South San Francisco Bay Salt Ponds

Long-Term Restoration Planning

RESOURCES AGENCY
CALIFORNIA
DEPARTMENT
FISH&GAME

Coastal
Conservancy

U.S.
FISH & WILDLIFE
SERVICE

South Bay Salt Ponds Public Workshop

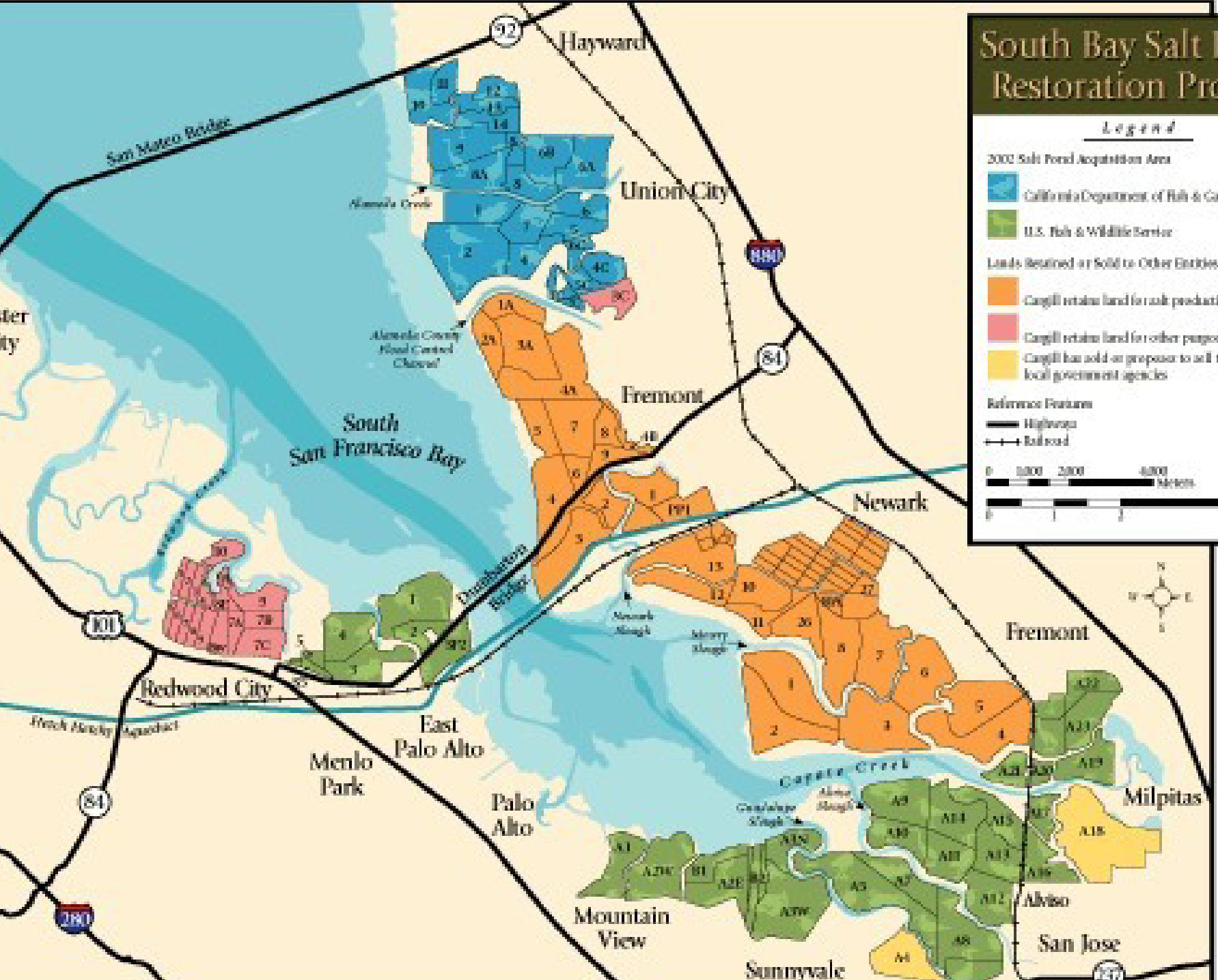
- Introduction
- Presentation: Overview of Project
- Small table discussions
  - Recreation and Public Access
  - Restoration Design and Technical Information
  - Public Involvement

Overview

- Acquisition
- Phase-Out
- Initial Stewardship
- Long-Term Restoration Planning
  - Goals, Challenges, Opportunities
  - Planning Process
  - Public Involvement

Acquisition

- 16,500 acres (26 square miles)
  - 15,100 in South Bay (24 square miles)
  - 1,400 along Napa River (2 square miles)
- $100 million
  - $72m from State Wildlife Conservation Board
  - $8m from US Fish and Wildlife Service
  - $20m from Hewlett, Packard, Goldman, & Moore Foundations


South Bay Salt Pond Restoration Project
Legend
2002 Salt Pond Acquisition Area
California Department of Fish & Game
U.S. Fish & Wildlife Service
Lands Retained or Sold to Other Entities
Cargill retains land for salt production
Cargill retains land for other purposes
Cargill has sold or proposes to sell to local government agencies
Reference Features
Highways
Railroad
Miles
Hayward
Union City
Fremont
Newark
Fremont
Redwood City
East Palo Alto
Menlo Park
Palo Alto
Milpitas
Alviso
San Jose
Mountain View
Sunnyvale
South San Francisco Bay
San Mateo Bridge
Dumbarton Bridge
Coyote Creek
Alameda Creek
Alameda County Flood Control Channel
Newark Slough
Mowry Slough
Guadalupe Slough
Alviso Slough
Hetch Hetchy Aqueduct
101
84
880
280
237

