

PORT AND HARBOR AQUATIC PERMIT ISSUES AND TRENDS

For the:

PACIFIC COAST CONGRESS
OF HARBORMASTERS AND PORT MANAGERS
October 3, 2007, Red Lion Inn
Eureka, CA

By:

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Presentation Overview

- My Permit and Project Experience in San Francisco Bay
- Understanding Environmental and Social/political drivers
- Trends and Opportunities
- Questions

Angel Island

San Francisco

Oakland

Fremont

San Jose

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Google

Pointer 37°39'52.62" N 122°22'17.03" W elev. 0 ft Streaming 100%

Eye alt 81.80 mi

Recent Permit Experience

- Small dredging projects
- Oakland 8-Bridges
- Stormwater Channels
- San Francisco Int. Airport Expansion
- Pile driving impact mitigation
- Native oyster and eelgrass restoration

Pile Driving Projects

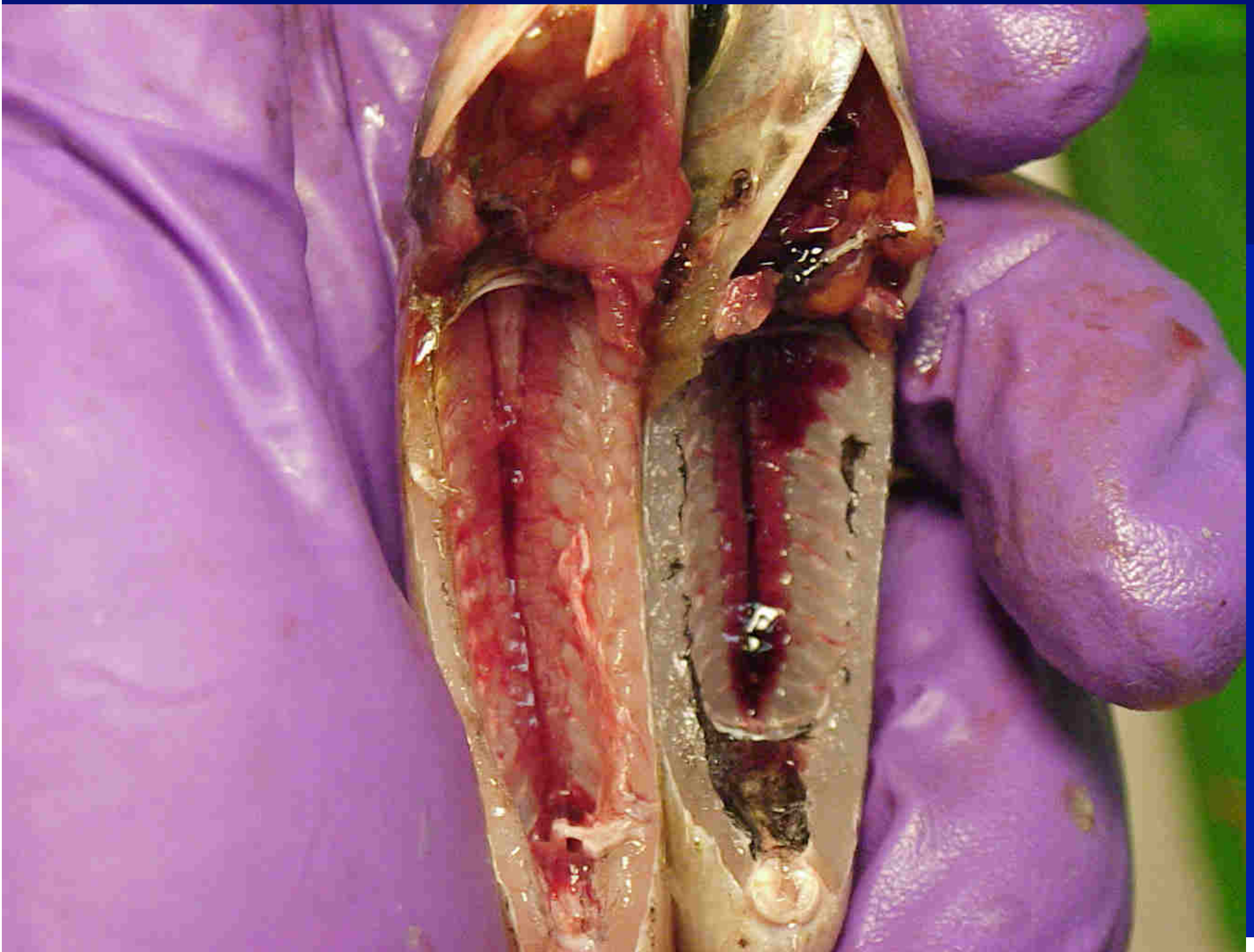
- Bay Bridge PIDP-Bird Study
- Benicia-Martinez Bridge-necropsies
- Bay Bridge-Caged Fish Studies
- Port of Oakland-Concrete Piles
- Permits: NEPA/CEQA NOAA, CDFG, BCDC, SFBRWQCB, USFWS

