

Basin Plan Amendment on Climate Change and Aquatic Habitat Protection, Management, and Restoration

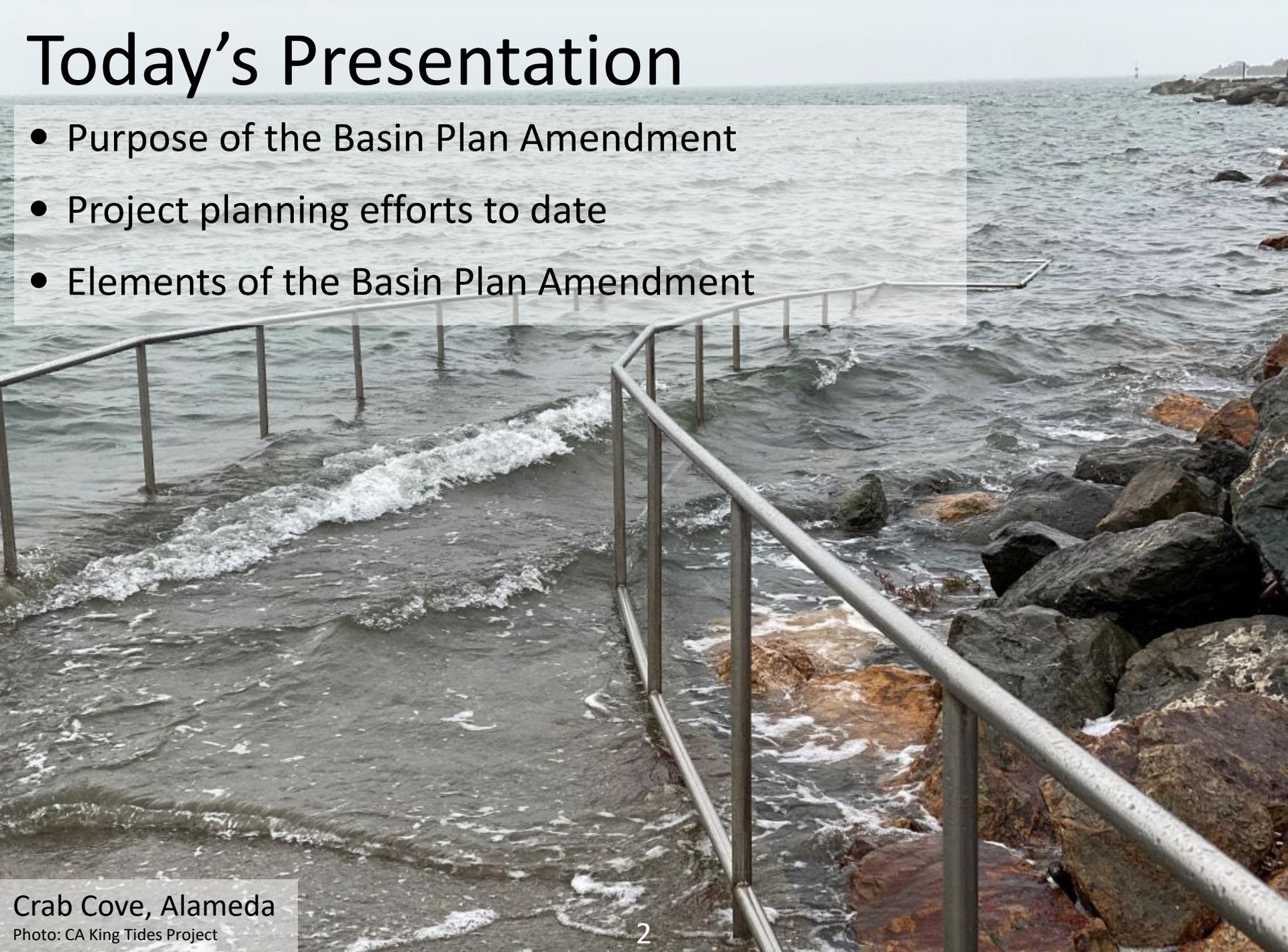
Christina Toms
Water Resource Control Engineer

Tidal wetlands along Gallinas Creek
submerged by a king tide

Photo: C. Toms



Today's Presentation



- Purpose of the Basin Plan Amendment
- Project planning efforts to date
- Elements of the Basin Plan Amendment

