

Policies for a Rising Bay



Photo Courtesy of John Callaway

Project steps

1. Scoping
(Winter 2015)

Key Outcomes

- Policies for a Rising Bay Project work plan
- Regulatory staff interviews
- External interviews
- Establish Steering Committee
- Kick off Meeting on March 13th, 2015

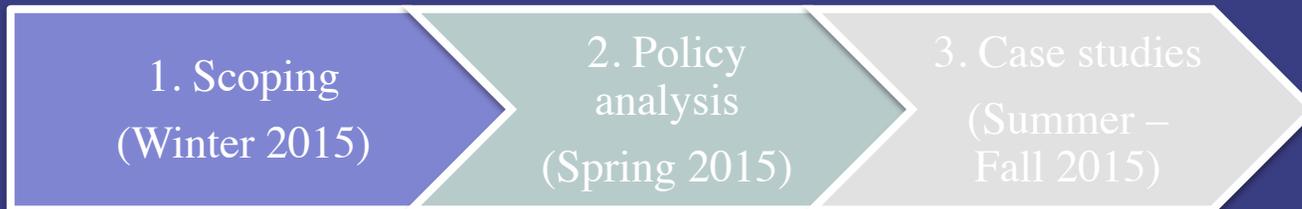
Project steps



Key Outcomes

- Develop policy matrix describing current interpretations and policy issues
- Select case studies
- Steering Committee Meeting #2:
 - Review policy matrix
 - Case studies

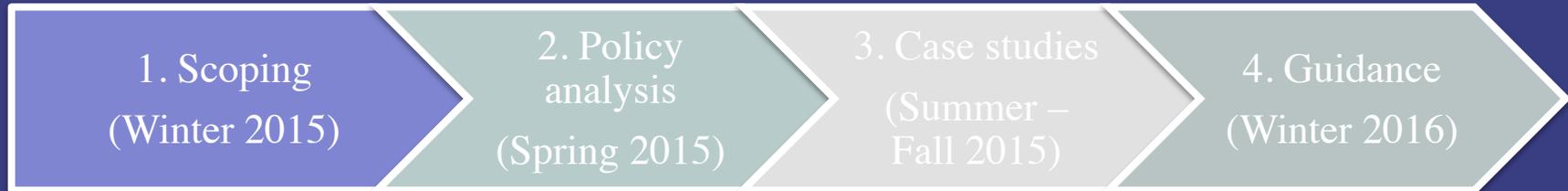
Project steps



Key Outcomes

- Develop and analyze case studies to establish regulatory ‘best practices,’ refine policy issues, and identify opportunities to provide more clear policy language and processes
- Steering Committee Meeting #3

Project steps



Key Outcomes

- Explore changes to address multi-benefit, sustainable adaptation strategies inconsistent with current policies
- Identify potential policy changes
- Steering Committee Meeting #4
- Finalize guidance for staff, Commissioners, and stakeholders on considerations for proposed adaptation projects
- Initiate formal rulemaking process

Policies for a Rising Bay First Steering Committee Meeting

Friday, March 13, 2015

9:30 - 11:30 a.m.

