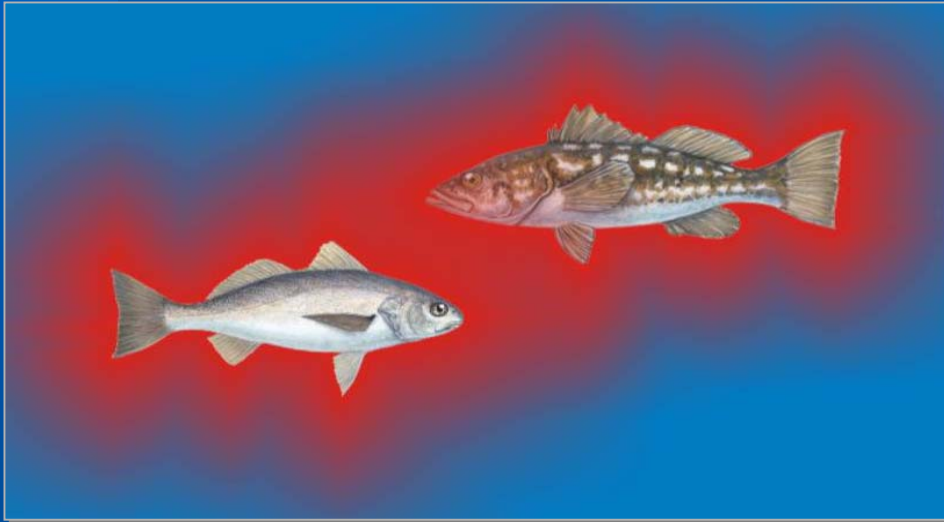


Montrose Settlements Restoration Program



Public Workshop
January 27, 2003

Agenda

- **Welcome, Introductions**
- **Purpose of Workshop**
- **MSRP Case History and Restoration Planning**
- **Draft Goals, Objectives, Screening & Evaluation Criteria**
- **Draft Restoration Concepts**
- **Next Steps**

Purpose of Workshop