8'-Diameter Steel Shell Piles



When the Bubble Curtain is On
No birds because no dead fish

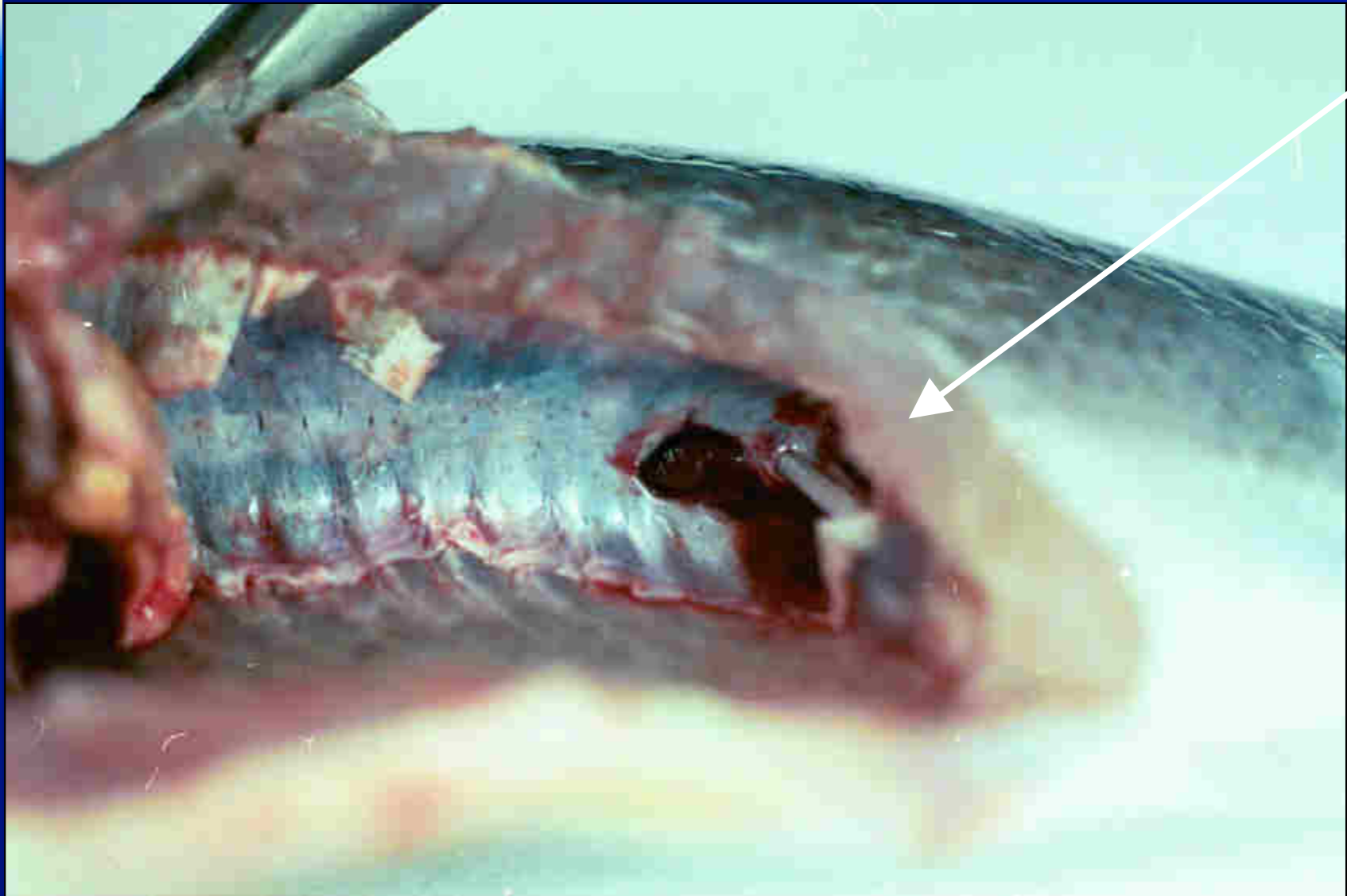




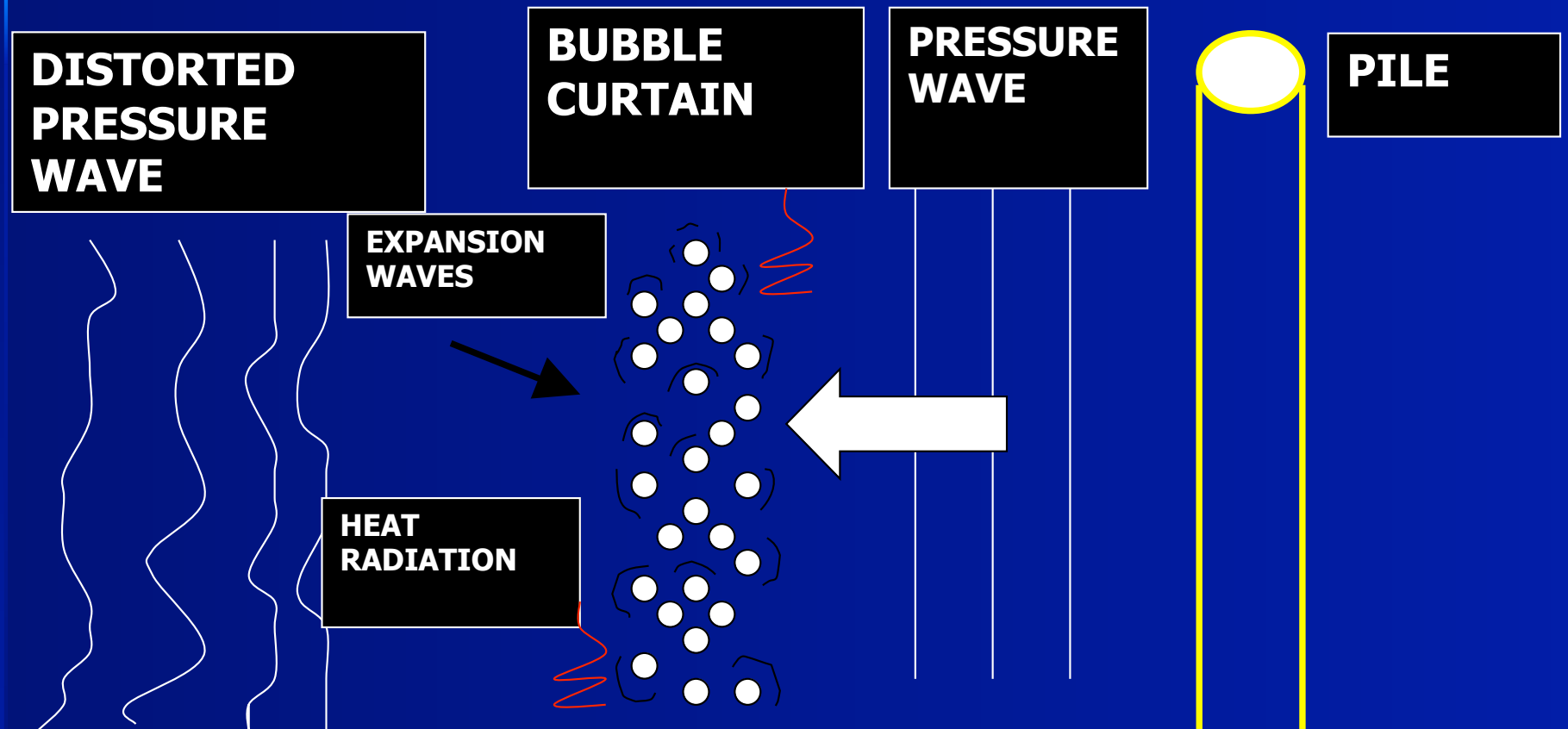
Rupture of the Body Cavity



Rupture of the Swim Bladder



How Bubble Curtains Work



Concrete Pile Driving at the Port of Oakland



Oyster Point Marina Native Oyster Monitoring

- Two years
- Monitor inside the marina and outside
- Water quality parameters
- Determine effect of dredging
- Determine effects of ferry operations
- Plan for mitigation of impacts