Ronald V. Dellums Federal Building

1301 Clay St.

Oakland, CA 94612

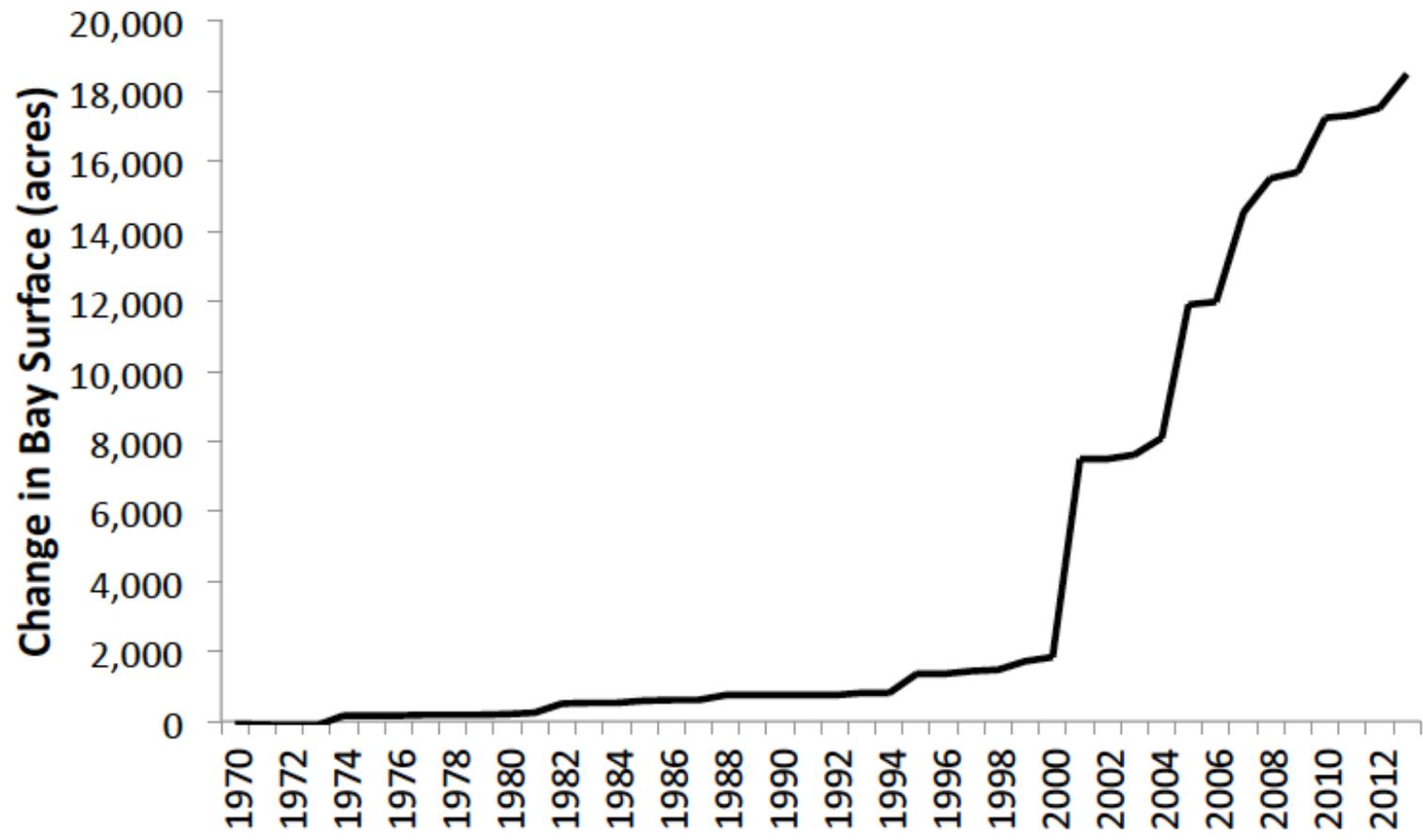
BCDC Shoreline Management Practices



Big Fill Years

- 1970: 72 acres (Port of Oakland 12ac, Port of SF 48ac)
- 1974: 83 acres (Dumbarton Bridge 70+ac)
- 1985: 30 Acres (Alameda Gateway 16ac)
- 1970-1986 : Average 21 acres per year
- After 1986: Smaller amounts, except Bridges (Bay, I680, San Mateo, Carquinez) and Middle Harbor/Berths 55-59