Purpose of the Amendment



- Climate change impacts to water quality
- Potential considerations for projects in coastal waters

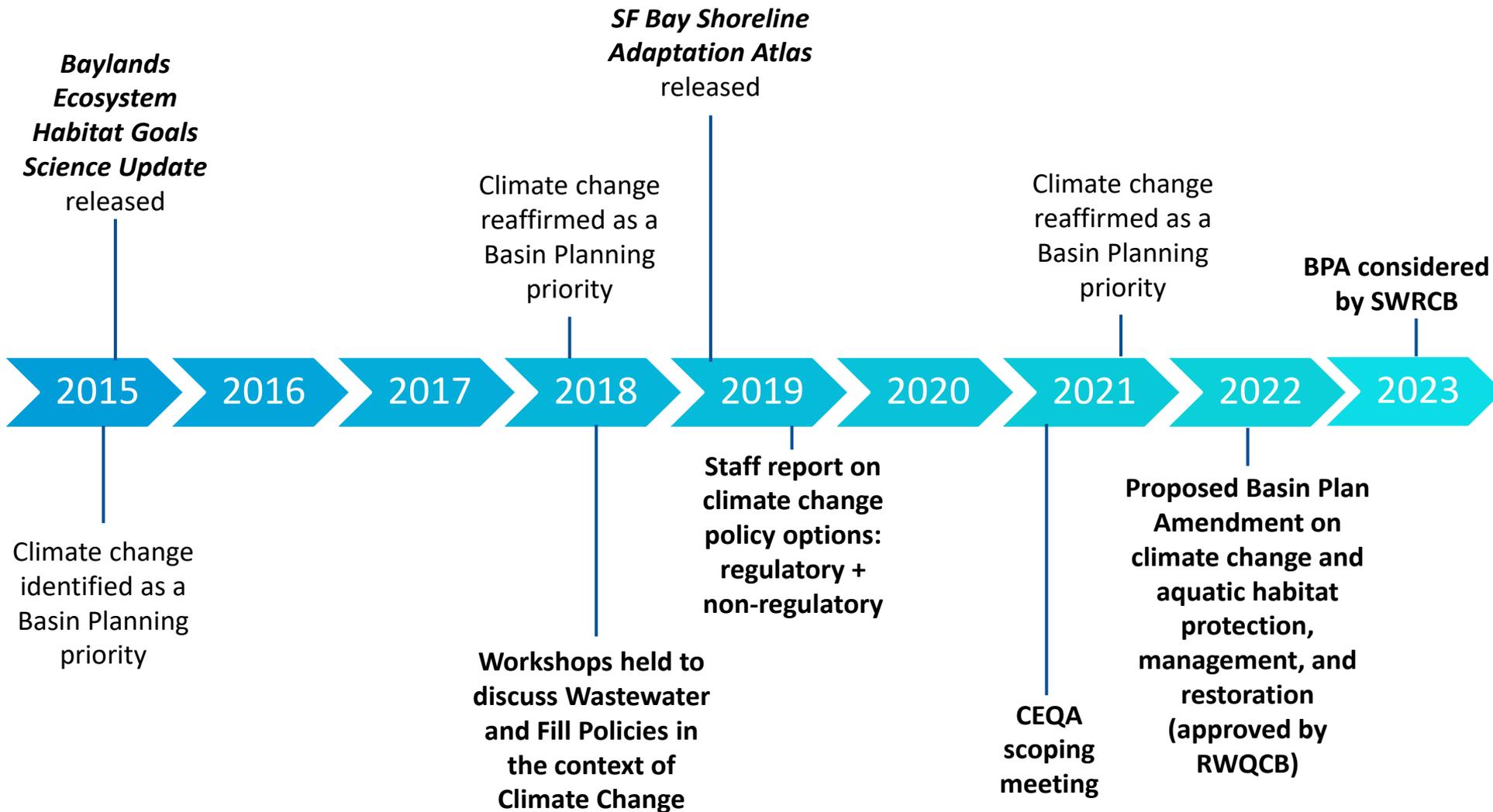
Non-Regulatory Amendment

Collaborative

Transparent

Informative

