices

The following best practices have been identified in the Bay Area Regional Health Inequities Initiative's (BARHII)report *Farther Together: Seven Best Practices for Engaging Communities to Create a Healthy, Resilient Region for All.*

1. **Budget** Wisely for Effective Community Engagement
2. **Expand** Engagement through Interagency Partnerships
3. **Co-Design** Your Process with Community
4. **Make** Engagement Activities Accessible and Relevant for All
5. **Identify** Locally Meaningful Vulnerabilities and Assets
6. **Prioritize** Community-Supported Resilience Actions
7. **Collaborate** to bring Equitable Solutions to Fruition

The full report, including case studies from BCDC's Adapting to Rising Tides Bay Area project, can be found here.

A community forum in East Palo Alto on sea level rise vulnerability began with dinner being served. Photo by Roxana Franco, Nuestra Casa.

Equity Checklist

An equity checklist can help those implementing tasks ensure that they are following equitable practices and achieving equitable outcomes. While the following Equity Checklist provided, by the Resilient Communities Initiative, was written for projects, it can be adapted for use on Bay Adapt tasks.

1. Project Demographics

a) Project clearly describes the socially vulnerable populations in the area that will directly be impacted based on census, public health, or similar data sources:

i) Median household income of census tracts

ii) Percentage of residents identifying as non-white or Latino

iii) Percentage of households where language other than English is primary

iv) All primary languages spoken by 5% or more of population

v) Percentage of renters

vi) Percentage of households headed by adults over age 65

vii) Percentage of households with children under 5

viii) Institutions where residents may have limited mobility in an emergency (e.g. hospitals, nursing homes, senior housing, schools, prisons)

b) Project clearly describes which, if any, of these populations it intends to address in its goals and evaluation

2. Project Goals and Evaluation

a) Project identifies specific measures of safety, health, and well-being of people it will address, focusing on populations of concern listed above

b) Project sets clear goals for improvement in these areas

c) Project sets clear and realistic processes for how improvement will be measured

3. Community Leadership in Project Design and Implementation

a) Before project development begins, conduct thorough public outreach to community groups to invite leadership in developing project

b) Project has leadership and/or implementation roles with defined decision making power for these community's groups/leaders, described in an MOU

c) Project has letters of support from at least two long-standing community groups that represents people impacted, clearly describing their role in project design

d) Provide translation of project outreach materials and meetings in major languages used in area of focus, or contract with community groups to provide this.

Bay Adapt Implementation Chart

Draftas of October 2021.

		GOVERNMENT												NON-GOVERNMENTAL ORGANIZATIONS												
		BCDC	*RW QCB*	*MTC/ ABAG*	*SFEP*	*SCC*	*BARC*	*Cal-trans*	*DSC*	*Other State*	*NOAA*	*US-ACE*	*Other Federal*	*Local Juris.*	*Bay-CAN*	*SFEI*	*CHAR G*	*Nor-Cal RN*	*WOE-IP*	*CBOs*	*EJ Advo*	*Enviro Orgs*	*Busi-ness*	*Priv Phil*	*Aca-demia*	*Media**	*Education/ Cultural Orgs*	**CO-LEADS IDENTIFIED**
PEOPLE	Task 1.1: Create a long-term regional vision rooted in communities, bay habitats, and the economy.	L	•	••	••	•	•	••						L	•	••	•			L	•	•	•		••		••	BCDC Local Jurisdiction(s) CBO(s)
	Task 1.2: Lay the foundation for a proactive regional legislative agenda.	••		••			L							••	••	••	••				••	••	••					BARC
	Task 2.1: Improve how communities and public agencies learn from each other and work together.	••	••	••	••	••	••		•		••			••	L			L	L	•	•			••				BayCAN, Norcal Resilience Network, WOEIP
	Task 2.2: Fund the participation and leadership of CBOs and frontline communities in adaptation planning.	••		••	••		L							••	••			L	L	•				••				BARC, Norcal Resilience Network, WOEIP
INFORMATION	Task 3.1: Tell local and regional stories about people and places adapting to climate change.	•		•	••	•	L							••	••					••				••		L		BARC Media*
	Task 3.2: Weave climate literacy into school programs.	•								•				••										••	•		••	TBD
	Task 4.1: Align research and monitoring with information gaps.	••	L		••			•	••		••		••	•	L	L	••			••	•	•	•		••			RWQCB, BayCAN, SFEI
	Task 4.2: Make scientific data, information, and guidance easier to access and use.	L	••	L	••	••			••		••		••	•	L	L	••				•	•	•		•			BCDC, MTC/ABAG, BayCAN, SFEI
	Task 4.3: Increase access to technical consultants for local adaptation partners.			L	L	••								•	••	••	••			•								MTC/ABAG, SFEP
PLANS	Task 5.1: Provide incentives for robust, coordinated adaptation plans.	••		L		••	•								••	••	•											MTC/ABAG
	Task 5.2: Align state-mandated planning processes around adaptation.	•		••						•				••	••													TBD
	Task 6.1: Expand understanding of the financial costs and revenues associated with regional adaptation.	L	••	L			••							•			•								•			BCDC, MTC/ABAG
	Task 6.2: Establish a framework for funding plans and projects.	L		L	•	••	•	•				•		•						•	•	•	•					MTC/ABAG
	Task 6.3: Help cities and counties expand ways to fund adaptation planning and projects.	•		L	•	••	•	••						•	••													MTC/ABAG
PROJECTS	Task 7.1: Accelerate permitting for equitable, multi-benefit projects	L	L		L	••			•			••		•			•			•	•	•	•					BCDC, RWQCB, SFEP
	Task 7.2: Assess environmental regulations and policies that slow progress on projects.	L	L		L	••			•			••		•						•	•	•	•					BCDC, RWQCB, SFEP
	Task 8.1: Incentivize projects that meet regional guidelines.	•	•	L	••	••		••				••	••				•	••		•								MTC/ABAG
	Task 8.2: Encourage collaboration among people doing projecs in the same places.	••	••	••	••	L	••	•	•					••	••	L	•			••					•			SCC, SFEI
	Task 8.3: Facilitate faster construction of nature-based projects.	••	•		L	••		•	•			•		•		••	•			•	•	•	•					SFEP
PROGRESS	Task 9.1: Measure regional progress using metrics and share results.	L		••	L		••							•		L				•	•	•	•		•			BCDC, SFEP, SFEI
	Task 9.2: Monitor and learn from pilot projects.	••	L	•	••	••			•		•	•		•			•			•	•	•			••			RWQCB
	*Tasks Assigned as **Lead***	**7**	**4**	**7**	**5**	1	3	0	0	0	0	0	0	**1**	**3**	**4**	0	2	2	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	
	*Tasks Assigned to **Participate***	8	3	7	10	11	4	3	2	0	3	3	0	**7**	8	5	1	0	0	**3**	**1**	**1**	**1**	**4**	**3**	**0**	**2**	
	*Tasks Assigned to **Advise***	5	3	2	2	2	4	4	6	1	1	3	0	**11**	1	0	4	0	0	**10**	**10**	**9**	**8**	**0**	**5**	**0**	**0**	

Key

L Lead

•• Participate

• Advise

*May include KneeDeepTimes, KQED, and Joint Venture/SFEP Bay Area Regional Communications Team

Acronyms

BCDC
Bay Conservation and Development Commission

RWQCB
Regional Water Quality Control Board

MTC/ABAG
Metropolitan Transportation Commission Association of Bay Area Governments

SFEP
San Francisco Estuary Partnership

SCC
State Coastal Conservancy

BARC
Bay Area Regional Collaborative

Caltrans
California Department of Transportation

DSC
Delta Stewardship Council

NOAA
National Oceanic and Atmospheric Association

USACE
US Army Corp of Engineers

Local Jurisdictions
City and County Government

BayCAN
Bay Area Climate Action Networkl

SFEI
San Francisco Estuary Institute

CHARG
Coastal Hazards Adaptation Resilience Group

Norcal RN
NorCal Resilience Network

WOEIP
West Oakland Environmental Indicators Project

CBOs
Community Based Organizations

EJ Advo
Environmental Justice Advocacy Organizations

Enviro Orgs
Environmental Organizations

Business
Businesses, Associations, and Civic Advocacy

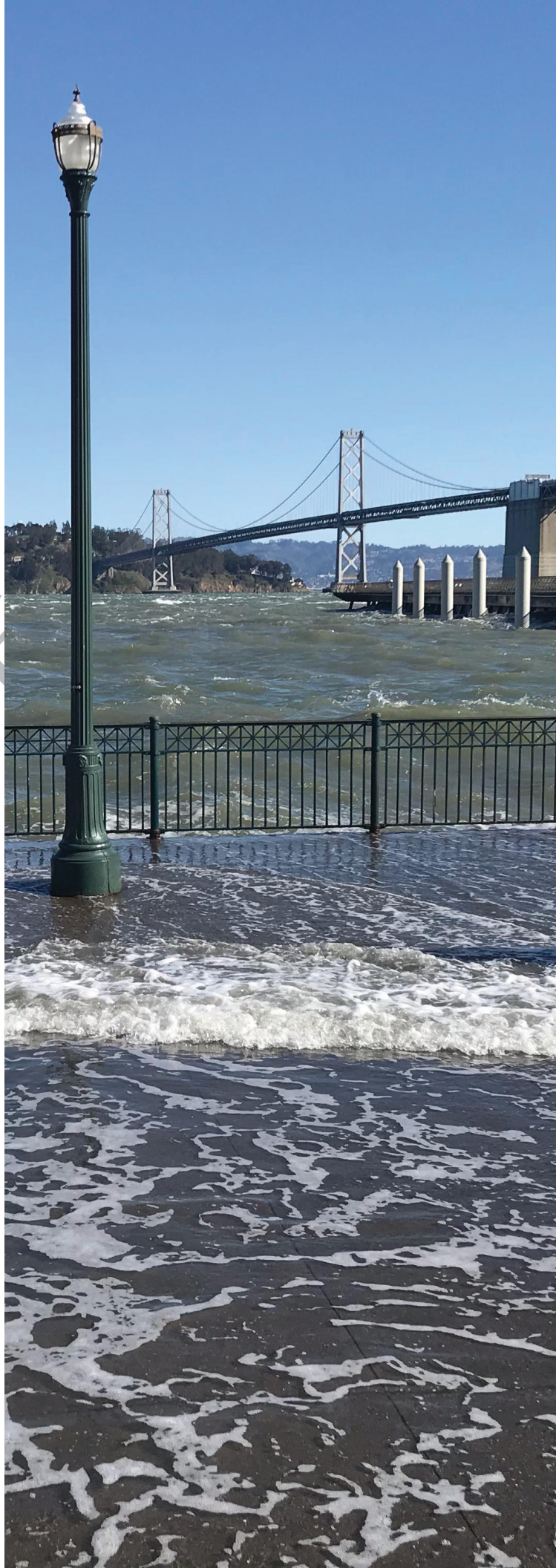
Pri Phil
Private Philanthopy

Academia
Universities or research

Implementation Brief

During the development of the Joint Platform, many ideas for how the tasks may be implemented were suggested. The tasks in the Joint Platform are intended to be written to be adaptable depending on the skills, capacities, interests, and synergies by the Lead, who were not yet identified when each task was developed. This allows for full ownership of the task by the Lead within a consensus-based framework, with additional collaboration and accountability in implementation provided by Partners, Advisors, Working Groups, LAG, and other oversight structures as identified.

The following Implementation Briefs contain the ideas identified by the Joint Platform Working Groups and Subcommittees as well as public comment, and provide additional resources and examples beyond those featured in the Joint Platform. The intention is that the Lead for each task will review these Briefs to ensure they are not starting from scratch when developing the Work Plan for their task. While there is not currently consensus around all of the ideas in the Implementation Briefs, the Lead should work with their Partners, Advisors, and Working Group to gain consensus around the plan for implementation.



