



# Bay Area **Regional Collaborative**

## Bay Area Regional Collaborative Shared Work Plan



Association of  
Bay Area  
Governments



SAN FRANCISCO BAY  
CONSERVATION & DEVELOPMENT  
COMMISSION



BAY AREA AIR QUALITY  
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STATE of CALIFORNIA



CALIFORNIA  
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STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS



METROPOLITAN  
TRANSPORTATION  
COMMISSION



District 4

May 20, 2022

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Association of Bay Area Governments (ABAG): *San Francisco Estuary Partnership (SFEP)*, *Bay Area Regional Energy Network (BayREN)*

Bay Area Air Quality Management District (BAAQMD)

Caltrans District 4

The San Francisco Bay Conservation & Development Commission (BCDC)

Metropolitan Transportation Commission (MTC)

California State Coastal Conservancy

San Francisco Bay Regional Water Quality Control Board (Water Board)

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# Bay Area Regional Collaborative (BARC) Shared Work Plan

May 20, 2022



## Introduction

Addressing the challenge of climate change with any level of success requires an “all-hands-on-deck” approach in the San Francisco Bay Area. It requires partnership and collaboration among people and communities, among public agencies and private organizations, and across all levels of government to ensure the plans, policies, projects and investments made to mitigate and adapt to climate change are equitable, fair and meaningful. Everybody has a role to play! The keys are to map out who is best positioned to do what, and then to generate the resources needed so everyone can perform their roles and meet their responsibilities.

The Bay Area Regional Collaborative (BARC) Shared Work Plan outlines several initiatives to ***better understand and optimize the roles of specific regional agencies*** — and state agencies with Bay Area districts — in meeting the climate

emergency. Building off work in which the seven participating agencies already are engaged, the Shared Work Plan aims to foster both greater collaboration and an inclusive environment in which the agencies' work can be continually informed, enriched and improved.

A full understanding of roles to be played by regional agencies must also be informed by the stakeholders who will benefit from a strong, coordinated, and focused regional role in climate adaptation and mitigation. These include cities, counties, special districts, community-based organizations, and many others who lead the charge at the local level.

## Background

BARC was created through state statute ([SB 849, Torlakson, 2004](#))<sup>1</sup> to foster the collaboration of the Association of Bay Area Governments (ABAG), the Bay Area Air Quality Management District (BAAQMD), the San Francisco Bay Conservation and Development Commission (BCDC) and the Metropolitan Transportation Commission (MTC) to address issues of regional significance. Joining this consortium as non-voting members (voluntarily participating, but not yet written into the legislation) are Caltrans District 4, the California State Coastal Conservancy, and the San Francisco Water Quality Control District.

BARC operates under the premise that there is value in regional agencies exercising a strong role in helping to address climate change and other issues of regional significance, and that greater coordination among regional and state agencies will:

- Model good governance by eliminating the duplication of efforts.
- Ensure the respective policies, programs and investments of each agency are aligned as much as possible, and not working at cross purposes.
- Support the leadership, best practices and innovation advanced by local jurisdictions and other critical stakeholders, and help bring them to scale.
- Allocate resources in a fair, equitable and level-setting manner to ensure the Bay Area's low-income, frontline communities of color have the capacity to lead in local and regional problem solving.

In September 2021, the BARC Governing Board approved the **Joint Resolution to Address Climate Change (Appendix A)**. The Resolution is an urgent call for action by the BARC member agencies to work together to measurably to reduce the harmful

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<sup>1</sup> [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=200320040SB849](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200320040SB849)

contributors to and the impacts from climate change in the Bay Area, particularly for people and communities at the frontlines of risk.

As stated in the Resolution, the BARC member agencies will *“work together to strategically align planning and regulatory actions in order to accelerate the implementation of strategies that advance climate mitigation and adaptation goals.”*

The Draft BARC Shared Work Plan is designed as a mechanism by which the agencies will do just that, outlining three ambitious initiatives to produce measurable results within the next one to five years to equitably reduce greenhouse gas emissions and advance a strategic regional approach to adapting to climate change:

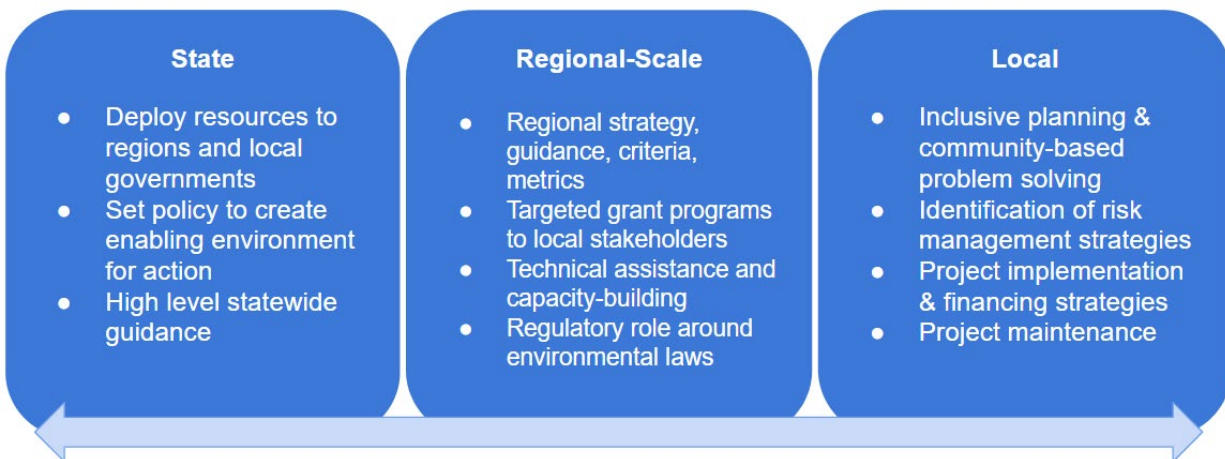
1. Regional Multi-Hazard Adaptation Plan
2. Regional Climate Adaptation Technical Assistance
3. Zero-Emission Transit Bus Infrastructure

The tasks developed for each initiative will involve participation of staff from two or more member agencies and will be shaped by engagement with partners and stakeholders outside the agencies themselves. Partnerships with stakeholder groups will be critical to fostering a productive and ongoing dialogue, and to developing effective strategies. Because the scale and types of engagement will necessarily be informed by available resources, the agencies will work together to avoid overlap of activities and efforts.

While in most cases a specific agency takes the lead role in any BARC effort, we are reminded of the mantra “No one agency or entity can solve climate change alone!”. By working together, the agencies can avoid duplication, communicate a clear and coordinated approach to problem solving, and use everybody’s time and resources most efficiently.

Underlying each initiative is a commitment to advancing social equity, ensuring projects contribute to improving quality of life measures in low-income, frontline communities. The BARC Shared Work Plan also has a primary focus on amplifying the clear value-added roles the regional and state agencies can play in supporting the leadership of cities, counties, special districts and community-based leaders in implementing strategies and actions on the ground. Also important is creating strong linkages to state and federal programs and investments such as the AB 32 Climate Change Scoping Plan, California Climate Adaptation Strategy and the federal Infrastructure Investment and Jobs Act (IIJA).

## Roles of Public Sector at Different Scales



## Process for Developing BARC Shared Work Plan

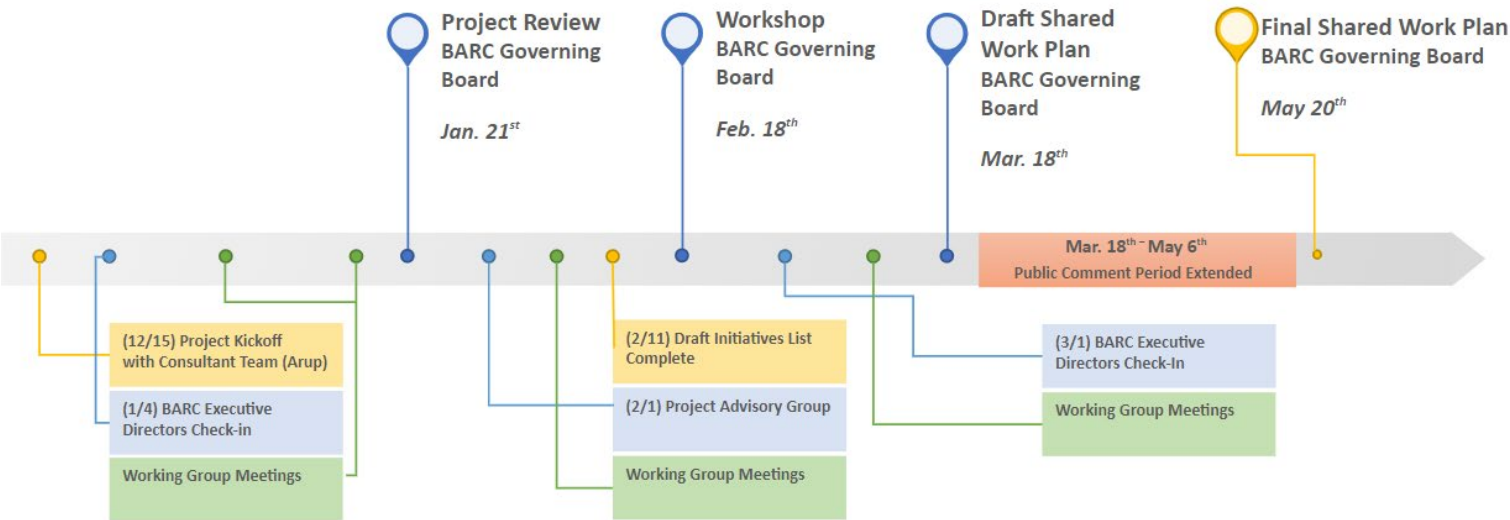
Development of the Initial Draft of the BARC Shared Work Plan was facilitated by BARC staff from January 2022 to May 2022, and informed by guidance from the Governing Board, executive leadership, and two Working Groups composed of staff from across the member agencies with particular subject matter expertise. The timeline was driven by opportunities to better position the Bay Area to compete for emerging state and federal funding for regional-scale adaptation and resilience planning, and for the electrification of buildings and vehicles.

From March to May 2022, the BARC Shared Work Plan was further refined through a Public Comment Period, as well as through discussions with Working Group members and agency leadership. The written comments received are included in **Appendix B**. This final draft also incorporates input provided by various agencies, groups and individuals after receiving an overview of the Work Plan from the BARC Executive Director.

The scale and breadth of each initiative will be shaped by resources provided by each participating agency, and by any additional funding that can be secured through state and federal programs over the next year. The BARC Budget for FY22-23 will be oriented toward filling gaps and enhancing work underway.



# Timeline



## Focus Area One: Climate Adaptation

- |       |                               |   |
|-------|-------------------------------|---|
| 1     | Regional Adaptation Plan      | Develop a Regional Multi-Hazard Adaptation Plan   |
| <hr/> |                               |   |
| 2     | Regional Technical Assistance | Establish a regional technical assistance program to support local governments in advancing shared approach to adaptation planning and project implementation |



### Initiative 1: Regional Multi-Hazard Climate Adaptation Plan

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

The Bay Area faces threats from a variety of hazards including sea level rise, coastal and inland flooding, extreme heat, drought, wildfire, as well as earthquakes. There has been progress in advancing climate adaptation and resilience planning to address

these hazards, with cities, counties and special districts taking the lead in helping to move concepts forward and developing new governance models. A focus on flooding and sea level rise has led to efforts like the San Francisco Creek Joint Powers Authority mitigating flood risks for communities adjacent to the creek and the Bay in East Palo Alto and Menlo Park, and the consolidation of agencies to create the San Mateo County Flooding and Sea Level Resiliency District (One Shoreline). The four North Bay counties — Marin, Napa, Solano and Sonoma — are working together with Caltrans, MTC and environmental stewards to advance strategies to address flooding and sea level rise along the State Route 37 corridor. The South San Francisco Bay Shoreline Project is a multi-million-dollar sea level rise protection project underway - many years in the making - led by Valley Water, the California State Coastal Conservancy, US Army Corps of Engineers and US Fish and Wildlife to protect the vulnerable community of Alviso in San Jose and surrounding areas.

There are other important nature-based and multi-benefit projects advancing through investments from the San Francisco Bay Restoration Authority and other granting agencies that indicate the Bay Area region is building forward momentum to address flooding and sea level rise risks. But the Bay Area needs more than just a portfolio of disparate projects.

Expanding the portfolio and making sure high-quality planning and projects are occurring in the places that need them most requires a high level of coordination and resources. Additionally, understanding the geography through which different hazards and risks should be managed - and by whom - and making sure all the stakeholders are at the table to determine the best risk management strategies to employ is essential to reaching equitable regional-scale resilience.

Engaging in this collective problem-solving in vulnerable places across the region requires significant resources; access to a clearinghouse of reliable data and science; guidance on effective approaches, strategies and governance models; and people with the skills, expertise and job description to move ideas into reality on the ground. The needs listed above illustrate why the San Francisco Bay Area could benefit from a Regional Multi-Hazard Adaptation Plan - not as a top down directive telling cities and counties what to do — but, rather, as a mechanism by which our region can work together to ensure communities have access to the resources and tools necessary to implement a range of strategies to manage risk and to get these resources to the places that need them most.

Managing the development such a Plan, with extensive input from interested stakeholders, is something for which the regional agencies that comprise the BARC consortium are well suited. Ensuring that a Regional Multi-Hazard Adaptation Plan is

oriented towards delivering specific, measurable outcomes that are equitable, fair and effective in managing risk is something in which every interested stakeholder should be involved.

The BCDC-led effort to develop a Regional Shoreline Adaptation Strategy will be a core component of the Regional Multi-Hazard Adaptation Plan, helping to outline potentially similar approaches to other hazards like extreme heat, drought, flooding, and wildfires. The participating agencies will work together through this initiative to help inform BCDC's effort while at the same time conducting outreach, analysis, and research to better understand how different hazards can best be captured and approached in a Regional Multi-Hazard Adaptation Plan. An important feature of this effort will be to understand the role regional agencies play (or not) related to different hazards, as well as to understand the potential relationships between a regional multi-hazard adaptation plan and local hazard mitigation plans. Additionally, the coordination provided by BARC staff can be helpful in aligning public outreach and engagement across the participating agencies, considering overlapping issues, and addressing issues related to regional governance, funding and prioritization. The involvement of Caltrans District 4 as an active member of BARC, for example, will help local and regional priorities for vulnerable transportation infrastructure sync up with state planning requirements, state and federal funding agencies, and state infrastructure adaptation needs and vulnerability data.