(1) Solicit Feedback

- **Goals and Objectives**
- **Draft Screening Criteria**
- **Draft Evaluation Criteria**

(2) Review Restoration Concepts

- **Review Draft Projects**
- **Brainstorm Additional Projects**

Case History

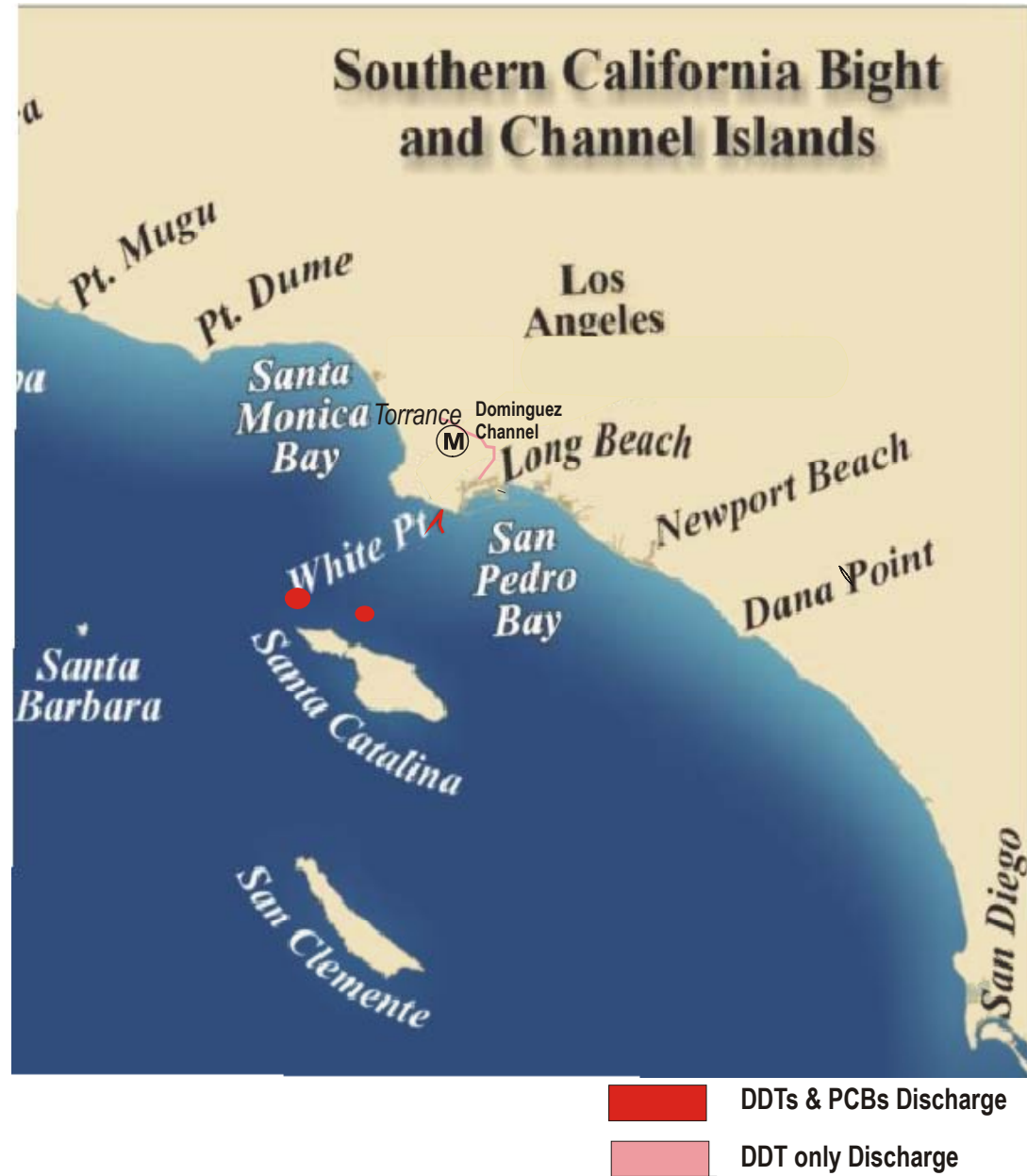
Montrose & LA Industries
Disposed DDTs & PCBs
LACSD wastewater
discharge system