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Image © 2007 Sanborn

Pointer 37°39'49.14" N 122°22'42.27" W elev 0 ft Streaming 100%

Eye all 2808 ft







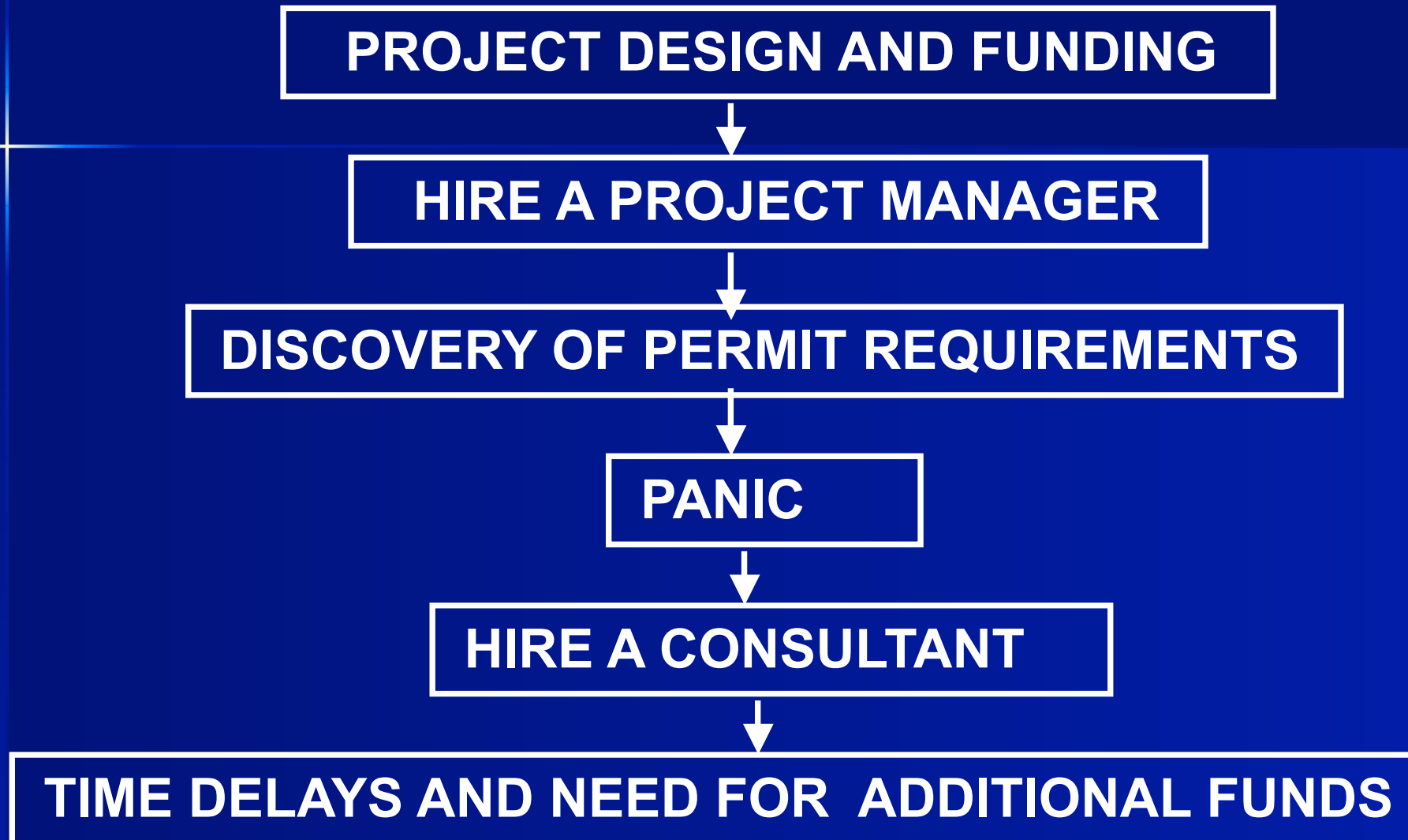
Aquatic Invasive Species

- Moved around by boats, boots, intentionally
- Costing Billions of Dollars to Mitigate
- Two recent efforts to wipe out new invasive species in SF Bay
- Permits: NOAA, CDFG, Coast Guard, State Lands, others

Typical Permit Process

- Project Owner: This is a bunch of
- Stake Holders: They better or
- Regulators: They just do not understand
- Consultant: Someone has to do it. Might...
- Fish: I'm dead
- Habitat: So now I am a what?