Timeline: How We Got Here



New Section 1.7: The Challenge of Climate Change

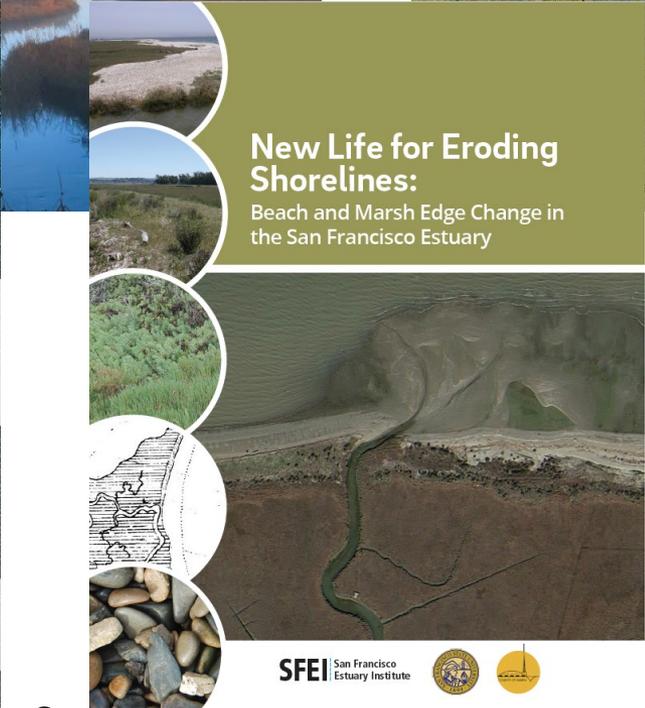
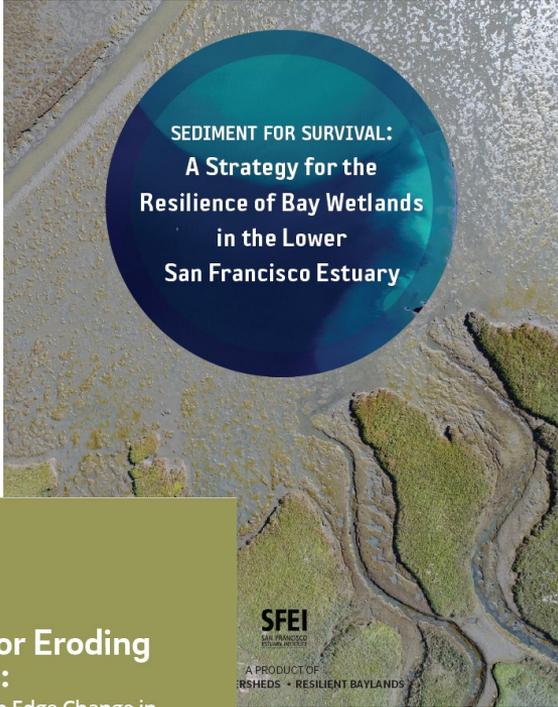
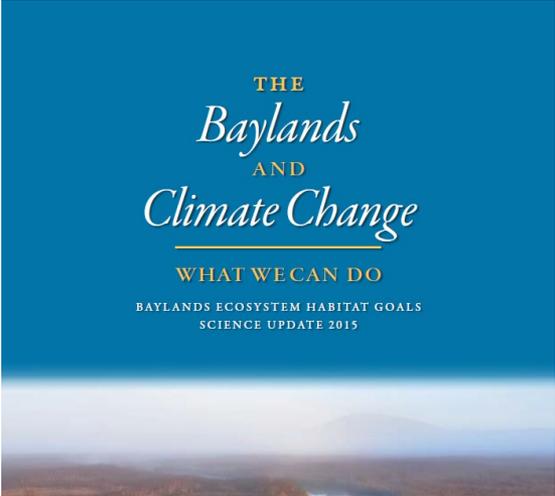
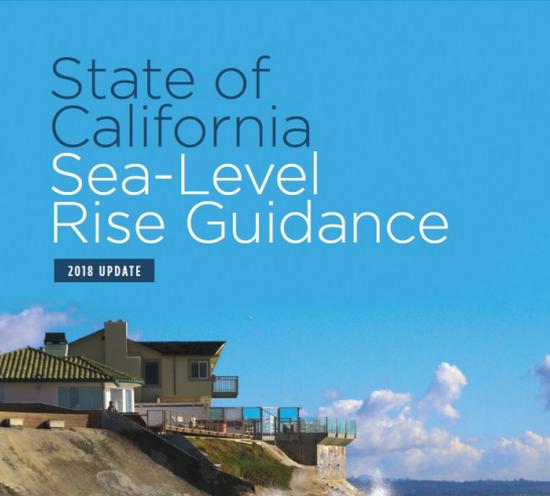