DDTs & PCBs dumped off
Santa Catalina Island

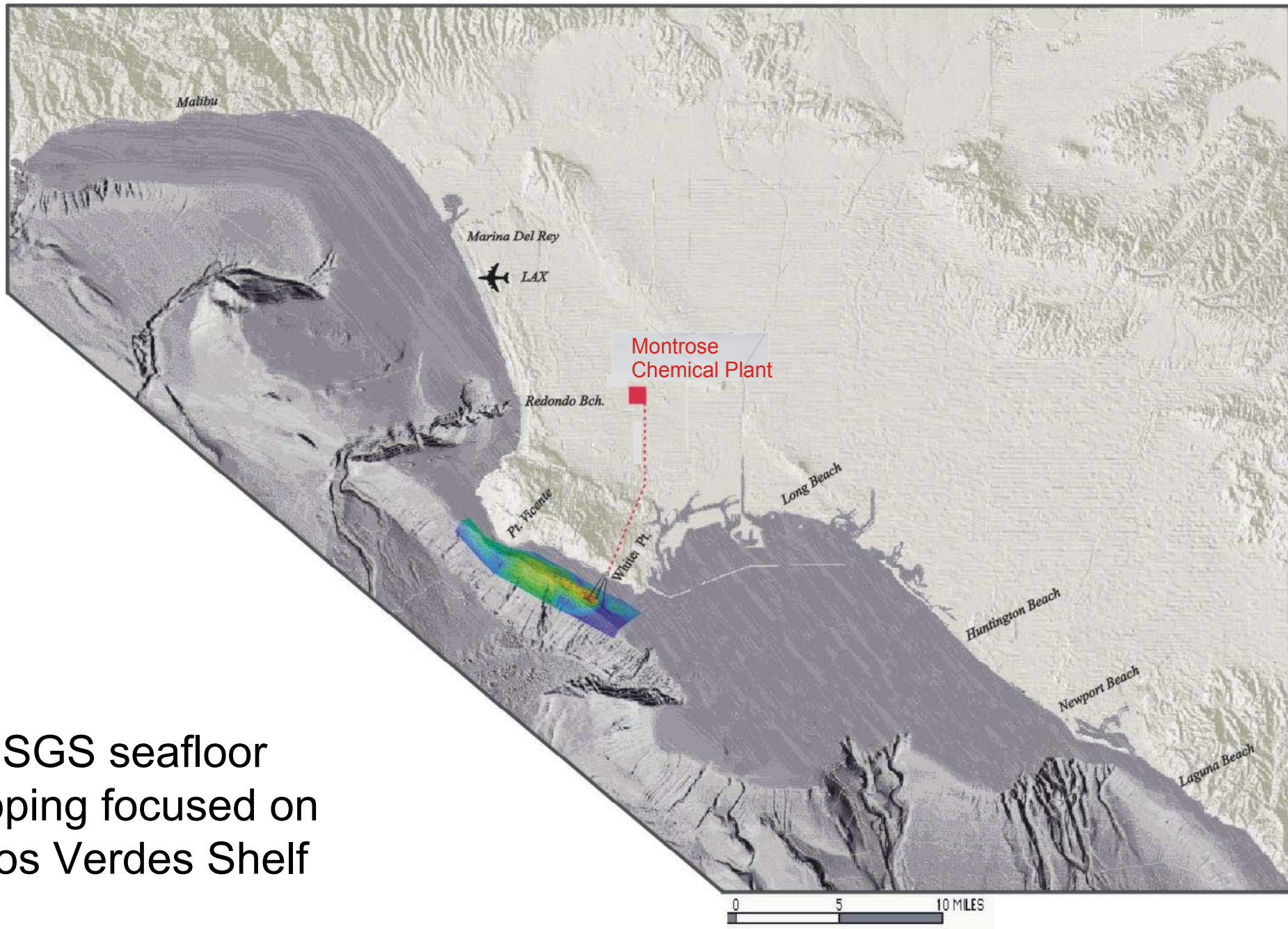
DDT runoff into Dominguez
Channel

Between 1947-1983

- 1,800 tons DDTs
- Hundreds of tons PCBs

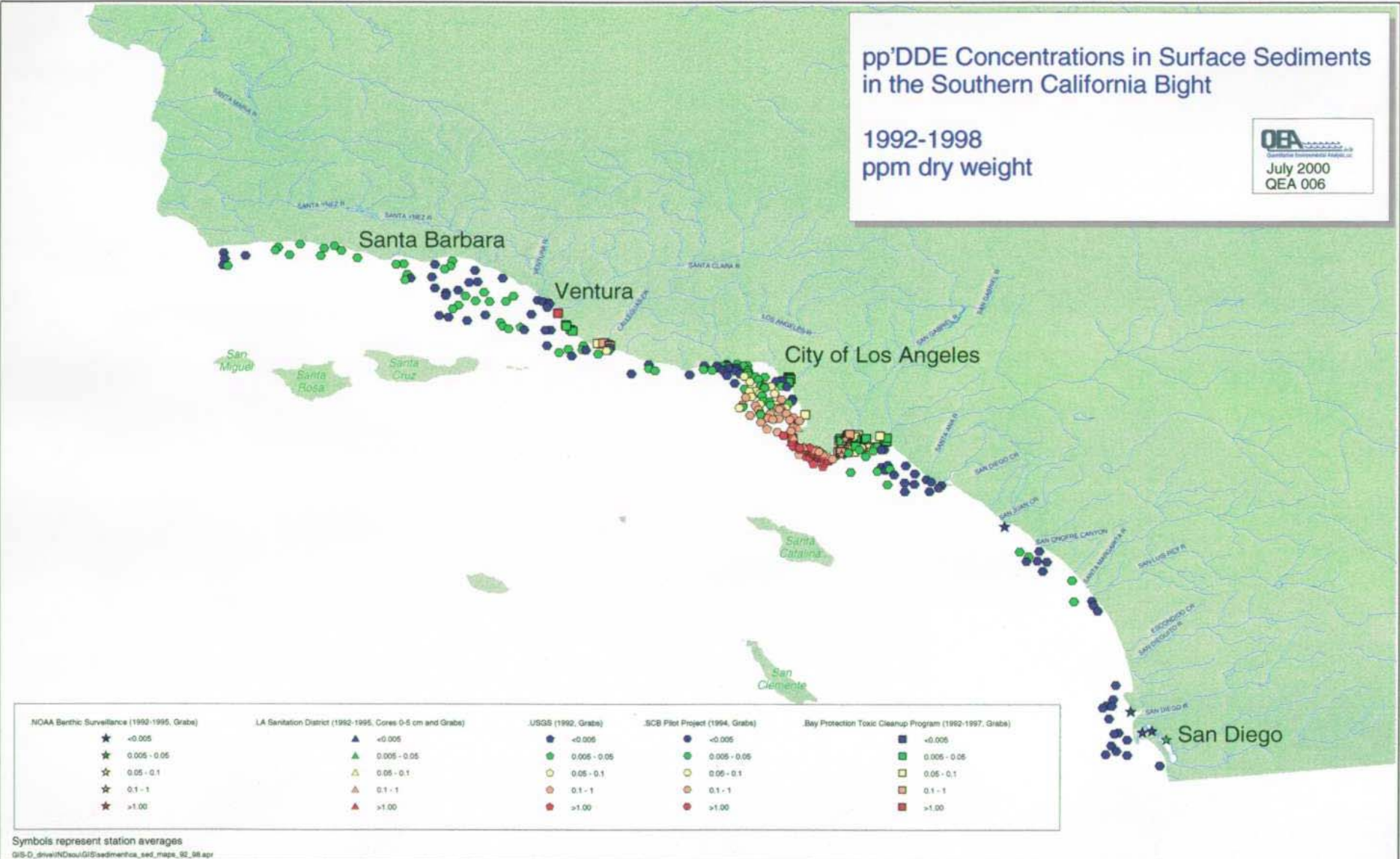


USGS seafloor
mapping focused on
Palos Verdes Shelf



pp'DDE Concentrations in Surface Sediments
in the Southern California Bight

1992-1998
ppm dry weight



NOAA Benthic Surveillance (1990-1995, Grabs)	LA Sanitation District (1982-1995, Cores 0-5 cm and Grabs)	USGS (1992, Grabs)	SCB Pilot Project (1994, Grabs)	Bay Protection Toxic Cleanup Program (1982-1997, Grabs)
★ <0.005	▲ <0.005	● <0.005	● <0.005	■ <0.005
★ 0.005 - 0.05	▲ 0.005 - 0.05	● 0.005 - 0.05	● 0.005 - 0.05	■ 0.005 - 0.05
☆ 0.05 - 0.1	▲ 0.05 - 0.1	● 0.05 - 0.1	● 0.05 - 0.1	■ 0.05 - 0.1
★ 0.1 - 1	▲ 0.1 - 1	● 0.1 - 1	● 0.1 - 1	■ 0.1 - 1
★ >1.00	▲ >1.00	● >1.00	● >1.00	■ >1.00

Symbols represent station averages
GIS-D_drive\NDCou\GIS\sedimentica_sed_maps_92_98.apr