Cargill Phase Out

- Cargill to meet permit requirements established by Regional Water Quality Control Board discharge permit
- Phase-Out of Salt Production
  - 1-2 years for low salinity ponds e.g. Baumberg (East Bay) and most Alviso (South Bay) ponds
  - 3-6 years for higher salinity ponds e.g. West Bay (Redwood City) and Alviso ponds in Fremont
  - 5-7 years for Napa Plant Site

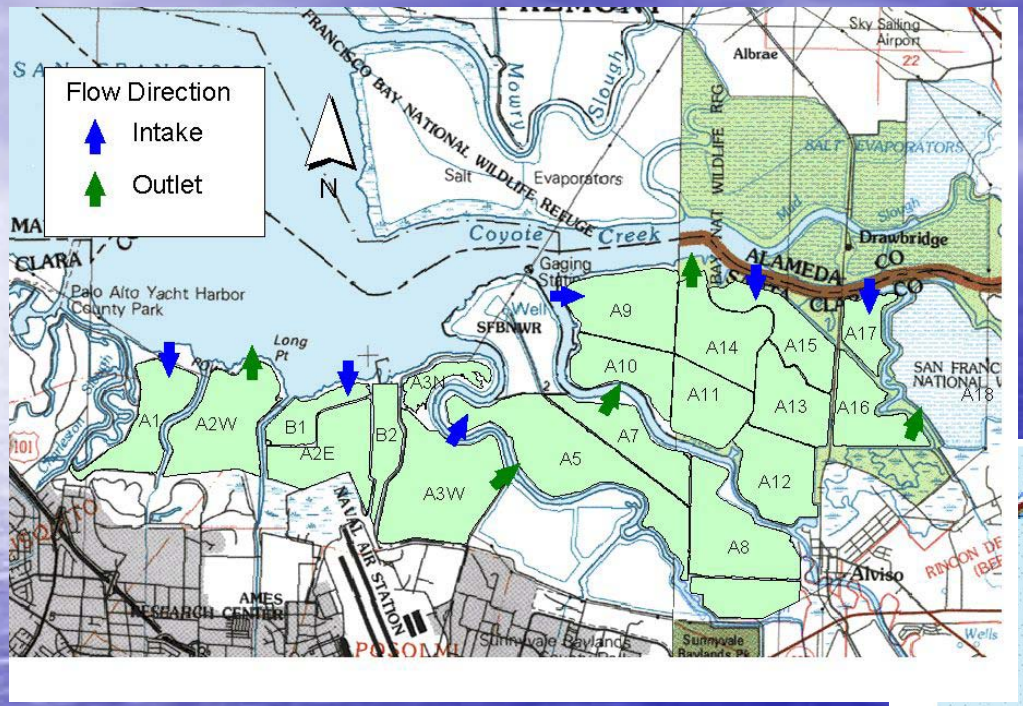
Initial Stewardship

DFG and FWS to manage acquired salt ponds after separation from existing salt-making process by Cargill, until long-term restoration plan is completed and implemented.

Initial Stewardship Objectives

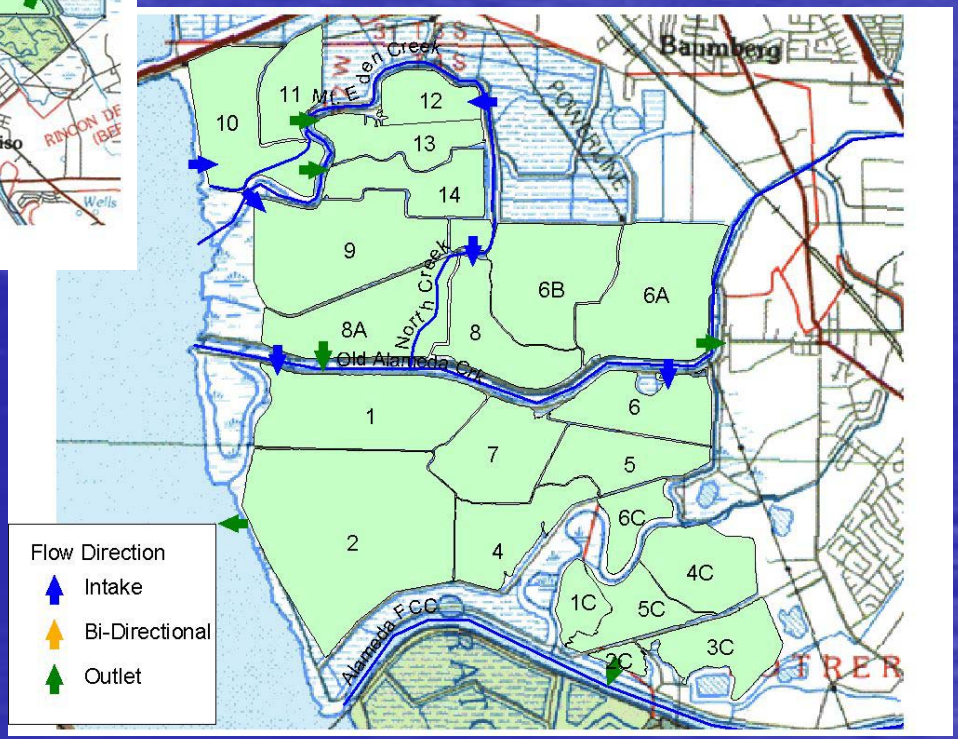
- Maintain habitat values of acquired ponds to the maximum extent feasible
- Assure that the ponds are maintained in a restorable condition during long-term restoration planning period
- Minimize interim management costs (by using gravity/avoiding pumping)
- Maintain existing levels of flood protection
- Minimize impacts to Bay from discharges
- Where feasible, restore ponds to tidal influence (3 small ponds)