Lake Chabot
2015

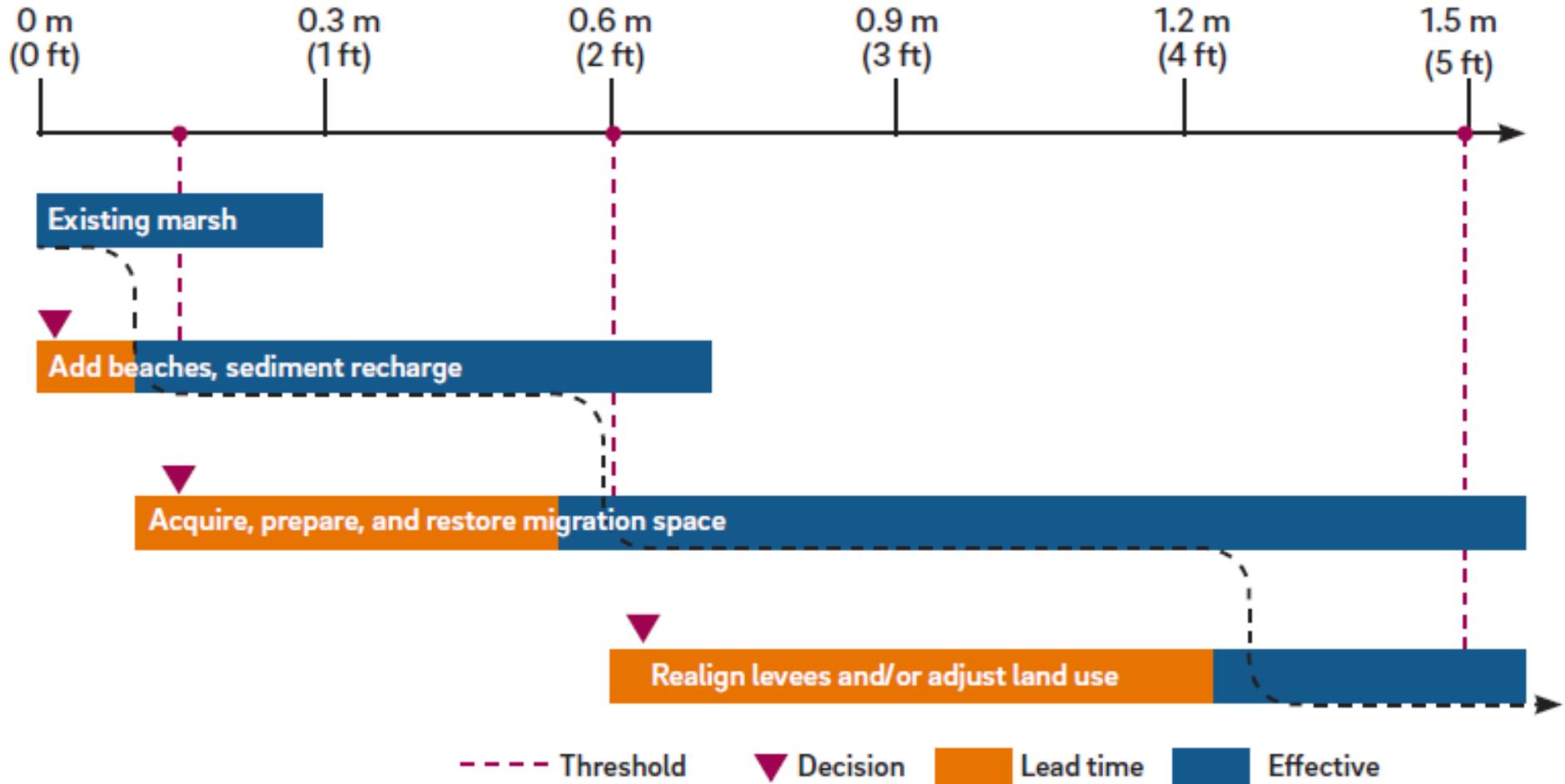
New Section 4.27: Climate Change and Aquatic Habitat Protection, Management, and Restoration



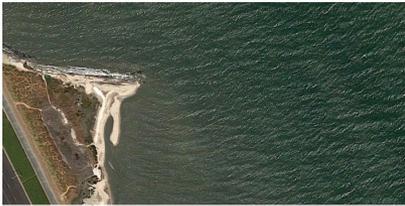
Question 1: Best Available Science?



