



The
Policies for a Rising Bay
Project

Steering Committee Meeting #2

July 24, 2015

Project Goal



Collaboratively evaluate BCDC's fill policies in light of sea level rise and develop guidance for the Commission, staff and project proponents to promote shoreline resilience

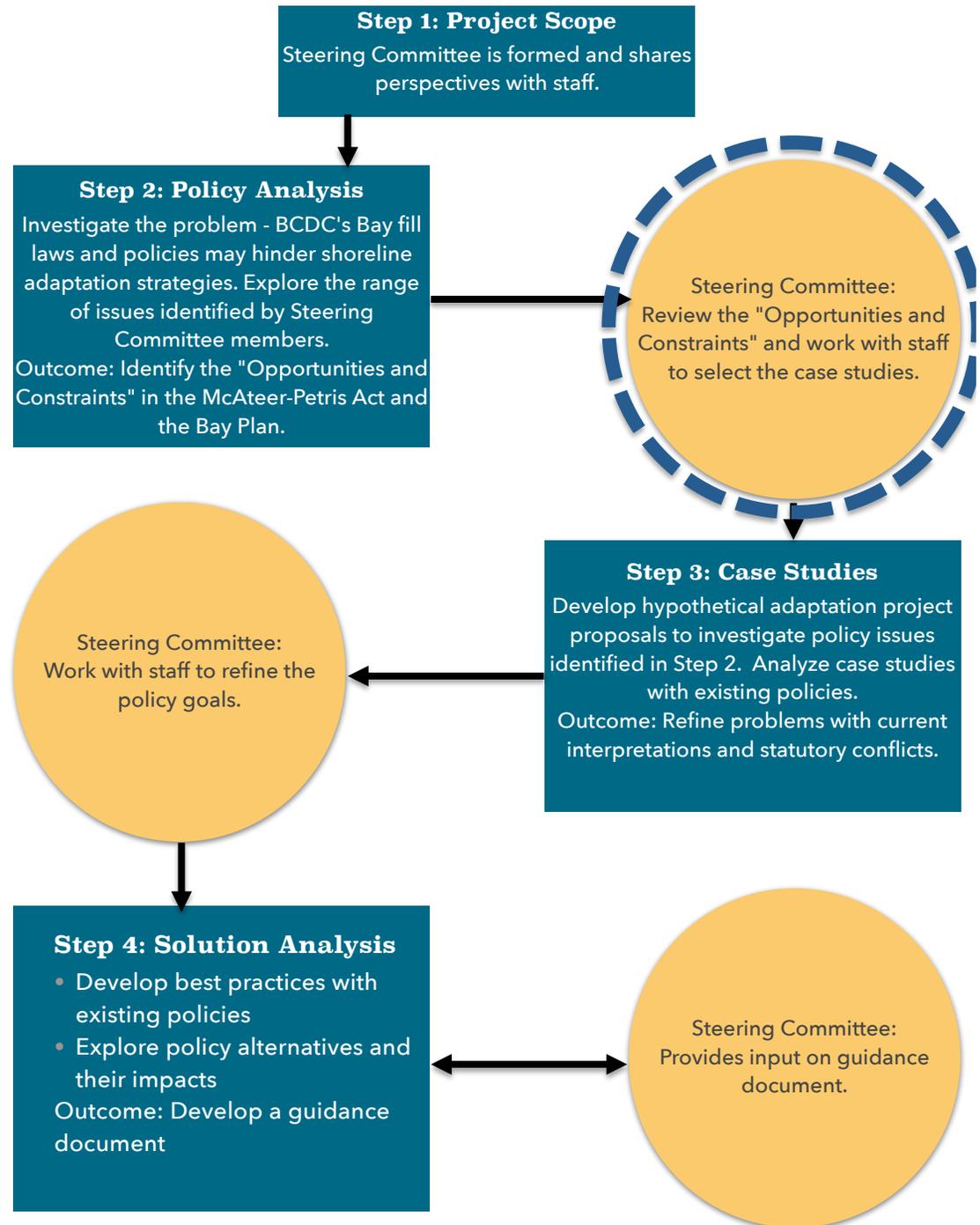
What have we been up to?



- Policy Analysis
- Steering Committee Outreach
 - Technical Workshop
 - Environmental Justice Meeting
 - Economic Meeting
- <http://www.bcdc.ca.gov/prb/rising-bay-project-steering-committee.php> (bcdcpbssc)

Where are we in the process?

1. Present and discuss policy analysis
2. Describe case study concepts and solicit your feedback
3. Identify how you can assist staff with case studies



What's next?



- Case study technical development and policy analysis
- Steering Committee Meeting #3



Policy Analysis Overview



- Evaluates whether and how BCDC's fill laws and policies may affect sea level rise adaptation strategies
- The project was designed with the goal of collaborating across BCDC units and with the Steering Committee
- BCDC wants your feedback

Policy Themes



- Fill to Enhance Habitat and Wildlife
- Surface Area and Water Volume
- Tidal Barriers
- Adaptive Management
- Mitigation
- Environmental Justice
- Public Access and Sea Level Rise
- Innovative Shoreline Adaptation
- Dredging