Net Increase in Bay Surface Since 1970









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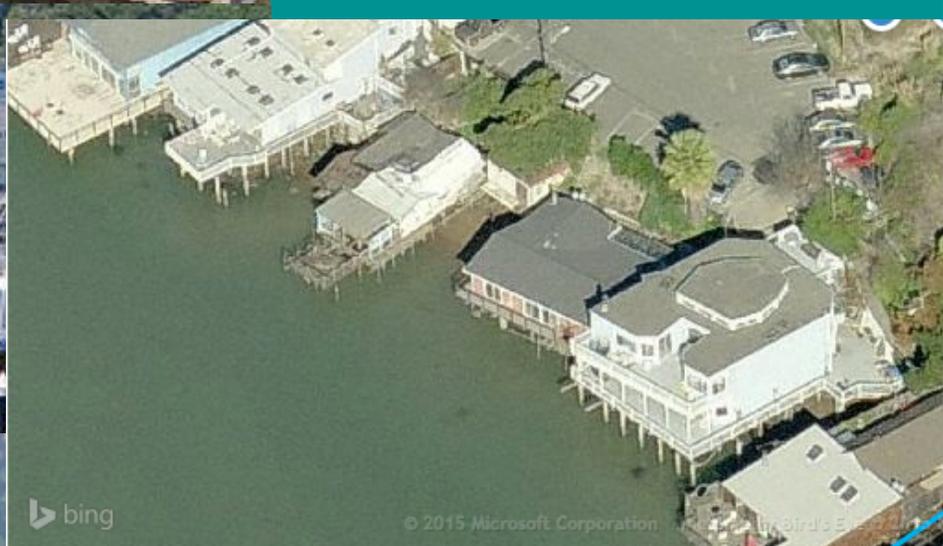