Flooding at the San Francisco Embarcadero during King Tides in January 2020. King Tides are extreme high tides that show us what future sea level rise will look like. Photo courtesy of California King Tides Project.

ACTION 1: Collaborate on a "One Bay" vision to adapt to rising sea levels.

TASK 1.1: Create a long-term regional vision rooted in communities, bay habitats, and the economy.

SUMMARY

Engage communities and stakeholders in envisioning a resilient future shoreline, relying on grassroots input from start to finish. The vision must be built on a deep understanding of local needs to reflect their unique social, cultural, economic, and physical needs and be integrated with regional environmental, housing, transportation, economic and other priorities. Deliverables from this task will be utilized throughout many other tasks included in the Joint Platform and should include:

- Regional and sub-regional objectives, tied to measurable metrics.
- Guidelines, evaluation methodologies, and technical modeling capacities for evaluating local plans and projects.
- An assessment of the suitability of locations around the Bay for different project types and timelines.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Community, Equity and Planning Working Group

IMPLEMENTATION IDEAS

Building off Existing Conditions and Plans

The vision should use Bay Adapt's guiding principles to explore what adaptation looks like at ground level, and around the Bay, beginning in the most at-risk frontline communities, as these were developed and vetted by a wide group of stakeholders and are the first in the region specifically developed to be responsive to sea level rise. The vision must also be built on a deep understanding of communities' unique needs to reflect their unique social, cultural, economic, and physical needs and be integrated with regional environmental, housing, transportation, economic and other priorities, including visions already established for these sectors, such as in Plan Bay Area 2050 or the Baylands Ecosystem Habitat Goals.

Transparent Process

The visioning process should be built to be transparent and comprehensive, include expansive and deep multi-sectoral engagement, and consider existing regional plans so they are not in conflict but instead work together, if possible.

Vision

A regional vision could address the kinds of things we know the region cares about that will be impacted by sea level rise, including:

- Deciding on a risk-based framework for future sea level rise scenarios.
- Consideration of how sea level rise links to, impacts, and is impacted by other regional goals, including Plan Bay Area, the Baylands Goals, Estuary Blueprint, as well as State Adaptation plans, principles, and priorities.
- A thriving Bay ecosystem.
- Coastal protection, including sub-regional approaches.
- Wetlands and natural resources protection strategies
- Regional infrastructure priorities (water, transportation, utilities, etc).
- Focusing protection on high-risk frontline communities.
- Integration across regional planning topics, such as transportation, housing, economy, and other climate change areas.

Objectives Tied to Metrics

Metrics may be administrative (i.e., number of cities with adaptation plans) or quantitative (acres or miles protected to a certain water level). Metrics should be reasonably specific, measurable, achievable, replicable, understandable, and explicitly tied to outcomes outlined in the vision and objectives.

Guidelines, Evaluation Methodologies, and Technical Modeling Capacities

Guidelines for adaptation planning may provide (see also Task 5.1):

- Common minimum short and long-term sea level rise climate projections for planning.
- Standard flood data sets.
- Best practices for community engagement and community-led adaptation planning processes.
- Regionally-appropriate strategies for protecting natural areas, frontline communities, public access, regional transportation links, and other critical regional assets.
- Guidance on how to and where to prioritize nature-based solutions along the shoreline where feasible and appropriate.
- Land use guidance, such as how to plan for habitat migration with sea level rise.
- Guidance on how to consider long-term implications of sea level rise beyond current planning horizons.
- Guidance on how to connect sea level rise planning to other critical topics, including public and environmental health and housing considerations.

Guidelines for projects may include (see also Task 8.1):

- Inclusion of robust and meaningful community engagement in the project planning process.
- Evaluation of the degree to which a project protects the health of the bay and local ecosystems, and considers space for habitat migration.
- Evaluation of project impacts on natural areas, frontline communities, and other consequences to neighbors or the region, such as exacerbating flooding or wave erosion.
- Use of an equitable cost-benefit analysis that values frontline communities and other non-monetary benefits.
- Adaptive project plans that consider flooding above and beyond the design level or flooding that occurs more rapidly than planned.

Assessment of Suitability of Locations for Different Project Types and Timelines

This should build off existing analysis such as the Adaptation Atlas, ART Bay Area, and Plan Bay Area 2050 to establish which projects, where, should be prioritized across the region. This can be used in conjunction with the above guidelines to incentivize the right kinds of actions in the right locations.

EXAMPLES AND RESOURCES

- Plan Bay Area 2050 Vision
- Baylands Habitat Ecosystem Goals

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- A unified approach is needed. Please be mindful that actions in the Bay impact the Pacific coast - don't create a problem elsewhere.
- We support the regional approach to addressing sea level rise. However, we also recognize that there are some communities and sites around the Bay that must be assessed individually, given their particular vulnerability to sea level and groundwater rise, as well as the existence of contaminated soils on the shoreline. Two such examples are the Hunter's Point Naval Shipyard in Bayview Hunters Point and the Zeneca/Campus Bay site in Richmond.
- The Platform explains in Task 1.1 the intention to "Engage communities and stakeholders in envisioning a resilient future shoreline, relying on grassroots input from start to finish" (Page 19). We support engaging communities in the planning process. However, more than input, we advocate for adaptation plans to be led by frontline vulnerable communities, who will prioritize their needs and visions over those of other stakeholders. After all, these communities will be most impacted.

RELEVANT PUBLIC COMMENTS (cont.)

- Missing or not fully addressed in the Plan: An engagement strategy to include the participation of private landowners on the shoreline, businesses and the tech community in adaptation efforts. Companies like Facebook and Google have waterfront properties in the Bay and are investing billions in new coastal developments in areas that will be affected by sea level rise, and they know of the flood risks. Local governments alone can't afford the hundreds of millions of dollars that massive levee projects cost, and these projects will protect those private waterfront properties as well. There is a need to include the private sector in the mix when planning how to finance the improvement of existing levees and flood protection systems to mitigate the flooding. Another strategy will be to encourage them to include nature-based solutions in their development plans and support restoration efforts around the Bay.
- Missing or not fully addressed in the Plan: All Actions and Tasks: For the whole effort – there is a need for prioritization processes that give higher priority to communities with Environmental Justice / water and land pollution challenges and chronic underinvestment in infrastructure and which meaningfully involves the affected communities in the process so the results benefit those communities.
- Create opportunities for diverse stakeholders to learn about each other and have conversations.

TASK 1.2: Lay the foundation for a proactive regional legislative agenda.

SUMMARY

Build a unified advocacy voice for Bay Area adaptation needs. In the short term (next two years), pilot a legislative working group to work toward consensus on regional priorities and shared criteria for future legislation while taking advantage of opportunities within current state and federal legislative sessions. Foster relationships with state and federal legislators. Build support for the nine-county Bay Area as the focus for new regional climate adaptation programs. In the mid-term (2-4 years), build support for multi-year sources of funding for a wide range of adaptation activities, such as a regional ballot measure. Identify and collectively advocate for additional regional priorities that would require legislation, such as regulatory changes, planning guidance, new fiscal authorities, and funding support. In the long term (5+ years), coordinate, update and communicate legislative needs on a biennial basis, such as through an annual legislative agenda.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Climate Adaptation Legislation Working Group

IMPLEMENTATION IDEAS

Achieving a coordinated legislative voice requires establishment of agreed-upon short and long-term priorities for the region. Many of the actions in the Joint Platform may require some sort of legislative action that would need to be initiated by the Bay Area. Additionally, legislators are increasingly introducing legislation around sea level rise adaptation that would impact the Bay Area and its key players that the region should influence and take a position on. Using the Legislative Working Group as a forum, the region should discuss, debate, and establish an ongoing legislative platform that is both proactive and nimble that helps reach the region's adaptation goals. The platform could achieve the following goals:

Short-term (now - 2 years):

- Achieve consensus on, and establish regional priorities and evaluation criteria, for the current legislative session.
- Educate legislators about the goals and priorities of the region and why the Legislative Working Group was formed. Prime them for upcoming proposals by letting them know we will be coming to them with a plan that we would like them to enact via legislation.
- Build support for establishing the 9-county geography as the basis for new regional climate adaptation programs established by legislation.
- Respond to individual legislation introduced in 2021 based on established principles and criteria.

Mid-term (2-4 years):

- Identify and build support for a multi-year source of funding dedicated to local and regional collaborative planning.
- Advance a regional ballot measure to generate funding for flood protection projects, like Measure AA.
- Identify additional regional actions that would require legislation; for example, permitting changes or the establishment of a fiscal agent.
- Work directly with legislators to shape, introduce, and support specific legislation that responds to these needs.

Long-term (5+ years):

- Continue to review legislative progress and update legislative needs on a bi-annual basis.

EXAMPLES AND RESOURCES

- MTC/ABAG Joint Legislative Committee
- Bay Area Caucus
- BARC Recommendations for a Legislative Approach for Climate Adaptation and Resiliency
- Preparing for Rising Seas: How the State Can Help Support Local Coastal Adaptation Efforts

ACTION 2: Elevate Communities to Lead

TASK 2.1: Improve how communities and public agencies learn from each other and work together.

SUMMARY

Support a region-wide training program led by communities and geared towards government to shift values towards place-based expertise and build community capacity to influence government. Adopt and share best practices for equity-focused adaptation decision-making throughout the region. Ensure that best practices nurture meaningful relationships, center community concerns and priorities, and make community and social benefits clearer.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Community, Equity and Planning Working Group

IMPLEMENTATION IDEAS

EJ and Equity Consortium

Found, or build upon an existing, Consortium comprised of local and regional CBOs (especially those led by frontline community members) and local and regional agency stakeholders involved in climate planning and public services. The Consortium will carry out the tasks below but may revise, reprioritize, or define new tasks as the need arises through established group processes.

1. The Consortium should be grounded in an equity framework defined by a partnering agreement.
2. The Consortium will develop standards for equity-focused decision-making and encourage their adoption across the region.
3. The Consortium will work to establish, or adopt a meaningful framework for community-driven, equitable climate adaptation planning.
4. The Consortium will establish a core network of CBO leads to provide climate adaptation trainings for grassroots organizers and residents. Once residents are well-versed in adaptation planning, they will conduct community outreach to educate the general public on how to get involved.
    a. Once they've completed trainings, residents will assume paid permanent positions to conduct outreach and provide climate adaptation education in their local communities.
    b. Residents will design and implement climate adaptation projects.
5. The Consortium should recruit agencies outside the Bay Adapt process (for example the Department of Toxic Substances Control and Bay Area Air Quality Management District), and seek out to partner with frontline community leaders at local and regional levels, including existing networks that remain obscure due to limited visibility and a history of disenfranchisement.
6. The Consortium will support efforts defined in Action 2.2 to establish stable an ongoing funding stream to compensate community leaders and equity experts for their consulting services on various adaptation projects and plans, as well as supporting with outreach tasks.
7. The Consortium will adopt, adjust, or develop guidance on best practices as needed for funding frontline community-centered planning at local as well as regional scales (for example, how to consistently center community needs in planning across scales, how to select the most appropriate agency and CBO partners for local vs. regional planning efforts, etc.)
8. The Consortium will adopt or adjust existing, or develop new guidelines as needed to identify frontline communities of concern at local and regional scales.

9. The Consortium should advocate for regional and state mandates that prioritize the needs of frontline communities (politically and fiscally) in adaptation planning efforts.

The Consortium should adopt, adapt, or develop a set of metrics and guidelines that can be used to establish a vision for equitable adaptation outcomes and track community benefits from agency EJ and equity efforts at local and regional scales.

Best Practices

Identify, standardize, and adopt best practices for equity-focused decision-making about sea level rise adaptation throughout the region, especially with traditional planners and decision-makers such as government staff. These practices may already exist, or they may need to be developed or adapted, in partnership with Bay Area frontline communities, specific to the region, or to adaptation.

