

**From:** [CCCR](#)  
**To:** [info@planbayarea.org](mailto:info@planbayarea.org); [Therese W. McMillan](#)  
**Subject:** Citizens Committee to Complete the Refuge comments regarding the Plan Bay Area 2050 Draft Blueprint  
**Date:** Monday, August 10, 2020 3:37:20 PM  
**Attachments:** [CCCR comments re Plan Bay Area 2050 Blueprint.pdf](#)

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**\*External Email\***

Dear Plan Bay Area 2050 Staff and Decision-makers,  
The Citizens Committee to Complete the Refuge submits the attached comments regarding the Plan Bay Area 2050 Draft Blueprint and thanks you for the opportunity to provide comments. We ask that we be kept informed of any future opportunities to provide comments and request that acknowledgement of receipt of our comment letter be provided when possible.

Respectfully,  
Carin High  
CCCR Co-Chair



# Citizens Committee to Complete the Refuge

P.O. Box 23957, San Jose, CA 95153

Tel: 650-493-5540

Email: [cccrrefuge@gmail.com](mailto:cccrrefuge@gmail.com)

[www.bayrefuge.org](http://www.bayrefuge.org)

Sent via electronic mail to: [info@planbayarea.org](mailto:info@planbayarea.org)  
[tmcmillan@bayareametro.gov](mailto:tmcmillan@bayareametro.gov)

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:

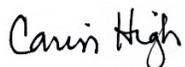
Build a New Transbay Rail Crossing. Address overcrowded conditions during peak commute periods and add system redundancy by adding a new Transbay rail crossing connecting the East Bay and San Francisco.

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