Question 2: Phased Adaptation Framework?



Question 3: Cross-Jurisdictional Framework?



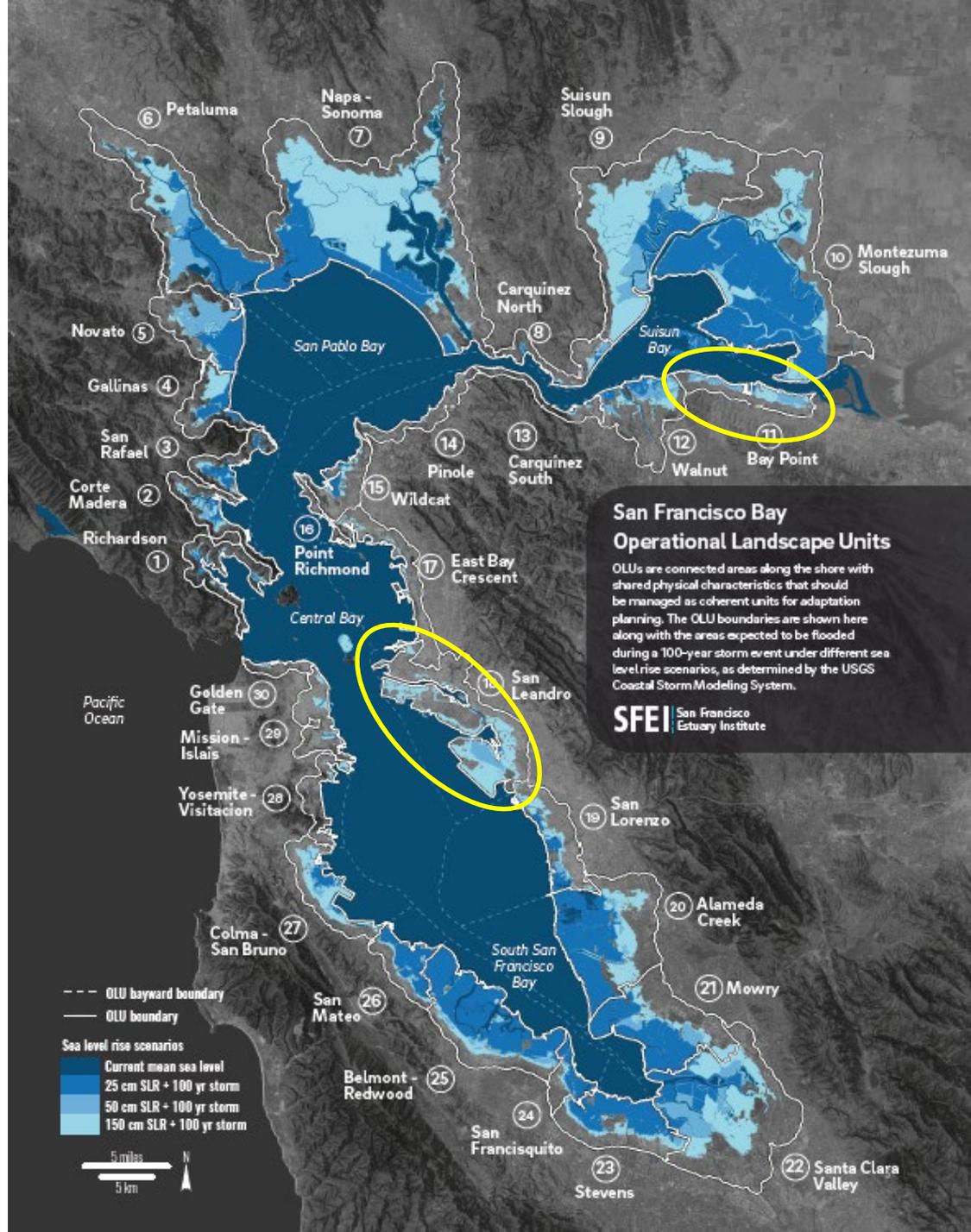
SAN FRANCISCO BAY SHORELINE Adaptation Atlas

Working with Nature to Plan for Sea Level Rise Using Operational Landscape Units



SEA LEVEL RISE Adaptation Framework

A user guide to planning with nature, as demonstrated in Marin County



Question 4: Nature-based Approaches?