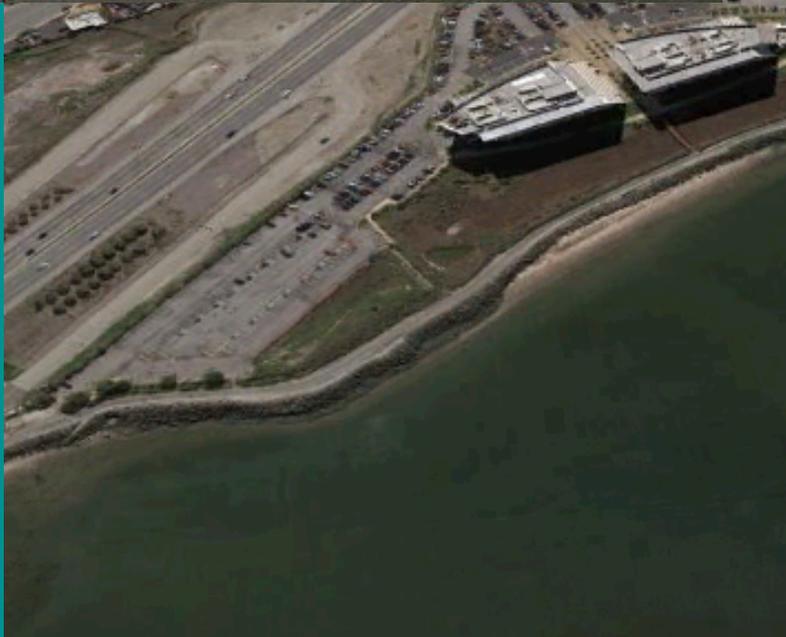
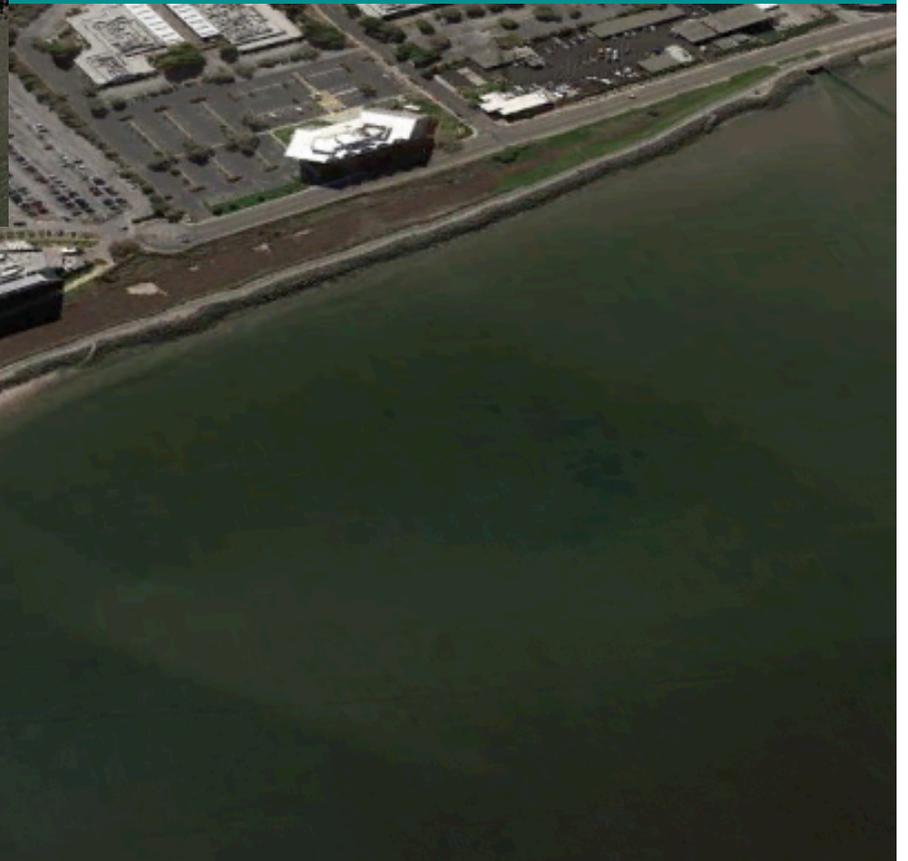
Transbay Cable