Counties, cities and special districts have leading roles to play in facilitating adaptation planning and project implementation to address different hazards in their communities. Many Bay Area counties already are leading on this front, with the county being a manageable scale over which to conduct planning and project development. The regional agencies, in turn, can be helpful in lifting up the best practices being advanced by cities and counties, and to help build capacity and consistency in efforts across the region. As BCDC identified through the Bay Adapt process, there are challenges the Bay Area faces in adapting to flooding and sea level rise that are likely applicable to managing other hazards. These include:

- Inconsistent content and approach in local plans and projects
- Competition for funding with no agreement on priorities
- Inconsistent progress on plans and projects
- No comprehensive understanding of adaptation needs and interventions (and their impact) along the shoreline.

A Regional Adaptation Plan can help navigate these deficiencies and inconsistencies, identifying where more capacity and support is needed, while at the same time helping to advance good projects at the local or sub-regional level. Additionally, the Plan can

help synthesize the components of other related regional planning efforts into an overarching set of strategies, priorities, and tools. These include MTC/ABAG's Plan Bay Area 2050, adopted in October 2021, which involves strategies to adapt to sea level rise and manage risks. BCDC's Bay Adapt Joint Platform lays out a high-level action plan to protect people and the built environment from rising sea levels, with the BARC Shared Work Plan as an example of agencies taking the lead to help implement Bay Adapt actions. Furthermore, the San Francisco Estuary Partnership (SFEP) just completed its 2022 Update to the Estuary Blueprint, mapping out regional actions needed for a healthy and resilient San Francisco Estuary.

In 2022, the Bay Area has a prime opportunity to build upon work done to date and to generate the resources needed to develop the Regional Multi-Hazard Adaptation Plan through a robust and inclusive engagement process. The Governor's Office of Planning and Research (OPR) has expanded funding to the tune of \$250 million statewide over the next several years. This commitment is well suited to support the development of a Regional Multi-Hazard Adaptation Plan, as well as the technical assistance that can support local capacity building, planning and project implementation. At the federal level, the PROTECT program established by the Infrastructure, Investment and Jobs Act of 2021 provides appropriated funds (\$630 million to California) and competitive grant programs (\$1.4 billion nationally) over the next five years to advance transportation resilience planning and implementation. The IIJA creates incentives for states and MPOs to adopt a Resilience Improvement Plan (RIP) by waiving a portion of local cost shares for appropriated funds, and prioritizing competitive grant proposals that advance RIP priorities. Based on initial estimates, integration of a RIP into Plan Bay Area could result in over \$11 million in value for the region.

## Goals

- Establish an engagement process by which stakeholders will work together to develop a Regional Multi-Hazard Adaptation Plan that supports strong coordination among regional agencies, counties, cities, special districts, and community leaders to manage climate hazard risks and positions the region to receive state and federal funding to support shared goals and priorities.
- Outline and understand the distinct role(s) of regional agencies and those of other levels of government in managing different climate hazards such as drought, heat, wildfire, sea level rise and flooding, as well as any potential interaction with seismic vulnerability.

## Participating BARC Agencies

Association of Bay Area Governments (ABAG), Bay Conservation and Development Commission (BCDC), Bay Area Air Quality Management District (BAAQMD), Caltrans

District 4, Metropolitan Transportation Commission (MTC), California State Coastal Conservancy (SCC), San Francisco Bay Regional Water Quality Control Board, San Francisco Estuary Partnership.

## Key Stakeholders & Partners

Cities, counties, special districts, community-based organizations, nonprofits, academic and scientific institutions, state agencies, federal agencies. Membership organizations and networks: Bay Area Climate Adaptation Network (BayCAN), Coastal Hazards Adaptation Resiliency Group (CHARG)

## Year One Priorities and Tasks

- Outline landscape of powers, authorities and responsibilities among regional agencies related to multiple hazards and relationship to federal, state, and local/community roles and responsibilities. (BARC supported, consultant, partners)
- Understand permitting and regulatory landscape and impact on speed at which multi-benefit climate adaptation projects can be approved and implemented, including green, gray and hybrid projects. (BARC supported, consultant, partners)
- Work to expand support for frontline community capacity building and build partnerships (various mechanisms, including BCDC grant program, partners)
- Support MTC/ABAG (or other appropriate agency) grant application to OPR for regional planning in Fall 2022
- Kick-off Regional Shoreline Adaptation Strategy (led by BCDC, multi-year efforts)
- Development of Sea Level Rise Funding and Investment Strategy (led by MTC/ABAG and BCDC)
- Early development of Resilience Improvement Plan (MTC/ABAG, Caltrans D4)
- Identify and pursue opportunities for legislative advocacy to promote climate adaptation efforts at local and regional scales and help secure further resources for community capacity building.





## Initiative 2: Regional Climate Adaptation Technical Assistance

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

Climate adaptation and resilience planning and projects will most often need to happen at the local and/or sub-regional level, with regional and state agencies best positioned to provide needed support, resources, and guidance. Across the Bay Area's nine counties and 101 municipalities, local governments have highly variable levels of capacity and resources available to conduct adaptation planning and develop risk management strategies. Additionally, a special focus must be given to historically underserved Black, Indigenous and People of Color (BIPOC) communities who are at the frontlines of risk and already are battling challenging environmental conditions in their neighborhoods.

As noted in the public comments on the initial draft of the BARC Shared Work Plan, managing risks like flooding and sea level rise raises many complications related to jurisdictional responsibilities and property ownership, and differing views on the mission and responsibilities of any one entity or organization. "These aspects are hard to grasp (especially for staff without deep experience in Bay Area

government/regulatory setting) and there is no central resource to show who is responsible for what. Could this objective be tied to some sort of a deliverable that outlines the roles played by different government entities, coalitions, and associations and the ‘levers’ that they control”.

A coordinated Regional Climate Adaptation Technical Assistance program can identify the most effective ways in which regional agencies can support cities, counties, special districts, and community-based organizations in conducting actionable adaptation planning and project implementation. It can help to map out the authorities and responsibilities of different stakeholders in climate adaptation and provide governance and decision-making models to help bring clarity to what is currently a somewhat murky area, especially in terms of bringing project implementation to scale across the region. A goal can include providing a centralized source for adaptation standards, data, and guidance from across the regional agencies that is coherent and easily accessible to local governments and in publicly led planning processes.

The Regional Climate Adaptation Technical Assistance initiative will involve staff from multiple agencies working together in a coordinated manner, along with other key stakeholders, to find the most effective support and to advance high-quality adaptation planning efforts in localities across the region. These efforts would inform and be tracked through BCDC’s Regional Shoreline Adaptation Strategy and through the development of a broader, multi-hazard Regional Adaptation Plan.

## Goals

- Clarify who is in charge of different aspects of climate adaptation at different scales
- Develop a clearinghouse or “storefront” of adaptation data, standards, and guidance (explore options for where it can live and/or intersect, including existing tools such as ABAG Technical Assistance Portal, OPR Clearinghouse)
- Develop easy-to-access technical assistance for local governments and community-based organizations. This can include grant-writing services (especially for limited-capacity jurisdictions and stakeholders), one-on-one assistance, facilitated services for specific cohorts of jurisdictions and stakeholders facing similar challenges. Identify agencies best suited to provide different types of assistance.

## Participating BARC Agencies

Association of Bay Area Governments (ABAG), Bay Conservation and Development Commission (BCDC), Bay Area Air Quality Management District (BAAQMD), Caltrans District 4, Metropolitan Transportation Commission (MTC), California State Coastal



Conservancy (SCC), San Francisco Bay Regional Water Quality Control Board, San Francisco Estuary Partnership.

## **Key Stakeholders & Partners**

Cities, counties, special districts, community-based organizations, nonprofits, academic and scientific institutions, state agencies, federal agencies. Membership organizations and networks: Bay Area Climate Adaptation Network (BayCAN), Coastal Hazards Adaptation Resiliency Group (CHARG), others.

## **Year One Priorities and Tasks**

- Conduct analysis to capture different types of technical assistance regional and state agencies are providing, identify gaps in service and support, understand lay of the land in terms of technical support needs, and who is best positioned to do what at all scales (BARC supported, in partnership with stakeholders, tie in and align with other projects where appropriate)
- Outreach/Engagement/Survey to determine needs for technical assistance by local stakeholders (BARC supported, BCDC and MTC/ABAG, partners)
- Outline oversight responsibilities for each hazard (including funding), regulatory environment and general lay of the land; provide analysis and best practices on leadership and coordination issues related to managing risks at the appropriate scale and financing adaptation projects.

## Focus Area Two: Greenhouse Gas (GHG) Emissions Reduction

1

Zero Emission  
Transit Bus  
Infrastructure

Accelerate Zero-Emission Transit Bus (ZEB) deployment by supporting coordinated expansion of infrastructure and modernized facilities across the region. Position the region to capture significant federal and state funds to do so.



Low-Carbon,  
High-Equity  
Neighborhoods

*Align agency activities focused on affordable housing, building decarbonization, EV charging, trip reduction and resilience for a holistic approach to create affordable, healthy, zero-emission neighborhoods.*



### Initiative 3: Zero-Emission Transit Bus Infrastructure

**Description:** Accelerate Zero-Emission Transit Bus (ZEB) deployment by supporting coordinated expansion of reliable charging infrastructure across the Bay Area region.

## Context and Opportunity

Buses play a critical role in meeting transportation demand, reducing single-passenger trips and climate impacts, especially for people who depend and rely on public transit to get where they need to go, a large proportion being low-income residents.

Considerable state and federal funding for transportation infrastructure, including the Infrastructure, Investment and Jobs Act (IIJA), provide an unprecedented opportunity for the Bay Area to secure funding for decarbonizing our transit systems in the next year. In fiscal year 2022, \$1.47 billion in grants will be available from the Federal Transit Administration (FTA) to modernize bus fleets and facilities, including \$1.1 billion (a tenfold increase) in the FTA's Low or No Emission (Low-No) Grant Program and \$372 million through the Bus and Bus Facilities Grant Program.

Furthermore, the California Air Resources Board's Innovative Clean Transit Rule requires 25% of large operators' bus purchases be zero-emission by 2023, and 100% by 2029. In total, approximately 2,500 new buses will need to be replaced in the Bay Area over the next decade, putting new demands on bus depots and utilities to support the demand. Depending on planning, coordination, and approach this could equate to more than 250 megawatts of additional grid capacity, billions in cost and increased fleet space requirements. There is a need to think ahead to help mitigate the impacts of the massive conversion of buses to zero-emission so that it can be as seamless as possible.

To help facilitate the investment in zero-emission buses, MTC is leading a Bay Area Transit Zero-Emission Transition Strategy, working closely with the Bay Area Partnership Board (see [March 30, 2022 Bay Area Partnership Board Agenda Item 4a](#))<sup>2</sup>. As outlined, MTC's proposed transition strategy will focus on the following elements:

- **Cost and Funding** analysis to develop an updated regional cost estimate and funding framework for programming decisions and advocacy efforts
- **Policy Guidance & Best Practices** in technology, compatibility, and shared infrastructure/vehicles, at the regional, subregional, and/or local level
- **Facilitation of Early Coordination Efforts** to support highest-impact investment of resources
- **Analyze Submitted and Developing Rollout Plans** to identify opportunities for coordinated investments

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<sup>2</sup> <https://mtc.ca.gov/meetings-events/bay-area-partnership-board-2022-03-30t200000>

- **Evaluate and Manage** Risk including areas of technology choice and performance, energy provision to facilities, cost of buses and facilities, and emergency response.

To support this effort, the BARC Shared Work Plan through its involved agencies and partners will focus on coordination among stakeholders (including equipment manufacturers and utilities) that are essential to creating a robust charging infrastructure to support the expansion of electric bus fleets and potentially other municipal vehicles. Both BAAQMD, MTC/ABAG are engaged in efforts to coordinate with the region's 27 transit agencies in the deployment of grant resources for ZEB buses and infrastructure. The BARC initiative can facilitate data sharing from ZEB pilots already underway so operators can avoid unnecessary analysis. Procurement of charging equipment on a large scale can maximize cost savings and streamline engagement with manufacturers. Identifying the appropriate point of contact for utilities across operators could streamline delivery of power infrastructure.

## Goals

- All Bay Area buses are zero-emission (EV or hydrogen) by 2040
- ZEB charging infrastructure capacity increased to support new power demands
- Data sharing across operators on ZEB pilot lessons learned
- Simplified grantmaking across agencies to support shared outcomes
- Identify opportunities to link regional grantmaking to ZEB technologies and infrastructure standards for region's 27 transit agencies
- Help align city and transit operators' efforts to scale up ZEB
- Establish relationships between regional agencies, operators, manufacturers, and energy utilities to meet the new power demand.

## Key Stakeholders

MTC/ABAG, BAAQMD, Bay Area Partnership Board (Bay Area transit agencies), cities, counties, manufacturers, utilities, community choice aggregators (CCAs).

## Year One Priorities and Tasks

- Facilitate coordination between BAAQMD and MTC on grantmaking to support ZEB charging infrastructure
- Create overview and diagram the key players in this space, along with the challenges and opportunities in both near and long term
- Explore opportunities for shared transit/municipal charging infrastructure
- Explore/analyze near-term and long-term obstacles around charging infrastructure and power grid w/ utilities, cities, counties, etc.

## Exploratory Area: Low-Carbon, High-Equity Neighborhoods

### Description

Align different but interrelated agency programs to develop a more holistic approach to fostering affordable, healthy, zero-emission neighborhoods. These programs include those supporting affordable housing development, building decarbonization, electric vehicle charging, active transportation, single-occupancy vehicle trip reduction, commuter benefits and climate resilience.

### Context and Opportunity

MTC/ABAG and BAAQMD are pursuing a number of separate, yet interrelated activities to decarbonize how Bay Area residents live and commute. These include: technical assistance and financing for building decarbonization through the Bay Area Regional Energy Network (BayREN); the Bay Area Healthy Homes Initiative (BAHHI) led by BAAQMD; affordable housing development through the newly-established Bay Area Housing Finance Authority (BAHFA); guidance on local housing elements and climate resilience through MTC/ABAG's Regional Planning Program; as well as updated CEQA guidelines and thresholds, building retrofits, and incentives for electric vehicles and trip reduction through both agencies.

Evaluated through the lens of social equity and the opportunity to foster affordable, healthy, carbon-free neighborhoods, these focus areas could potentially have more impact if integrated into a more strategic and holistic approach. For example, moving away from supporting EV single-occupancy vehicle ownership for low-income people to a strategy of supporting EV car sharing at the neighborhood or building scale. BARC will work with agency partners to explore this complex topic, learning from the three Initiatives that are kicking off this next year to determine how best to approach this topic through a future initiative. A potential idea to explore is the development of a "Local Innovation Challenge Grant Program" that would support local governments, nonprofits and community-based organizations, affordable housing developers, and others in developing creative, innovative approaches at the neighborhood or district scale. A great example to learn from and build upon is the current *Zero Emissions Neighborhood Pilot Program* led by the City of San Jose that is focused on bringing "climate action to life at the neighborhood scale in an equitable way by co-creating neighborhood-level improvement plans in partnership with residents in disadvantaged residents".



