



**CLIMATE READY SMC
COLLABORATIVE CONVENING #4
Turning the Tide:
Connecting for Resiliency
June 5, 2019
Adaptation Exchange Project Descriptions**

Adapting the San Francisco Bay Shoreline

Contacts: Julie Beagle, Deputy Program Director
julieb@sfei.org, 510-746-7312

Katie McNight, Associate Environmental Scientist, Resilient Landscapes Program
Katiem@sfei.org, 510-746-7390

Website: <https://www.sfei.org/adaptationatlas>

As the climate continues to change, communities will need to adapt the San Francisco Bay shoreline to rising sea levels. But the Bay's varied landscapes and many overlapping jurisdictions make a coordinated response challenging. The San Francisco Bay Shoreline Adaptation Atlas, a joint effort by SPUR and the San Francisco Estuary Institute (SFEI), proposes a science-based framework for using nature to plan for climate adaptation in the Bay Area.

The atlas proposes a new regional planning framework by dividing the 400-mile Bay shoreline into 30 distinct operational landscape units or OLUs – geographic areas that share common physical characteristics and, subsequently, common adaptation strategies. OLUs cross traditional city and county boundaries but adhere to the boundaries of natural processes like tides, waves and sediment movement.

The atlas also identifies 27 different adaptation measures, from nature-based options to policy tools, and describes their suitability within each OLU.

City of Millbrae Climate Adaptation Assessment

Contact: Andrew Yang, Senior Engineer
ayang@ci.millbrae.ca.us, 650-259-2393

The City will use the County's Vulnerability Assessment as a building block to seek future funding for climate adaptation, increase public awareness of risks and the need for action, support the Hazard Mitigation Plan, and inform future Capital Improvement Planning. The main goals of the project are to identify and understand the risk of climate change to key

assets within the City of Millbrae and identify actions the City can incorporate into regional and local planning efforts. Once the City is aware of its risks, concrete steps can be taken to mitigate them. This will be accomplished through the neighborhood meetings, development of an Asset Vulnerability Profile for the City's Waste Pollution Control Plant, and coordination with Burlingame and SFO to develop regional solutions.

City of Pacifica Adaptation Policies and Infrastructure Preservation

Contact: Bonnie O'Connor, Associate Planner
o'connorb@ci.pacifica.ca.us, 650-738-7443

Website: https://www.cityofpacifica.org/depts/planning/sea_level_rise.asp
https://www.cityofpacifica.org/depts/pw/engr/current_projects/default.asp

The City of Pacifica is working to modify its draft Local Coastal Plan (LCP) update by incorporating findings of how sea level rise and erosion will impact social, economic, and physical coastal resources including homes, businesses, and critical facilities and infrastructure; and strategies that will prepare the City to deal with these impacts. Support for this effort is provided in part by the California Coastal Commission and the Coastal Conservancy.

Draft adaptation policies were approved by City Council to incorporate into a Draft Local Coastal Program (LCP) update. Policies focus on protection and reassessment in the future. Submittal of the complete Draft LCP update for Coastal Commission certification is anticipated by end of 2019.

The City is also looking to build and re-build several sites where public infrastructure is deemed as "in danger".

- 310-330 Esplanade - New Seawall - In Design
- 400 Esplanade - New Seawall - Temporary revetment installed, awaiting funding for design.
- Beach Boulevard Seawall - Re-build seawall - Feasibility Phase, awaiting funding.

Bayfront Canal and Atherton Channel Watershed Management and Restoration

Contact: Erika Powell, Flood Resilience Program Manager
epowell@smcgov.org, 650-599-1488

Website: <https://publicworks.smcgov.org/projects/bayfront-canal-and-atherton-channel-flood-management-restoration-project>

Neighborhoods adjacent to Bayfront Canal and Atherton Channel have experienced chronic and widespread flooding during storm events for over sixty years. The County is collaborating with Redwood City, Menlo Park, Atherton, California Coastal Conservancy, Cargill, and other

stakeholders to identify flood management solutions. The concept design proposes rerouting Bayfront Canal (after it converges with Atherton Channel) into the South Bay Salt Pond Restoration Project. This will provide a managed storage area for floodwaters, relieving the adjacent communities from frequent and nuisance flooding.

This project is currently in the design phase and has obtained a Prop 84 construction grant of \$1.135 million. The County and its collaborators are working hard to push this project forward and will continue to update the website with more information as it becomes available.

Flood and Sea Level Rise Resiliency District

Contact: Erika Powell, Flood Resilience Program Manager
epowell@smcgov.org, 650-599-1488

Website: <https://resilientsanmateo.org/>

Building on the momentum of the “Floods, Droughts, Rising Seas, Oh My!” water summit convened by the County and the City/County Association of Governments (C/CAG) in March 2018, and the work of C/CAG’s San Mateo Countywide Water Coordination Committee, the County and C/CAG are developing a proposal to create a new district to address the challenges of flooding, sea level rise and coastal erosion.