Elevated DDTs & PCBs

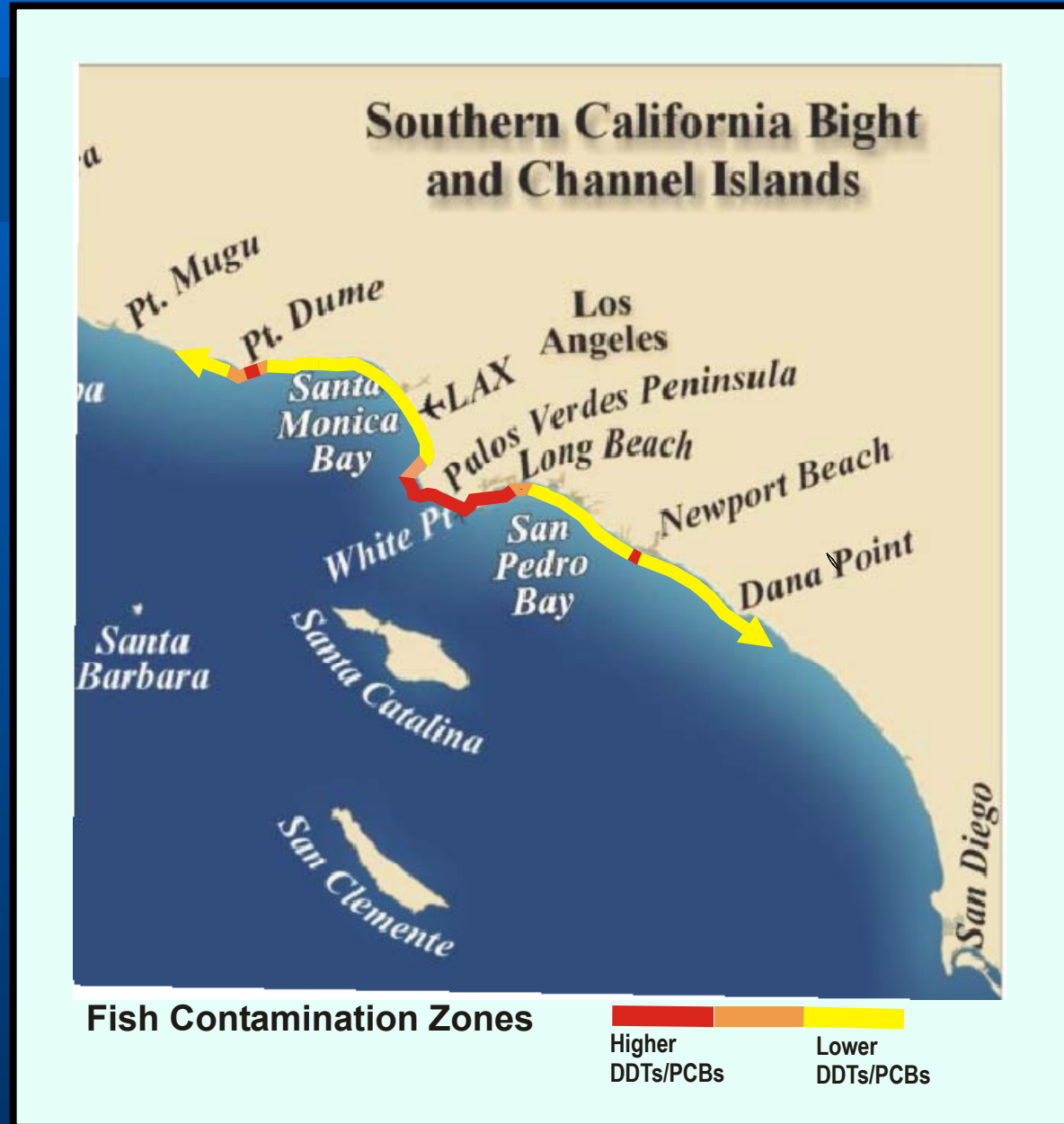
Highest Concentrations

Palos Verdes Shelf

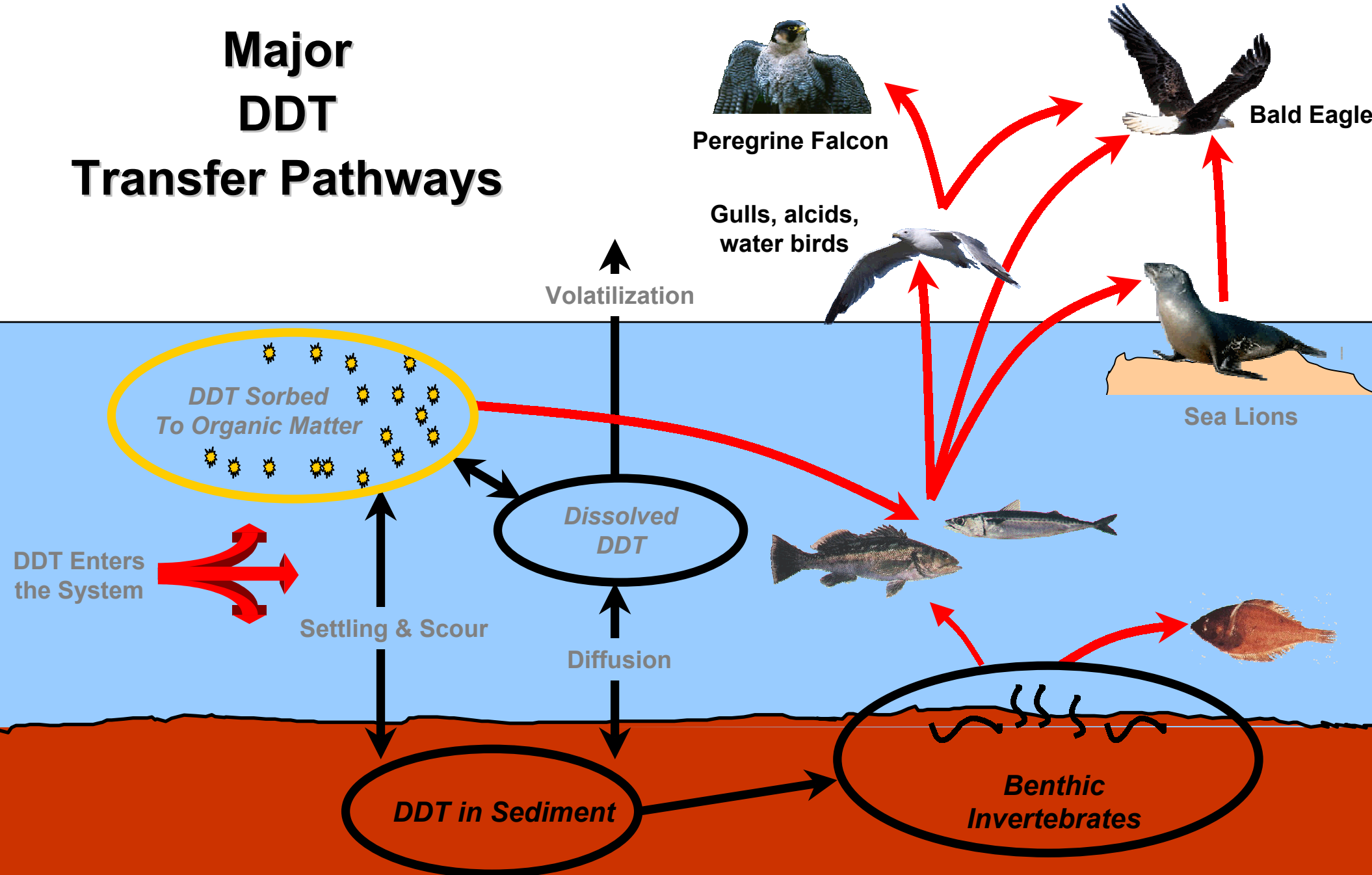
Los Angeles & Long Beach Harbor

Point Dume

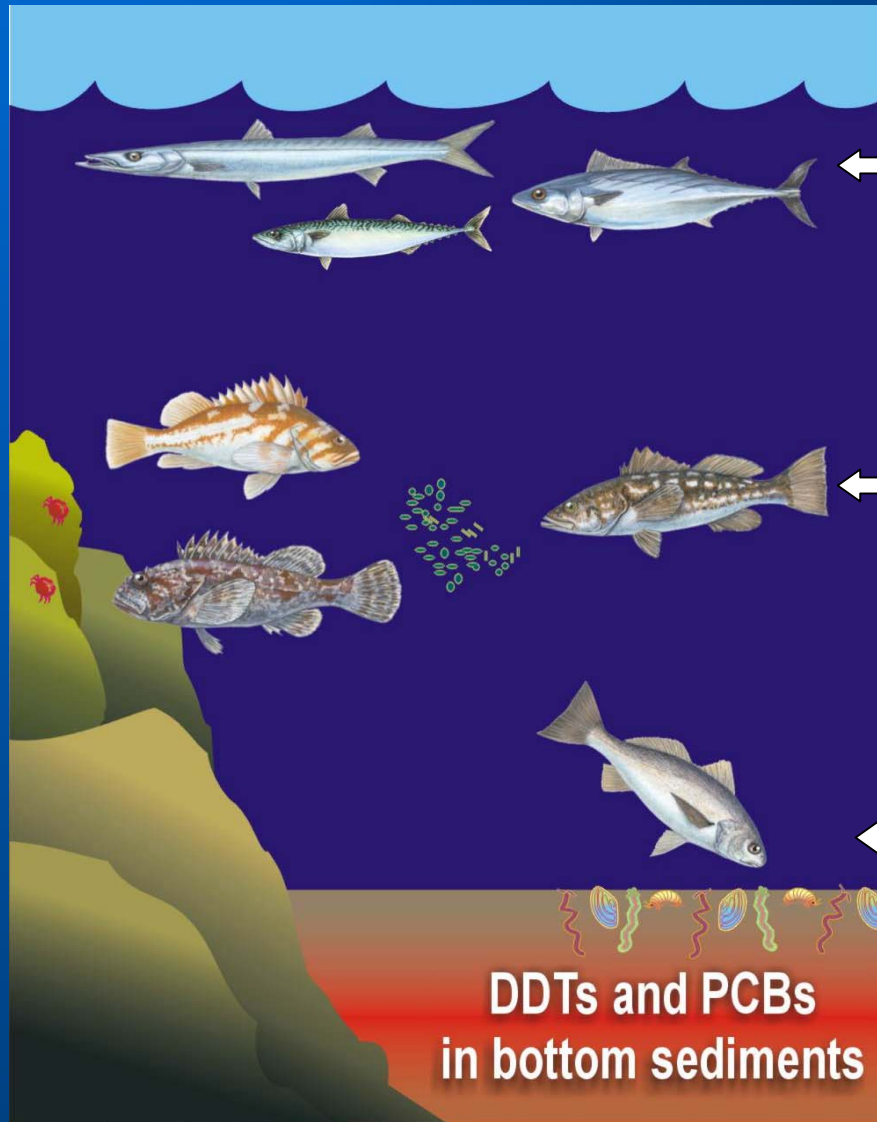
Newport Bay



Major DDT Transfer Pathways



DDT/PCB Contamination in Local Fish



Fast Swimmers Clean

--“pelagic” fish that swim over large areas and do not feed in mud (*examples: barracuda, mackerel bonito*)

Reef Fish Clean (*except near Palos Verdes*) --fish that mainly stay in one place, but *do not feed in mud* (*rockfishes, kelp bass, scorpion fish*)

Bottom Feeders **Contaminated** (*along the coast of L.A. County*) -- fish that stay in one area and feed in contaminated mud (*white croaker and bottom dwelling fish*)