Initial Stewardship



- Alviso

- Baumberg



Long-Term Restoration Planning

- Planning period is 5 years with a budget of $10 million
- Restoration will be phased in over decades
- Planning, monitoring and adaptive management will continue as restoration proceeds

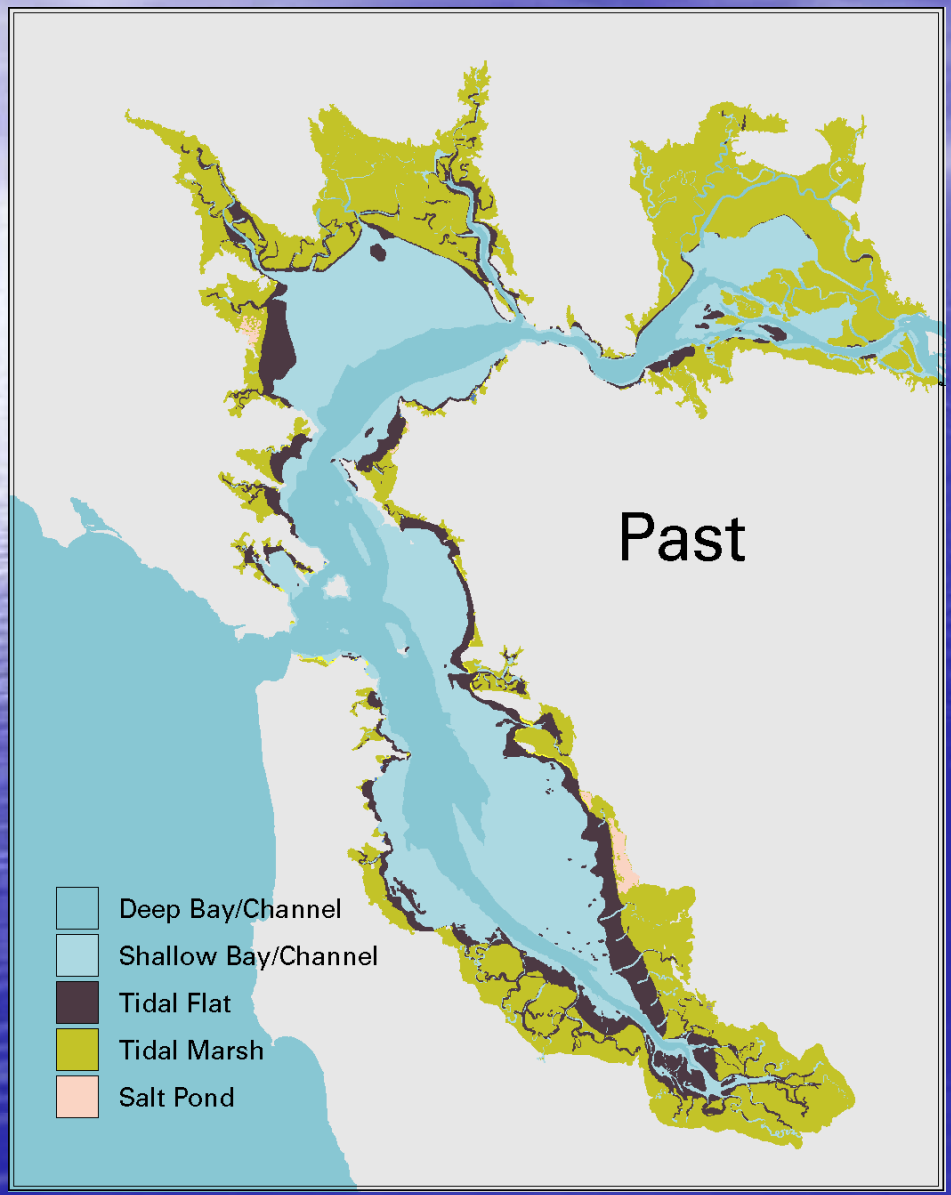
Long-Term Restoration Planning

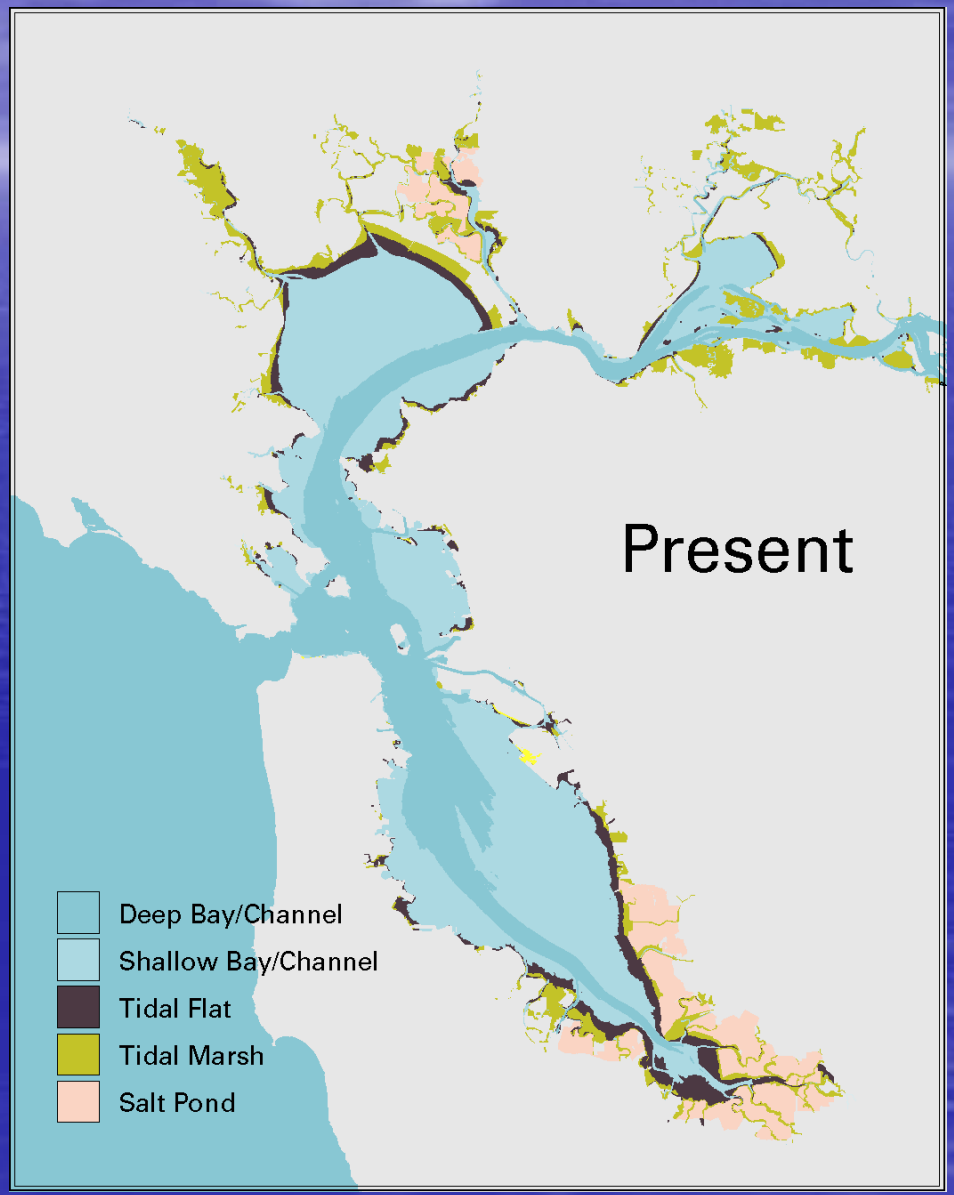
Mission: "To prepare a scientifically sound and publicly supported restoration and public access plan that can begin to be implemented within five years."

Project Goals

- Wetland restoration:
  - Restore tidal wetlands
  - Enhance managed ponds
- Flood management
- Wildlife-oriented public access and recreation

Extent of Past and Present Wetlands





Wetland Benefits

Wetland habitats play key roles in maintaining both a healthy ecosystem and economically vibrant region.