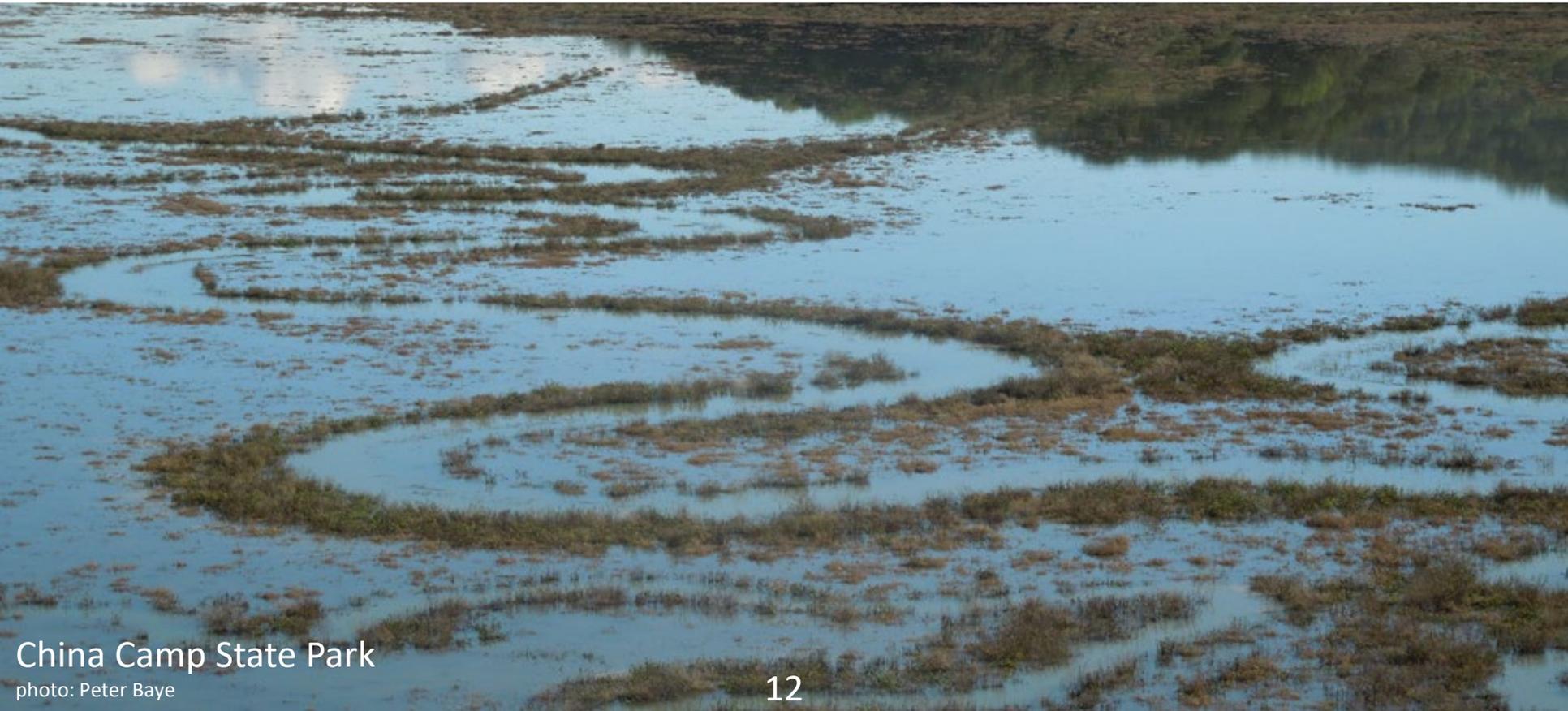


Restored migration space at
Spring Branch Creek Enhancement Project

Photo: Stuart Siegel

Question 5: Impacts given the reasonably foreseeable conditions from climate change?

- Environmental drivers
- Impacts of no action
- Coherent landscapes
- Habitat type conversion



Question 5: Impacts given the reasonably foreseeable conditions from climate change?



Landscape-scale

Site-scale

Question 5: Impacts given the reasonably foreseeable conditions from climate change?