Housing







Framework

“The Bay is an irreplaceable gift of nature that man can either abuse and ultimately destroy-or improve and protect for future generations.”

San Francisco Bay Plan



Framework

The bay is a single body of water that can be used for many purposes, from conservation to planned development...the bay operates as a delicate physical mechanism in which changes that affect one part of the bay may also affect all other parts. It is therefore declared to be in the public interest to create a politically-responsible, democratic process by which the San Francisco Bay and its shoreline can be analyzed, planned, and regulated as a unit.

McAteer-Petris Act Sec. 66600

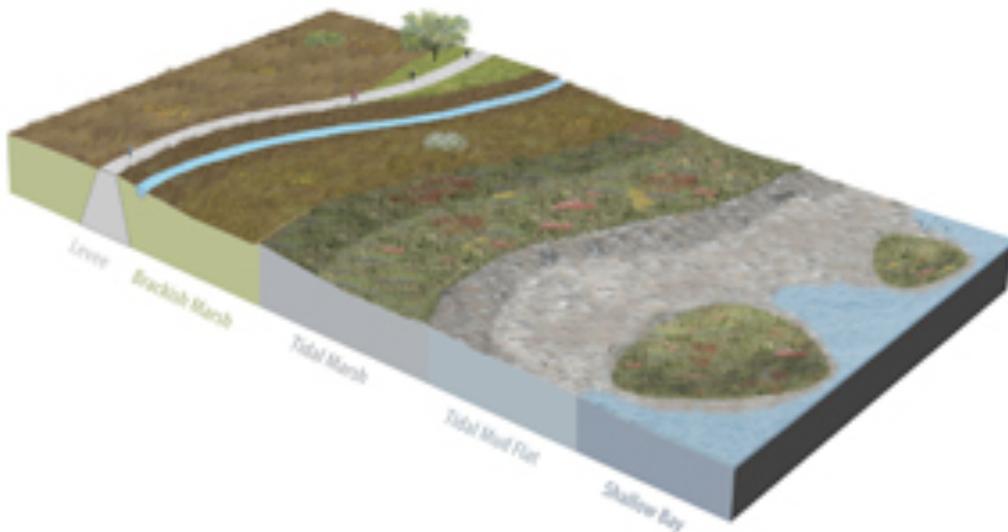


Objectives

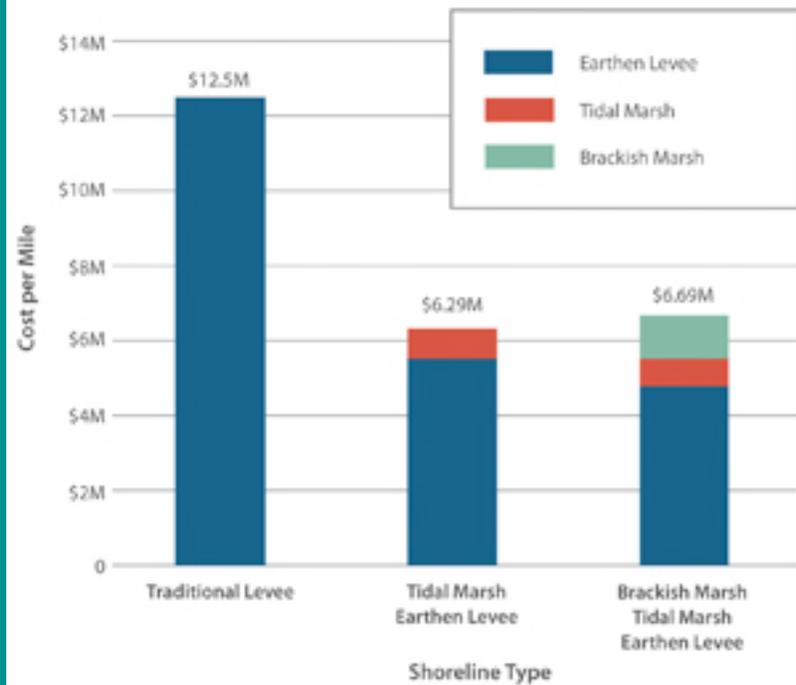
1. Protect the Bay as a great natural resource for the benefit of present and future generations.
2. Develop the Bay and its shoreline to their highest potential with a minimum of Bay filling.



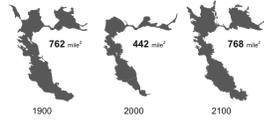
Horizontal Levee



Levee Cost/Mile (In Millions) Over 50 Years



EVOLUTIONARY RECOVERY

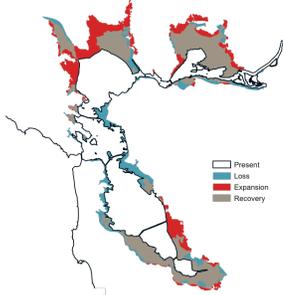


San Francisco Bay is one living organism. It breathes, circulates and transforms over time. During the past century, San Francisco Bay has suffered from tremendous loss of its body - more than 40% due to the heavy shoreline development.

The global warming phenomenon calls for both challenges and opportunities for San Francisco Bay. If continuous climate change is anticipated, the sea level at the Bay is projected to be 4.5 feet higher in 2100. This will result massive inundation of the San Francisco Bay shoreline. Ironically, the sea level rise will bring back the Bay to the size that it was a century ago.

Evolutionary Recovery begins.

There is no one magical solution for this recovery process. Some wounds have stitches to heal while some need simple clean-ups. Others require major surgery. This design proposal defines Bay's Evolutionary Recovery process and identifies 3 recovery zones: **Protection, Operation, Adaptation.**