Wildlife Benefits of Tidal Marsh

- Endangered species habitat e.g. clapper rail, salt marsh harvest mouse
- Habitat for shorebirds, waterfowl, specialized salt tolerant plants, mammals, and fish

Wildlife Benefits of Managed Ponds

- An important food source and rest-stop for migratory birds on the Pacific Flyway
- Roosting and nesting area for resident birds
- Endangered species habitat, e.g. least tern, snowy plover

Wetland Benefits

In addition to providing fish and wildlife habitat, wetlands also provide benefits by:

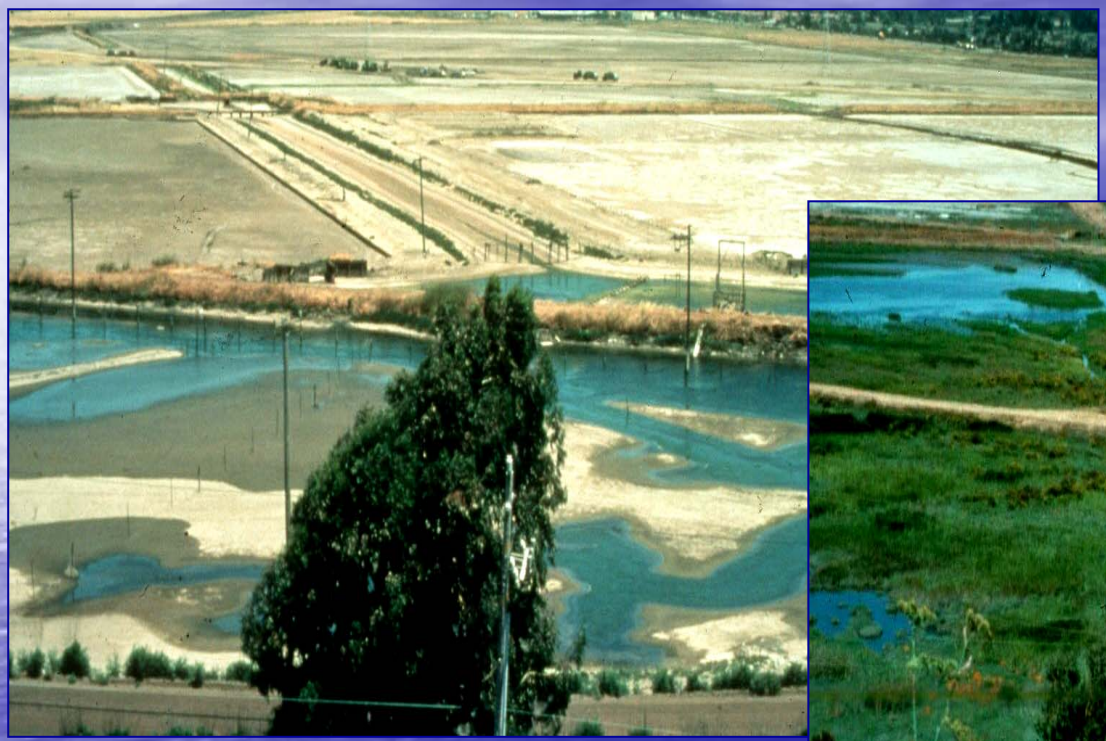
- Providing open space and outdoor recreation
- Providing educational opportunities and outdoor laboratories
- Improving water quality
- Enhancing local flood protection
- Providing energy to the estuarine food web
- Helping to buffer shorelines against erosion, wave drainage, and storm surge