Many of these practices should be geared towards helping improve practices for helping government staff work with and alongside communities to develop shared adaptation outcomes. This includes general knowledge of environmental justice, cultural sensitivity, and the history of social inequities and how to identify which communities are most at risk (ie, how to define and measure "disadvantaged," "vulnerable," or "frontline"). They should focus on how to develop meaningful relationships with community partners that are essential for building two-way dialogue, culturally appropriate communication, and shared learning between government and communities and find planning and project partners. They should outline how to consistently center the community's concerns, priorities, values, and goals across all phases of planning and how to fund this, and lastly should support improved ways to articulate the value of community and social benefits that go above and beyond traditional cost-benefit analysis, and what good community benefit agreements look like for regulatory agencies and project developers.

Two-Way Training

Establish training programs (or adopt or adjust existing programs) that provide co-learning opportunities designed to elevate cultural sensitivity, place-based knowledge, and technical expertise of partners in both government and CBOs. A region-wide planning and training framework will be established to shift agency culture towards one which values place-based expertise held by communities. Topics may include:

1. How to talk with communities and elected officials about climate change risks in language they recognize as their own.
2. How to improve outreach efforts based on where community members congregate, and how to meet with them "where they are at," at times that are compatible with work and childcare schedules.
3. Leverage existing efforts to recognize income disparities across the Bay Area in relation to the state, and adopt or adjust existing, or develop new assessments of communities that recognize their inherent value, thus going beyond traditional cost-benefit analyses.
4. How to utilize proven environmental justice best practices such as partnering agreements, fee-based consulting roles for CBOs, and other structural and financial supports to ensure long-term success.
5. Agencies with enforcement authority, that are members of the committee, will be encouraged to develop community benefits agreements where appropriate based on these guidelines.

Success Metrics

Ideally, best practices for community engagement can be measured by a set of meaningful co-developed metrics or outcomes that they lead to. This ensures accountability and tracks success and means that compliance can be monitored on an ongoing basis.

EXAMPLES AND RESOURCES

- Oakland 2030 Equitable Climate Adaptation Plan, City of Oakland
- Best Practices for Engaging Communities , BARHII
- Community Based Organization Directory Map, BCDC
- Equitable Adaptation Resource Guide, BayCAN
- Resilient South City Community-based Design Proposal, HASSELL+
- Collaborative Design Toolkit, Resilient by Design
- Partnering Agreement, WOEIP

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- We agree with all the goals and tasks identified, but want to ensure that environmental groups will have a voice in the ongoing Bay Adapt process as well. The Joint Platform identifies three different groups – Community Based Organizations, Environmental Organizations and Advocates in the tables on pages 40-41. Is there a clear-cut distinction between these groups? If so, environmental groups are not mentioned in the text of the Joint Platform at all and only mentioned once under Task 1.1 of the tables. Environmental advocacy groups should be provided an opportunity to participate in the possible working groups as our members have intimate knowledge of the lands along the edges of the Bay and have participated in the development of the original Goals Project, the Bay Ecosystem Habitat Goals Update (BEHGU) and the Tidal Marsh Ecosystem Recovery Plan (TMERP).
- Would be good to also encourage the creation new CBOs in areas that might be underrepresented.

TASK 2.2: Fund the participation and leadership of CBOs and frontline communities in adaptation planning.

SUMMARY

Establish a stable and ongoing funding program to support frontline communities and CBOs as full partners and leaders in adaptation planning. Use the funding to build and sustain community capacity to participate in decision-making. Support CBO operating expenses, staffing, stipends for community representatives in planning processes and meetings, and expenses associated with participation such as transportation, food, and childcare. Also fund the community training and capacity-building programs identified in Task 2.1, and CBO staff dedicated to community engagement.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Community, Equity and Planning Working Group

IMPLEMENTATION IDEAS

Use of Funds

The program should provide funding for CBO operating expenses, hiring of additional full or part-time CBO staffing, stipends for people participating in community engagement, and meeting necessities including transportation, food, and childcare services. It should also fund community-led training and planning programs for shoreline adaptation based in best practices identified in Action 1.1, capacity building opportunities for community members to assume leadership roles in shoreline adaptation planning (such as paying for trainings and education), and agency staff time devoted to community relations and engagement. Frontline communities and CBOs should be prioritized for this funding, especially those led by people of color.

Management of Funds

The funding management structure will be developed through participatory budgeting methods to empower communities to decide how public funds should be spent, and funding agreements will be defined through partnering agreements to ensure community experts are viewed and compensated equally to agency partners.

Develop infrastructure for CBO contracting, such as fee-based consulting services provided by government or industry partners. Increase CBO fundraising capacity by supporting collaborative grant-writing, developing partnerships with funding agencies, and other fundraising opportunities.

Follow and refine best practices and tools for recruitment, hiring, contracting and other non-grant based economic opportunities for diverse and frontline communities.

Sources of Funds

Funding may come from many sources, but could come from state budget or bond allocations, legislation, grants, development fees, or regional funding measures. For example, resilience-focused policies and programs could dedicate at least 35-50% of funds for equity-focused soft costs such as those outlined here, or development impact fees could be leveraged.

CBOs should have access to long-term sustained funding sources that incentive meaningful community capacity building and are not limited to short-lived, sporadic funding tied to a specific project. Long-term funding for communities and CBOs should be viewed as a holistic approach to improving equitable outcomes across all government processes. The Greenlining Institute has laid out two central tenets within all programs that direct benefits to frontline communities that the benefits accrued are:

> "Direct — the benefits must directly reach the community, and not in the form of trickle-down benefits that may reach communities long after the policy has been implemented. And meaningful –– the benefits must be relevant and useful for the community and should be informed by community-identified needs."

Task 2.2

Any policy or grant program should be designed to achieve both goals to ensure that the impacted communities receive the strongest tangible benefits.

Provide feedback to public grant programs on how to ensure funding opportunities are more inclusive, user-friendly and accessible to all.

EXAMPLES AND RESOURCES

- Oakland 2030 Equitable Climate Adaptation Plan, Oakland Climate Action Network (pg. 113), City of Oakland
- Funding Racial Equity to Win , PolicyLink
- Guide to Equitable Community Driven Climate Preparedness Planning, USDN
- Making Equity Real in Climate Adaptation and Community Resilience Policies and Programs: A Guidebook, August 2019
- BayCAN Equitable Adaptation Resource Guide

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- Missing or not fully addressed in the Plan: Elevate communities to lead what and how? Adequate funding in Task 2.2 will be essential. How will increased funding and improved communication change the process and outcomes for low income, socially vulnerable communities and communities of color?
- In Action 2 (or another action) should prioritize addressing the potential interaction of flooding with hazardous waste sites and chemical storage in low lying communities.
- We support the need to fund CBOs and frontline communities to participate in the adaptation planning. In addition, we should also help build capacity for individuals and organizations from frontline communities to develop technical expertise and contribute to the process through data collection, monitoring, analysis, design, etc. Such efforts would support career advancement/ training and wealth building in underserved communities and encourage the creation of local small businesses to meet these needs.

ACTION 3: Broaden Public Understanding of Climate Change Impacts

TASK 3.1: Tell local and regional stories about people and places adapting to climate change.

SUMMARY

Launch a sustained storytelling campaign to amplify awareness of climate change and sea level rise impacts in the Bay Area. Listen and learn from residents' direct experiences and empower them to advance their own solutions for climate adaptation. Encourage youth, neighborhoods, and frontline communities to shape and share their own stories. Base stories on local successes and hopeful narratives about what makes the Bay Area special, including the region's unique natural ecosystem and culture of activism. Share stories widely, and make them available on diverse platforms – newspapers, radio, television, social media, neighborhood news apps, and the web. Use these stories to train local government staff about the communities they serve and increase trust between communities and local staff (coordinated with the trainings outlined in Task 2.1).

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Science, Environment & Education Working Group

IMPLEMENTATION IDEAS

Messaging

To date, education campaigns use too much specialized language, don't root the message in terms of issues that affect quality of life for local residents, and don't do a good job of framing short-term drawbacks like increased noise and traffic against long-term project benefits. Avoid common pitfalls of climate change education that puts data at the center of the discussion and instead use recognizable and understandable language that relates to issues that people care about now and is linked to a long-term climate-resilient vision for the region. Explore and utilize creative ways to engage people, including strong visual components and games. The story should relate to issues that people care about now and link to the region's guiding principles and adaptation goals.

Media

Use strong visual communications tools and disseminate widely via traditional media such as newspapers, radio, and television, as well as social media. Utilize, adapt, or develop regional portals or clearinghouses to ensure that stories, data, and information contributed by communities are clearly communicated to local and regional decision-makers and enabling residents to tell their own stories and facilitating "listening sessions" and two-way conversations with local and regional decision-makers.

Local Stories

Create and make available resources in multiple languages that enable local communities to launch their own local storytelling initiatives. While it is important that we have a regional perspective, it will also be essential for communities to explore their local histories and stories and build their own narratives about how they fit into the regional story and future we are building together. These stories can be used in conjunction with Action 1.1 to train government staff about the communities they serve and increase trust between communities and local staff.

EXAMPLES AND RESOURCES

- I Am Islais, Part of Islais Creek Adaptation Strategy
- Tahoe's Climate Future, The Tahoe Conservancy
- Center for Story Based Strategy
- KQED coverage of East Palo Alto

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- We support the plan to "Tell local and regional stories about people and places adapting to climate change" and "Weave climate literacy into school programs." (Page 23). However, we need communities to not only share their "stories on local successes and hopeful narratives" (Page 23), as the plan suggests, but we need communities to share their stories of concern, risk, needs, and loss in order to center these narratives and base future adaptation planning on mitigating these challenges.
- Every level of inclusive information from casual observer to graduate level will be useful.
- Under the description of the benefits of the Action, the Joint Platform states, "Raises awareness of the health and future of the Bay and its resources..." We do not see this necessary component incorporated into the task descriptions. As news stories pour in from across the country, people are beginning to grasp that climate change will impact where we live and how we conduct our daily lives. And in the Bay Area residents have demonstrated a willingness to tax ourselves to support restoration of the Bay's habitats as demonstrated by the passage of the Restoration Authority.

TASK 3.2: Weave climate literacy into school programs.

SUMMARY

Support partnerships between the formal education system and community-based organizations (especially those led by youth and frontline community members). Schools need support and outreach to get more involved as partners in educating the community on climate change and leaders in elevating the importance of climate action. CBOs, environmental groups, universities/academics, and government partners can provide climate literacy content and climate readiness expertise to support school administrators and teachers to become climate leaders in school communities.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Science, Environment & Education Working Group

IMPLEMENTATION IDEAS

Key Partners

Schools need support and outreach to get more involved as partners in educating the community on climate change, and leaders in elevating the importance of climate action. CBOs, environmental groups, and government partners can provide climate literacy content and climate readiness facilities expertise to support school administrators and teachers to become climate leaders in school communities. Public schools, county education departments, alternative educational institutions and job training programs that support frontline communities should be priority partners.

Staff liaisons should be identified at each agency to attend quarterly meetings where they can provide latest findings on climate data and discuss ways that interested public schools and CBOs can incorporate these updates into their climate curricula, and facilities master plans.

Members of the practitioner community should also be encouraged to attend quarterly meetings and share data from pilot projects and ongoing project monitoring that could be leveraged in curricula development, and facilities decision making.

Climate Careers

The Working Group, CBOs, environmental groups, and government partners can also identify climate-related career pipeline opportunities and support the development of new curriculums relevant to these careers where adequate content does not exist. This effort will be based in diversity and inclusivity, to ensure the future workforce can address climate problems head-on with equitable and innovative solutions.

EXAMPLES AND RESOURCES

- Mycelium Youth Network Water Is Life Program
- San Mateo County Environmental Literacy Program

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- This would need to go to the school board level, but I'd like such climate adaptation programs to be included early on in people's science classes, rather than being an optional after-school event. Also would be nice to partner with local businesses working on climate adaptation, to provide people an understanding of what jobs are available locally.
- Efforts to weave climate literacy into school programs should also work to inspire youth to pursue STEM careers and contribute to the solutions and help bring diverse voices to the field.