Historic Timeline – Injury

- Montrose & LA industries dispose of DDT & PCBs into wastewater system discharging off Palos Verdes Shelf : 1947-1971

- DDT & PCBs dumped - Santa Catalina Is.

- DDT runoff – Dominguez Channel

1972 DDT
banned U.S.

Montrose exports
DDT 1972-1982

Consent Decree

Litigation

1947 1950 1960 1970 1980 1990 2000

Studies document fish abnormalities, contaminant concentrations

Bald eagles and peregrine falcons
Reproductive failures, egg-shell thinning
Disappeared from Channel Islands by 1960s

Other seabirds (e.g., pelicans, cormorants)
Reproductive failure

1985 White Croaker
Fish Advisory (Palos Verdes)

1987 Fish Advisory expanded

1990 Commercial Ban
White Croaker (Palos Verdes)

1991 Fish Advisory expanded

Continuing Injuries



- Bald eagles and peregrine falcons
- Subsistence and recreational fishing

Consent Decree

Approved by the Court on March 14, 2001

- \$ 43 million to the EPA and DTSC
- \$ 30 million to the Trustees to:
Restore, replace, or acquire the equivalent of the injured natural resources and/or the services provided by such resources (CERCLA).
- Trustees must determine the most effective restoration projects.

Natural Resource Trustees

- National Oceanic & Atmospheric Administration
- U.S. Department of the Interior
 - National Park Service
 - Fish & Wildlife Service
- California Department of Fish and Game
- California Department of Parks and Recreation
- California State Lands Commission