Wetland Restoration

What is a Restoration Project?

- An ecological improvement which returns the land to its previous condition or enhances existing habitat.
- Restoration projects require planning, construction, monitoring, and long-term management.

Restoration: LaRiviere Marsh

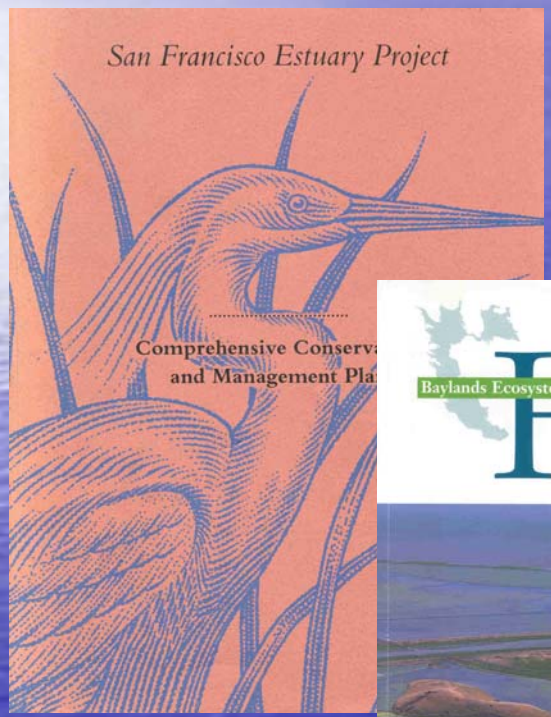


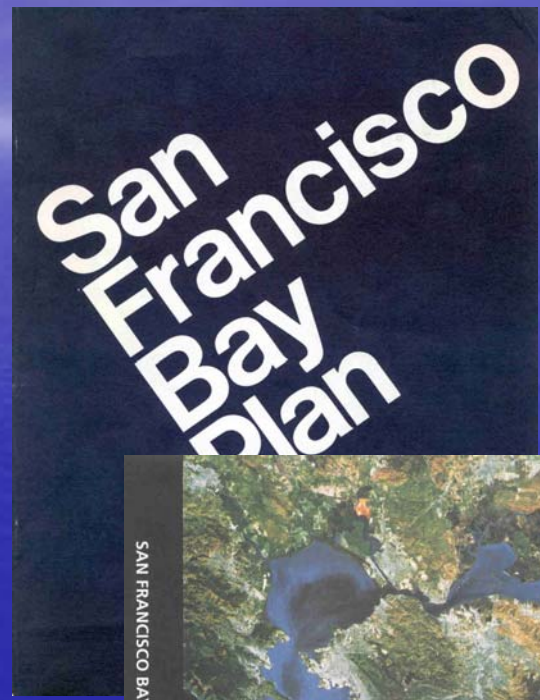
BEFORE

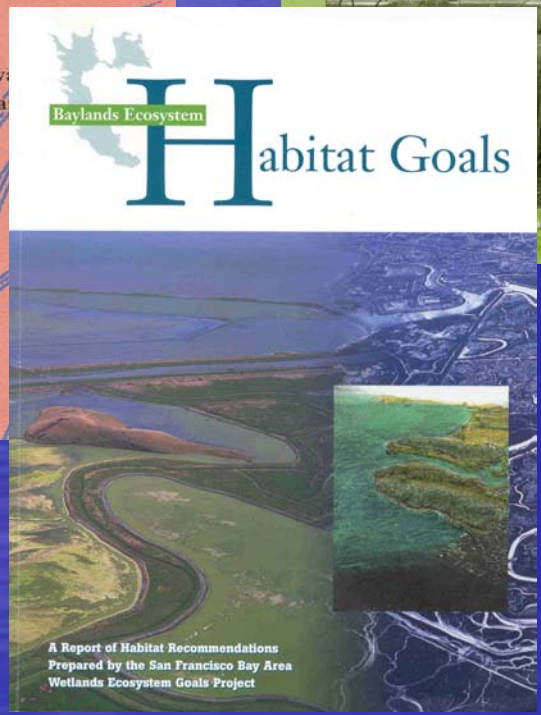
AFTER

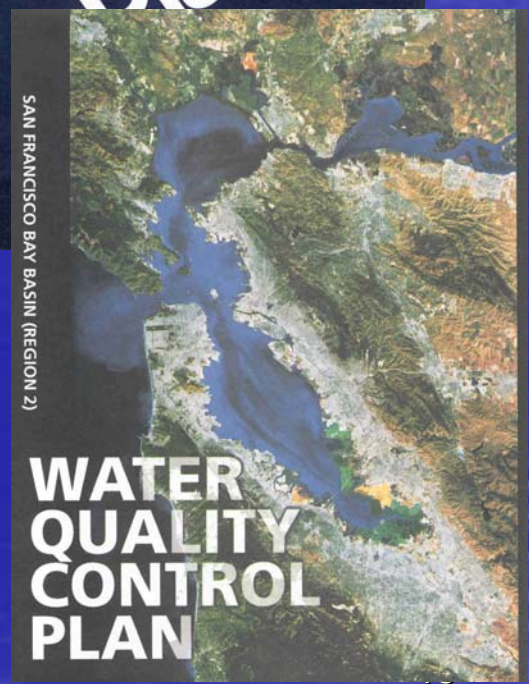
- 100 acres of former salt ponds in Fremont at Don Edwards SF Bay Refuge restored in mid-1980s

Regional Planning Efforts









Challenges, Opportunities

- Landscape Scale of project (15,100 acres)
- Urban Setting

Challenges/Opportunities

- Preferred Mix of Habitats
  - Tidal wetlands, managed ponds, other habitats
  - Balance and phasing of habitat types
- Restoration of Tidal Wetlands

  Some factors that we will need to consider:
  - Subsidence of pond bottoms (minimal to over 10 feet)
  - Source and quality of sediment
  - Possible effects on water quality and circulation (hydrology) in Bay during and after construction
  - Features to enhance wetland development and wildlife habitat

- Enhancement of Managed Ponds
  - Water circulation so that salt does not accumulate in ponds
  - Optimal pond depths and salinities for migratory birds

Challenges/Opportunities

- Integrate Flood Management Features into Future Habitat Restoration
- Plan for Wildlife-Oriented Public Access and Recreation while protecting wildlife habitat
- Manage Introduced Species, e.g. *Spartina*
- Minimize the Potential for Mosquitoes
- Protect Existing Infrastructure
- Plan for Monitoring/Adaptive Management