The Typical Permit Process



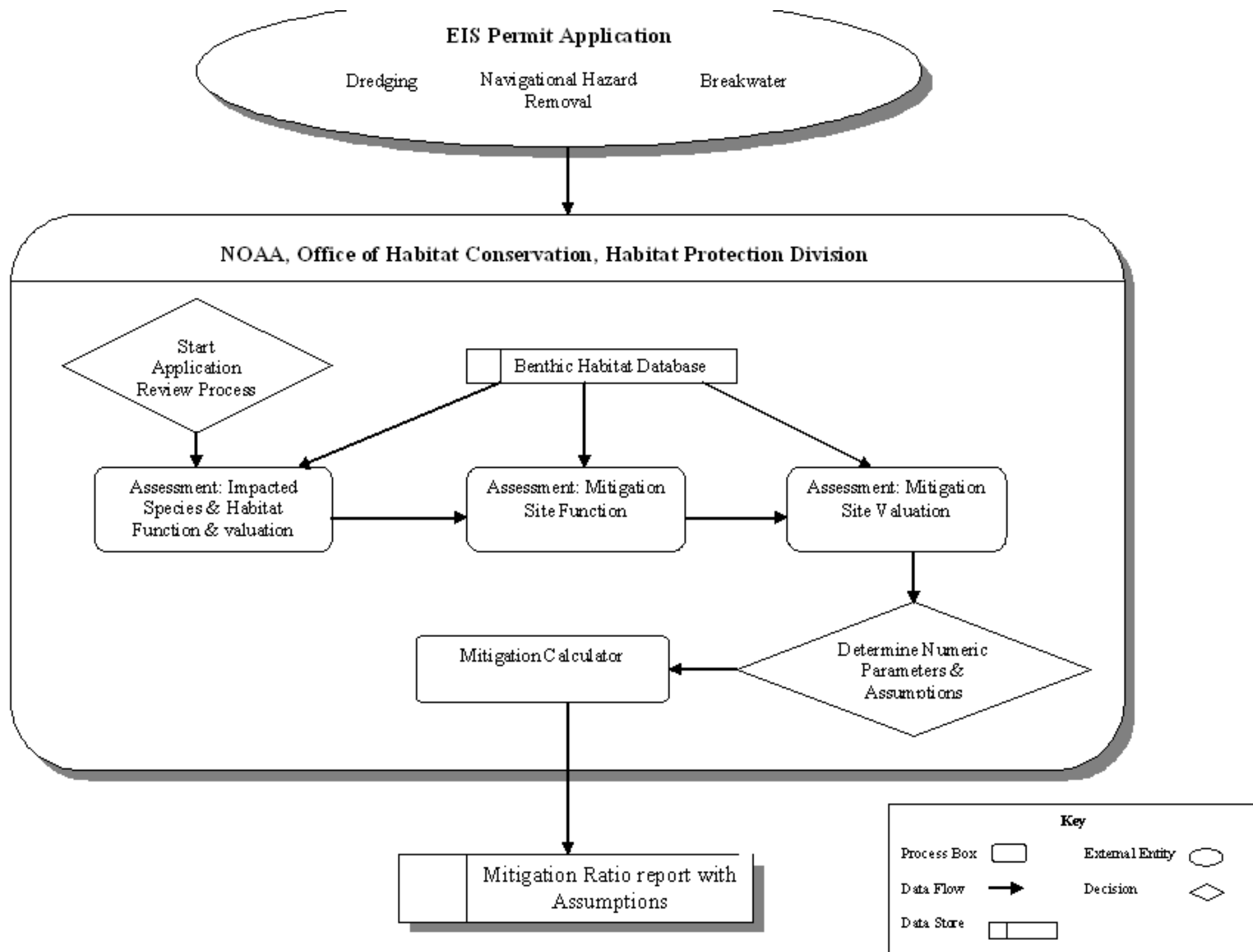


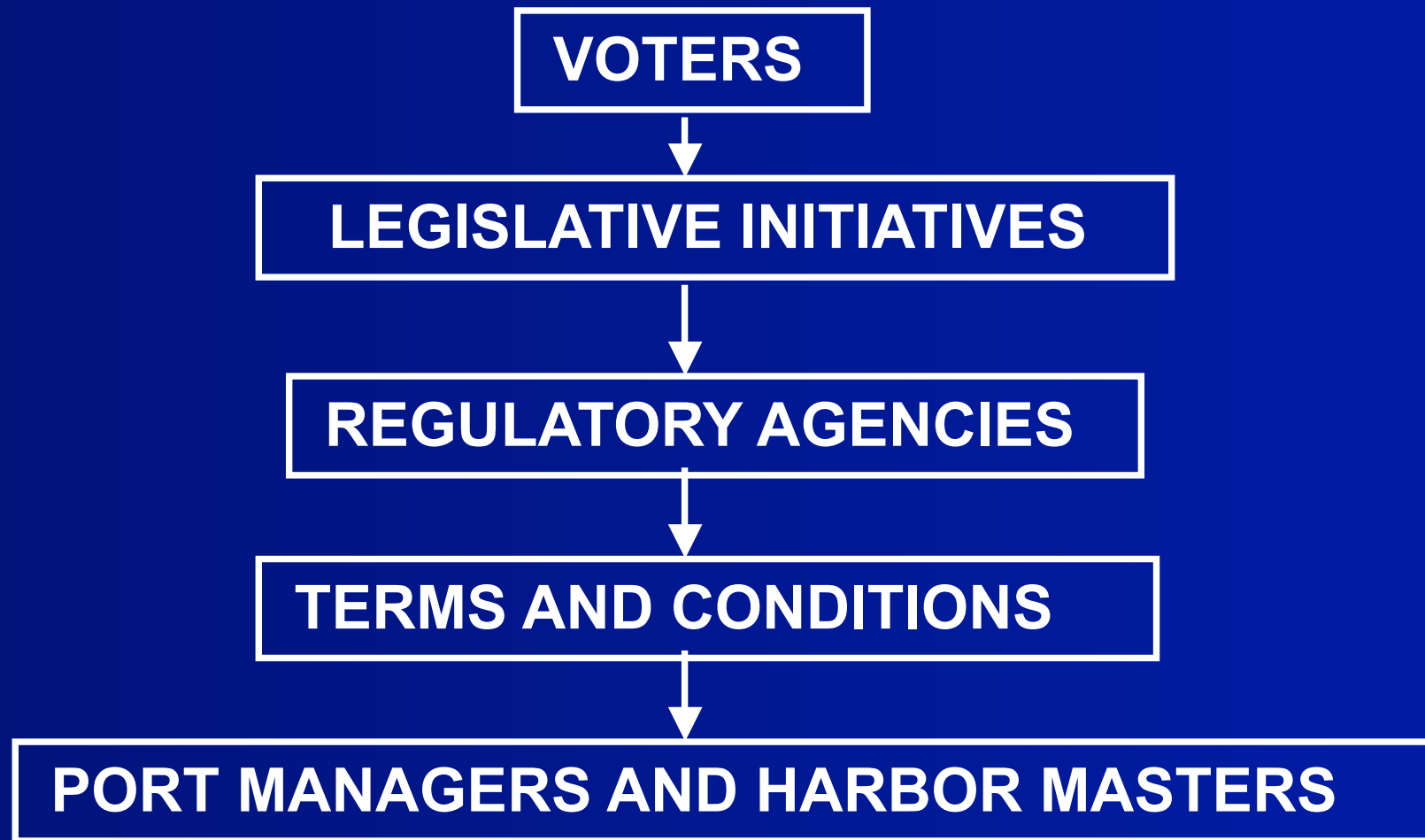
Figure 1. Schematic for the application of a benthic habitat database for the NOAA benthic habitat function valuation