**Impacts of
no action**

Surfer's Beach, Half Moon Bay

Photo: CA King Tides Project

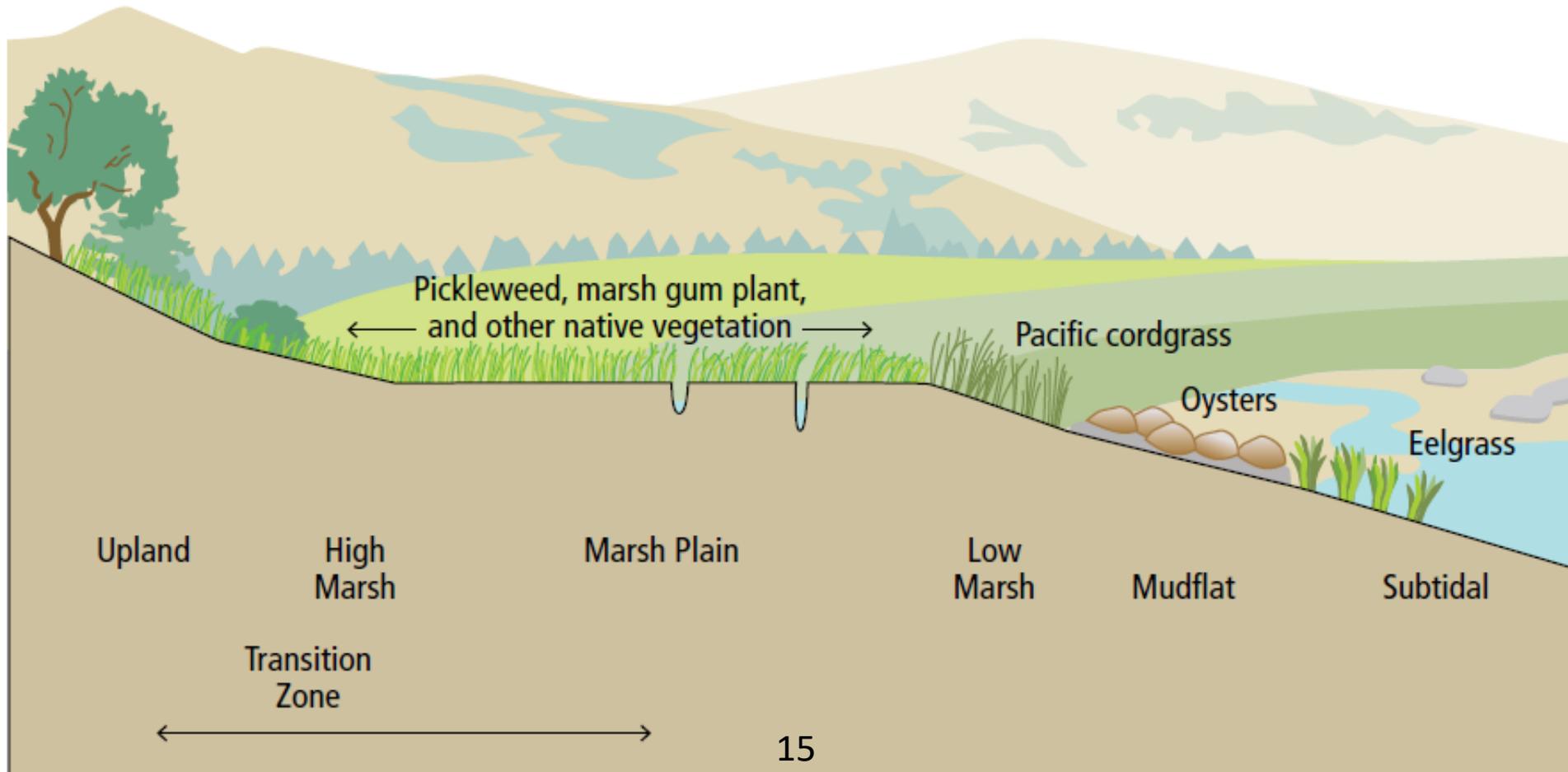


Question 5: Impacts given the reasonably foreseeable conditions from climate change?