Policy Analysis Table



Tidal Barriers		
Law / Policy	Common Interpretations	Uncertainties
<p>Water Surface Area and Volume Policy 3. Because further study is needed before any barrier proposal to improve water circulation can be considered acceptable, the Bay Plan does not include any barriers. Before any proposal for a barrier is adopted in the future, the Commission will be required to replan all of the affected shoreline and water area.</p>	<p>Water Surface Area and Volume Policy 3 is a response to the 1940's Reber plan, and other barrier schemes. The Reber Plan proposed to create freshwater lakes with major filling of the Bay. This policy ensured that the Bay would be protected from engineering interventions that undermine the Bay's natural resources and process. This policy sets a high bar for barrier projects, regardless of the proposed size and location.</p>	<p>Since this policy does not distinguish between small or large barriers, all barrier projects would be subject to this policy. Some tributary streams and channels have barriers that may need to be replaced to address sea level rise, which may implicate this policy (e.g., San Bruno Creek). How to consider tidal barriers? How should the Commission interpret the requirement to "replan" the affected area? What information is needed to consider the impacts of tidal barriers?</p>

Policy Analysis



- **Fill to Enhance Habitat and Wildlife**
 - McAteer-Petris Act Section 66605 (b) & (c)
 - Tidal Marshes and Tidal Flats Policy 1,3
 - Fish, Other Aquatic Organisms and Wildlife Policy 5
 - Tidal Marshes and Tidal Flats Policy 8
 - Subtidal Areas Policy 2, 6
 - Dredging Policy 11b

Policy Analysis



Fill to Enhance Habitat and Wildlife

- What constitutes "minor fill" to enhance habitat and wildlife when there may be risks from both inaction and action?
- How to weigh short- and long-term benefits and detriments associated with filling existing habitats now to improve their resilience later?

Policy Analysis



- **Surface Area and Water Volume**
 - Water Quality Policy 1
 - Surface Area and Water Volume Policy 1

Policy Analysis



Surface Area and Water Volume

- How to reconcile the mandate to maximize water surface area and volume in light of sea level rise?

Policy Analysis



- **Tidal Barriers**
 - Surface Area and Water Volume Policy 3

Policy Analysis



Tidal Barriers

- How to consider tidal barriers?

Policy Analysis



- **Adaptive Management**
 - Climate Change Policy 3, 5
 - Shoreline Protection Policy 1
 - Tidal Marshes and Tidal Flats Policy 6

Policy Analysis



Adaptive Management

- What should an adaptive management plan include?
- How to encourage innovative sea level rise approaches and minimize the potential of failure?

Policy Analysis



- **Transportation**

- Shoreline Protection Policy 1
- Transportation Finding (e)
- Transportation Policy 1
- Water-related Industry Policy 4 (d)

Policy Analysis



Transportation

- When railroads, roads, and highways serve as incidental flood protection, how can the Commission evaluate adaptation proposals for these assets?

Policy Analysis



- **Mitigation**
 - McAteer-Petris Act Section 66632
 - Mitigation Policy 1

Policy Analysis



Mitigation

- What is reasonable mitigation for flood protection projects?
- Are there other approaches beyond a project-by-project basis to plan and implement shoreline protection with mitigation that would result in increased protection Baywide and greater ecological benefits?

Policy Analysis



- **Environmental Justice**
 - McAteer-Petris Act Section 66605 (d)
 - Water-Related Industry Policy 5 (a)

Policy Analysis



Environmental Justice

- How can the Commission address environmental justice concerns in the context of shoreline protection?
- How to consider groundwater intrusion and the mobilization of contaminated substances into communities and the environment during shoreline protection projects?
- How to effectively coordinate the action of several neighboring small parcel owners?

Policy Analysis



- **Public Access and Sea Level Rise**
 - Public Access Policy 5
 - Public Access Policy 6
 - Shoreline Protection Policy 1
 - McAteer-Petris Act Section 66605 (b)
 - Safety of Fills Policy 4

Policy Analysis



Public Access and Sea Level Rise

- How to ensure that public access, provided on a site-by-site basis, will remain viable over time?

Case Study Concepts



- Case study concepts respond to staff and Steering Committee feedback
- Settings reflect diversity of Bay shoreline types and natural resource/development assets at risk
- Adaptation actions proposed based on landscape characteristics and land use types

Shoreline Settings



Landscape characteristics

- Bathymetry
- Wave energy
- Bay SSC
- Nearshore sediment transport
- Topography
- Flood infrastructure
- Creek hydrology
- Watershed sediment supply

Land use types

- Baylands
- Shoreline parks
- Homes
- Businesses
- Industry
- Transportation
- Utilities

4 Generalized locations

Adaptation Actions



To protect in place*

- Sills or living breakwaters
- Tidal barriers
- Barrier beaches
- Riprap/revetments
- Flood/seawalls
- Dikes/levees
- Causeway
- Mudflat recharge
- Thin sediment placement
- Transition zone slope/
horizontal levee
- Watershed reconnection



Applicability

Timing and adaptability

Case Study Concept Stations



Policy “Themes”



	1. Shoreline community	2. Ground Transportation	3. Airport	4. Contaminated lands
Fill for habitat	X			
Adaptive management	X	X	X	X
Tidal barriers	X			
Water Surface Area & Volume		X		
Mitigation			X	
Transportation		X		
Environmental justice			X	X
Public access				X

Open House Charge



- Can we address the policy issues through these case study concepts?
- How can we develop these case studies so that they adequately test the policies?

Help us improve the case studies to reflect your environmental, economic, and equity perspectives.

Thank you!



Comments/questions?



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