Glossing Over CEQA and USCOE

- CEQA Identifies the Project Permits
- It Does Not Satisfy Permit Requirements
- NEPA and CEQA are different But Often Integrated
- U. S. COE Nationwide Permits Linked to NOAA, USFWS and Regional Boards

AN OVERVIEW OF PERMIT DRIVERS

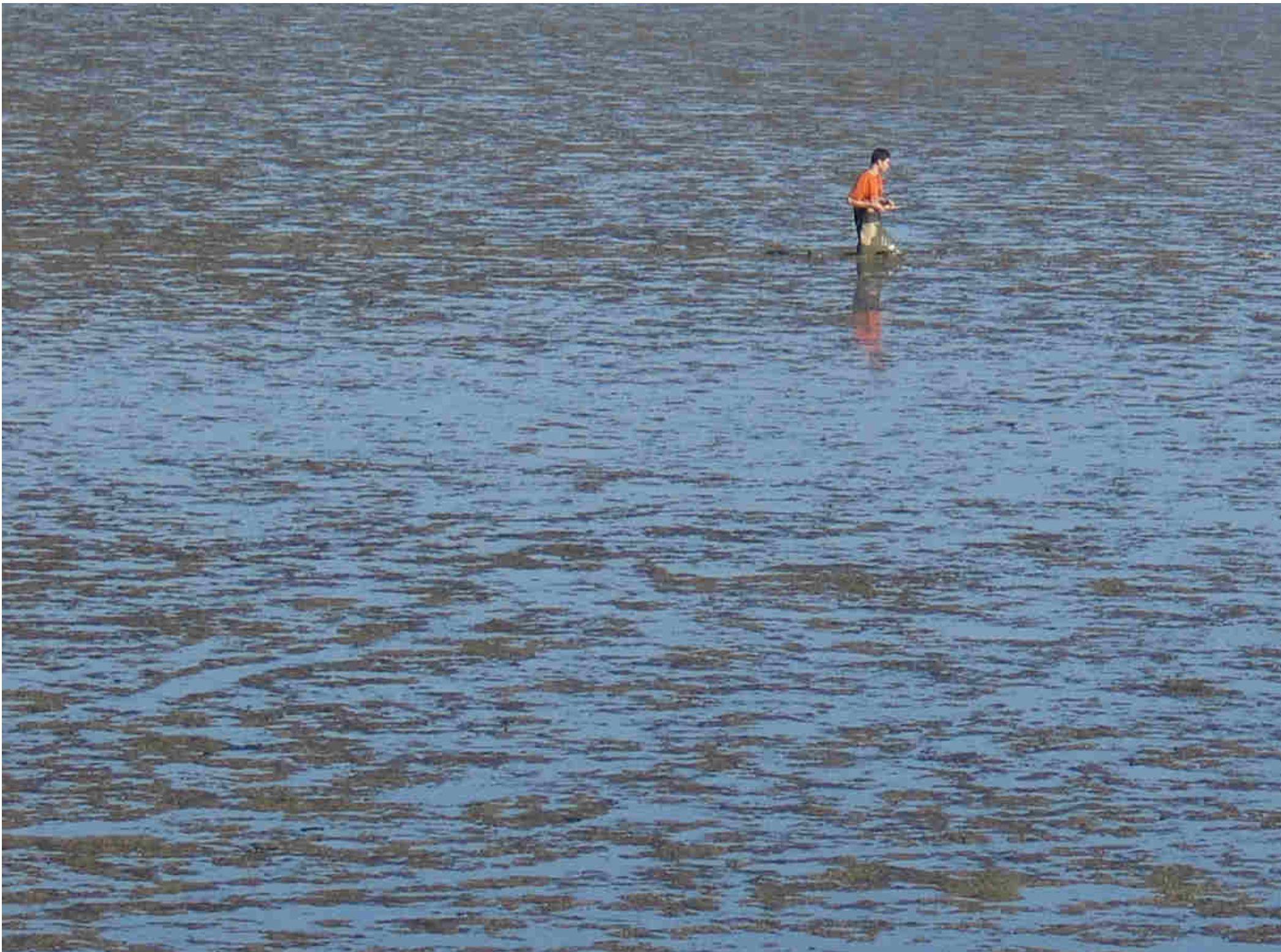
READ *BLESSED UNREST* BY PAUL HAWKEN



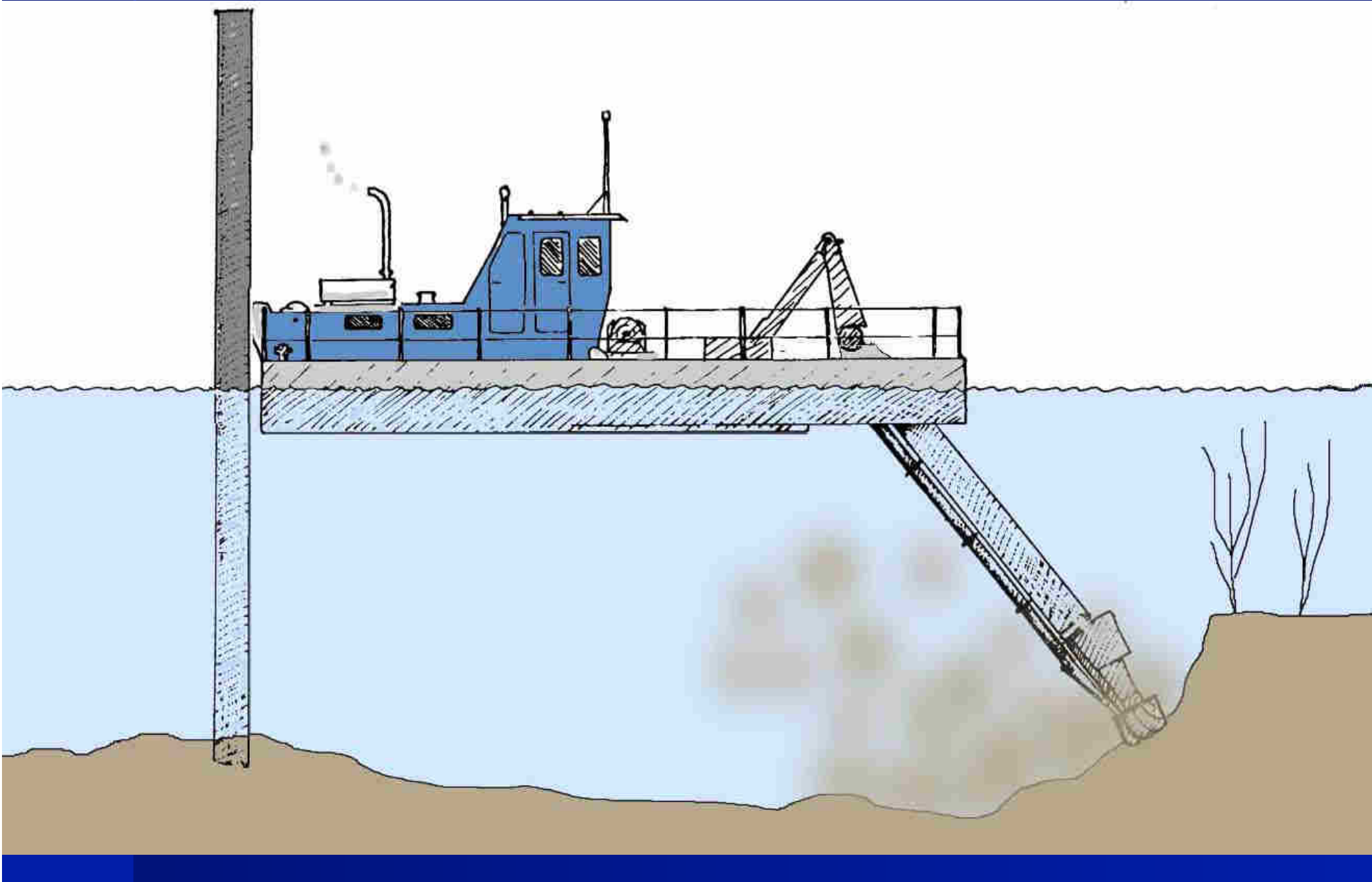


Environmental Trends

- Loss of Aquatic Habitat
- Collapse of fish and other resources
- Aquatic Invasive Species
- Global warming
- Oceanic Regime Change
- Habitat Restoration Initiatives
- Bigger and bigger footprints







Response to Environmental Trends

- Marine Protected Areas in Bays
- The Precautionary Principal
- Massive Habitat Restoration
- AIS: Stop them While You Can
- Draconian Measures to control fishing
- Default to Control by Judges

Institutional Issues

- High Staff Turnover
- Authorization by Default of Response
- Loss of Institutional Memory
- Poorly Conceived Responses
- Lawsuits

Response to Institutional Issues

- Agency Staff Retention Policies
- Succunded Staff
- Collaborative Consultation
- Goals agreed on by stake holders
 - Wetland Goals
 - Subtidal Goals
- Unified Permit Process

JARPA

Mitigation as Compensation

- Loss of Essential Habitat
- Mistakes Made by Someone Else
- Majority of Mitigation Projects are not Successful
- Need to Incorporate Monitoring and Guarantees of Completions

Mitigation Linked to Research

- What are the Impacts
 - Dredging & Native Oyster Studies
- What are the Ecosystem Linkages
 - Bay Bridge & Eelgrass Studies
- How Can We Minimize the Footprint
 - Bay Bridge & Pile Driving/Fish Impacts