## Conclusion & Next Steps

Underlying the initiatives outlined in the BARC Shared Work Plan is the mantra “*No one agency or entity can solve climate change alone*”. BARC was created through state statute as a mechanism through which regionally-oriented agencies can do the hard work of collaborating and aligning efforts to have greater impact. Nowhere in the statute does this say this is easy! Regional agencies don’t operate in a vacuum; they operate in a complex and diverse region of stakeholders operating at different scales, at different capacities, and with different roles and authorities. As evidenced in the comment letters to the initial draft of the BARC Shared Work Plan, the commitment and passion of different stakeholders in addressing the climate change emergency is palpable. There is no shortage of work to do, and everyone has a role to play.

There are more resources becoming available than ever before for climate mitigation and adaptation. We need to work together to ensure this new money can deliver the greatest benefit for people and communities, the Bay Area ecology, the economy and future generations. We need to work together to ensure resources are landing in the places that need them the most, particularly the Bay Area’s frontline, BIPOC communities.

The BARC Shared Work Plan initiatives are complex, multi-layered efforts that involve multiple tasks and activities that bleed into each other. In most cases these tasks are led by specific agencies but require the active participation of other agencies and stakeholders. By working together, the agencies can avoid duplication, communicate a clear, holistic, and coordinated approach to problem solving, and use everybody’s time and resources in a productive manner towards shared outcomes. Focusing on the most effective roles the regional agencies can play – whether individually or collectively – to address climate change is a key feature of the BARC Shared Work Plan.

To that point, this is an iterative process. BARC must develop a more detailed scope of work for each initiative that will include specific roles for participating agencies and stakeholder partners, and a visual representation of the interplay and relationship of different efforts and how they feed into outcomes. For next steps, BARC staff will work with participating agency staff and leadership, as well as other stakeholders where appropriate, to develop the following:

- Identification of “official” work groups for each initiative (year one)
- Detailed scope of work for each initiative that includes further clarity on goals, staff roles, relationship of existing efforts, intended outcomes for each task, budget and resource needs, identification of lead agencies where needed
- Outline of engagement strategy for each initiative, developed in partnership with stakeholders.

BARC staff expects this work to reasonably take two to three months, given all the stakeholders involved.

### **Recommendation**

The recommendation is that the BARC Governing Board approve the BARC Shared Work Plan with the condition that staff will bring forward further details for each initiative by the September 16, 2022, meeting. BARC staff will regularly report on progress of the initiatives at future meetings, enlisting the help of agency staff and partners in that endeavor.

## Appendices



## **Appendix A: BARC September 2021 Joint Resolution**

## Joint Resolution to Address Climate Change September 17, 2021

**WHEREAS**, according to the recent United Nations Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), catastrophic climate change impacts, including extreme droughts, severe heat waves and flooding, will continue to worsen for at least the next 30 years across the globe, while global sea levels will continue to rise at least for centuries<sup>1</sup>; and

**WHEREAS**, the increasingly frequent and severe impacts of climate change in the Bay Area do not conform to jurisdictional boundaries or the planning and regulatory authorities of any one agency or organization, and are creating overlapping risks to public health and safety that necessitate an integrated approach to air pollution mitigation and climate resilience; and

**WHEREAS**, scientific estimates project that California could experience as much as seven feet of sea level rise by the end of the century<sup>2</sup>, with the San Francisco Bay estimated to experience two-thirds of the flood impacts projected for the state<sup>3</sup>; and

**WHEREAS**, increasingly frequent and severe wildfires are creating air quality impacts that represent a public health crisis for Bay Area residents, while undermining progress on reducing greenhouse gas emissions. In 2020, wildfires released an estimated 112 million metric tons of CO<sub>2</sub> into the atmosphere<sup>4</sup>; and

**WHEREAS**, warming temperatures and prolonged drought increasingly stress the Bay's estuarine ecosystem and the ecological processes that it supports, while threatening the water supplies of communities around the region and throughout the state; and

**WHEREAS**, the Bay Area region's most socioeconomically vulnerable frontline communities are at great risk of exposure to climate threats and have limited access to the resources needed to reduce risks and increase the resilience necessary to recover from disasters; and

**WHEREAS**, by practicing an advanced form of coordination and strategic integration across the planning, investments, and regulatory activities of its member agencies, BARC aims to measurably and equitably improve the resilience, adaptive capacity,

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<sup>1</sup> Intergovernmental Panel on Climate Change. (2021, August). *Climate Change 2021: Summary for Policymakers*. [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_SPM.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf)

<sup>2</sup> California Legislative Analyst's office. (2020, August). *What Threat Does Sea-Level Rise Pose to California?*

[https://lao.ca.gov/Publications/Report/4261#California\\_Will\\_Experience\\_Rising\\_Seas\\_and\\_Tides](https://lao.ca.gov/Publications/Report/4261#California_Will_Experience_Rising_Seas_and_Tides)

<sup>3</sup> Barnard, P.L., Erikson, L.H., Foxgrover, A.C. *et al.* Dynamic flood modeling essential to assess the coastal impacts of climate change. *Sci Rep* 9, 4309 (2019). <https://doi.org/10.1038/s41598-019-40742-z>

<sup>4</sup> California Air Resources Board. (2021). *Frequently Asked Questions: Wildfire Emissions*. <https://ww2.arb.ca.gov/resources/documents/frequently-asked-questions-wildfire-emissio>

health and safety of Bay Area people and communities, our ecology and environment, economy and critical infrastructure; and

**WHEREAS**, BARC member agencies are working individually and collaboratively to reduce emissions of greenhouse gases and harmful air pollutants through regulation, transportation and land use planning, community outreach, direct funding and investments, and incentive programs, recognizing the need to meet ambitious regional and state climate targets, including an overarching statewide goal of reaching carbon neutrality by 2045; and

**WHEREAS**, BARC member agencies must work in close partnership with local governments and stakeholders, providing the resources, technical support, and guidance to advance actions at the local level focused particularly on helping frontline communities mitigate and adapt to the impacts of climate change; and

**WHEREAS**, the regional and state agencies that comprise BARC create and update ambitious plans – most required through state law- to adapt to and mitigate the effects of climate change for multiple hazards, and to develop and enforce regulations that preserve the integrity of the region’s environmental quality. These planning and regulatory responsibilities include, but are not limited to:

The **Association of Bay Area Governments (ABAG)** and the **Metropolitan Transportation Commission**, through Plan Bay Area, set long-term priorities for the region’s transportation system, housing, economy, and environment through a suite of actions and investments.

The **Bay Area Air Quality Management District (BAAQMD)**, through its Clean Air Plan and its regulatory authority, reduces the emissions of greenhouse gases and harmful air pollutants through a variety of control measures and incentive programs across sectors.

The **Bay Conservation and Development Commission (BCDC)** through the Bay Adapt Joint Platform, a voluntary, consensus-driven strategy for regional sea level rise adaptation, lays out a set of guiding principles and actions that will allow the region to adapt faster, better, and more equitably to a rising San Francisco Bay; furthermore, BCDC regulates dredging, filling and shoreline land use in the Bay pursuant to its Bay Plan, while helping to protect wetlands and increase public access to the Bay shoreline.

**Caltrans District 4** owns and manages core assets of the region’s transportation network and distributes critical funding that enables regions and local governments across California to mitigate and adapt to climate change.

The **California State Coastal Conservancy** protects and preserves natural lands and waterways along California’s coast, including the nine-county Bay

Area, by providing technical assistance and grant funding to develop and support projects within its jurisdiction, while advancing statewide resource plans.

**The San Francisco Bay Area Regional Water Quality Control Board** protects and enhances the region's water quality and drinking water supply through planning, permitting and enforcement activities that regulate surface water and groundwater quality in the region, pursuant to its Water Quality Control Plan, known as the Basin Plan; and

**WHEREAS**, the BARC member agencies will work together to strategically align planning and regulatory actions in order to accelerate the implementation of strategies that advance climate mitigation and adaptation goals. These include reducing mobile and point source carbon emissions, encouraging investments in housing and transportation that reduce climate risks and make the region more connected and affordable for all, and investing in climate adaptation strategies that make people and places more resilient, while prioritizing nature-based approaches where appropriate; and

**WHEREAS**, by establishing a structured framework for action, BARC and its member agencies can serve as a critical regional network that aligns and integrates resources, capacities, and areas of expertise to help the Bay Area region mitigate and adapt to climate change at the scale necessary, and with the sense of urgency the climate crisis demands.

**NOW THEREFORE, BE IT RESOLVED BY THE BARC GOVERNING BOARD IN CLOSE CONSULTATION WITH THE EXECUTIVE LEADERSHIP OF THE BARC MEMBER AGENCIES:**

The BARC Governing Board commits to advancing the level of strategic coordination and collaboration necessary across BARC member agencies to meet the goals outlined in each agency's regional plans, including, but not limited to, the Bay Adapt Joint Platform, Plan Bay Area, the Clean Air Plan, the Basin Plan, the Bay Plan, the Estuary Blueprint, and the Baylands Goals Report.

To achieve this goal, BARC Member Agencies will jointly develop a Shared Work Plan – a framework for aligning regional authorities, capacities, and expertise – with the assistance of BARC staff.

The Shared Work Plan will focus on delivering specific high-priority regional climate mitigation and adaptation goals outlined in each agency's plans, identifying actions that necessitate the active involvement and investment of multiple agencies, and helps orient priority actions taken on by member agencies into a larger suite of strategies making up a coordinated, coherent approach. The Shared Work Plan will call for the participating agencies to commit and align staff resources, synchronize planning and regulatory actions, develop tools for measuring and evaluating progress and provide regular progress reports.

The Shared Work Plan will include, at a minimum:

1. Actions that advance specific climate mitigation and adaptation goals outlined in regional plans that would benefit from enhanced coordination across agencies, with a focus on those identified as a high priority for implementation over the next 1 to 5 years. These actions shall be structured in a way that maximize agency expertise, break down silos, and help avoid duplication of existing agency efforts.
2. A commitment to devote appropriate resources and staff time in the next fiscal year, as feasible, to advance the actions identified in the Shared Work Plan, acknowledging that some actions will require ongoing efforts over multiple years.
3. A commitment to work in collaboration to advance joint policy positions on state and federal legislation, with the goal of advancing legislation that provides funding and support for the region, local jurisdictions, and special districts.
4. A commitment to social equity, working across member agencies to support and partner with frontline communities to strengthen adaptive capacity and resilience.
5. A commitment to developing an integrated technical assistance program, in partnership with local governments, to support needed climate actions at the local level. This program is contingent upon having the appropriate level of funding in place.
6. Key metrics for monitoring and evaluating progress on the actions included in the Shared Work Plan.

Upon approval of this resolution, BARC staff will work with BARC member agencies to establish a reasonable timeline for the development of the Shared Work Plan, with the overall goal of completing it by January 2022. This timeline would enable the Shared Work Plan to effectively support the actions identified in Plan Bay Area 2050, Bay Adapt and other efforts that are scheduled for final adoption in late 2021. Furthermore, the Shared Work Plan should be completed in time to inform the fiscal year 2022-23 budgeting processes of BARC and BARC Member Agencies. A similar timeline shall be applied to future fiscal years. The BARC Governing Board will receive an annual report on Shared Work Plan progress.

## **Appendix B: Public Comment Period: Comment Letters**



**San Francisco Bay Area Rapid Transit District**  
2150 Webster Street, Oakland, CA 94612

Allison Brooks  
Executive Director  
Bay Area Regional Collaborative (BARC)  
375 Beal Street, Suite 800  
San Francisco, CA 94105

Subject: BART comments for BARC draft Shared Work Plan dated March 18th 2022

Dear Ms. Brooks,

Thank you for the opportunity to provide comments on the BARC draft Shared Work Plan dated March 18th 2022. The District enthusiastically supports BARC's efforts to strategically align planning and regulatory actions to accelerate climate mitigation and adaptation in the region. Below BART submits the following comments for your consideration.

1. Initiative 1: Regional adaptation plan
  - a. With regard to delineating priority adaptation areas (year 1), suggest mandating that local leaders must meet engagement requirements (stakeholders, neighboring jurisdiction coordination) as a prerequisite for funding support that may flow through from the regional level.
  - b. Under Table A2 year 1, consider also including special districts when mapping out roles for each hazard.
2. Initiative 2: Regional Technical Assistance
  - a. This effort sounds similar to BCDC Adapting to Rising Tides (ART). Suggest that initiative builds program utilizing the existing tools and resources from ART that have already been created.
  - b. BCDC had previously through the ART program provided technical assistance through working groups to spur and encourage local planning. However, once BCDC stopped facilitating those meetings, local efforts stopped and the implementation never materialized. Are there incentives or mandates that could be included in the program to ensure local participation and follow-through?
  - c. It would be helpful if assistance included guidance or best practices on governance structures; how local jurisdictions should organize together to better support adaptation. For example, City of Alameda is examining organizational structures (e.g., joint authority) around the local OLU. Similarly, the Santa Clara County Collaborative (SCCC) is also looking at setting up a governance charter to address climate threats.

If you have questions or would like to discuss these comments please contact me at [nwong@bart.gov](mailto:nwong@bart.gov) or 510-301-2616. Thank you.

Sincerely,

A handwritten signature in black ink that reads "Norman Wong".

Norman Wong, P.E.  
Principal Engineer

Cc: Tian Feng



April 4, 2022

Allison Brooks  
Executive Director  
Bay Area Regional Collaborative (BARC)  
via email: [abrooks@bayareametro.org](mailto:abrooks@bayareametro.org)

Dear Allison,

Thank you for taking the time to talk with me last week regarding the BARC Shared Work Plan. Per our conversation, and your follow up email, we are excited to hear about the extension of the public review period for the shared work-plan to May 6th for consideration by the BARC Governing Board at its May meeting. As a follow up to our conversation, and with the support of the BayCAN Steering Committee, I am also excited to commit BayCAN's network to helping with the important conversation of how best to position the Bay Area for its fair share of the historic State and federal funding to support climate resilience. We discussed the following opportunities and look forward to further exploring these engagement opportunities in the weeks ahead.

- Facilitated discussion at the April 27th BayCAN quarterly meeting
- Facilitated discussion at the BayCAN Counties working group (TBD)
- Supported discussion with key State agency and Governor's Office stakeholders (TBD)

Let's please set up a call for the week of April 11th to further refine the agendas and scope of these meetings and engagement opportunities. Please don't hesitate to call me or email with any questions: 510-672-5487 or [michael@baycanadapt.org](mailto:michael@baycanadapt.org).

In collaboration,

Michael McCormick, AICP  
Partnerships and Staff Lead  
Bay Climate Adaptation Network (BayCAN)

BayCAN is a collaborative network of local government staff and partnering organizations working to help the Bay Area respond effectively and equitably to the impacts of climate change on human health, infrastructure, and natural systems.