RELEVANT PUBLIC COMMENTS (cont.)

- But in order to sustain public support of funding for restoration projects and natural and nature-based solutions, we must continue to educate current and future generations about our collective responsibility of providing stewardship for the Bay. We must continue to educate decision-makers and the public about the importance of protecting ecosystems essential to the health of the Bay - ecosystems that provide benefits not only for wildlife, but also for Bay Area residents. Recently the Sierra Club 3-Chapter Committee on Sea Level Rise hosted a 3-part webinar series designed for decision-makers and the session with the highest attendance was the session that provided an introduction to tidal wetlands, the services provided by tidal wetlands, the threats posed by sea level rise and an introduction to natural and nature-based solutions. Programs such as the Mycelium Youth Network could provide a model for the development of K-12 programs that are more specific to the impacts of climate change on the Bay's ecosystems, why that is of concern for Bay Area residents and beyond, and how we are planning for the future.

ACTION 4: Base plans and projects on the best science, data, and knowledge.

TASK 4.1: Align research and monitoring with information gaps.

SUMMARY

Partner with academics, scientists, and residents to fill information gaps through original research, data collection, analysis, and monitoring. Value local knowledge from residents, particularly in frontline communities, and use it to inform research needs and priorities. Prioritize co-production of data and tools with communities through community-based asset mapping and storytelling or participatory science to form a more complete data picture. Tailor the interpretation of science to the audience. Curate and archive information for use across decades.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Science, Environment & Education Working Group

IMPLEMENTATION IDEAS

Data Gaps

- Enhancing regional flood modeling to fill gaps related to multiple hazards (e.g. groundwater, watershed, riverine/tidal, subsidence, erosion) and regularly updating models to reflect changing shoreline conditions.
- Expanding network of water elevation monitoring stations, possibly leveraging efforts such as National Ocean Service or Wetland Regional Monitoring Program, to provide regularly updated data about factors influencing the rate and timing of sea level rise in the Bay.
- Connecting to expanded green infrastructure and ecosystem monitoring and learning, such as the San Francisco Bay National Estuarine Research Reserve (see Action 9.2).
- Strengthening and expanding open data initiatives among regional agencies, local governments, and community-based organizations to facilitate data sharing through technical capacity building, online portals, best practices, and financial incentives.
- Developing standard operating procedures for validating and nominating data for local and regional use.
- Expanding research on cost and suitability of adaptation strategies for different Bay conditions.

Partnerships

In many cases, such as those above, academics or scientists will be the primary research partner. However, partnering with residents, particularly in disadvantaged communities, and learning from local knowledge can be critical to ensuring a more complete data picture, establishing the right research priorities, co-developing the right data and tools, and tailoring the interpretation of science to the audience. Two key steps to expanding this type of partnership include:

- Developing or adopting protocols or tools for collecting, standardizing, analyzing, and distributing community-led data. This involves including community members in data collection through community-based asset mapping and storytelling, engaging the community in monitoring, prioritizing data important to the community but not previously valued by cities (such as cultural or personal histories), and making data much more accessible to the community.
- Coordinating and funding new or existing participatory science platforms that enable collection, integration, and analysis of community data.

EXAMPLES AND RESOURCES (see also examples for Task 4.2)

- Ocean Science Trust
- Regional Monitoring Program (RMP) for Water Quality in SF Bay
- Wetlands Regional Monitoring Program
- Delta Science Program, Delta Stewardship Council
- San Francisco Bay National Estuarine Research Reserve
- Streetwyze
- Collaborative Adaptation Research Initiative in South Africa

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- Suggest to emphasize the hydraulic connectivity of SLR adaptation projects and need for regional coordination to avoid unintended consequences.
- This effort should support statewide climate science efforts like ARkStorm 2.0.
- Missing or not fully addressed in the Plan: Add ground-truthing – communities know where water goes and should be part of assuring data is valid and supporting Task 4.1.

TASK 4.2: Make scientific data, information, and guidance easier to use.

SUMMARY

Help users understand where, when, and how to use climate science and planning tools. Provide technical information to everyone involved to facilitate all stages of their adaptation journey. Improve and ease access to the most relevant information, helping users achieve equitable adaptation outcomes faster and more efficiently. Establish or support an independent Climate Science Consortium to provide high-quality science tailored to the Bay Area's needs. Share data, information, and guidance though a web-based "storefront" as well as via lecture series, conferences, trainings, working groups, and/or workshops.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Science, Environment & Education Working Group

IMPLEMENTATION IDEAS

Climate Science Consortium Structure

1. The Consortium's service area should comprise the nine county Bay Area region. It should reach as needed beyond those borders to forge partnerships in other regions that will aid in Bay Area adaptation.
2. The Consortium will establish a governing structure with a steering committee composed of leadership staff from a cross-section of involved organizations, including but not limited to local governments, community-based organizations, academic and scientific entities, and regional planning agencies. The steering committee will make decisions about strategic planning, funding, and research priorities and provide for close collaboration between science and decision making to formulate and implement a strategy that directly addresses the short- and long-term needs of decision makers.
3. The Consortium implementing entities and audience will include leading scientific and academic organizations, statewide, regional, and local entities, and community-based organizations (CBO)currently working on climate adaptation.
4. The Consortium will develop a funding program designed to support all activities undertaken by the Consortium. Approaches to funding should be diverse, including but not limited to federal and state grants, legislative appropriations, private foundation support, in-kind and other support from participating entities, and fee-for-service structures.
5. The Consortium will develop communication materials to highlight regional science and data needs for state legislatures, federal partners, and private sector to seek additional resources.

Research and Monitoring Functions

1. Enhance regional flood modeling to fill gaps related to multiple hazards (e.g. groundwater, watershed, riverine/tidal, subsidence, erosion) and regularly update to reflect changing shoreline conditions.
2. Expand network of water elevation monitoring stations, possibly leveraging efforts such as National Ocean Service or Wetland Regional Monitoring Program, to provide real time data about factors influencing the rate and timing of sea level rise in the Bay.
3. Strengthen and expand open data initiatives among regional agencies, local governments, and community-based organizations to facilitate data sharing through technical capacity building, online portals, best practices, and financial incentives.
4. Expand research on cost and suitability of adaptation strategies for different Bay conditions.
5. Develop standard operating procedures for validating and nominating data for local and regional use.

Integrating Community Science

1. Ensure that local perspectives, particularly disadvantaged communities, are central to decision

making about research priorities, data and tool development, and science interpretation. Work with community partners to engage local CBOs and communities on their needs and capacities.

2. Develop or adopt protocols or tools for collecting, standardizing, analyzing, and distributing community-led data. This involves including community members in data collection through community-based asset mapping and storytelling, using the community to collect data, prioritizing data points that are important to the community but not previously valued by cities (such as cultural or personal histories), and making data much more accessible to the community.
3. Help connect local communities to adaptation project opportunities to facilitate engagement at all stages of project design and implementation.
4. Coordinate and fund existing participatory science platforms that enable collection, integration, and analysis of community data.

Technical Services Functions

1. Technical staff from government, academia, NGOs, and communities meet on a regular basis to develop a technical assistance program that addresses the needs of decision-makers at multiple scales, coordinates across guidance documents, agencies, and other resources, identifies additional tools or resources needed, and develops forums for information-sharing, such as lecture series, conferences, or workshops.
2. Identify best available science, data, and tools for multiple scales of adaptation planning and implementation, identify data gaps, and the highest priority needs for future study.
3. Develop products (i.e. web applications, websites, infographics) that help communicate and make high priority science and data available in a clear, non-jargony manner with sufficient guidance to ensure that users know when, where, and how to use the information.
4. Provide capacity for adaptation practitioners to request individual consultation from a climate services professional network. This will take the form of a "Help Desk" – a live number that practitioners can call for assistance.
5. Expand existing databases to track the implementation of local adaptation projects and summarize region's performance for increasing adaptive capacity.

Technical Assistance Storefront

1. Host or facilitate a "Storefront" via contributions from many subject-matter experts that pull together the resources and information developed in this Action. This may require formal partnership agreements, dedicated staff time, and require significant additional resources to build an online, interactive web page.
2. The Storefront should be linked to, or may be a sub-part of, statewide guidance tools such as the Adaptation Clearinghouse, and include the ability of users to provide feedback on the usefulness of tools ("Yelp" feature) as well as forums for adding new tools by users, such as case studies.
3. The Storefront should be closely coordinated with the equity community to facilitate equity-focused resources and trainings, and the equity community should consult on the equity component of all resources funneled through the Storefront.

EXAMPLES AND RESOURCES

- Delta Science Program, Delta Stewardship Council
- New York City Panel on Climate Change
- Water Data Consortium
- Regional Integrated Sciences and Assessments (RISA) program (NOAA)
- EcoAdapt
- California Adaptation Clearinghouse
- Climate Adaptation Science Centers
- Science and Resilience Institute at Jamaica Bay
- Cal-Adapt
- Georgetown Climate Center Adaptation Clearinghouse
- Climate.gov
- National Climatic Data Center
- BCDC Adapting to Rising Tides Program
- BCDC Bay Shoreline Flood Explorer
- ABAG Housing Technical Assistance Program
- ABAG Local Hazard Mitigation Plan support

TASK 4.3: Make technical consultants easier to access for cities.

SUMMARY

Establish a region-wide consultant bench that cities, counties, and others can tap for technical services. Use regional planning and project guidelines (Task 1.1) to articulate common technical needs in region-wide RFPs for consultants to serve on the bench. Also use guidelines (Task 1.1) to evaluate proposals from potential consultants. Contract with consultants to be "on call" for cities and counties, as needed. Simplify and manage contracting processes. Vet consultant-led goods and services to ensure they align with the region's vision and objectives.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Science, Environment & Education Working Group

IMPLEMENTATION IDEAS

Tasks to Establish the Bench

- Identify the scopes of work for consultants that meet regional standards and goals, uses best practices as outlined in regional technical assistance, and aligns with local needs.
- Solicit for appropriate consultants.
- Contract with consultants.
- Hold consultants on an "on call" basis for cities and counties, as needed.
- When a local need is identified, the lead entity can assist with connecting the city or county with the appropriate consultant and enter a simplified contract with the locality to provide services.

Bench Benefits

This approach may also help to facilitate information and data sharing between projects and localities, which isn't often prioritized in one-off contracts. They can then assist with connecting a city or county who has a technical need with the appropriate consultant and enter a simplified contract with the locality to provide services. A standardized evaluation form for reporting a consultants performance would be developed, completed by the local government, and compiled to build up a base of reporting on the quality of consultants' work.

EXAMPLES

- Adapting To Rising Tides Help Desk
- MTC Housing Technical Assistance Consultant Bench

RELEVANT PUBLIC COMMENTS

The following comment was gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- Consultant procurement should prioritize those who are local and are owned by or employ staff from frontline communities.

ACTION 5: Align local and regional plans into a unified approach.

TASK 5.1: Provide incentives for robust, coordinated adaptation plans.

SUMMARY

Utilize collectively-developed plan guidelines and minimum requirements (Task 1.1), tied to financial incentives (Task 6.2), to develop strong local and community-driven adaptation plans that also contribute to regional goals. Guidance should be available through regional technical incentive programs (Task 4.2). Incentives should include funding to the develop plans.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Community, Equity and Planning Working Group

IMPLEMENTATION IDEAS

Potential Guideline Content

- Common minimum short and long-term sea level rise climate projections for planning.
- Standard flood data sets.
- Best practices for community engagement and community-led adaptation planning processes.
- Regionally-appropriate strategies for protecting natural areas, frontline communities, public access, regional transportation links, and other critical regional assets.
- Guidance on how to and where to prioritize nature-based solutions along the shoreline where feasible and appropriate.
- Land use guidance, such as how to plan for habitat migration with sea level rise.
- Guidance on how to consider long-term implications of sea level rise beyond current planning horizons.
- Guidance on how to connect sea level rise planning to other critical topics, including public and environmental health and housing considerations.

