Regulating Living Shorelines
A San Francisco Bay Perspective

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Overview

- Regulatory Background
- Policies and Planning Documents
- South San Francisco Bay Shoreline Case Study
- Living Shorelines Pilot Case Study
- Conclusion
Regulatory Background

Federal Agencies
• Army Corps of Engineers
  • Section 404, Clean Water Act
  • Section 10, Rivers and Harbors Act
• National Marine Fisheries Service
  • Endangered Species Act
  • Magnusen-Stevens Act
  • Marine Mammal Protection Act
• Fish and Wildlife Service
  • Endangered Species Act

State Agencies
• Regional Water Quality Board
  • Section 401, Clean Water Act
  • Porter-Cologne Water Quality Control Act
• CA Dept. of Fish and Wildlife
  • CA Endangered Species Act
• Bay Conservation and Development Commission
  • McAteer-Petris Act
  • Section 307, Coastal Zone Management Act
Policy & Planning

**Regional Water Board Policies**
- California Wetlands Conservation Policy (Section 4.23, Basin Plan)
- Wetland Fill Policy (Section 4.24.4, Basin Plan)

**Regional Planning Documents**
• Flood Control Levee
  *with Ecotones
  ➢ 3.8 miles
Ecotone Levee

- Shallow Subtidal
- Intertidal Mudflat
- Low Marsh
- Middle Marsh
- High Marsh
- High Marsh
- Upland Grassland

Sea Level Rise 2067

Current Sea Level

Existing Levee

Traditional Levee

3:1

Net Loss

SOUTHBAY SHORELINE PROJECT TRANSITION ZONE—TYPICAL CROSS SECTION
Avoidance Requirements
Mitigation and Permitting Strategy

Phased Construction

- Phase I (2018-2022)
- Phase II (2027)
- Phase III (2032)
Policy Challenges and Opportunities

- San Francisco Bay Basin Plan
  - Avoidance
- California Wetlands Policy
- Baylands Ecosystem Habitat Goals Report
San Francisco Bay Living Shorelines Pilot Project

- Pilot study-compare various habitat treatments

- Provide living space for estuarine and coastal organisms

- Habitat restoration and enhancement through a variety of measures
SF Bay Living Shorelines Pilot Project

- Assess efficacy of treatments
- Monitor invertebrates, fish, birds
- Evaluate physical benefits
- Identify lessons learned
Permits

Corps: Nationwide 27 Permit, habitat restoration (NWP 54 linear foot thresholds exceeded)

Water Board: Section 401 Water Quality Certification

National Marine Fisheries Service and USFWS: Endangered Species/Essential Fish Habitat, Streamlined permit process for recovery actions

BCDC: Minor Permit, beneficial fill amendment

CDFW: State-listed species consultation
Expediting Permits

Early Consultation and Coordination

• Fill Justification

• Avoidance of Species Impacts

• Benefit of Removing Creosote Piles
Conclusions

• Current regulations can be used to permit living shorelines
• Policies could use clarification or revision
• General permits can streamline process
• Communication and Collaboration are essential