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*Board Member  
Santa Clara Valley Water  
District Board of Directors*

**Dave Pine**

*Board Member  
County of San Mateo  
Flood Protection and Sea  
Level Rise Resiliency  
Agency*

**Margaret Bruce**

*Executive Director*

Date: April 6, 2022

Regarding: Comments on the BARC Draft Workplan

To: Allison Brooks, Executive Director, Bay Area Regional Collaborative (BARC)

Dear Allison,

As we both know all too well, mitigating climate changing emissions and adapting to climate change present complicated and relentless challenges. Because these inter-connected issues require an “all-hands-on-deck” approach, it is good to see an emphasis on collaboration and collective effort in the proposed Draft BARC Workplan. At the same time, I want to highlight some opportunities to improve the effectiveness of BARC’s endeavors.

At the core, it is unclear if the scope of this Workplan is limited to BARC’s role of coordination between the Bay Area’s regional environmental agencies or is intended to also coordinate and provide a Regional Adaptation Plan and Technical to the region’s nine counties, many cities, and myriad special districts, joint powers of authority, and other implementors.

As the BARC board resolution and the draft Workplan both mention, local cities and counties have advanced climate mitigation and adaptation action very differently – in scale, in complexity, in level-of-effort. There may be many reasons for these differences. It is possible to infer from the BARC Draft Workplan that access to information and technical support should not be limiting factors. However, it is not clear from the Draft Workplan what information, and what technical support would be provided, by whom, and under what conditions. Please clarify:

- 1) Who BARC intendeds to serve, and
- 2) How access to information and technical support are to be implemented - who gets access, how much technical support, and at what cost (if any).

In both the resolution and the Draft Workplan, there is an emphasis on stakeholder engagement. But ‘member agencies’ are also referenced frequently. It is not clear who your Draft Workplan is intended to support. IF it is only the agencies BARC typically coordinates with (MTC/ABAG,



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County of San Mateo  
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Level Rise Resiliency  
Agency*

### **Margaret Bruce**

*Executive Director*

BCDC, BAAQMD, etc.) this should be made clear. The scope of your Workplan then becomes much more manageable and coherent. However, if you mean all climate change mitigation and adaptation stakeholders in all local governments in the 9 Bay Area Counties, your scope and who your stakeholders are, changes by several orders of magnitude.

Supporting local governments in their needs for mitigation and adaptation plans, resources, and actions is a worthy endeavor. However, there are already many organizations, associations, collaboratives, and agencies who have taken on this task. You are probably aware of many of them. The BARC Draft Workplan doesn't mention how BARC will coordinate with, or leverage, or support existing organizations providing similar functions (examples include: CivicWell (formerly the Local Government Commission), the Institute for Local Government, BayCAN, and the Sustainability Directors Network). Please clarify and describe how BARC will either provide a missing element or additional substance to this ecosystem of experts and resources, and how the BARC proposed Workplan will coordinate with these groups.

The BARC Draft Workplan and the resolution supporting this effort speak to engaging stakeholders. I agree that is critical for the BARC Workplan's success. Speaking specifically, and personally, to that point, the only reason I knew about the Draft Workplan was because someone happened to mention to me the BCDC meeting where it was being shared, and I happened to have time to listen in. Given the paucity of stakeholder participation at the BCDC meeting, it seems like stakeholder identification, outreach, engagement, and integration of stakeholder input is an area in critical need of attention and remedial action before the Draft Workplan is finalized and accepted – particularly if the Workplan is intended to support a broad range of regional stakeholders. I suggest also that special attention be given to front line communities, and communities experiencing environmental, social, and economic justice legacies.

Finally, the role of BARC in the issuance of grants and funding must be clarified. Is it BARC's intention that State-level funding be passed through BARC to local governments? This model - adding a layer of bureaucracy - is not one that the SFCJPA can support. Is it BARC's intention to assist local governments by providing technical assistance and capacity for their application to various federal and State grant programs? This IS a model the SFCJPA can support – although the way this is to be delivered needs clarification.

Is there an intention to coordinate the funding requests of local governments so that by grouping like-with-like, BARC can aggregate



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*Board Member  
County of San Mateo  
Flood Protection and Sea  
Level Rise Resiliency  
Agency*

**Margaret Bruce**

*Executive Director*

funding requests and enhance the region's grant competitiveness? That would be something the SFCJPA could support – and again, if this is the case, a clearer explanation is needed. In reading the Draft Workplan, it is not clear how BARC intends to function in this space, other than to seek resources for the implementation of this Workplan.

The SFCJPA sincerely appreciates the vision and commitment to climate action embodied in the Draft Workplan. Although at this time, the SFCJPA can't support the Draft Workplan, additional stakeholder input, and further refinement will surely result in an effective addition to the region's significant needs and ambitious climate action efforts.

Thank you for your consideration of these comments, and for your commitment to the region's communities.

Sincerely,

Margaret Bruce  
Executive Director  
San Francisquito Creek Joint Powers Authority

CC: San Mateo County Supervisor David Pine, Palo Alto Mayor Pat Burt

Santa Clara Valley Water District (Valley Water)  
5750 Almaden Expressway  
San Jose, CA 95118

April 8, 2022

Bay Area Regional Collaborative

**Subject:** Comments from Valley Water on Bay Area Regional Collaborative's Draft Shared Work Plan

Dear BARC staff,

Valley Water staff were pleased to review the Bay Area Regional Collaborative's Draft Shared Work Plan. For your consideration, please see our comments below.

#### General Feedback

- Consider adding some language to the Introduction that explains how BARC and its Shared Work Plan fits into the greater Bay Area landscape of organizations and initiatives related to climate adaptation such as BayCAN, CHARG, and Bay Adapt.

#### Page 5, Initiative 1 – Objective 3

- The complications posed by jurisdictional responsibilities, property ownership, and differing mission areas are a constant challenge in planning/implementing climate resilience projects. These aspects are hard to grasp (especially for staff without deep experience in Bay Area government/regulatory setting) and there is no central resource to show who is responsible for what. Could this objective be tied to some sort of a deliverable that outlines the roles played by different government entities, coalitions, and associations and the “levers” that they control?

#### Page 6, Initiative 2 – Object 1

- Strongly support the creation of a central resource for climate adaptation data/standards/guidance. I'm not aware of an existing one-stop shop toolkit for adaptation practitioners. Valley Water and other agencies would no doubt benefit.

#### Page 11, Initiative 1, Objective 6

- Staff preparing the Regional Adaptation Plan should strive to include specific and quantifiable metrics/targets (i.e., achieve X goal by Y year) associated with the adaptation outcomes it tries to achieve. A lot of high level adaptation planning around broad goals but not tied to specific achievements already exists. Perhaps also consider incorporating some general guidance/resources that can support local jurisdictions in developing their own metrics/targets.

#### Page 11, Initiative 1

- Include language referring to importance of early coordination between neighboring jurisdictions to avoid unintended effects from one agency on another based on implemented actions.

Thank you for the opportunity to review the Draft Shared Work Plan. If you have questions regarding our comments, do not hesitate to contact Brian Mendenhall and Nick Mascarello via email. We look forward to reviewing the final version of the document once available.

Regards,

Brian Mendenhall  
Senior Water Resource Specialist  
bmendenhall@valleywater.org

Nick Mascarello  
Assistant Environmental Planner  
nmascarello@valleywater.org

Hi Allison,

Thank you for your presentation at BayCAN. I had read the BARC Shared Work Plan several weeks ago and was generally pleased with its approach. I do have some questions and comments about Initiative 4: Low Carbon, High Equity Neighborhoods.

This is such an important initiative, though very complex and perhaps needing a very strategic approach with perhaps unprecedented funding. Some observations about that initiative's description:

- I'm not aware that existing EV incentives (which are currently highly emphasized in GHG reduction efforts) have tangible benefits for under-resourced communities. State rebates are negligible when compared to MSRP for new EV vehicles and these programs remain largely out of reach for low-income households and communities. Rebates are mostly enjoyed by those who can afford an EV vehicle anyway. When we think about how racially segregated many of our communities are, any micro-level emissions reductions likely benefit only whiter and wealthier communities where households can afford an EV.
  - How would BARC's workplan use existing or proposed EV programs to promote this initiative without exacerbating existing inequities, as the state rebate program may do?
  - Would there be an intentional effort to increase EV ownership among low-income households and in under-resourced communities through significant subsidies, low/0% interest financing, or another means?
- How would affordable housing initiatives guarantee emissions reductions? In other words, how might we ensure that affordable housing is near the job centers where lower-income households actually work? Low-income housing is so scarce and in demand in the Bay Area that households tend to jump on whatever BMR unit is available, no matter where it is. This may very well result in lengthy commutes to where they work. Any emissions reductions initiative needs to ensure housing and employment for low-income households are geographically proximate.
  - How would BARC's work plan tackle this issue?

Additional questions to consider addressing in the work plan include:

- How does carbon reduction work address/align with efforts to mitigate smoke pollution from wildfire season?
- How would promotion of public transit interact with heat exposure reduction for commuters?

Thank you!

-Ana

**Ana Miscolta-Cameron** (she/her)

Resource Conservation Specialist

Climate Change Team

San Mateo County Office of Sustainability



May 5, 2022

Allison Brooks  
Executive Director  
Bay Area Regional Collaborative (BARC)  
via email: [abrooks@bayareametro.org](mailto:abrooks@bayareametro.org)

Dear Allison,

Thank you for the opportunity to comment on the BARC Shared Work Plan (Work Plan), and for your engagement with the [Bay Area Climate Adaptation Network](#) (BayCAN) at our April 27, 2022 quarterly meeting. BayCAN appreciated hearing the proposal, and as you experienced from the discussion that followed your presentation, has some specific thoughts about how the Work Plan could be improved to better reflect the local and community context in the Bay Area.

This comment letter is written to help inform what we hope is a mutually supportive long-term working relationship across our organizations, and across the stakeholders we respectively represent through our respective missions. Our comments in this letter address four primary issues:

- **The BARC Role** - The Draft Work Plan appears to expand the role and authority of BARC in relationship to the city, county, special districts, and Community Based Organization (CBO) leaders with whom BARC proposes to partner,
- **The BARC Process** - The Work Plan development process has demonstrated minimal engagement with the proposed partners mentioned in the Work Plan,
- **The Work Plan Content** - We have a number of questions regarding how the Work Plan defines “Climate Services” and “Technical Support” and the process and structure to allocate these resources,
- **Next Steps** - The scope of the Work Plan and the timeline for consideration of the Work Plan should be reconsidered to address a more open public engagement process that provides transparency into how input from key stakeholders will be incorporated. BayCAN would like to support BARC and its member agencies in reaching out to stakeholders mentioned in the Work Plan so they can inform how they would be framed in the proposal - this should be completed before the Work Plan is finalized and approved.

BayCAN currently includes 44 organizations across the Bay - from cities and counties, to special districts, non-profit organizations, private sector experts, and community-based organizations (CBOs), accompanied by regional and State agency partners that regularly attend BayCAN meetings and participate in BayCAN network activities. The diversity of our membership and partners allows us to bring people together in a collaborative construct to help solve some of the region’s most challenging problems.

The BARC Work Plan acknowledges the importance of coordinating climate action across the region, which is deeply appreciated and generally embraced by our Network. In fact, BayCAN was established to



bring together the local government and partner voices that collectively provide for regional coordination on climate adaptation, and this work has expanded to include deep engagement around how to achieve equitable adaptation and provide space and influence for frontline communities to both lead community planning and develop alignment with local governments. See our [Equity Program](#) as a resource and reference point regarding our priorities around equity.

As stated on the BARC [website](#), BARC was established to “coordinate the policy and planning work of the Metropolitan Transportation Commission (MTC), Association of Bay Area Governments (ABAG), Bay Area Air Quality Management District (BAAQMD) and the Bay Conservation and Development Commission (BCDC).” Each of these regional agencies, along with local governments, special districts, academic institutions, and many community groups, non-profits, and private sector entities across the Bay Area have plans to address climate change for their own organizations and geographies. Thousands of organizations and people work on climate change goals, policies, actions, projects, analysis, research, and coordination across the Bay Area.

Acknowledging this vast landscape of actors working on climate change across the Bay, and our organizations’ respective unique roles for the region, our Steering Committee shares these comments and recommended changes with you and the Governing Board. These comments are largely focused on the regional adaptation plan and technical assistance proposal, however please consider these comments more broadly as well.

1. **Clarity Regarding Stakeholders.** The BARC Work Plan is not clear whether its focus is regional agencies or more broadly intended to provide direction to local governments. The Joint Policy Committee (now BARC) was formed to help regional agencies collaborate, but as written, this Work Plan proposal appears to significantly broaden that mission to include all Bay Area entities working on climate change. If the plan is purported to represent the interests of our members and partners, and organizations working on climate across our region, the Work Plan must do the work to engage and provide influence over the process of developing the Work Plan, programs, and initiatives in a truly collaborative fashion. While BayCAN seeks to be a constructive partner with BARC on this effort, without the clarity of the stakeholders of the Work Plan, or transparency into how input from key stakeholders will be incorporated, it is difficult to provide helpful comments on how best to engage those stakeholders.
2. **Collaborating on Climate in the Bay Area.** The BARC Work Plan appears to require significant increases in staff and authority for BARC, which would move authority and influence from the regional agencies and local governments currently leading this work and consolidate that in BARC under the premise of greater alignment. This could disrupt, rather than enhance, work done to date to forge regional collaboration by BayCAN, BCDC, MTC/ABAG, BAAQMD, local governments, community-based organizations, and others over the past two decades. Speaking for BayCAN, several principles are critical in our work and include:
  - a. Cities, counties, and special districts have primary land use authority and lead the development of climate vulnerability assessment and adaptation action planning in their areas of influence consistent with State mandates for local governments to address climate vulnerability and adaptation in their general plans. Similar requirements apply to other public and quasi-public entities.

- b. Cities, counties, and special districts should work closely with regional agencies and state agencies - and vice versa - to align around development of a regional vision and shared goals, policies, and actions. Regional agencies can and should support collaborative efforts of city, county, non-profit, university, and CBO leaders.
  - c. Advancing climate justice and equity in resilience-building across the Bay Area is a critical part of any action on climate. We do so by supporting peer learning, developing region-specific resources and working across sectors to shift towards a culture of equity. Resources have been developed by the BayCAN equity program to inform equitable engagement and planning and can be found [here](#).
  - d. Regional solutions are often not a good fit for community level challenges. As we heard at our quarterly meeting, local and community planning requires bottom-up planning which should not be centered at a regional agency, rather regional agencies can help bring clarity, resources, and tools to help support local planning.
  - e. BayCAN is a member of the Alliance of Regional Collaboratives for Climate Adaptation (ARCCA) and as such also brings forward ARCCA's [Guiding Principles](#) as aligning principles.
3. **Communication and Engagement.** The BARC Work Plan was produced quietly over the past six months and had no official public engagement process aside from being open for a brief public review and comment. Plan distribution and comment was largely completed by organizations other than BARC. Until the deadline was extended for public review at our request, there had been minimal public vetting of the Work Plan. Even now, there has been minimal engagement across the Bay Area for such a significant proposal.