Other Models for Incentivized Planning

- **Priority Adaptation Areas:** the region identifies high priority adaptation areas (based on Adapting to Rising Tides Bay Area and local vulnerability assessments and confirmed by local communities) to designate Priority Adaptation Area (PPA)-eligible areas in the next iteration of Plan Bay Area. Cities and counties then propose individual PAAs within these pre-determined eligible areas. PPAs may overlap with existing or new Priority Development Areas (PDAs) or Priority Conservation Areas (PCAs). Cities and counties commit to developing PAA plans that outline how they will enact adaptation within these areas that conforms with the region's Consistency Framework (see Action 1: Establish a Regional Adaptation Vision and Consistency Framework) for adaptation. These cities and counties then become eligible for flexible funding that may be used for a variety of planning and implementation tasks associated with the PAA as well as technical assistance/implementation support from the region.
- **PDA Planning modification:** adapt the Priority Development Area plan requirements, which currently requires the creation of a specific plan to support future housing and job growth, to account for future sea level rise in PDAs. Criteria should be flexible, allowing communities to use the full suite of adaptation solutions (e.g. selective upzoning and downzoning, urban design and land use, or flood-proof building codes), and consider tradeoffs with

other regional goals, such as housing and affordability, greenhouse gas reduction, other natural hazards, and access to jobs. Adaptation planning should be included as an allowable use of PDA planning funds for new PDA plans or the revision of already developed plans.

- **Regional Transportation Plan model:** cities and counties submit adaptation plans that meet regional criteria for evaluation against the Consistency Framework. Plans that conform highly to the regional criteria are "first in line" for pre-project planning and implementation funding for the projects they propose.
- **Mandated Local Plans:** enact state legislation that requires shoreline cities to prepare and submit citywide (not project-by-project) sea level rise adaptation plans to BCDC (or another agency). Lead agency would support development of plans, determine accuracy of cost of implementing plans, assess feasibility of paying these costs, and provide guidance and direction to local governments.
- **LHMP model:** Provide grants, or direct existing grants, and evaluation criteria to cities to establish new adaptation plans, focusing on cities that do not yet have them and/or high priority cities. Set specific goals, as a region, for the development of plans (i.e. 20 in-depth plans over the next five years). Once cities have adopted adaptation plans, they become eligible for pots of implementation funding they had not previously been eligible for. Over time, shift funding towards plan updates (smaller planning grants), pre-project planning, and eventually project implementation and maintenance.

EXAMPLES AND RESOURCES

- One Bay Area Grant Program
- Priority Development Areas
- Local Coastal Program

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- Task 5.1 is described as "provide incentives for robust, coordinated local adaptation plans." This task would involve developing "plan guidelines and minimum requirements to develop strong local and community-driven adaptation plans that also contribute to regional goals." Draft JP at 28. The collaborative development of such guidelines and minimum requirements may be entirely appropriate. However, the Draft JP fails to acknowledge that state law currently requires local jurisdictions to revise their hazard mitigation plans to address climate adaptation and resiliency strategies based on consideration of, among other sources of information, the advice provided in the General Plan Guidelines issued by the Office of Planning and Research ("OPR"). Gov't Code section 65302(g)(4). From a review of OPR's website, it appears that the agency has not yet developed specific advice on this issue. Nevertheless, the Community, Equity and Planning Working Group should consider how any guidelines and requirements developed through the implementation of Task 5.1 will relate to, or may be duplicative of or inconsistent with, the advice or guidelines that presumably will ultimately be issued by OPR for revising hazard mitigation plans.
- We agree that cross-jurisdictional planning is desperately needed to address the "siloed scope of local plans that are often limited to jurisdictional boundaries" and a rewards system may simply be inadequate to ensure "long-term protection of Bay habitats..."

TASK 5.2: Align state-mandated planning processes around adaptation.

SUMMARY

Assess the state's myriad planning requirements (such as those for housing, local hazard mitigation, social equity, and climate action) through the lens of adaptation planning for conflicts, redundancies, and synergies. Jointly advocate for updated legislation to coordinate these requirements. Also create opportunities and incentives for cross-jurisdictional planning to improve the siloed scope of local plans that are often limited to jurisdictional boundaries.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Community, Equity and Planning Working Group

IMPLEMENTATION IDEAS

Process

Identify challenges and recommendations for plan alignment by conducting research on existing requirements to support improvement recommendations. This research includes identifying which specific state requirements are mandated for climate change, sea level rise, and interrelated topics, such as housing and transportation planning. Document what plans are most useful and what processes are most effective for local jurisdictions to create streamlined, robust, integrative adaptation planning outcomes.

Develop recommendations to the State on legislative changes for plan alignment and funding for collaborative comprehensive planning to support improved comprehensive planning and reduce overlapping, duplicative or conflicting requirements as they relate to sea level rise, housing, transportation, and equity.

Coordinate with and work through the Climate Adaptation Legislative Working Group outlined in Task 1.2 to provide recommendations to the State of California on improving comprehensive climate change adaptation plan alignment. Use this working group as a forum for strategic advocacy and coalition support for this legislation.

Potential Legislation Changes

Legislative changes for improved comprehensive planning, which may include changes to the following:

- SB 379 - Requires local jurisdictions to include climate adaptation and resiliency strategies in the safety elements of their general plans
- SB 1000 - Amends SB 379 to require cities and counties to include an Environmental Justice element in their General Plans
- SB 160 - Requires community engagement when updating emergency plans to ensure local disaster preparedness and response activities (i.e. alerts, communications, evacuations, and sheltering) are culturally competent and meet the diverse needs of all communities.
- SB 375 - Housing Element Update - The 6th cycle RHNA covers the housing element planning period of October 2021 through October 2029
- LHMP - not required, but necessary to receive FEMA grants (federal)
- Others as identified through a research process
- Potential new legislation or legislative updates that provide funding incentives for multi-jurisdictional, collaborative planning.

EXAMPLES AND RESOURCES

- Coastal Plan Alignment Compass
- Regional Resilience Toolkit
- California Adaptation Planning Guide

ACTION 6: Figure out how to fund adaptation.

TASK 6.1: Expand understanding of the financial costs and revenues associated with regional adaptation.

SUMMARY

Reduce unknowns and uncertainties related to the costs of adaptation. Start by expanding on the existing MTC/ABAG Sea Level Rise Needs and Revenue Assessment, which supports Plan Bay Area 2050 and also advocates for more state and federal funding. Build on and improve the assessment's calculations of what it may cost the region to adapt to sea level rise as well as the cost of inaction. As part of this calculation, consider both actual project costs and the costs of untested or new construction or restoration techniques, as well as the costs for pre-construction phases of action such as engagement, planning, and land acquisition. Also consider when those funds may be needed as sea levels rise. Develop a more in-depth understanding of possible revenue from related special assessments, taxes, and fees to pinpoint the potential financing gap.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Financing the Future Working Group

IMPLEMENTATION IDEAS

Establish region-wide estimates of costs and benefits

Identify and agree upon the total cost of projects that the region needs to support in order to achieve region-wide sea level rise adaptation goals (see Action 1: Collaborate on a One Bay vision for adapting to rising sea levels) and the timeframe over which the money needs to be acquired and distributed, as well as how these costs are distributed across local, regional, state, or federal scales. The fiscal planning timeframe may be made concurrent with Plan Bay Area's transportation fiscal timeframe (currently looking towards 2050, updated on a 4-yr timeline). Current estimates for total costs that may serve as a starting point include (but subject to change and do not have regional agreement):

- $19b by 2050 (MTC/ABAG)
- $40m for planning by 2024 (BARC)
- $40b/$147b average for raising existing structures 3.3ft/6.6ft (UC Berkeley)

Next, identify the benefits of funding adaptation projects, including avoided costs, disproportionate impacts to vulnerable communities, and other benefits of projects, such as ecosystem services, recreation, or other economic impacts such as to jobs or spending:

- $100b/$150b property damage from 6.6ft of SLR/+ 100-year storm (USGS HERA)
- $54b/$73b/$92b property damage from 1.6ft/3.3ft/4.6ft of SLR (Pacific Institute)

Linking with Plan Bay Area

The existing MTC/ABAG Needs and Revenue Assessment quantifies the regional cost for sea level rise adaptation for two feet of sea level rise. The structure can be further developed through a series of actions:

- As shoreline communities adopt local adaptation plans, MTC/ABAG staff can integrate the locally developed strategies in lieu of generic regional cost assumptions, helping improve cost estimates.
- The Needs and Revenue Assessment can grow to consider the timing of investment as well as adaptation strategies for higher sea levels.
- A more in-depth understanding of current revenue sources could be undertaken to understand types and tradeoffs, particularly with the assistance of MTC/ABAG's existing transportation financing expertise and BCDC's Financing the Future efforts.

- The assessment could integrate the newest science and standards into the funding and financing assumptions - for example, updating adaptation cost assumptions for a broader set of strategies. This information could also be a regional resource to inform local adaptation plan cost estimates.
- The assessment could better understand the costs of additional phases of action, including engagement, planning, land acquisition and others.

EXAMPLES AND RESOURCES

- Plan Bay Area "Adapt to Sea Level Rise" Cost Estimate
- BARC Planning Cost Estimate
- Dynamic Flood Modeling Essential to Assess the Coastal Impacts of Climate Change
- USGS HERA
- Choosing a Future Shoreline for the San Francisco Bay: Strategic Coastal Adaptation Insights from Cost Estimation
- The Impacts of Sea Level Rise on the San Francisco Bay

RELEVANT PUBLIC COMMENTS

The following comment was gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- Please clarify or consider revising the sentence, "Consider when funds may be needed as sea levels rise and impacts begin to occur." Aren't funds already needed to implement tidal wetlands restoration? And aren't sea level rise resilience projects already being implemented? And aren't sea level rise impacts already occurring?

TASK 6.2: Establish a framework for funding plans and projects.

SUMMARY

Develop and implement a method to aggregate, generate, and distribute adaptation funding for plans and projects. Use guidelines developed in Task 1.1 to direct funding for successful local planning (Task 5.1), and to evaluate and assign funding to proposed adaptation projects included in such plans (Task 8.1). Consider modeling the process on the MTC/ABAG Transportation Project Performance framework, in which partners nominate local projects for evaluation based on specific criteria and then prioritize them for funding. Actively advocate for adaptation funding (Task 1.2), and consider spearheading new regional taxes, fees, or other financing mechanisms to fund plans and projects.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Financing the Future Working Group

IMPLEMENTATION IDEAS

Develop a Revenue Generation and Distribution Plan

At a regional level, establish or designate a governance structure to develop and implement the Revenue Generation and Distribution Plan and allocate funding. It is likely that this entity would need to be created, identified, or given these authorities via state legislative action. This entity or structure should have the following qualities:

- Technical capabilities to evaluate SLR, planning, environmental, and financial issues
- Regional governance structure (i.e, has reach and representation throughout the 9-county Bay Area)
- Ability to receive, raise, and distribute regional funding

Develop a methodology for identifying and quantifying local, regional, state, and federal funding sources, comparing these to adaptation costs estimates identified previously, and identifying potential options for how funding gaps may be filled at each level. This could include identifying existing, or planning for new, regional funding sources or financing tools (both public and private) while incentivizing local sources from cities and counties. This will also serve as the basis to guide increased funding via state and federal legislative approach and budget allocations.