Coherent landscapes

Diagram of the “complete” marsh

Graphic: Habitat Goals 2015



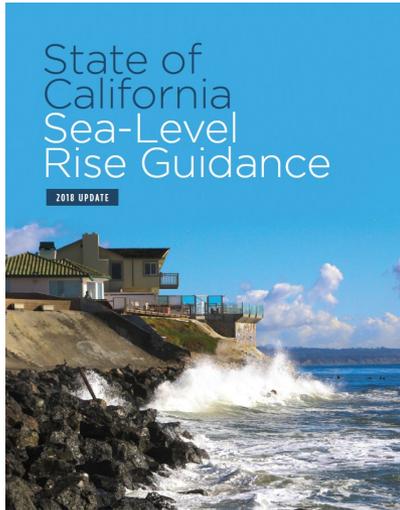
Question 5: Impacts given the reasonably foreseeable conditions from climate change?



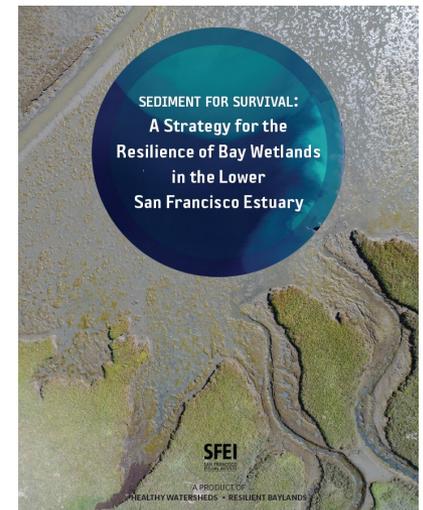
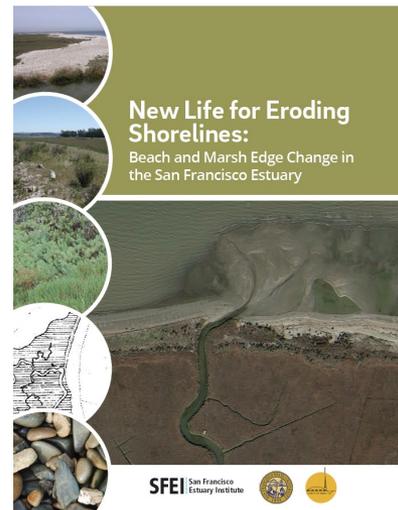
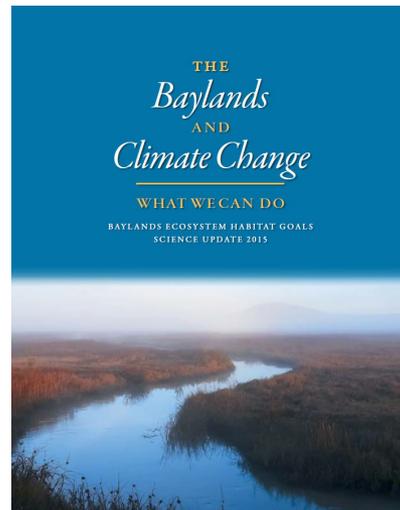
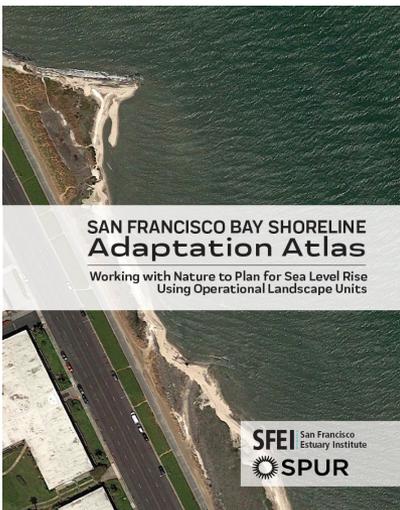
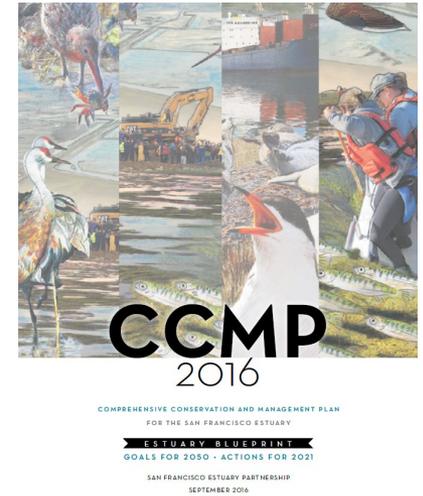
Type conversion

Island Ponds at the
South Bay Salt Pond Restoration Project
Photo: Google Earth

Proposed Administrative Changes



Aquatic Resource Type Conversion Evaluation Framework



Questions?