Throughout the BARC Work Plan, the Bay Area's city, county, and community leaders are defined as partners in the development and implementation of Work Plan related initiatives, however these same partners were largely not informed that the Work Plan was in development. The process for engagement for this draft Work Plan is inconsistent with the plan's emphasis on engagement. This has resulted in less trust and alignment around the Work Plan or the various components that purport to be acting on behalf of the stakeholders that were not yet formally engaged. Until BayCAN reached out for a presentation we were not engaged formally nor were any of our members outside of representation on a legislative working group that met once to hear a presentation on the Work Plan. In that presentation the working group understood that engagement would be a priority prior to consideration of the draft Work Plan, and during the implementation of the Work Plan. In short, the public review process for the Work Plan was ineffective and comment letters submitted during this period should not be considered representative of the Bay Area's climate practitioner community of practice.

If some form of the BARC Work Plan were to move forward, BayCAN and our network would gladly engage in a dialogue regarding climate work in the Bay Area and representing the interests of our Network members in the Work Plan. We would also be excited to support the development of a survey that could be deployed across the Bay Area Community of Practice to get a high-level understanding of the needs of local governments across the Bay Area and how the BARC Work Plan ties in to their priorities. We've supported regional agencies in the past on

similar initiatives, for example, during the Bay Adapt process, David Behar and Bruce Riordan served on the Bay Adapt Leadership Advisory Group and David chaired a Climate Services and Technical Support subcommittee. BayCAN led or facilitated numerous outreach meetings, focus groups, and processes building collaboration across the Bay Area in this process. We would be happy to support a similar robust approach for the concepts outlined in the joint Work Plan, however both the scope of the Work Plan and the timeline for consideration of the Work Plan would need to be reconsidered to address a more open public engagement process that provides transparency into how input from key stakeholders will be incorporated.

4. **Regional Adaptation Planning.** BARC was created to help coordinate efforts between regional agencies. As such, BARC supporting the development of an aligned adaptation strategy to coordinate across regional agencies is appropriate. Expanding the authority of BARC to “direct local projects” that are funded or supported by BARC staff is a significant increase in BARCs historical role in the region. BARC should not presume to represent local interests through consolidation of planning, technical assistance, funding, and staff capacity to manage these efforts. Instead, BARC should advocate for alignment of Work Plans across regional agencies through a regional adaptation plan. During the development of the aligning regional adaptation plan, BARC should include the expertise of the thousands of professional and community members working on climate change across the Bay Area. Aligning regional agencies is appropriate, but BARC was not created to direct regional agencies, to be a grantmaking entity, or to direct local governments. The larger question would be, considering the landscape of activities occurring across the Bay Area, what should a Work Plan shared across the regional agencies focus on in the near term and longer term. In the near term, a more appropriate role for BARC would be to focus on aligning regional agency work plans and how regional agencies work together.

One real opportunity not included in the Work Plan is for BARC to serve as a provider of landscape-scale assessments of regional issues. This work is essential to help integrate complex transportation and housing needs, plans and policies into adaptation decisions. BARC could also help support a region wide understanding of local initiatives. BayCAN currently [collects](#) information on projects and programs underway as a member supporting benefit - we would be excited to work with BARC to continue and expand this program tracking role in support of region wide understanding of policies and programs being implemented at the local level.

5. **Technical Assistance.** The BARC Work Plan proposes a technical assistance program without acknowledging the significant technical assistance (TA) capacity already in place in the Bay Area. Providing TA broadly is neither a BARC strength nor an appropriate role for it with its limited capacity and focus on collaboration across regional agencies. As was discussed at length in the Bay Adapt process, technical assistance and climate services, ranging from the collecting of observational data, to interpreting the latest climate science, to discovering and promoting leading practices in vulnerability assessment and adaptation action, is a significant undertaking requiring high levels of expertise, outreach resources, and connectivity to multiple sources of information and - most important - adaptation actors on the ground. This is not a role that matches up well with BARC’s history, mission, or strengths. Other regional processes also discussed climate services and the need for organized TA in detail through a public process - BARC should establish an understanding of those prior processes prior to committing to any



particular path. BayCAN would like to discuss how we can collectively support development of the region's technical capacity to scale up quickly to create a more equitable and resilient Bay Area.

While we cannot support adoption of the Draft BARC Work Plan in its current form, we deeply appreciate the Work Plan's commitment to actively addressing climate change. With the support of BayCAN's steering committee we are excited to commit BayCAN's capacity and network to help develop a functional and broad conversation regarding how to best position the Bay Area for its fair share of the historic State and federal funding to support a more equitable and resilient Bay Area. We request the opportunity for our members to engage in a dialogue with BARC and its member agencies before the Draft Work Plan is presented for approval by the Governing Board. As noted, we are willing to commit BayCAN resources to help organize such a dialogue.

Please don't hesitate to contact us with any questions: 510-672-5487 or [michael@baycanadapt.org](mailto:michael@baycanadapt.org).

In collaboration,

Michael McCormick  
Director  
BayCAN

Violet Wulf Saena  
Equity Program Manager  
BayCAN

CC: BARC Governing Board  
Regional Agency Directors  
BayCAN Steering Committee  
BayCAN Network Members

The Bay Area Climate Adaptation Network ([BayCAN](http://www.baycanadapt.org)) is a collaborative network of local government staff and partners helping the Bay Area region respond effectively and equitably to the impacts of climate change on human health, infrastructure and natural systems. BayCAN covers the 9-county San Francisco Bay Area and primarily exists to facilitate connections, information sharing, and best practices development among local governments; develop opportunities for multi-jurisdictional collaboration and program implementation, and help secure greater levels of adaptation funding and resources.

Hi,

I am writing to submit comments on the BARC draft shared work plan on behalf of Climate Smart San José (see below). We appreciate BARC's work on creating this plan and the opportunity to provide comment.

Thanks and best,

Yael

**Yael Kisel**

Climate Smart Analytics Lead & Projects  
Coordinator

Pronouns: she/her

City of San José | Environmental Services Department

200 East Santa Clara Street, 10th Floor | San José, CA  
95113

**Sign up for the [Climate Smart Challenge!](#)**

It's a fun and easy way to track your carbon footprint, lower your bills, and make a difference in your community!

Climate Smart San José comments on the BARC draft work plan to advance climate adaptation in the Bay Area

First, we welcome the regional approach to climate adaptation that Focus Area One provides. Climate risks are playing out and will continue to play out on a regional scale,

and we believe our response will be most efficient and effective if coordinated regionally.

For Initiative One, the development of a Regional Multi-Hazard Climate Adaptation Plan, we recommend that the Plan include an adaptation plan template that participating jurisdictions, such as local governments, can build upon to develop their own specific local adaptation plans. This would make it easier for local jurisdictions to develop a local adaptation plan, and would ensure that local adaptation plans align with the regional adaptation plan. Alternatively, such a template could be provided as part of the Initiative Two Technical Assistance, which we strongly support.

For the Initiative Two Technical Assistance, we recommend the inclusion of one-on-one assistance, in addition to written guidance and workshops/webinars. A facilitated cohort where multiple jurisdictions are supported at the same time in developing adaptation plans could also be helpful.

For Initiative 3, we suggest inviting local jurisdictions' departments of transportation to participate as well, as they could have valuable input. In addition, recognizing that zero-emission buses are just one element of transitioning to a carbon-neutral regional transportation system, we recommend setting up the coordination network from the start with the intention of later being able to use it to coordinate on other transportation issues as well.

We are also strongly supportive of Initiative Four: Low-Carbon, High-Equity Neighborhoods, as it aligns with a Zero Emissions Neighborhood pilot program we are currently developing. The core idea of this program is to bring climate action to life at the neighborhood scale in an equitable way by co-creating neighborhood-level improvement plans in partnership with residents in disadvantaged neighborhoods. Residents in each participating neighborhood will help select the sustainability measures that they would like to see implemented, which could include measures relating to urban greening, water conservation, waste reduction, energy efficiency and electrification, green mobility, and more. Planning for our pilot Zero Emissions Neighborhood is currently underway and implementation is expected to begin later in

2022. The major barrier to implementing this program is funding, and we strongly support the creation of a Local Innovation Challenge Grant program.



**From:** Susan Silber <susansilber07@gmail.com>

**Reply-To:** "susansilber07@gmail.com" <susansilber07@gmail.com>

**Date:** Friday, May 6, 2022 at 2:21 PM

**To:** Allison Brooks <abrooks@bayareametro.gov>

**Subject:** Draft Shared Work Plan

**\*External Email\***

Greetings~ My general feedback is that none of the initiatives or goals incorporate enough authentic community engagement or tangible community-led projects. Community members should be at the heart of this plan. I do not see any language around partnerships with CBO's. I'd love to see a separate fund supporting the work of CBO's, like the [Just Resilience Fund](#) vision.

I'd also love to see [resilience hubs, spaces & blocks](#) (Climate resilience centers) listed as a core strategy. If every city had a network of resilience hubs, spaces & blocks, this could really support a really robust, integrated, holistic and deep community engagement strategy that would support the neighborhoods hardest hit by the Climate Crisis (or this strategy could be integrated into building low-carbon, high-equity neighborhoods).

As well, I would love to see more of a holistic framing of resilience. Climate resilience is about neighbors helping neighbors, about disaster preparedness, about food justice, water conservation, about racial justice. I don't see these components.

If you have any questions about what I wrote please feel free to write me.

Thanks!

Susan Silber



# Citizens Committee to Complete the Refuge

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*Comments submitted via electronic mail*

Bay Area Regional Collaborative  
Attn: Draft Shared Work Plan  
375 Beale Street, Suite 800  
San Francisco, CA, 94105  
Email: [abrooks@bayareametro.gov](mailto:abrooks@bayareametro.gov)

May 6, 2022

## Re: Draft BARC Shared Work Plan

Dear Executive Director Brooks,

The Citizens Committee to Complete the Refuge submits these comments regarding the Bay Area Regional Collaborative (BARC) Draft Shared Work Plan (Draft Plan), and we thank you for the opportunity to provide comments. The focus of our organization is on the protection and resilience of wetlands and the habitats and species wetlands support. We realize that climate change poses many threats to natural landscapes and our built environment; however, the focus of our comments is on the threats posed by sea level rise in particular on the long-term health of the Bay and the resilience of our communities.

While we certainly support the September 17, 2021 Joint Resolution to Address Climate Change, it is extremely disappointing and of great concern that the adverse impacts of sea level rise on the natural environment and the ecological health of the Bay itself, are not directly addressed in Draft BARC Shared Work Plan, and only hinted at in "Table A1: Agency Roles and Needs (Initiative 1)," through mention of *Bay Adapt* and integration of the *Estuary Blueprint*. We are living through an unparalleled time of climate change that has resulted from ignoring anthropogenic impacts on the world's environment. It would be unconscionable to develop a Regional Multi-Hazard Adaptation Plan that fails to address adverse impacts of sea level rise on the natural environment and ecological health of the Bay. The Regional Multi-Hazard Adaptation Plan must clearly and explicitly incorporate protection of the natural resources of the Bay as a crucial component of the regional approach; otherwise, we will continue to stay in our self-imposed silos of built environment versus the natural environment and risk squandering opportunities that could provide better long-term resilience for both.

Citizens Committee to Complete the Refuge (CCCR), with a membership of 2,000, has an ongoing history of interest in wetlands protection, wetlands restoration and wetlands acquisition. Our senior members were part of a group of citizens who became alarmed at the degradation of the Bay and its wetlands. We joined together, and with the support of Congressman Don Edwards, requested that Congress establish the Nation's first national wildlife refuge in an urban setting. The process took seven long years and in 1972 legislation was passed to form the San Francisco Bay National Wildlife Refuge ("Refuge"). We turned to Mr. Edwards again, and in 1988 (the first year submitted) his legislation to double the size of the Refuge was signed into law. The Refuge now bears his name in honor of his efforts.

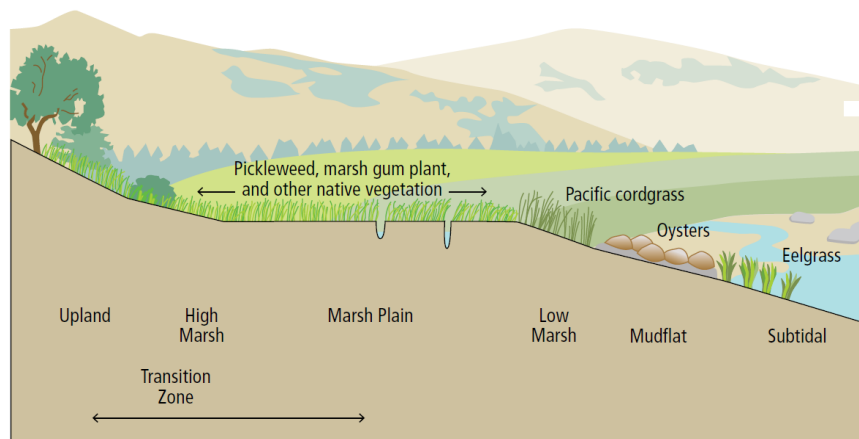
CCCR has taken an active interest in state and federal regulations, policies, implementation, and enforcement pertaining to the protection of wetlands and undeveloped lands that could support the expansion of tidal marsh habitats/species or the migration of tidal marsh habitats and species as sea level rises.

We are stakeholders on the San Francisco Bay Joint Venture, San Francisco Estuary Partnership and the South Bay Salt Pond Restoration project, and were stakeholders in the Bay Conservation and Development Commission's (BCDC) Adapting to Rising Tides and Bay Adapt Programs. We were also stakeholders in the development of the State's definition of wetlands and the dredge and fill policy. We also participated in the Plan Bay Area 2050 process. Each of these processes recognize the invaluable role tidal wetlands play in maintaining the ecological health of the Bay and the many ecosystem services provided by complete tidal wetlands (tidal wetlands). Complete tidal wetlands<sup>1</sup> have been defined in the 2015 Baylands Ecosystem Habitat Goals Update (BEHGU) as habitats from the "open waters of the bay through intertidal mudflats, tidal marshes, and adjacent terrestrial areas." And:

"A more accurate way to consider this continuum of habitats involves the concept of a "complete tidal wetland system," which emphasizes all the aspects of the baylands ecosystem and the full gradient of ecological functions and ecosystem services (fig. 11)."