Many Interested Parties

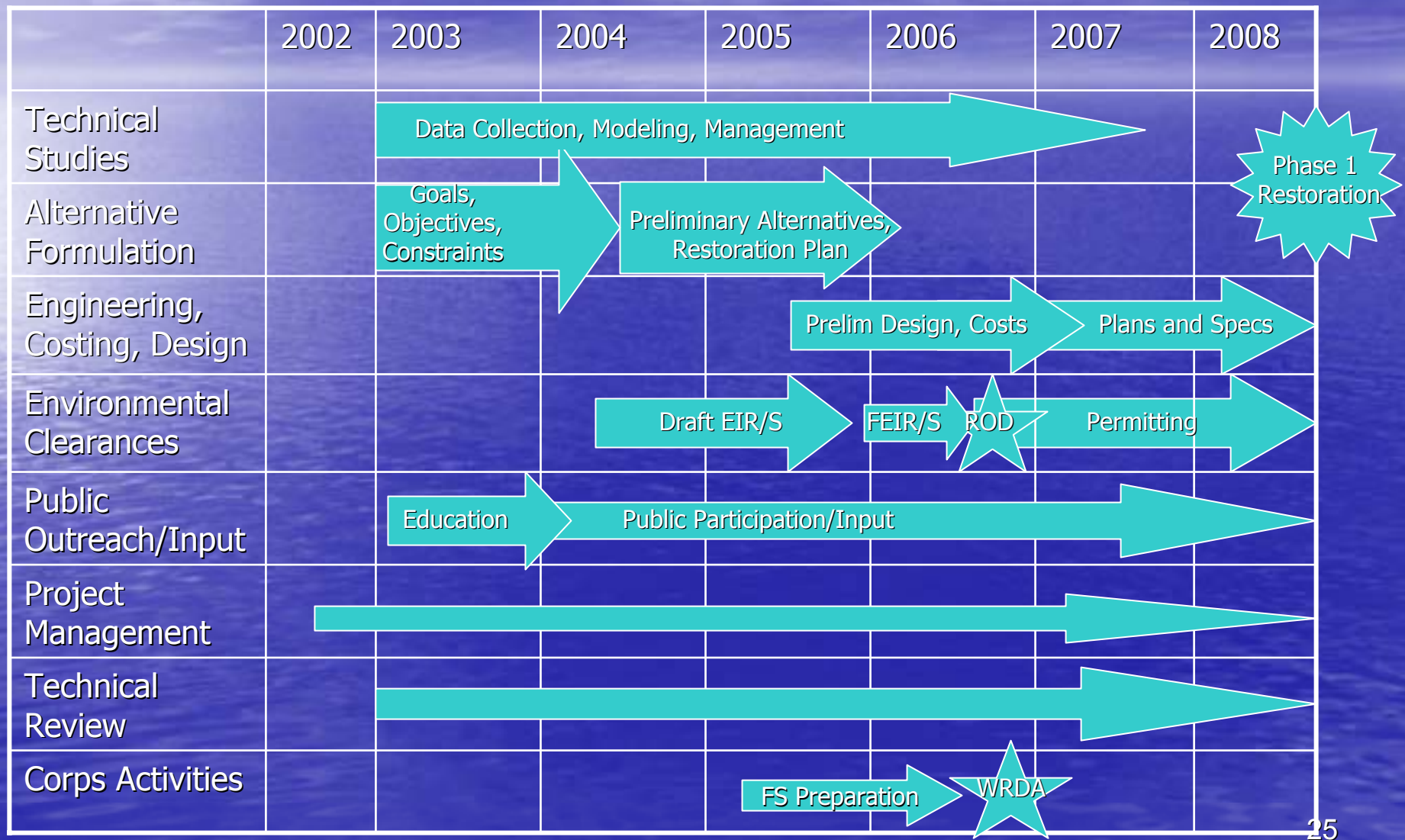
Planning Process

- 5 years from acquisition to begin restoration efforts
- Technical activities conducted on expedited schedule
- Many technical tasks overlap, but some have to be sequential

Steps in the Technical Process

- Data collection
- Development of goals and objectives
- Modeling
- Development of alternatives (preliminary)
- Preliminary design
- Environmental review (CEQA/NEPA)
- Selection of Recommended Alternative
- Detailed design
- Permitting
- Construction
- Monitoring of restored areas
- Adaptive management

Major Milestones



Executive Leadership Group

Agency Leaders of DFG, FWS, SCC oversee long-term restoration planning.

Implementation Team

A team will develop strategies to fund implementation.

Executive Council

High level trustee and regulatory agency representatives provide guidance and support.

Project Management Team

Staff of SCC, DFG, FWS will conduct day-to-day project management and ensure coordination with stakeholders.

Flood Management Team

Project Management Team will work with staff of Flood Control Districts and Corps to integrate flood management and habitat restoration.

Regulatory Agencies

Staff from regulatory agencies handle permitting.

National Science Panel

National wetland restoration experts review process and science.

Public Involvement Committee

Restoration, Flood Management, and Access

NGOs, agencies, and others meet regularly to receive project updates and provide input on restoration and access planning as one group and in subcommittees.

Public Outreach Team

The Project Management Team, with representatives from other groups, will ensure the public remains informed and has frequent opportunities for input.

Technical Committee

Scientists review scopes of work and work products.