EXAMPLES AND RESOURCES

- San Francisco Bay Restoration Authority
- Regional Transportation Plan Investment Strategy
- MTC Regional Funding Measures
- Affordable Housing and Sustainable Communities (AHSC) program
- State Coastal Conservancy's Climate Ready Program
- Los Angeles Safe, Clean Water Program
- ABAG Finance Authority for Nonprofit Corporations

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- How will you assure that Corporations will do their part in proportion to the amount of resources they have? It seems that corporations are looking to underfunded government to do it all.
- This is important because unfortunately, it is very hard to make change without having the funds to do so. It would be great if an adaption fund could be created for all states to use for climate change mitigation and adaption. It is important to consider climate justice in the fund too, and maybe find a way to have extra fund for underprivileged areas/communities that are more vulnerable to climate change events.

TASK 6.3: Help cities and counties expand ways to fund adaptation planning and projects.

SUMMARY

Provide local governments with expertise and assistance to generate additional funds by identifying, evaluating, and applying local financing tools for local adaptation needs and to apply for other sources of climate action funds. Work with cities and counties to identify their needs and match the myriad of federal, state, regional, and local funding sources to local needs for planning, community engagement, and project implementation. Help local governments understand grant requirements and shape projects to fit them. Assist with project cost-benefit analysis, grant writing, and fulfilling reporting requirements. This assistance should be provided through regional technical assistance outlined in Task 4.2.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Financing the Future Working Group

IMPLEMENTATION IDEAS

The regional entity charged with organizing region-wide funding should also provide expertise and assistance to help cities and counties generate money locally. This could mean identifying, aggregating, and matching the myriad federal, state, regional, and local funding and financing sources to the needs of cities and counties for planning, community engagement, and project implementation; working with cities and counties to identify their needs; helping them understand grant requirements and shaping projects to fit; assisting with cost-benefit analysis for projects; assisting with writing grant proposals; and helping coordinate various reporting requirements.

Assistance should also include helping cities and counties identify, evaluate, and apply appropriate local financing tools which can provide sustainable, long-term local funding streams that are not dependent upon state or federal grant allocations.

EXAMPLES AND RESOURCES

- Finance Guide for Resilient by Design Bay Area Challenge Design Teams, NHA Advisors, 2018
- Paying for Climate Adaptation in California: A Primer for Practitioners, AECOM, 2018
- Climate Adaptation Finance and Investment in California, Routledge Focus, 2018
- Adaptation Finance Challenges: Characteristic Patterns Facing California Local Governments and Ways to Overcome Them, California Natural Resources Agency, 2018
- California Grants Portal
- Funding Wizard
- FEMA's Building Resilient Infrastructure and Communities

RELEVANT PUBLIC COMMENTS

The following comment was gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- Community-Based Insurance can be one piece of the finance puzzle. BCDC should consider implementing the recommendations from the State Insurance Commissioner's Climate Change Working Group.

ACTION 7: Refine and accelerate regulatory approvals processes

TASK 7.1: Accelerate permitting for equitable, multi-benefit projects.

SUMMARY

Dedicate a multi-agency group to work collaboratively on permits for adaptation projects that reflect regional guidelines and have been identified as regional priorities.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Regulatory Working Group

IMPLEMENTATION IDEAS

Best Practices and Guidelines

Create or update best practices and guidelines for permit applicants and regulators, including:

- How to design "good" adaptation projects (minimize environmental damage, maximize benefits, meet community needs including equity and social justice) and navigate the permitting process in the Bay Area.
- Update the State Coastal Conservancy's 2004 "Design Guidelines for Tidal Wetland Restoration in San Francisco Bay" and expand to cover other types of nature-based shoreline adaptation projects. Potential lead agency could be the State Coastal Conservancy with supporting parties including: BCDC; RWQCB; CDFW; USFWS; NMFS; USACE; and BRRIT.
- Guidelines similar to the NYC Waterfront Edge Design Guidelines that could be used to certify projects that meet certain criteria and then expedite permitting for those projects (see idea below)

Streamlined Project Checklists

Identify categories of major regional goals within the Bay Shoreline adaptation area and create a checklist to use when reviewing projects subject to permitting to ensure that those projects are multi-benefit and multi-goal. Link the checklist to streamlined permitting and funding (see BRRIT concept below) and send projects that don't meet the checklist to go through a more rigorous permitting process.

Multi-Agency Working Groups

Coordinate permitting of SLR adaptation projects that align with regional best practices and priorities through creation of a BRRIT-like entity focused on adaptation projects that aren't already covered by the BRRIT. Possible approaches to creating the group include creation of a Joint Powers Authority or leveraging state funding for climate adaptation to create an interagency working group. Alternatively, consider the Geologic Hazard Abatement District as model. Some details of the group's operation could include:

- Increasing coordination with project proponents during pre-application phase, and providing proponents with resources (such as guidance mentioned below)
- Ensuring checks and balances: projects taken on by this group for expedited regulatory process would have to meet certain criteria (e.g. some criteria that detail what is in a "good adaptation project" - multi-benefit, balances and addresses needs of variety of stakeholders, etc.)
- This group could establish and commit to a permitting dispute resolution process among agencies via an MOU, i.e., if two analysts disagree, elevate to managers; if managers disagree, elevate to directors, etc. with time limits
- Commitment of participating agencies to internal staff training/guidance to increase consistency of policy application
- Concurrent processes for CEQA and permitting to shorten timeline

A less intensive model would be to create a working group of regulatory agency staff that meets quarterly to discuss best practices, lessons learned, and to promote technical knowledge transfer. This working group will regularly have outside expertise bring current knowledge forward. This workgroup functions as an "Adaptive Management" central clearinghouse, making sure knowledge is gained and applied.

Interagency Coordination

Increase and encourage use of existing interagency coordination forums to increase coordination across agencies and between project proponents and regulators. For example, use the USACE interagency coordination meetings and/or utilize local government-hosted coordination meetings, similar to those held by Marin County. This would involve determining which department of local government would be the most appropriate to host these meetings; Training local government staff on how to host a coordination meeting; Informing regulatory agency staff about the meeting; and Developing and signing an MOU between Executive Directors of regulatory agencies committing staff to attending the coordination meetings

Pre-Project Discussion and Consensus

Create a regional working group of resource/restoration stakeholders and shoreline public access stakeholders to develop high level consensus, policies, solutions, and practices to resolve the perceived conflicts between habitat/restoration and shoreline public access. This group will work to resolve any perceived conflicts at a high level to address common issues, so that there will be ready-made solutions for resolving any issues at the project level.

Increased Resources

Lobby for more state and federal resources for agencies to permit adaptation work (see Task 1.2) and explore the increased use of financial partnerships between permittees with an extensive permit load, such as Caltrans and SFO, and regulatory agencies. The next iteration of the Resilience Bond could include funding for permitting agencies.

EXAMPLES AND RESOURCES

- San Francisco Bay Restoration Regulatory Integration Team (BRRIT)
- Cutting the Green Tape, California Landscape Stewardship Network, 2020
- AB 1282, Transportation Permitting Task Force

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- As described in the sidebar on page 33, the BRRIT is a "multi-agency team dedicated to improving the permitting of multi-benefit habitat restoration projects and associated flood management and public access in and along San Francisco Bay." The last sentence of the sidebar raises red flags, " The BRRIT could be expanded to cover more types of projects, or a similar team could be created to handle projects that BRRIT does not consider."
- What additional types of projects is the Joint Platform suggesting be considered for expedited permit review? Certainly, any project that includes land development activities should not fall under the category of expedited review. In the interest of transparency, the Joint Platform should identify the additional types of projects that are being proposed for expedited permit review and constrain them to natural and nature-based solutions.
- Have all the stakeholders affected by the regulatory system work on a collaborative plan as was pioneered in some European countries where broad benchmarks were set by all the players and then each sector developed ways to meet them.
- "Accelerated permitting and faster project construction." We believe this refers to permitting for restoration and natural and nature-based solutions, therefore we recommend adding the following clarifying language "Accelerated permitting and faster project construction for tidal wetlands restoration projects and projects that utilize natural and nature-based solutions." Accelerated permitting cannot occur at the expense of transparency or community and public engagement and should not occur for projects that include land development or flood control projects.

TASK 7.2: Assess environmental regulations and policies that slow down progress on projects.

SUMMARY

Review plans and acts including BCDC's Bay Plan, RWQCB's Basin Plan, the California Endangered Species Act, California Environmental Quality Act, National Environmental Policy Act, Federal Clean Water Act, and Federal Endangered Species Act to pinpoint policies that may unintentionally impede permitting or construction of adaptation projects. Starting with local and regional plans and policies (BCDC, RWQCB), develop consensus on recommended policy changes that balance original intent with changing conditions due to sea level rise, and help facilitate multi-benefit projects.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Regulatory Working Group

IMPLEMENTATION IDEAS

Potential Challenges to Address

Some ways to address potential permitting barriers to adaptation projects may include:

- Clarify or create policies on climate change to address the impact of the environment on the project, future uncertainty, and need for future adaptive management.
- Identify regulatory agency mandates that may be conflicting.
- Create design standards for nature-based projects.
- Gather and interpret data on the outcomes of pilot projects so that these outcomes can be considered when planning new projects.
- Restrictions on Bay fill for shoreline protection.
- Ensure policies are in place to allow for wetlands to migrate upland.
- Permitting temporary impacts may be necessary to achieve long-term adaptation goals.
- Policies not addressing the need for monitoring over extended periods of time.
- Regulatory agencies that focus on a single species rather than a holistic approach.
- Reevaluate beneficial reuse contaminant criteria which could be overly stringent thus preventing the use of dredged sediment in various projects.
- USACE policy only looks at least cost environmentally acceptable disposal sites, which prefers in-bay or ocean disposal sites over beneficial reuse sites.
- New sources of funding for accepting dredged materials at restoration sites and covering the costs of taking materials to beneficial reuse sites. Only dredgers pay for beneficial reuse of dredged materials - the restoration community does not pay for these costs, only site preparation costs.
- Review best available science to ensure that construction timelines are providing the expected benefit to special status species.
- Policies not addressing the short- and long-term impacts from turbidity plumes in water.
- Not allow dredged material to go to ocean disposal if it is clean and can be reused - in current policy world USACE, need comparison for cost for beneficial reuse for federal standard.

EXAMPLES AND RESOURCES

- BCDC'S Environmental Justice and Social Equity Bay Plan Amendment 2-17
- RWQCB's Basin Plan Amendments

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- During the presentation, it was mentioned that in many places we have developed right up to the edges of the Bay. If we are interested in conserving wetlands we need to protect tidal wetlands migration pathways if we want to sustain tidal wetlands in the long-term as sea levels continue to rise. Many areas that could provide migration space fall into regulatory gaps and have no state or federal protection and are extremely vulnerable to development pressure. Will the Bay Adapt process have any influence on this issue and if so how? How do you think this can best be addressed?
- Many areas that could provide migration space fall into regulatory gaps and have no state or federal protection and are extremely vulnerable to development pressure. Will the Bay Adapt process have any influence on this issue and if so how? How do you think this can best be addressed?
- Big concerns about where this could lead, diminishing important CEQA controls and potential long-term impacts.
- This task aims to "Tackle environmental regulations and policies that slow down progress on projects" (Page 34), is concerning as this could be interpreted as less stringent environmental regulatory oversight. Rather, these environmental regulations and policies need to be centered on environmental justice and community needs.

ACTION 8: Fund and facilitate faster adaptation projects

TASK 8.1: Incentivize projects that meet regional guidelines.

SUMMARY

Jump start critical local projects that also contribute to regional goals using collectively developed plan guidelines and minimum requirements (Task 1.1), tied to financial incentives (Task 6.2) and permitting incentives (Task 7.1). Projects eligible for financial incentives should be included in successful local plans (Task 5.1).