Figure 11 of the document provides a graphic cross-section representation of a "complete tidal wetland:"

**Figure 11** Schematic of the complete tidal wetland system.



Our comments and recommendations regarding the Draft BARC Shared Work Plan follow.

**It is imperative that long-term protection of tidal wetlands as defined above is incorporated as a crucial element when developing the Regional Multi-Hazard Climate Adaptation Plan:**

The Draft Plan cites the September 17, 2021 Joint Resolution stating:

"...the BARC member agencies will "work together to strategically align planning and regulatory actions in order to accelerate the implementation of strategies that advance climate mitigation and adaptation goals."

And that:

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<sup>1</sup> Goals Project. 2015. *The Baylands and Climate Change: What We Can Do. Baylands Ecosystem Habitat Goals Science Update 2015* prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project. California State Coastal Conservancy, Oakland, CA .

“The Draft BARC Shared Work Plan *is the mechanism by which the agencies will do that, outlining four ambitious Initiatives that aim to produce measurable results within the next one to five years to equitably reduce greenhouse gas emissions and advance a strategic regional approach to adapting to climate change.* Underlying each Initiative is a commitment to advancing social equity, with a focus on optimizing the roles of BARC’s member agencies so that they *better support and enhance local actions and connect them to regional plans and progress.*” [emphasis added]

It is impossible to determine from the language of the Draft Plan if, or how, the urgent need to provide long-term protection of tidal wetlands will be incorporated into the development of the Regional Multi-Hazard Climate Adaptation Plan. The San Francisco Estuary Partnership *Estuary Blueprint* is mentioned in “Initiative 1: Regional Multi-Hazard Climate Adaptation Plan” and includes language that the *Estuary Blueprint* “maps out regional actions needed for a healthy and resilient San Francisco Estuary.” However, in the passage describing the Bay Conservation and Development Commission’s (BCDC) *Bay Adapt Joint Platform* (Joint Platform), the Draft Plan has omitted a key word “natural”<sup>2</sup> in the description of the goals of the Joint Platform. BCDC was created to protect the Bay as a crucial natural resource and this fact is reflected in the Bay Plan. This sentence must be corrected to accurately reflect the goals of BCDC and the language of the Joint Platform:

“That same month, BCDC’s Bay Adapt Joint Platform laid out a high-level action plan to protect people and the natural and built environment from rising sea levels.”

San Francisco Bay has been recognized as a “Wetland of International Importance” by UNESCO’s Ramsar Convention on Wetlands. It has been identified as a Hemispheric Reserve for shorebirds by the Western Hemispheric Shorebird Reserve Network. This classification is the Network’s highest ranking and the Network states that, “San Francisco Bay holds higher proportions of the total wintering and migrating shorebirds on the U.S. Pacific coast than any other wetland.” The Bay supports hundreds of thousands of migratory waterfowl every year and has been designated an Area of Continental significance for waterfowl by the North American Waterfowl Conservation Plan and an Important Bird Area by the National Audubon Society. The Bay provides Essential Fish Habitat as identified by the National Marine Fisheries Service and supports hundreds of fish and crustacean species.

The San Francisco Bay estuary, is the largest estuary on the west coast of both Americas. The incredible biodiversity and ecosystem services the estuary supports and that we depend upon, are vulnerable to the threat of sea level rise. Estuarine intertidal and shallow waters support economically important species, act as nurseries for fisheries, as well as rare, listed and migratory species, and support tremendous biodiversity.

In addition, tidal wetlands provide numerous ecosystem services including nutrient cycling, water quality improvement, flood protection and also provide opportunities for education and recreation. Of great pertinence to our concerns of addressing climate change, is the significant ability of tidal wetlands to draw down and sequester carbon. The National Oceanic and Atmospheric Administration’s *Coastal Blue Carbon* website<sup>3</sup> states, “Current studies suggest that mangroves and *coastal wetlands annually sequester carbon at a rate ten times greater than mature tropical forests.* They also *store three to five times more carbon per equivalent area than tropical forests.*” [emphasis added]

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<sup>2</sup> Bay Conservation and Development Commission *Bay Adapt Joint Platform Executive Summary* [https://www.bayadapt.org/wp-content/uploads/2021/10/BayAdapt\\_4-pager\\_2021.10\\_ADA.pdf](https://www.bayadapt.org/wp-content/uploads/2021/10/BayAdapt_4-pager_2021.10_ADA.pdf)

<sup>3</sup> “Coastal Blue Carbon.” Accessed April 22, 2022. <https://oceanservice.noaa.gov/ecosystems/coastal-blue-carbon/>

However, these extremely beneficial ecosystem services will be lost if we do not adequately include plans for long-term protection of tidal wetland habitat as we plan to provide resilience for the Bay Area's built environment. Dusterhoff et al<sup>4</sup>, in a San Francisco Estuary Institute Report (SFEI) "*Sediment for Survival: A Strategy for the Resilience of Bay Wetlands in the Lower San Francisco Estuary*," describe the significant challenges we must address to maintain tidal wetlands, including the diminishing sediment supply which may hinder the ability of tidal wetlands to keep pace with rising sea levels through accretion of sediment, and our history of developing up to the edges of the Bay, which reduces the ability of tidal wetlands to migrate inland.

We understand agencies such as the Metropolitan Transit Commission (MTC) and the Association of Bay Area Governments (ABAG) are primarily focused on the resilience of the Bay Area's built environment. However, planning processes and the development of any regional adaptation plans need to incorporate preservation of areas that provide lateral migration space for tidal wetlands to avoid squandering important opportunities to sustain tidal wetlands. While the phrase nature-based solutions (NBS) is mentioned in this Draft Plan, it is important that consideration of the use of NBS is not restricted to planning horizontal levees, but also encompasses other important strategies such as the aforementioned restoration of tidal wetlands and preservation of future migration space for tidal wetlands. These adaptation/mitigation measures must be included in any regional planning for the built environment. This could be accomplished from a complete overhaul of the Priority Conservation Area designations provided by ABAG, as has been discussed in Plan Bay Area 2050, so that these designations identify areas that will support local and regional ecological function. Or it could be through the development of the concept of Priority Adaptation Areas that could apply to areas that will provide space for tidal marsh migration, expansion, or restoration, or in upland areas that could provide protective buffers at the wildland-urban interface (WUI).

We concur that given the threat posed by sea level rise to the natural and built environment, we all need to be rowing in the same direction and that a regional approach for sea level rise resilience needs to be adopted. As an example, there is a need to ensure that flood protection measures implemented in one community, do not adversely impact the resilience of other communities in the region. A recent article by Stanford University's Natural Capital Project<sup>5</sup>, and a 2018 paper by Wang et al<sup>6</sup>, analyzed through modeling, the interconnectedness of the Bay's shoreline and the ramifications of utilizing seawalls and traditional levees in one location, on other areas of the Bay. Both studies concluded that "...measures to prevent flooding along an embayment shoreline in one location or subregion may increase inundation elsewhere in the system." [Wang et al] Furthermore, in addition to avoiding harm to other communities when developing plans to provide flood protection, one of the Guiding Principles of BCDC's Joint Platform should be employed, "Put nature first whenever possible. Prioritize natural infrastructure solutions that benefit ecosystems and the health of the Bay as well as people, especially in the near-term."

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<sup>4</sup> Dusterhoff, S., McKnight, K., Grenier, L., and Kauffman, N. 2021. *Sediment for Survival: A Strategy for the Resilience of Bay Wetlands in the Lower San Francisco Estuary*. A SFEI Resilient Landscape Program. A product of the *Healthy Watersheds, Resilient Baylands* project, funded by the San Francisco Bay Water Quality Improvement Fund, EPA Region IX. Publication #1015, San Francisco Estuary Institute, Richmond, CA.

<sup>5</sup> Michelle A. Hummel, Robert Griffin, Katie Arkema, Anne D. Guerry. "Economic evaluation of sea-level rise adaptation strongly influenced by hydrodynamic feedbacks. *Proceedings of the National Academy of Sciences* Jul 2021, 118 (29) e2025961118; DOI: 10.1073/pnas.2025961118

<sup>6</sup> R. Q. Wang, M. T. Stacey, L. M. M. Herdman, P. L. Barnard, L. Erikson. "*The influence of sea level rise on the regional interdependence of coastal infrastructure.*" *Earth Future* 6, 677–688 (2018).

## Initiative 2: Regional Climate Adaptation Technical Assistance

Under the “Objectives” we urge that a bullet regarding adaptation projects be incorporated as suggested below:

“Help move planning toward the prioritization of nature-based (green) adaptation over gray infrastructure unless site conditions cannot support the use of nature-based adaptation”

As mentioned above, BCDC’s Joint Platform espouses prioritization of natural infrastructure solutions whenever possible and concludes “Working with nature, instead of against it, can produce better results for both people and wildlife.”

It would also be extremely useful for the Regional Climate Adaptation Technical Assistance program to provide information regarding the various funding streams available for climate adaptation and mitigation projects, the criteria to qualify for the funding, assistance in writing of applications and dates of application deadlines to assist communities and community-based organizations to apply for funding to assist in local resilience planning.

### Focus Area Two: Greenhouse Gas (GHG) Emissions Reductions

The two initiatives included under this section regard development of zero-emission transit bus infrastructure and low-carbon high-equity neighborhoods.

As mentioned earlier, tidal wetland habitat is extremely efficient at drawing down atmospheric carbon and storing carbon.

We urge BARC to include a third initiative that recognizes the value provided through long-term protection and restoration of tidal wetlands, as carbon sinks, due to their ability to draw down and store carbon. Mcleod et al<sup>7</sup> provided the following takeaways:

“Despite their relatively small global extent, vegetated coastal ecosystems (mangrove forests, seagrass beds, salt marshes) are disproportionately important in sequestering carbon dioxide when compared to terrestrial ecosystems.”

A 2019 National Academy of Sciences Study<sup>8</sup> regarding negative emissions technologies (NETs) reports:

“The motivation for including coastal blue carbon as a potential NET is the potential to more than double the current rate of CO<sub>2</sub> removal through several approaches that restore and create coastal wetlands... Reversing historic loss and degradation through restoration, incorporating wetland creation into coastal adaptation projects, and managing wetland area and carbon accumulation rates provide an opportunity for increased carbon removal and storage through the 21st century.

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<sup>7</sup> Mcleod, Elizabeth, Gail L Chmura, Steven Bouillon, Rodney Salm, Mats Björk, Carlos M Duarte, Catherine E Lovelock, William H Schlesinger, and Brian R Silliman. “A Blueprint for Blue Carbon: Toward an Improved Understanding of the Role of Vegetated Coastal Habitats in Sequestering CO<sub>2</sub>.” *Frontiers in Ecology and the Environment* 9, no. 10 (December 2011): 552–60. <https://doi.org/10.1890/110004>.

<sup>8</sup> National Academies of Sciences, Engineering, and Medicine 2019. *Negative Emissions Technologies and Reliable Sequestration: A Research Agenda*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25259>.



Coastal wetlands and seagrasses are already the targets of restoration and management for the broad range of ecosystem services they provide beyond CO<sub>2</sub> removal, O<sub>2</sub> including coastal storm protection and wave attenuation, water quality improvement, wildlife habitat, and support of fisheries (Alongi, 2011; Barbier et al., 2011; Lee et al., 2014; Nagelkerken et al., 2008; Zhang et al., 2012). These activities and investments, which are not included in this report as NET costs, can be leveraged to provide CO<sub>2</sub> removal advantages at marginal costs.”

Ouyang and Lee 2014<sup>9</sup> refer to salt marshes as “significant coastal hotspots in sequestering carbon,” but warn that annual rates of loss of this valuable habitat “seriously compromises the capacity of salt marshes for carbon storage, unless proper management and rehabilitation is implemented.”

And within the San Francisco Bay Area, Arias-Ortiz et al 2021<sup>10</sup> conclude that “Coastal wetlands have great potential to remove carbon dioxide from the atmosphere and mitigate climate change.” And that “...restored tidal wetland was a greater greenhouse gas sink and climate intervention because it emitted very little methane.”

For these reasons, we urge BARC to recognize the significant role tidal wetlands can play in the sequestration of carbon and mitigation of the impacts of greenhouse gases.

## Appendix A

As we have stated at length earlier, it is imperative that the development of a Regional Multi-Hazard Adaption Plan address the threat of sea level rise not only to the built environment, but also the natural environment to ensure continued protection of the ecological health of the Bay. We urge that the “Problem Statement” be revised as follows:

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

Similarly, the “Goal” should be amended as follows:

“Develop a Regional Multi-Hazard Adaptation Plan that creates a standardized regional approach to manage risk and achieve greater resilience across the natural and built environments of the Bay Area.”

The Draft Plan must clarify that “a standardized regional approach” refers to the process of coordination and identification of appropriate resilience measures and not the actual type of resilience measure utilized.

This is consistent with the February 2022 Draft *State Agency Sea-Level Rise Action Plan for California*. The comments we have made thus far are consistent with two goals from the State Action Plan listed below:

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<sup>9</sup> Ouyang, X. and Lee, S.Y., 2014. Updated estimates of carbon accumulation rates in coastal marsh sediments. *Biogeosciences*, 11(18), pp.5057-5071.

<sup>10</sup> Arias-Ortiz, A., Oikawa, P. Y., Carlin, J., Masque, P., Shahan, J., Kanneg, S., et al. (2021). Tidal and nontidal marsh restoration: A trade-off between carbon sequestration, methane emissions, and soil accretion. *Journal of Geophysical Research: Biogeosciences*, 126, e2021JG006573. <https://doi.org/10.1029/2021JG006573>

“• **Nature-based solutions should be pursued when possible.** *Nature-based solutions are the preferred method for SLR adaptation.* These include vegetated dunes, living shorelines, and wetlands and marsh restoration. Gray infrastructure such as seawalls should be avoided when possible. [emphasis added]

• **Coastal habitats including wetlands, beaches, and dunes should be protected and conserved.** *Adaptation planning and implementation should prioritize the conservation of coastal habitats and maintaining biodiversity and associated functions, including allowing space for upland and inland migration of coastal habitats.* The traditional, cultural, and ceremonial connection of California Native American tribes to these habitats and the species within these habitats should be included and prioritized in adaptation planning and implementation.” [emphasis added]

## Objectives

The comments we have made thus far are pertinent to the last two bullets under the “Objectives.” Regarding the bullet “Study optimal regulatory and legislative approach(es), identify gaps, one governance/regulatory gap that must be addressed is the lack of regional, state and federal regulatory oversight over development of areas that are likely to be at risk of flood inundation. Appendix A of the “Pathways to 30 x 30 California”<sup>11</sup> lists this as a “Conservation Challenge” for the San Francisco Bay Area Region, “Governance gaps that fail to protect areas that could support lateral migration of tidal wetlands from development pressure.” However, this governance gap not only poses a conservation challenge, but also a threat and burden to current and future Bay Area residents in that continued permitting of new development in undeveloped areas along the edges of the Bay that puts people in harm’s way as sea levels rise creates burdens for future generations in terms of providing protection or compensation for poorly-planned development. Such actions also squander increasingly limited opportunities to provide tidal wetlands migration pathways, potential flood accommodation space to protect communities and to sustain crucial services provided by tidal wetlands such as carbon sequestration.