A countywide district would: allow San Mateo County and its cities to coordinate across jurisdictional lines; avoid duplication of efforts and build expertise; and create a unified voice that would better position the County and its cities to obtain state and federal funds for addressing flooding, SLR, coastal erosion, and stormwater infrastructure improvements.

Managing Stormwater in a Changing Climate

Contact: Matt Fabry
mfabry@smcgov.org, 650-599-1419

Website: www.flowstobay.org

C/CAG is developing a Countywide Sustainable Streets Master Plan to identify and prioritize street segments throughout the county for integrating green stormwater infrastructure with other planned investments, including bicycle and pedestrian improvements, pavement rehabilitation, and Safe Routes to School, to help improve water quality and develop resilience to the precipitation-based impacts of a changing climate.

North Shoreview Neighborhood Resilience

Contact: Matthew Zucca, Deputy Director of Public Works, City of San Mateo
mzucca@cityofsanmateo.org

The North Shoreview Flood Improvements consist of a 1,300-foot levee improvement at Coyote Point near the Burlingame and San Mateo border and two (2) pump station upgrades to

increase pump discharge capacity during heavy rainfall events. The project is designed to protect residential properties from inundation during 100-year storm events. Project planning occurred between 2014 and 2016 and design from 2016 to 2018. Construction is expected to occur between 2018 and finish in 2021.

Our People, Our Plan

Website: <http://www.resilientbayarea.org/peoples-plan>

As part of the Resident by Design Bay Area Challenge, the Permaculture and Social Equity Team proposed a social design process to build community capacity in leading the challenges of coastal adaptation and resiliency planning. The team was invited to implement their process in Marin City by Shore Up Marin, an environmental justice and resiliency planning organization. Out of the process grew a capacity building program, resulting in an inspiring People's Plan to authentically reflect the aspirations and intentions of the resident community. An intergenerational cohort expanded existing knowledge for assessing and addressing risks, developing near and long-term strategies with a prioritized set of projects to be partially implemented as early as this summer. This project was recognized by the Resilient by Design Jury for their impact in community capacity building, realigning power distributions and increasing ownership by people directly impacted by design decisions.

Protecting Multiple Communities from Sea Level Rise and Extreme Storms

Contact: Len Materman, Executive Director, San Francisquito Creek Joint Powers Authority
len@sfcjpa.org, 650-324-1972

Website: sfcjpa.org

The 50-square mile San Francisquito Creek watershed and floodplain in the heart of Silicon Valley defines the boundary between the cities of East Palo Alto, Menlo Park, and Palo Alto, and the counties of Santa Clara and San Mateo. Following a flood that damaged 1,700 properties in 1998, these cities and the Santa Clara Valley Water District and San Mateo County Flood Control District formed a regional government agency - the San Francisquito Creek Joint Powers Authority (SFCJPA) - named after the physical feature that divides and unites them.

In 2018, the SFCJPA completed construction of its first major capital effort, a \$77 million project to protect areas adjacent to the tidally-influenced portion of the creek from S.F. Bay through Highway 101. Now, with the help of 22 acres of marsh habitat created or restored by that project, three miles of Bay shoreline within the creek are protected against the maximum flow that can reach that area and a sea level 10 feet above today's high tide. That Bay-Highway 101 project is the cornerstone of the SFCJPA's next two capital projects: 1) protect people and property from creek flooding and provide other benefits upstream of

Highway 101, and 2) protect against sea level rise and restore marshes along an additional 11 miles of Bay shoreline in both counties. The strength of these projects lies in the numerous built and natural assets, and thus numerous partners, that are joining to share in the impacts, costs, and benefits of long-term regional resiliency.

See Change

Contact: Cindy Abbott, Executive Director, Sanchez Art Center
cindy@sanchezartcenter.org, 650-355-1894

The Sanchez Art Center will develop a call for artists to implement three art projects related to sea level rise and waste reduction in Pacifica. Three project locations spanning different risk areas across the City of Pacifica will be planned, in locations including: north with eroding cliffs threatening housing and city infrastructure; central where rock revetments have historically been used to protect infrastructure and private property; and south prone to flooding. When the projects are finished, students and the community will be involved in an unveiling event.

SFO Shoreline Protection Program

Contact: Rinaldi Wibowo, Project Manager, SFO
rinaldi.wibowo@flysfo.com, 650-821-9463

The project description: SFO Shoreline Protection Program proposes construction of a new shoreline protection system around the entire perimeter of the Airport to protect assets and runways with a 99.5% level of confidence, to approximately 2085 by adopting a design criterion that protects against the 100-year storm and 36 inches of sea-level rise.

Climate-informed Design of Electric Infrastructure

Contact: Nathan Bengtsson
NXBZ@pge.com, 415-271-3747

PG&E is replacing electric transmission towers located in or near the Bay. These long-lived and high-value critical infrastructure assets are highly exposed to sea-level rise and flooding impacts. PG&E's climate adaptation team worked with the project design team to ensure the project takes into account expected future water levels, leading to a significant increase in tower height.