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Community, Equity and Planning Working Group

IMPLEMENTATION IDEAS

Process

The process could be analogous to the Regional Transportation Plan (RTP) model, serving as the nexus for multiple funding streams, multiple projects, multiple scales (local, state, and federal level). This process could include:

- Local jurisdictions submit successful local adaptation plans (Task 5.1) that contain potential projects (similar to LHMP model) to a lead agency.
- Local jurisdictions nominate specific projects included in plans (with estimated project costs and timeline) to be prioritized for funding and placed in "tiers" to a lead agency. Tier 1 list is financially constrained; Tier 2 is not.
- Projects are evaluated against evaluation criteria by the lead agency that evaluates how well the projects contribute towards regional adaptation goals as well as other additional financial criteria.
- Incentives are provided via funding as established through the funding framework outlined in Task 6.2. Projects may also be pre-vetted for expedited permitting as outlined in Task 7.1.

Potential Guidelines or Evaluation Criteria

Guidelines for projects may include:

- Inclusion of robust and meaningful community engagement in the project planning process.
- Evaluation of the degree to which a project protects the health of the bay and local ecosystems, and considers space for habitat migration.
- Evaluation of project impacts on natural areas, frontline communities, and other consequences to neighbors or the region, such as exacerbating flooding or wave erosion.
- Use of an equitable cost-benefit analysis that values frontline communities and other non-monetary benefits.
- Adaptive project plans that consider flooding above and beyond the design level or flooding that occurs more rapidly than planned.

EXAMPLES AND RESOURCES

- NYC Waterfront Edge Design Guidelines
- MTC/ABAG Request for Regionally Significant Projects
- MTC/ABAG Draft 2021 Transportation Improvement Program
- Design Guidelines for Tidal Wetland Restoration in San Francisco Bay
- Maryland Living Shorelines Protection Act

RELEVANT PUBLIC COMMENTS

The following comments were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- Link this with education and planning to prepare scaled shovel ready projects.
- For projects proposing to do tidal marsh restoration by adding fill to the Bay, is there a way to provide mitigation credit for construction of grey infrastructure to protect from SLR?
- If Foster City can afford to build a levee should there be a cap and trade approach asking them to do green infrastructure elsewhere to balance grey versus green infrastructure.

TASK 8.2 Encourage collaboration among people doing projects in the same area.

SUMMARY

Establish place-based, ongoing work groups to coordinate large-scale, multi-jurisdictional projects. Use a neutral, third-party facilitator to balance all voices, achieve consensus on common project goals, help resolve challenges, identify and nurture project champions, and broker community benefits agreements. Provide a forum for building relationships among stakeholders, enhancing communication, transparency, and synergies among diverse players, and connecting communities to projects they care about. Share best practices for project design, governance, and delivery.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Community, Equity and Planning Working Group

IMPLEMENTATION IDEAS

Work Group Goals

- Be convened by a funded, neutral, third-party facilitator so that no one voice or interest dominates the conversation.
- Facilitate ongoing relationship-building between stakeholders and understanding of issues to promote stewardship of projects and identify project champions and common goals.
- Provide a forum to develop, communicate, and advance large-scale, multi-jurisdictional projects proposed by group members to promote transparency, identify synergies, and create partnerships.
- Get community groups involved from the beginning by inviting community leaders, maintaining transparency about projects to the community, and providing financial support for participation of community-based organizations in both the group and in projects.
- Share best practices and resource documents applicable to the successful collaboration, management, and governance of large-scale, multi-benefit, multi-jurisdictional projects.

Group Facilitator Goals

- Guide long-term, ongoing relationship building within the groups and with the community.
- Help define needs, drivers, goals, and motives for all parties.
- Strive for consensus around project goals and co-benefits.
- Seek to help resolve technical and political challenges and barriers.
- Help identify and nurture project champions.
- Broker community benefits agreements.
- Meet regularly with other facilitators from around the region to learn from experiences region wide.

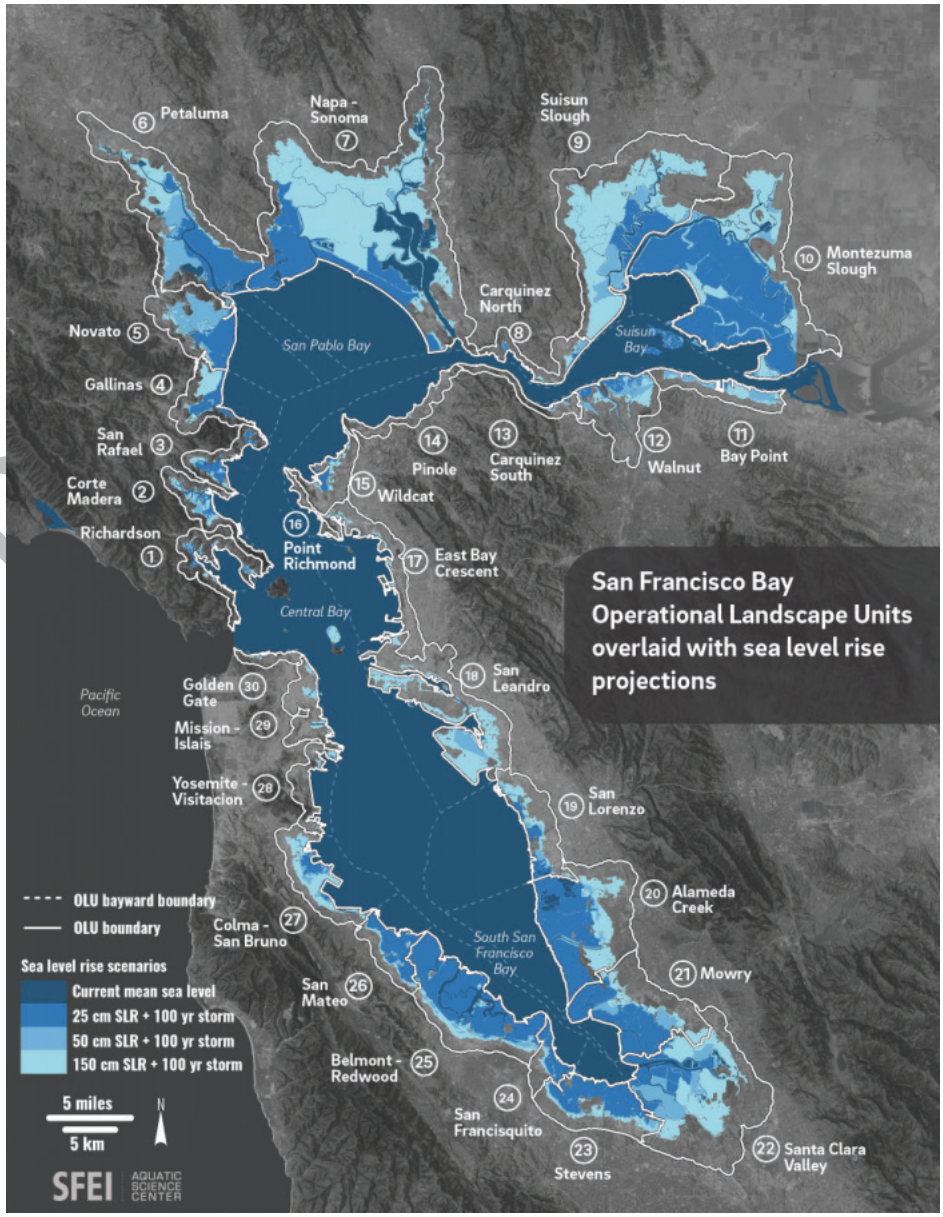
EXAMPLES AND RESOURCES

- Sunnyvale Shoreline Resilience Vision
- Hayward Area Shoreline Planning Agency Joint Powers Authority
- San Mateo Flood and Sea Level Rise Resiliency District
- ResilientSR37
- San Francisquito Creek JPA

RELEVANT PUBLIC COMMENTS

The following comment was gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- The Bay Adapt Joint Platform recognizes that adaptation crosses jurisdictional boundaries and will require coordination and collaboration, but its focus is primarily on collaboration between cities/counties and regional governments and assumes that a regional vision will be implemented by cities and counties. While that is certainly an important aspect of coordination, given the complex and overlapping ownership of the shoreline, it is important to recognize that collaboration will be essential between a wide range of agencies. For example, in the San Leandro Bay, adaptation coordination needs to happen between Cities of Alameda, Oakland, San Leandro, as well as Caltrans, Port of Oakland, East Bay Regional Parks who all own certain portions of the shoreline. Other agencies and community groups are also important stakeholders in the process. We believe the way forward is by formalizing organizational structures at the OLU scale following the successful models of the Hayward Area Shoreline Planning Agency, OneShoreline and San Francisquito Creek JPA in San Mateo County, and being explored in the San Leandro OLU. These types of formal organizations are needed to accelerate project funding, development and construction across jurisdictional boundaries. A critical step for organizing the OLUs will also be developing visions and concepts that align with the larger regional vision and organization. State and regional governments can facilitate and encourage this kind of collaboration and support funding mechanisms for multiple jurisdictions to efficiently share project costs.



Operational Landscape Units were developed by the San Francisco Estuary Institute (SFEI) to support working with natural processes for sea level rise adaptation.

TASK 8.3. Facilitate faster construction of nature-based projects.

SUMMARY

Increase the capacity of contractors to build multi-benefit or nature-based projects. Establish training programs on techniques and approaches to construct natural and nature-based shoreline projects for contractors, aligned with regional project guidelines (Task 1.1) and informed by monitoring data (Task 9.2). Coordinate the use of the limited regional supply of fill across the region and improve fill logistics (e.g. stockpiling, contaminant testing, movement, etc). Strengthen partnerships with regulated communities. Expand RFP and State bond proposition language to make funding such complex projects more flexible.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Regulatory Working Group

IMPLEMENTATION IDEAS

Construction Techniques

- Training programs on techniques and approaches for constructing natural and nature-based shoreline projects and other novel or innovative shoreline adaptation projects for contracting / construction companies to generate a wider pool of companies that are qualified to bid on adaptation projects. Consider ways to train/transfer knowledge without companies giving up their bid advantage. This should include equity training and consideration of equity requirements.

Construction Practices and Logistics, including Bidding and Contracting

- Creation of a centralized database or clearinghouse for adaptation project construction bids and/or costs. This can help demystify the process and costs.
- Guidance and/or encouragement on the use of construction management general contracts (CMGC) or similar approaches to involve contractors earlier in the design process for adaptation projects to allow more flexibility and partnership between contractor and project proponent.
- Incentivize contracts with local businesses, prioritizing those with equity focused programs.
- Incentives for the use of best practices for reducing construction impacts on communities, e.g., ways to minimize truck trips, the use of low-emissions equipment, and maintaining public access adjacent to construction sites.
- Establish or expand an existing regional working group to discuss and develop options for addressing barriers to adaptation project construction.
- Regional coordination on the use of limited amounts of sediment/dirt/other fill for shoreline adaptation projects, to organize other logistics (e.g. stockpiling, contaminant testing, fill movement, etc.), provide education and strengthen partnerships with regulated communities.
- Work with funders and legislators to change language in RFPs and state bond propositions so that funding for adaptation projects can be used more flexibly.

EXAMPLES AND RESOURCES

- SFEI Sediment for Survival Report
- Central San Francisco Bay Regional Sediment Management Plan
- SFEI Flood Control 2.0

ACTION 9: Track and report progress to guide future actions

TASK 9.1: Measure regional progress using metrics and share results.

SUMMARY

Regularly check and report adaptation progress based on established and shared regional metrics identified in Task 1.1. Metrics should measure the difference between today's "baseline"—the region's current risk profile and adaptation status—and changes related to adaptation activities. Resulting "report cards" should be transparent and understandable (through visually compelling online dashboards) to partners, stakeholders and the public. When appropriate, they should suggest ways to increase alignment with the regional vision, such as changes to incentives, funding models, technical assistance programs, or planning tools.