One potential way to address this governance gap is via the last objective “Influence future growth frameworks via Plan Bay Area.” During the Plan Bay Area 2050 we provided comments [letter attached] regarding the Plan Bay Area 2050 Blueprint could be modified to address the governance/regulatory gap through changes in the language and focus of the Environmental Strategies and the need to overhaul the existing Priority Conservation Area (PCAs) process to ensure lands that are identified as PCAs are done so based on science and ecological function. Another potential tool to address this issue, is the creation of a Priority Adaptation Area designation that includes lands that could provide lateral migration pathways for tidal wetlands.

## Table A1: Agency Roles and Needs (Initiative 1)

Table A1 identifies BCDC’s Bay Adapt program and the San Francisco Estuary Partnership’s Estuary Blueprint, but the emphasis of bullets under each are specific to resilience for the built environment. Nature-based solutions are mentioned, but the overwhelming emphasis is on flood hazard mitigation and not on near-, mid- and long-term durability of tidal wetlands and thus the health of San Francisco Bay. Where is the input into this process for the protection of ecological resources, beneficial uses, and ecosystem services?

Similarly, the column for the San Francisco Bay Regional Water Quality Control Board (Water Board) neglects to mention the regulatory oversight of the Water Board in protecting the beneficial uses of the Bay’s waters and wetlands, and Bay Area watersheds.

<sup>11</sup> California Natural Resources Agency. *Pathways to 30 x 30*. 2022. <https://www.californianature.ca.gov/pages/30x30>

The San Francisco Bay Joint Venture (SFBJV) should be included in this table. The San Francisco Bay Joint Venture “seeks to protect, restore, increase and enhance all types of wetlands, riparian habitat and associated uplands throughout the nine Bay Area counties for the benefit of birds, fish and other wildlife.” The SFBJV management board, comprised of twenty-six state and federal agencies and organizations, is currently updating its Implementation Plan *Restoring the Estuary: an Implementation Strategy for the SFBJV*. The Strategy “...established specific acreage goals for wetlands of three distinct types – bay habits, seasonal wetlands and creeks and lakes, and lays out programmatic and cooperative strategies for accomplishing them.”

How is information from the resource agencies incorporated in this process? State and federal resource agencies are conspicuously missing from Table A1 as well. These agencies should be included in the development of the Regional Multi-Hazard Adaptation Plan due to the presence of state and federal listed species in areas where resilience measures may be implemented, As an example, the U.S. Fish and Wildlife Service identified areas important for tidal marsh dependent species in their 2013 Tidal Marsh Ecosystems Recovery Plan<sup>12</sup>.

Under “Needs” for the Metropolitan Transportation (MTC)/Association of Bay Area Governments (ABAG), is the following statement, “Better understanding of how local zoning Priority Development Areas, Priority Conservation Areas and RHNA (Regional Housing Needs Assessment) tie in.” We urge that Priority Development Areas should be re-examined to determine if they are consistent with the California Adaptation Strategy and Sea Level Rise Guiding Principles. And as we suggested earlier, the Priority Conservation Area process should be completely overhauled to ensure that these designations identify areas that will support local and regional ecological function.

#### **Table B1: Agency Roles and Needs (Initiative 2)**

We would appreciate further clarification of the “Role” BARC envisions the Water Board will fulfill under Initiative 2. For example, what is meant by the notation “Align regulatory and planning functions” under the column for the Water Board?

Similarly, what is envisioned regarding the description “Project Management in localities and around key assets (e.g. waterwater treatment facilities)” under the column for the San Francisco Estuary Project? Does this refer to potential use of nature-based solutions? Would the San Francisco Estuary Project be anticipated to provide actual management or does the description refer to providing guidance and technical assistance?

#### **Conclusion:**

A 2019<sup>13</sup> modeling analysis of the potential impacts of climate change estimated that the San Francisco Bay Area will experience an alarming two thirds of the State’s socioeconomic impacts related to sea level rise. The San Francisco Bay-Delta ecosystem supports over 77% of the State’s coastal wetlands and is of hemispheric importance for migratory water birds. Rising sea levels will result in the drowning of the Bay’s tidal wetland

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<sup>12</sup> US Fish and Wildlife Service, 2009. Draft recovery plan for tidal marsh ecosystems of Northern and Central California. *Sacramento, California*. xviii

<sup>13</sup> Barnard, Patrick L., Li H. Erikson, Amy C. Foxgrover, Juliette A. Finzi Hart, Patrick Limber, Andrea C. O’Neill, Maarten van Ormondt, et al. “Dynamic Flood Modeling Essential to Assess the Coastal Impacts of Climate Change.” *Scientific Reports* 9, no. 1 (March 13, 2019): 4309. <https://doi.org/10.1038/s41598-019-40742-z>.

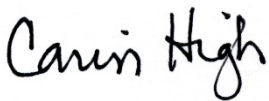
habitats if wetlands cannot no longer keep abreast of rising seas through accretion of sediments or cannot migrate upslope due to human constructed barriers. The ecosystem services provided by tidal wetland habitats are essential for the health of the Bay and our communities.

The use of traditional grey infrastructure has been the standard means of responding to flood protection; however, these methods are costly, may not provide the resilience needed over time, and are environmentally damaging.

We cannot begin to move in a positive direction towards natural and community resilience without the inclusion of language in the BARC Draft Plan that acknowledges the threat of climate change and potential measures to ameliorate the impacts of sea level rise. As communities plan for sea level rise resilience, there will need to be concerted efforts to ensure prioritization of nature-based solutions over traditional grey infrastructure wherever and whenever possible, to ensure the ecological health of the Bay, equitable resilience for our collective communities, and protection of water quality and the beneficial uses of San Francisco Bay.

Thank you for the opportunity to provide comments. We request that we be kept informed of future opportunities to review and provide comments on the Draft Plan and the development of the Regional Multi-Hazard Adaptation Plan.

Respectfully submitted,



Carin High, Co-Chair



Gail Raabe Co-Chair

Citizens Committee to Complete the Refuge  
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# Citizens Committee to Complete the Refuge

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Association of Bay Area Governments &  
Metropolitan Transportation Commission  
Bay Area Metro Center  
375 Beale Street  
San Francisco 94105

10 August 2020

Re: Citizens Committee to Complete the Refuge comments on Plan Bay Area 2050 Draft Blueprint

Dear Plan Bay Area 2050 Staff and Decision-makers,

Citizens Committee to Complete the Refuge (CCCR) appreciates the opportunity to comment on the Draft Blueprint for Plan Bay Area 2050. CCCR applauds elements of the Draft Plan Bay Area that recognize societal inequities and strategies that focus on resolving economic, transportation and quality of life challenges that face large segments of Bay Area residents. The Draft Blueprint identifies 4 categories of strategies – transportation, economic, housing and environmental. The Citizens Committee to Complete the Refuge (CCCR) has a long-standing interest in the protection, restoration, and acquisition of San Francisco Bay wetlands; as such the focus of our comments is on identified environmental strategies and in particular on the interface of the Draft Blueprint with lands along the edges of San Francisco Bay.

CCCR was originally formed in 1965 by a group of citizens who became alarmed at the degradation of the Bay and its wetlands. We joined together, and with the support of Congressman Don Edwards, requested that Congress establish a wildlife refuge. The process took seven long years and in 1972 legislation was passed to form the San Francisco Bay National Wildlife Refuge, the first national wildlife refuge in an urban area. In 1988, Congress authorized expansion of the refuge boundary to potentially double the original size. Our membership is approximately 2,000 people and we have the support of 40 local and national organizations-- including open space advocates, hunters and environmental groups.

The Draft Blueprint acknowledges the need to Adapt to Sea Level Rise under Environmental Strategies and the need to protect shoreline communities. In April 2020 a document developed by State and regional agencies was released, *"Making California's Coast Resilient to Sea-Level Rise: Principles for Aligned State Action."* One of the principles identified is the adoption of a "minimum SLR estimate of 3.5 feet by 2050" for planning purposes. The background section of this document states, "California's coast faces a significant risk of experiencing SLR up to 1.0 feet by 2030 and 7.6 feet by 2100." Does the Draft Blueprint incorporate a minimum of 3.5 feet of SLR by 2050 into its planning process?

SLR obviously poses a significant threat to the built environment of the Bay area but also poses a significant threat to baylands. Baylands are described in the 2015 *Baylands Ecosystem Habitat Goals Science Update* (BEHGU), as:

“...a dynamic continuum of habitats connected by physical and biological processes; they extend from the open waters of the bay through intertidal mudflats, tidal marshes, and adjacent terrestrial areas. Less extensive habitat types, such as beaches and rocky intertidal areas, are also important parts of the baylands, and each habitat type has variation and complexity, as well as transitions between it and the adjacent habitat type.”

The San Francisco Bay Conservation and Development Commission (BCDC) Tidal Marsh and Tidal Flats Findings list the importance of the baylands:

- Wetlands can alter and moderate flood flows, recharge groundwater, maintain stream flows, reduce and prevent shoreline erosion by minimizing wave energy, and improve water quality by filtering surface runoff from surrounding lands. In addition, they trap sediments, thereby reducing the amount deposited in channels. Wetland plants help absorb available nitrogen, atmospheric sulfur, carbon dioxide and methane. Wetlands also are important habitat for the Bay's aquatic and upland plant and animal populations, serve as a primary link in the ecosystem's food chain, ensure the continued diversity of plant and animal communities, are an essential feeding and resting place for migratory birds on the Pacific Flyway, and provide needed and important open space and recreational opportunities in the Bay Area.
- A transition zone or "ecotone" is an environment that blends the habitat of plants and animals from each of the bordering habitats such as tidal marsh and oak woodlands. Transition zones are important elements of wetland habitats. Around the Bay these zones contain a rich mixture of vegetation types, including many of the Bay's rare plants, and they provide food, shelter and high-tide refugia for wildlife, including the salt marsh harvest mouse and California black rail.
- Tidal marshes are an interconnected and essential part of the Bay's food web. Decomposed plant and animal material and seeds from tidal marshes wash onto surrounding tidal flats and into subtidal areas, providing food for numerous animals, such as the Northern pintail. In addition, tidal marshes provide habitat for insects, crabs and small fish, which in turn, are food for larger animals, such as the salt marsh song sparrow, harbor seal and great blue heron. Diking and filling have fragmented the remaining tidal marshes, degrading the quality of habitat and resulting in a loss of species and an altered community structure.
- Tidal flats occur from the elevation of the lowest tides to approximately Mean Sea level and include mudflats, sandflats and shellflats. Mudflats comprise the largest area of tidal flat areas and support an extensive community of invertebrate aquatic organisms, e.g., diatoms, worms and shellfish, fish that feed during higher tides, and plants such as algae and occasionally eelgrass. Shorebirds feed on tidal flats. Few mammals, however, inhabit tidal flats, the harbor seal being the most notable exception. Historically, around 50,000 acres of tidal flats occurred around the margins of the Bay, approximately 29,000 acres remain-a reduction of over 40 percent.
- Landward marsh migration will be necessary to sustain marsh acreage around the Bay as sea level rises. As sea level rises, high-energy waves erode sediment from tidal flats and deposit that sediment onto adjacent tidal marshes. Marshes trap sediment and contribute additional material to the marsh plain as decaying plant matter accumulates. Tidal habitats respond to sea level rise by moving landward, a process referred to as transgression or migration. Low sedimentation rates, natural topography, development, and shoreline protection can block wetland migration. Transition zones, depending on the size and slope, provide high tide refugia for organisms as sea level rises, as well as important opportunities for marsh migration upslope and inland as sea level rises, but these functions and services are limited in the long-term unless transition zones are connected to uplands with higher elevations.[emphasis added]

Protection of baylands is crucial to the health and vitality of San Francisco Bay, yet these areas could be lost if planning and siting of development and infrastructure does not adequately consider the adverse impacts of sea level rise and instead restricts the ability of baylands to migrate upslope.

BCDC's Policies regarding Tidal Marsh and Tidal Flats state in part:

- Tidal marshes and tidal flats should be conserved to the fullest possible extent. Filling, diking, and dredging projects that would substantially harm tidal marshes or tidal flats should be allowed only for purposes that provide substantial public benefits and only if there is no feasible alternative.
- Any proposed fill, diking, or dredging project should be thoroughly evaluated to determine the effect of the project on tidal marshes and tidal flats, and designed to minimize, and if feasible, avoid any harmful effects.
- Projects should be sited and designed to avoid, or if avoidance is infeasible, minimize adverse impacts on any transition zone present between tidal and upland habitats. Where a transition zone does not exist and it is feasible and ecologically appropriate, shoreline projects should be designed to provide a transition zone between tidal and upland habitats.

And BCDC's Climate Change Policy #4 states:

To address the regional adverse impacts of climate change, undeveloped areas that are both vulnerable to future flooding and currently sustain significant habitats or species, or possess conditions that make the areas especially suitable for ecosystem enhancement, should be given special consideration for preservation and habitat enhancement and should be encouraged to be used for those purposes.

Objective #9 of the Draft Blueprint, "Reduce Our Impact on the Environment" is an admirable objective and one CCCR fully supports. However, the strategies are largely silent on one of our greatest concerns, that of preserving the biodiversity of the Bay's ecosystems and ensuring they are sustainable into the future particularly in light of ever-increasing rates of predicted sea level rise. Though five strategies are listed under "Environmental Strategies," there is only one that is not human centric – "Protect High-Value Conservation Lands." This is to be accomplished through provision of "strategic matching funds to help conserve high-priority natural and agricultural lands, including but not limited to Priority Conservation Areas." [emphasis added] The Equity and Performance Outcomes" document (Appendix C of the July 10, 2020 Plan Bay Area 2050 Draft Blueprint: Key Findings) assigns \$15 billion to Protection of High-Value Conservation Lands. More information should be provided on how this figure was determined and how these funds would be allocated.