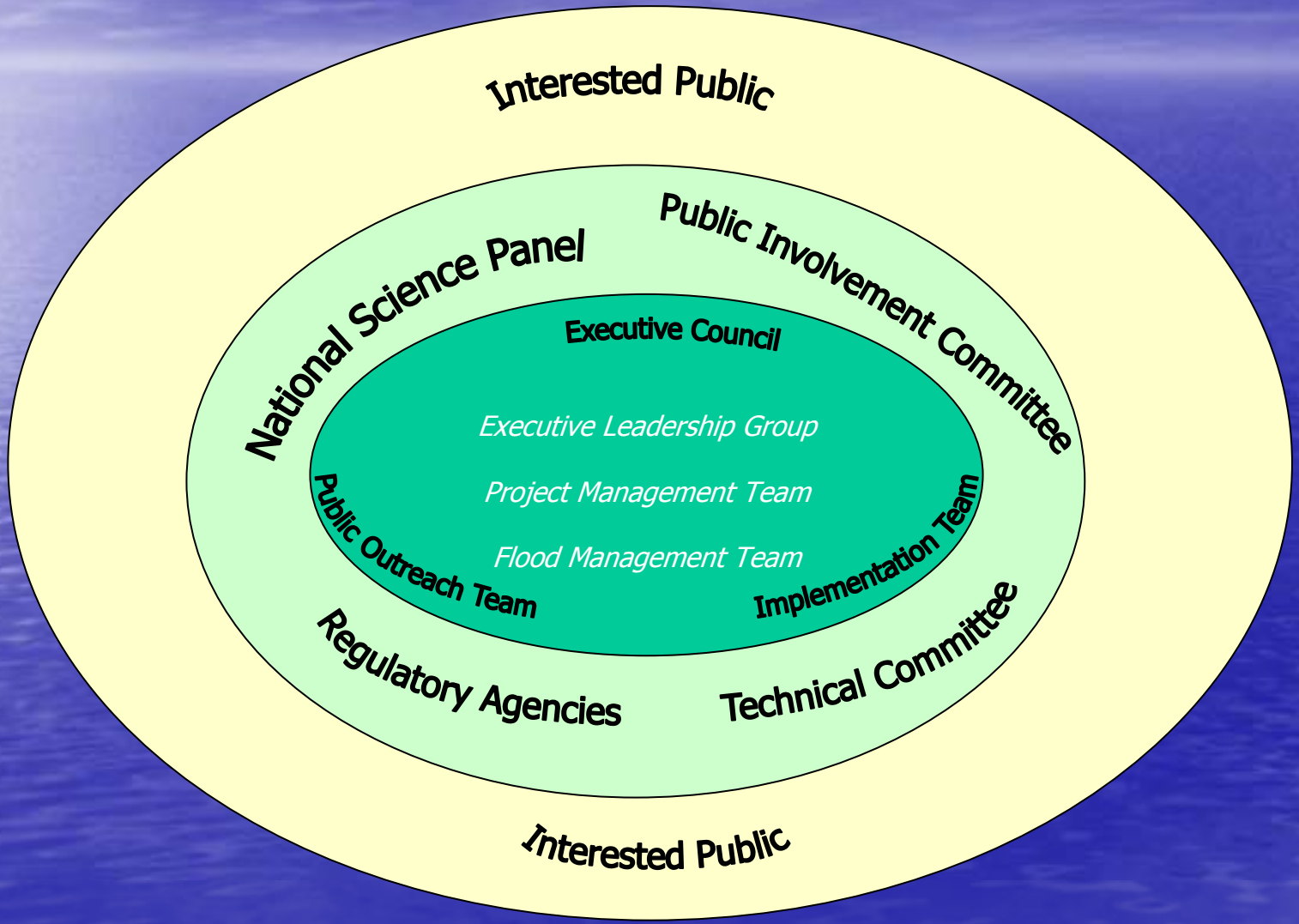
Key Public Decision Making Points

- Development of Goals, Alternatives, Data Needs
- NEPA/CEQA process
- Permits

Public Decision Making

INFORM	CONSULT	INVOLVE	COLLABORATE
Provide project information, alternatives and project decisions	Seek feedback on analysis, alternatives and proposed decision	Ensure issues are understood, considered and reflected in alternatives	Partner with interested groups on data analysis, development of alternatives, analysis of alternatives
Tools: •Public meetings •Website and newsletter •News and magazine articles	Tools: •Public meetings •Website and newsletter	Tools: •Public meetings	Tools: •Meetings

Public Involvement

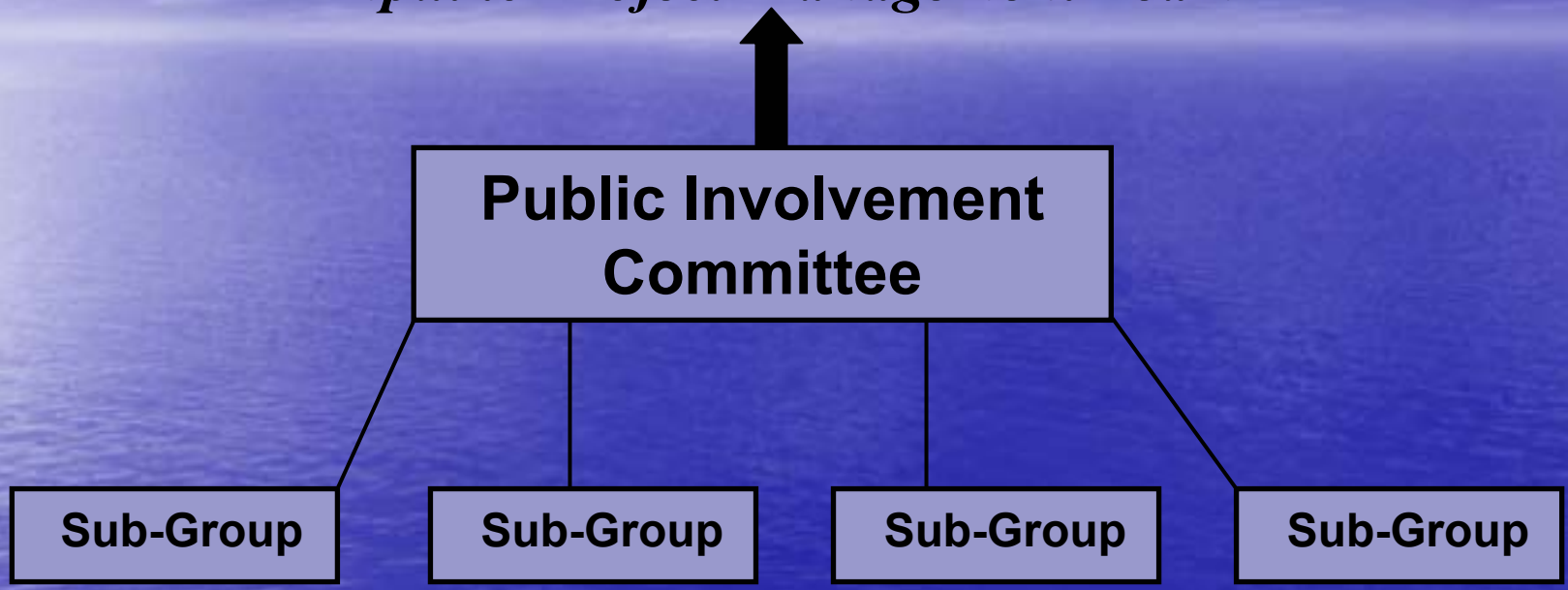


San Francisco Bay Joint Venture (SFBJV)

- Established 1995
- Mission: protect, restore, increase and enhance wetlands, riparian habitat and associated uplands of SF Bay region for all types of wildlife
- Member organizations include 25+:
  - Public agencies
  - Environmental organizations
  - Business and agricultural community
  - Local government

Public Involvement Committee

Input to Project Management Team



Sub-Group Topics to be identified by the Public Involvement Committee

How to Get Involved

- Attend public meetings
- Visit web site - www.southbayrestoration.org
- Get on mailing list
- Participate in Public Involvement Committee/subgroups
- Other opportunities

Opportunities for Public Involvement

For More Information on Long-Term Restoration Planning or to get involved:

Tim Corrigan
Project Administrator
California State Coastal Conservancy
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Map, Schedule, Structure, Background on Web Site:

www.southbayrestoration.org