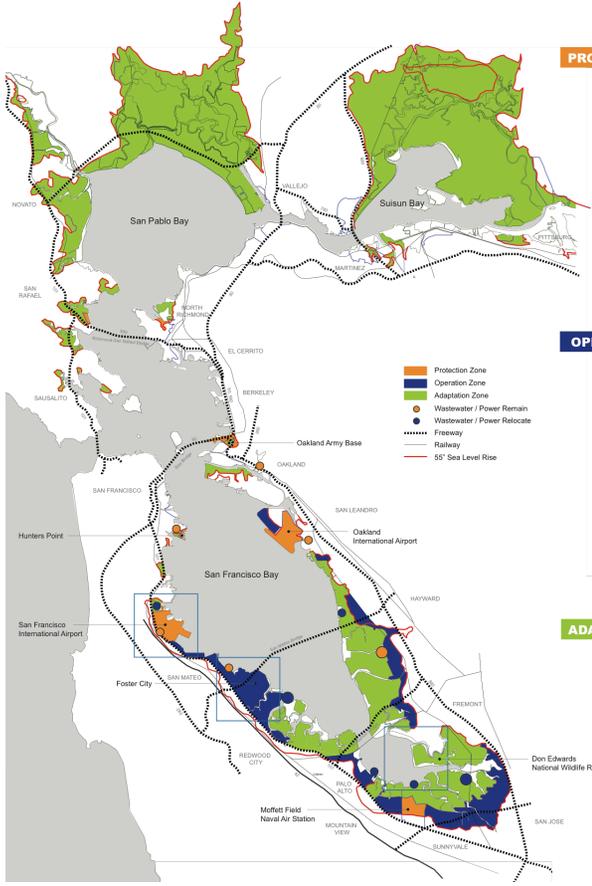
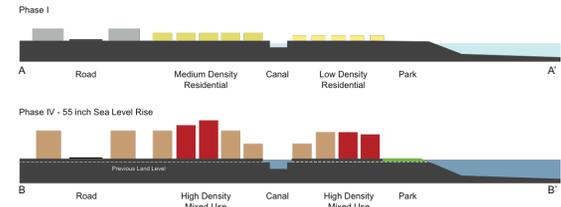
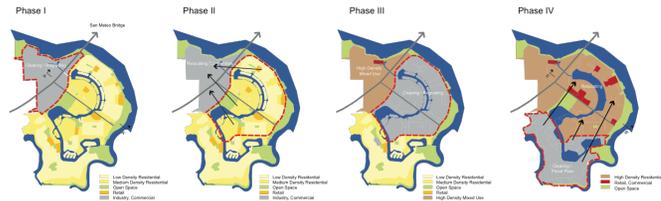


FOSTER CITY Operation Phasing Plan

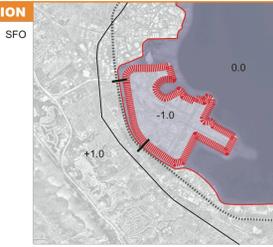
Foster City, once San Mateo County's thriving shoreline tidal marsh, has formed its land by dredging the wetlands and pumping mud and sand onto the island raising it slightly above sea level.



Land subsidence and projected sea level rise put all of Foster City, built on 4 square miles of former bay wetlands, at risk of inundation, threatening 30,000 residents and businesses.

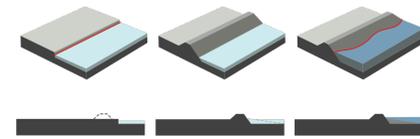


PROTECTION

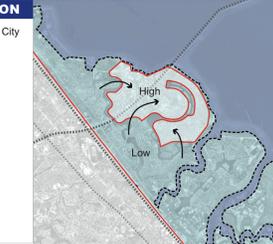


Protect Shoreline Infrastructure.

- Protect major shoreline infrastructure - Airports / Ports / Highways / Utilities
- Physical Barrier + Wetland = Double shoreline protection

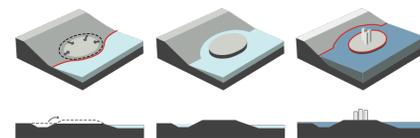


OPERATION

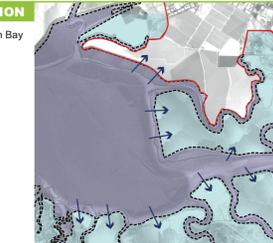


Operate Low-Grounds / Landfill Development.

- Retreat : Existing development susceptible to future inundation
- Relocate : Creating New High-ground for Relocation
- Revitalize : New High-density development

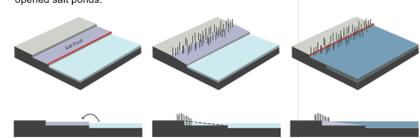


ADAPTATION



Adapt Existing Wetlands / Salt Ponds.

- Tidal wetlands function as natural buffers against flood events. They adapt to sea level rise by gathering sediments and growing vegetation accelerated with carefully prescribed dredging and deposition accompanied with wetland planting.
- Salt ponds will be released as dredge materials and sediment washes into newly opened salt ponds.





Making San Francisco Bay Better

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