One of the major concerns we have had with previous iterations of Plan Bay Area has been the emphasis on PCAs as the focus of resource protection. MTC describes PCAs as "areas of importance for conservation to retain and enhance the natural environment that are key to the quality of life enjoyed by the region's residents and visitors and the region's ecological diversity." Sadly the PCA identification process has proven inadequate and many areas of importance for conservation have not been identified as PCAs. We have previously commented that the PCA framework was established through a fundamentally flawed process, based more on political consensus than science. It has been a process that has left some of the Bay Area's more important natural and remaining undeveloped lands unprotected from increasing threats from urban development. The PCA process has failed to identify as PCAs baylands and wildlife habitats identified and documented by scientists and federal, state and regional resource agencies as being regionally significant to the health of the San Francisco Bay Estuary - baylands that also face imminent threats of urban development. Specific important sites for protection and restoration are well documented in the:

- *Baylands Ecosystem Habitat Goals* (and update) - a report of recommendations prepared by the San Francisco Bay Area Wetlands Ecosystem Goals Project (originally published in 1999 US EPA and SFBRWQCB and updated in 2015),
- *Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California* published by the U.S. Fish and Wildlife Service in 2013 – a report that identified lands important for tidal marsh habitat and listed and rare species of that ecosystem,
- the 2012 Comprehensive Conservation Plan by U.S. Fish and Wildlife Service and the approved Potential Additions boundary for the Don Edwards San Francisco Bay National Wildlife Refuge,



It is crucial if we are to ensure the long-term sustainability of the Bay's ecosystems and biodiversity that the Blueprint and Plan Bay Area 2050 look beyond the political constructs of PCAs when determining lands that are worthy of protection. We are encouraged that the Draft Blueprint acknowledges that lands that have not been labeled as Priority Conservation Areas (PCAs) may have high conservation value, however the Blueprint provides no description of how lands worthy of protection will be identified. In fact, the metrics provided in Appendix C fail to provide any performance outcomes pertinent to the natural environment.

In planning for future transportation, development and economic development, the Draft Blueprint should acknowledge the functions and values provided by a healthy, thriving and sustainable Bay ecosystem and the importance of protecting the biodiversity of the Bay. Though the natural environment is acknowledged in the Draft Blueprint in the one strategy we have identified, the remainder of the Blueprint is silent regarding the natural environment. One of the Final Guiding Principles of the Horizon process of what the "San Francisco Bay Area Aspires To Be" is "Healthy" and "Health" is described as "The region's natural resources, open space, clean water and clean air are conserved – the region actively reduces its environmental footprint and protects residents from environmental impacts." The key findings of the Draft Blueprint under "A Healthier Bay Area" focus solely on the reduction of greenhouse gas emissions and human health with no mention of the natural environment.

We recommend the language for the Environmental Strategy "Adapt to Sea Level Rise" be modified as follows:

**"Protect shoreline communities affected by sea level rise, prioritizing areas of low costs and high benefits and providing additional support to vulnerable populations. Protect undeveloped areas that could be suitable for baylands restoration and migration. Nature-based solutions for reducing flood risk should be the preferred method of providing resilience against the impacts of sea level rise."**

The added language is consistent with the Draft November 2017 report "*Raising the Bar On Regional Resilience*" which was produced by the Bay Area Regional Collaborative (BARC). The report cites Plan Bay Area 2040's recommendation of "expanding the region's network of natural infrastructure" to "coordinate regional programs to preserve and expand natural features that reduce flood risk, strengthen biodiversity, enhance air quality, and improve access to urban and rural public space." [emphasis added]

The Draft Blueprint is silent regarding the types of adaptations that will be implemented to mitigate the impacts of sea level rise. Nature-based sea level rise adaptation measures such as those described in the 2015 BEHGU and the 2019 San Francisco Bay Shoreline Adaptation Atlas should be the preferred method of shoreline protection.

The aforementioned "*Raising the Bar On Regional Resilience*" provides a description of green, blue and grey infrastructure:

Grey infrastructure built out of hard impermeable concrete or asphalt is the norm in many urban zones. A resilient or sustainable approach seeks to soften and green these surfaces with plants and more absorbent surfaces, and to work with natural watershed processes to achieve both flood control and habitat protection goals. In shoreline areas, the newer term blue infrastructure refers to creating natural infrastructure, habitats, and flood buffers within the water or tidal reach. These projects may include engineered marshes, oyster reefs or carbon- sequestering wetlands that reduce subsidence. A new term, living levee, refers to levees that may include habitats and vegetation, and that are designed to adapt or evolve with changing conditions. [emphasis added]

As described in the passage above, nature-based adaptations can achieve multiple goals of providing both flood control and habitat protection/preservation. Habitat protection can in turn lead to minimization of future expenditures on flood protection infrastructure and sequestration of carbon.

For the reasons outlined above we recommend the language in the “Maintain Urban Growth Boundaries” strategy be modified as follows;

Using urban growth boundaries and other existing environmental protections, confine new development within areas of existing development or areas otherwise suitable for growth, as established by local jurisdictions.

**Protect undeveloped shoreline areas, vulnerable to flooding, with existing habitat or habitat restoration potential.**

The document “*Making California’s Coast Resilient to Sea-Level Rise: Principles for Aligned State Action*” provides clear State guidance that all planning efforts should anticipate *at minimum* 3.5 feet of sea level rise by 2050. Is this incorporated into the analysis of Plan Bay Area 2050? Is this one of the criteria for evaluating priority development areas? While 2050 is within the time frame typically used for development projects, we are extremely concerned with the 7.6 feet of sea level rise predicted by 2100. Any large infrastructure projects should include this in their environmental review process as large infrastructure projects require longer periods of time for implementation.

Under “Transportation Strategies” the Draft Blueprint states:

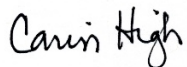
Build a New Transbay Rail Crossing. Address overcrowded conditions during peak commute periods and add system redundancy by adding a new Transbay rail crossing connecting the East Bay and San Francisco.

Will this proposed strategy utilize a minimum 7.6 feet of sea level rise by 2100 during its planning phase? What measures would be required to avoid further filling and fragmentation of baylands?

The 2015 *Baylands Ecosystem Habitat Goals Science Update* (BEHGU), the work of over one hundred scientists, updated the 1999 document to provide recommendations for the preservation and restoration of a functioning baylands ecosystem in light of the challenges of climate change and sea level rise. The foreword of the 2015 BEGHU observes, “Baylands restoration is not a luxury but an urgent necessity as ecological change accelerates.” Baylands protection and restoration is NOT a luxury and these are resources we can ill afford to lose. The Draft Blueprint should incorporate language in its strategies, findings and metrics that acknowledges the critical importance protection of the Bay’s ecosystems and biodiversity to the health and vitality of the Bay Area and its residents. It is crucial to current and future generation that protection of the natural environment is incorporated into planning and protection of the built environment.

Thank you for the opportunity to provide comments. We request that we be kept informed of future opportunities to provide comments, and notification of a Notice of Preparation or Draft Environmental Impact Report.

Respectfully submitted,



Carin High  
CCCR Co-Chair



May 6, 2022

Allison Brooks  
Executive Director  
Bay Area Regional Collaborative

Subject: CHARG Comments to BARC Draft Shared Work Plan

Dear Allison:

On behalf of the Coastal Hazards Adaptation Resiliency Group (CHARG), a strategic initiative of the Bay Area Flood Protection Agencies Association (BAFPAA), we would like to thank BARC for the opportunity to comment on your Draft Shared Work Plan. CHARG was formed in 2014 as a platform of communication between local, State and Federal government to help address the challenges of sea level rise (SLR) and extreme storms in San Francisco Bay. CHARG members are the public agencies responsible for protecting people and property along San Francisco Bay and enhancing the shoreline in that process, and as such we have climate resilience projects in various stages of planning, design, construction, and maintenance.

Our members are implementing flood risk reduction projects in the Bay and planning for flood protection into the future under climate change hydrology and SLR conditions. We appreciate the complexity of aligning the Bay Area to “*accelerate the implementation for strategies that advance climate mitigation and adaptation goals.*” Yet we have concerns that the draft Work Plan as proposed would not be able to meet that goal. It is in that spirit that we respectfully provide the following comments on the Draft Shared Work Plan.

- The voice of the professional flood engineering community is largely missing from the Work Plan. The draft is largely focused on planning and does not include the agencies that have actually designed, permitted and constructed flood protection and nature-based projects on the shorelines and up-stream watersheds. The realities of having to design, permit and fund implementable projects can be very difficult and expensive due to a number of factors. The expertise and experience of CHARG members should be included in the Work Plan at its most fundamental level as we move into the adaptation phase. Major barriers including permitting hurdles that increase project costs, should be included as a priority for the Work Plan and State. Public safety is not a special interest or a secondary factor in decision making around SLR and should be central to any decisions.
- The State budget enacted last year included a very large investment in climate resilience and the coming budget may build on that. The Work Plan is unclear which key stakeholders (including BARC, MTC/ABAG, and BCDP) would receive funding and/or play a role in the distribution of funding. CHARG members believe that a substantial amount of critical funding should go directly to, the cities, counties, and special districts implementing solutions to protect people, property, and infrastructure, and that a larger diversity of regional entities should be involved in the funding decisions. The draft as provided is heavily weighted on new agency planning staff.
- We support the use of green infrastructure to meet objectives around resilience (including the resilience of natural areas), wherever feasible. However, green infrastructure is not feasible or effective to protect against flooding everywhere, and funding priorities should also reflect that.
- Table B2: In Year 1, you propose “Establish center of expertise for climate adaptation that includes staff from across BARC member agencies.” It is important that this center have a

practical applied engineering-based core and include the practical benefits and limitations of green and gray solutions as well as costs in adaptation practice.

- Any proposed funding needs to include stand-alone traditional urban flood protection measures including levees, pipes and pumps and tide gates where green infrastructure is not feasible or sufficient in order to provide meaningful and effective flood protection under current and future conditions. In the past, funding through State agencies like State Coastal Conservancy and San Francisco Bay Restoration Authority do not fund these types of measures which limits the ability of implementing agencies to provide effective flood protection measures to the infrastructure, residents, and businesses along the shorelines.

CHARG member agencies see a lot of value in the Bay Area making collective efforts to align and connect regional with local resilience planning between cities and counties. It is important that we – and the many other stakeholders that have not been a part of the process to develop the Shared Work Plan – be part of the Plan development. We appreciate your efforts on this plan and believe that the Bay has been moving too slowly in meaningful adaptation so real change is required to make SLR adaptation cost-effective for our Bay Area residents. We encourage the BARC Governing Board to not advance this Work Plan and we cannot support the Plan in its current form. Thank you for your consideration of these points.

Sincerely,

Ellen Cross, CHARG Facilitator  
510-316-9657 / <https://sfbaycharg.org/>



cc:

Hank Ackerman, Alameda County Flood Control Agency  
Paul Detjens, Contra Costa County Flood Control District  
Roger Leventhal, Marin County Public Works  
Rick Thomasser, Napa County Flood Control Agency  
Len Materman, San Mateo County Flood and Sea Level Rise Resiliency District  
Carlos Diaz, Sonoma Water  
John Bourgeois, Valley Water



Allison Brooks  
Executive Director  
Bay Area Regional Collaborative (BARC)  
375 Beale Street, Suite 800  
San Francisco CA 994105

May 6, 2022

Subject: Draft Shared Work Plan

Dear Ms. Brooks,

On behalf of Sustainable Silicon Valley, we would like to express our strong support for BARC's Shared Work Plan in service of September's Joint Resolution to Address Climate Change. As a "think & do tank" focused on an innovative, equitable, healthy and decarbonized Bay Area, Sustainable Silicon Valley is committed and poised to help.

If we are to meet the myriad challenges of a drastically changing climate, we must do it together. It will take an abundance of villages, united in a region. The Shared Work Plan's goal of strategically aligning regional planning and regulatory initiatives is a necessary step towards accelerating implementation of effective strategies.

The Bay Area, whether defined by the traditional nine counties or the 9.7+ million people fourteen county Federal Combined Statistical Area, is a vast territory within the largest state. It will be quite an effort to harmonize over a hundred local governments of various sizes, more than twenty-seven transit operators and many relevant regulatory authorities, but it is vital work that must be done. A united regional approach will be decisive towards gaining State and Federal infrastructure investment.

Many Sustainable Silicon Valley programs and initiatives dovetail with BARC Work Plan focus areas. Some examples: our recently completed cloud-based, AI-powered intelligent Transit Signal Priority (iTSP) pilot demonstrated significantly reduced intersection delays and overall route travel time; we have long championed water reuse and are working to smooth satellite facility permitting and interconnection; our Regenerative Communities project is currently analyzing a portfolio of large commercial development projects through a multi-factor sustainable lens; we've been advocating for seamless transit through our ongoing support for Senate Bill 917; and we've been promoting the valuation of multi-benefits through strategic and budgetary approaches to urban cooling through our work with the Smart Surfaces Coalition.

There's a lot of work to do on a lot of levels. Please feel free to contact us should you have any questions or comments.

Sincerely,

A handwritten signature in brown ink, appearing to be "JT".

Jennifer Thompson  
Executive Director  
Sustainable Silicon Valley  
[jthompson@sustainablestv.org](mailto:jthompson@sustainablestv.org)

A handwritten signature in brown ink, appearing to be "DM".

Dennis Murphy  
Director, Water & Sustainable Life  
Sustainable Silicon Valley  
[dmurphy@sustainablestv.org](mailto:dmurphy@sustainablestv.org)

Hello,

I'm a Transportation Planner in SFMTA's Policy & Long Range Planning group, and I'm sharing some comments on BARC's new regional shared work plan to advance climate adaptation.

Apologies that I have not been involved beforehand with this effort, and don't have much context for the work. Please forgive me if some of the comments are subsequently missing the mark.

Feedback:

- It is great to see attention and planning for climate adaption featured in the first two initiatives. We hope these can generate significant resources for local adaption and resilience projects, which are critical for SF.
- The SFMTA supports the transition to Zero-Emission Buses and is undertaking this shift at present. We also welcome any efforts to secure further funding and logistical support for this effort, as the transition will require significant investment and infrastructure.
- While attention to bus electrification is important, from a greenhouse gas emissions standpoint, the real opportunity for emissions reduction is by shifting travel choices away from driving. Public transit produces a miniscule fraction of emissions in the transportation sector, and we would hope that there would be at least one strategy, placed front and center, that speaks more directly to the way that trips will be shifted out of cars and into low-carbon options like walking, biking, and public transit. There are programs at the regional level to encourage mode shift, and we'd encourage their call-out here.
- We like the nexus between land use, housing, transportation and emissions reduction in Initiative 4. Still, there is more opportunity to reference a shift to low-carbon travel choices (walking, biking, transit). This initiative references trip reduction; this may not be the best framing, as people should be encouraged to get around and take trips. The emphasis should be on shifting the method of travel. Telecommuting is also something worth promoting, if that is meant by trip reduction.
- Lastly, while we appreciate the investment and innovation that Initiative 4 could bring to "high-equity neighborhoods," it is important that the burden to decarbonize not fall just on these neighborhoods. In fact, high-income households produce an outsize proportion of emissions, particularly from transportation. If one were to target neighborhoods to bring down emissions, it might require looking closely at driving and emissions rates from higher income zip codes.

Thank you for the consideration and opportunity to comment.

**Keith Tanner**

Senior Transportation Planner

Sustainable Streets Division

*(he / him / his)*

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