Community Involvement in Habitat Restoration

MARIN ROD & GUN CLUB THREE YEAR PROJECT

Over 100 volunteers

55-cubic yds. of oyster cultch

Over \$100,000 of donations of time & materials

TV news, PBS Documentary, County Fair

Double the size of the oyster population

Benefits to oysters, crabs, shrimp, fish

Improved recreational angling



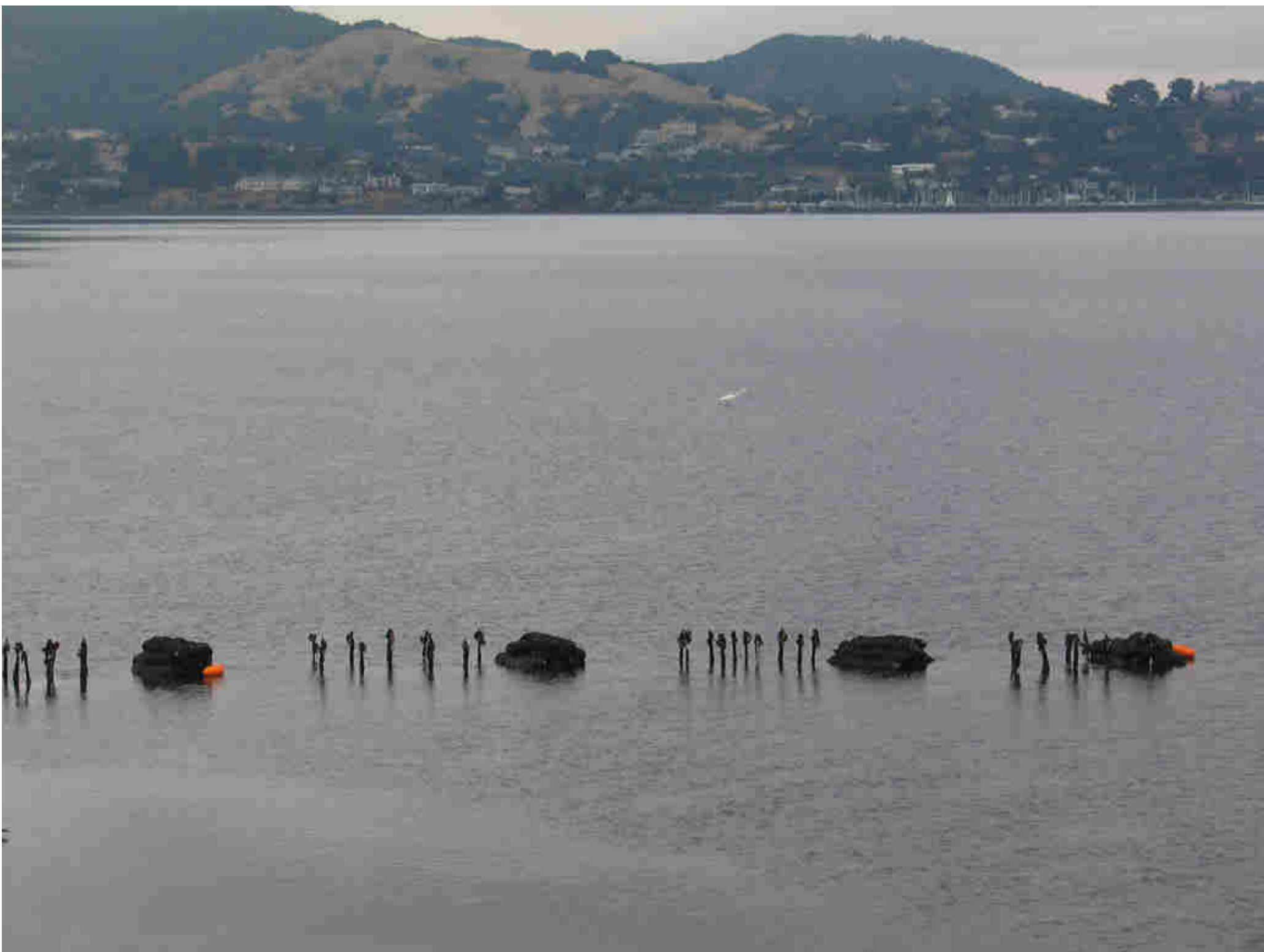












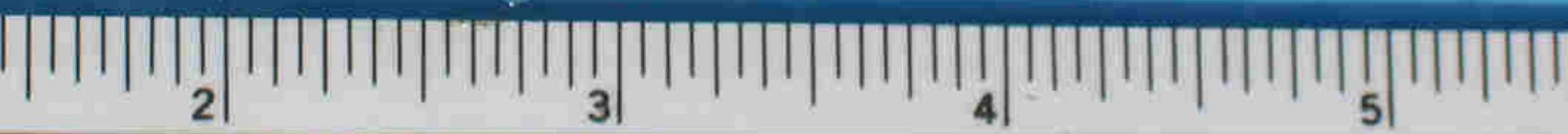












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Similar Projects

- South Bay: Port of Redwood City
- East Bay: Emeryville
- North Bay: Point Richmond
- Central Bay: Tiburon Audubon
- Central Bay: MRGC

**Thank you for your
attention**

The End