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Regulatory Working Group

IMPLEMENTATION IDEAS

This Task should also outline an associated action plan that is responsive to how progress, or lack of progress, should inform future regional strategies, such as changes to incentives, funding models, technical assistance programs, or planning tools to better meet the region's goals and benchmarks. This report could be standalone or could be an expansion of an existing effort such as the State of the Estuary report or Plan Bay Area. This report will also provide solid documentation of successes and needs to advocate for state legislative support and should be tied to any regional legislative advocacy initiatives. Potential metrics to measure:

- Number of Community Based Organizations leading planning efforts.
- Miles of shoreline resilient to state or regional mid century SLR projections.
- Funding need remaining for high priority adaptation projects.
- Local jurisdictions with SLR vulnerability assessments and adaptation plans.

This task should also be tied to the ongoing development of the EcoAtlas project tracker as a database to track in-progress and completed projects, including project type, project benefits and tradeoffs, and project costs. This project tracking should also be adapted to track projects against regional goals, such as prioritization of protection of vulnerable communities, ecosystem restoration, protection of regionally significant assets, or areas of near-term flooding.

EXAMPLES AND RESOURCES

- Delta Plan Performance Measures
- New York City Panel on Climate Change 2019 Report Chapter 8: Indicators and Monitoring
- Baylands Habitat Ecosystem Goals
- EcoAtlas SFBRA Dashboard
- MTC/ABAG Vital Signs

RELEVANT PUBLIC COMMENTS

The following comment were gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- In addition to the tasks outlined in Action 9, it is also important to collect and reflect on qualitative data, such as narratives and feedback from surrounding communities, when determining the efficacy of a project and to use this feedback to guide future actions.

RELEVANT PUBLIC COMMENTS (cont.)

- Ultimately, this Joint Platform must take into account how sea level rise and groundwater rise will impact contaminated sites on the shoreline across the Bay and how communities surrounding these sites will be impacted. The cleanup of these contaminated sites and the health of these shoreline communities must be prioritized in this adaptation planning. Environmental justice communities near contaminated sites on the shoreline must be centered in this plan, as they face the cumulative impacts of sea level rise, ground water rise, risk of contamination and pre-existing health conditions.
- Task 1.1 mentions the development of regional and sub-regional objectives that are tied to measurable metrics. With respect to ecosystem function, it is important to avoid a snapshot in time approach to ensure we are measuring success in terms of long-term sustainability and not just what currently exists or will only exist in the short-term.
- Regarding the bullet that mentions metrics "for tracking local and regional progress" - Have available tidal wetlands migration pathways for tidal wetlands been identified for the Bay and Delta? If not, such mapping should be undertaken and impacts to, or conservation of, those areas should be tracked as one of the metrics. Given the concern about the long-term sustainability of tidal wetlands due to diminishing sediment supplies and the extent to which we have developed up to the edges of the Bay, it is imperative that regional impacts to, and the protection/conservation of, tidal wetland migration pathways, also be tracked, to inform future land use decisions along the edges of the Bay.

TASK 9.2: Monitor and learn from pilot projects.

SUMMARY

Monitor pilot projects to identify lessons learned and update or establish guidance based on these lessons. Expand and support existing monitoring programs, such as the Wetland Regional Monitoring Program and the San Francisco Bay National Estuarine Research Reserve, to increase the context for learning and adaptation. Use monitoring to update and refine best practices for innovative, multi-benefit projects covered in regional vision (Task 1.1), funding criteria (Task 6.2), technical assistance guidance (Task 4.2), and permitting processes (Task 7.1).

WHO'S INVOLVED

PROPOSED LEAD:

PARTNERSHIPS:

WORKING GROUP: Science, Environment & Education Working Group

IMPLEMENTATION IDEAS

While many agencies and organizations recognize the need for habitat restoration to restore healthy shoreline ecosystems, relatively few are exploring the potential of collaborative shoreline adaptation projects that pair a nature-based approach with a more traditional shoreline protection structure like a levee in a "hybrid" project. A nature-based adaptation project might use gentle vegetated slopes, called horizontal or ecotone levees, to dissipate wave energy and protect inland areas, while a hybrid project might consist of a horizontal levee in front of a traditional upright levee. These kinds of projects create wildlife habitat and provide ecosystem services like water filtration in addition to flood protection.

However, nature-based and hybrid adaptation projects are relatively untested compared to more traditional shoreline protection approaches, which makes them harder to design, permit, fund, and build. Innovative pilot projects must be carefully monitored to identify strategies that best support multiple benefits and establish proven guidelines for planning and building these projects. Lessons learned can inform the regional vision, funding priorities, and other standards developed by various actions in the Joint Platform.

Expanding and supporting nature-based adaptation monitoring can include actions like utilizing and expanding the Wetland Regional Monitoring Program and supporting the work of the San Francisco Bay National Estuarine Research Reserve. Data from these projects should inform:

- Research priorities identified in Action 4.1 and technical assistance outlined in Action 4.2
- Consistency guidelines and evaluation criteria tied to incentives in Action 7.1, including:
  - How funding is allocated to projects, as outlined in Action 5.2
  - Expedited permitting processes outlined in Action 8.1

EXAMPLES AND RESOURCES

- Regional Monitoring Program (RMP) for Water Quality in SF Bay
- Wetlands Regional Monitoring Program
- San Francisco Bay National Estuarine Research Reserve

RELEVANT PUBLIC COMMENTS

The following comment was gathered during the Public Feedback opportunity and reflect considerations for implementing this task.

- Missing or not fully addressed in the Plan: add Task 9.3 Assure follow on funding for successful pilots to be replicated, continued and implemented.

What's Next?

Major adaptation challenges we will face in the coming decades

The Joint Platform represents an ambitious set of steps the region should take to prepare for a rising Bay. However, there are several issues that the Joint Platform does not yet address that must be solved moving forward. Decisions around sea level rise adaptation are extremely complex and touch on almost every component of how we plan for our future. As sea levels rise, decisions will only become more high-pressure, and hard decisions that we may be able to avoid now will be forced to come to a head. Some of the issues below came up during the Bay Adapt process; some did not. However, all of these will warrant serious discussion and big decisions over the next several years and decades.

Utilizing a "carrot" vs. "stick" approach to regulation

Currently, legal authority to mandate things like building codes, zoning codes, or even taxes lie primarily at the local level. Though some permitting occurs through state entities like BCDC and the Water Resources Control Board, these agencies currently have limited application for use to compel sea level rise adaptation projects. Additionally, mandating things like shoreline protection or increased levels of protection for new projects can increase costs for project proponents, cities, and residents and may prove to be unpopular tactics, even if they offer the highest levels of protection soonest.

All the concepts laid out in the Joint Platform currently rely on incentives, or "carrots," rather than mandates, or "sticks" to achieve adaptation outcomes. However, if these do not compel action fast enough, or enough action, the region will need to begin to discuss more seriously what types of mandates may be appropriate and necessary over time. Many of the guidelines and criteria that is described as voluntary or incentive-driven in the Joint Platform may lay the groundwork for future mandates, especially if they are developed through robust community engagement, as the Joint Platform stipulates.

Possible Next Steps: Engage with a non-regulatory third party, such as SPUR or the Bay Planning Coalition, to commission a study that evaluates the current regulatory authorities available in the Bay Area related to sea level rise plans and projects and identify potential options for expanded or new regulations to compel plans and projects.

Maintaining local control while staying coordinated region-wide

Given that land use is local, historically cities and counties have enjoyed significant local control and little regional oversight. However, given that sea level rise benefits from regional coordination in many ways, many of the actions in this Joint Platform propose a regional approach to supporting, advancing, and coordinating people, information, plans and projects that take place at the local level. This naturally suggests new or expanded structures, authorities, or services at the regional level that do not detract from local authority in any way but strengthen regional efforts to better support a coordinated adaptation approach.

Possible Next Steps: Utilizing the coordination structure identified in this plan, engage a consultant or third-party entity to evaluate the efficacy of existing regional coordination structures. Consider the regulatory study identified above.

Ensuring quick action while maintaining a long-term vision

As it becomes increasingly clear to both leaders and the public that sea level rise will be a major issue we will have to deal with in the future, some cities and counties have begun acting through the development of plans, policies, and projects.

Quick, decisive action is always welcomed.

However, to ensure that everyone's actions add up to something larger, plans and projects benefit from being coordinated and following common best practices or standards as laid out in the Joint Platform. This will take time to coordinate.

It will take some balancing to ensure that this coordination does not hold back actions taking place now that may not completely align with what these standards may ultimately be, but still provide critical region-wide value in reducing future risks. It is also essential that adaptation plans and projects done now are not punished in any way if they do not completely align with guidelines that will be developed in the future.

Possible Next Steps: When identifying regional vision and guidelines, evaluate the current state of plans and projects to establish manageable steps to link existing plans with the coordinated plans envisioned for the future. Build in rewards, credits, and incentives for existing work, even if it is nonconforming, but help users identify a path towards conforming plans and projects.

Balancing public needs without infringing on private propety rights

One of the conundrums of sea level rise adaptation is the concern that private property owners have that their at-risk property may lose value. Sea level rise planning, if it identifies areas that will be inundated without definitive plans for protection, may incite fears that property values in these areas will fall, especially if it is suggested that the area may be targeted for retreat or a buyout program in the future. This would suggest that it is not in the best interest of the private property owner to identify future flood risk areas, especially those that might need long-term planning for retreat, as it can potentially reduce their personal assets.

However, it may be in the best interest of the public to identify, plan, and execute adaptation plans and projects that have the side effect of loss of personal property to individual property owners but that benefit a greater number of residents through protection of their homes and other public and private assets. This will be an ongoing challenging conversation between the public and private sector that will require negotiation, resources, and adjustment of expectations on both sides and may ultimately result in litigation.

Possible Next Steps: Provide guidance for cities on beginning sensitive conversations with their communities. Include potential buyout funds in a regional funding framework. Identify "low hanging fruit" locations in the region where limiting new development or phasing out outdated land uses may make sense and identify land use tools that may assist with this.

Choosing to defend in place or planning to retreat

One of the most challenging conversations in the future will be whether certain developed places along the shoreline will be protected via infrastructure or whether assets like roads, homes, and wastewater treatment plants will need to be moved away from the shoreline to allow inevitable flooding to occur. It seems unlikely that there will be enough resources - either financial or technical - to protect every part of the shoreline with development on it that could get wet. Some areas, especially those with only a single asset that is nearing the end of its life or is not critical to the functioning of a community or the region, may not make financial sense to protect with a high-cost shoreline protection structure.

But retreating from areas, especially if we are talking about relocating homes and communities, brings up challenging questions. How do we ensure that people are compensated equitably for their properties? How do we acknowledge and compensate for the loss of non-financial things, like a community? How do you stem displacement away from the Bay Area if residents who must leave cannot afford to live anywhere else in the region?

Any decisions to retreat must be made in complete partnership with communities and will likely involve gradual changes over time to avoid the worst social impacts to shoreline communities.

Possible Next Steps: Provide guidance for cities on beginning sensitive conversations with their communities. Include potential buyout funds in a regional funding framework. Identify "low hanging fruit" locations in the region where limiting new development or phasing out outdated land uses may make sense and identify land use tools that may assist with this.

Balancing other pressing issues

Sea level rise is a slow-moving disaster whose full impacts will not be felt until many decades down the line. This means that it's easy to pretend like the solutions can wait, especially when other current issues feel more pressing, like global pandemics, a housing affordability crisis, people living on the streets, or wildfire.

While these other issues cannot not be minimized, they also should not be excuses to push off or avoid planning for sea level rise. The longer we wait to plan for sea level rise, the more impacts will be felt by people, especially vulnerable populations, and ecosystems, and the more resources we will have to spend to mitigate and respond to flood events as well as develop adaptation solutions.

Additionally, many adaptation outcomes require long lead times, meaning we need to start planning now, before it's too late for the outcomes to be meaningful. We must balance both current issues with long-term issues to avoid the worst outcomes for future generations.

Possible Next Steps: Include sea level rise within the planning context of other local and regional issues and plans. Set aside earmarked funds for sea level rise that don't compete with other funding sources. Incentivize early action and provide tools for long-term adaptive planning.