EPA Pilot Capping Study

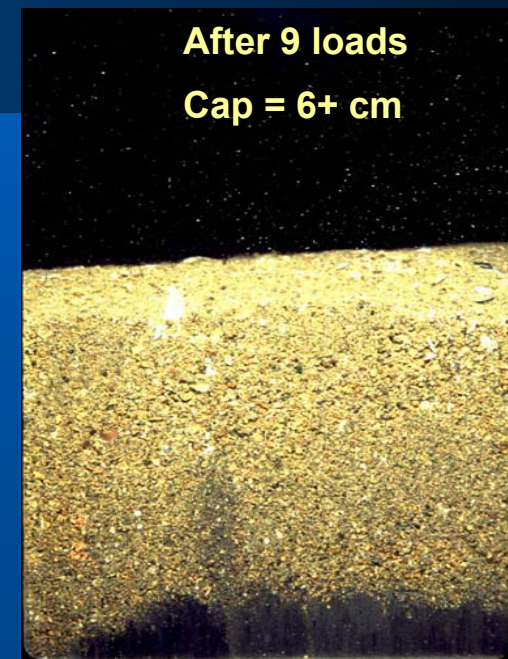
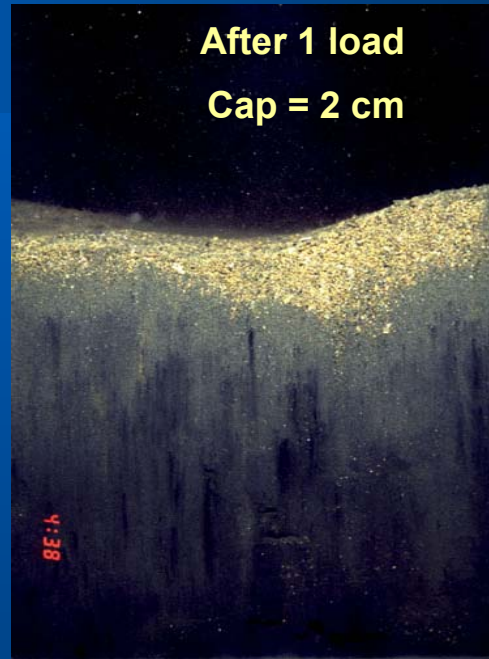
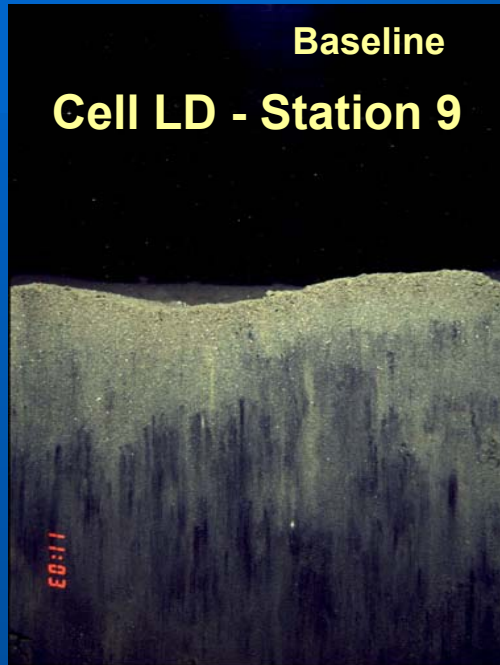
May - September 2000

Objectives

- Demonstrate Constructability
- Evaluate Short-term Impacts of Cap Placement
- Evaluate Capping Methods & Materials



Pilot Capping – Monitoring and Preliminary Results



- Disturbance of contaminated sediments localized.
- Sediment plumes did not pose a risk to kelp beds.
- No indications of mass sediment movement (such as mud waves or turbidity flows)

MSRP Restoration Planning Process



Involvement Process/Schedule

Review Restoration Process & Concepts

November 2001
Meetings



Review Goals & Objectives
Review Screening & Evaluation Criteria
Identify Restoration Concepts

January
2003
Workshops



Review Scoring & Ranking Criteria
Identify Restoration Projects

Workshops
2003



Review Restoration Plan

Public Review



PROGRAM ELEMENTS

- **Data Gap Studies**
 - Northern Channel Islands bald eagle feasibility study
 - Santa Catalina Island bald eagle reintroduction
 - Survey of contaminants in fish utilized by recreation & subsistence anglers
 - Angler update study
- **Restoration Plan**
- **Public Outreach and Education**
- **Restoration Project Implementation**



BIRD DATA GAP STUDIES

- **Northern Channel Islands Bald Eagle Feasibility Study**
 - Eagles released annually for 5 years on Santa Cruz Is.
 - Contaminant levels and dispersal patterns monitored.
- **Santa Catalina Island Bald Eagle Reintroduction**
 - Began in 1980s
 - Population maintained by:
 - Manipulation of eggs and chicks at nest site
 - Additional hacking of birds

FISH DATA GAP STUDIES

■ Fish Contamination Survey

- MSRP and EPA
- Tissue Contamination
- 24 Species, Ventura to Dana Point

■ Angler Update Study

- Public interviews
- Piers, Jetties, Beaches, Boats
- Angler Demographics, Fishing Preferences, Fish Preparation and Consumption



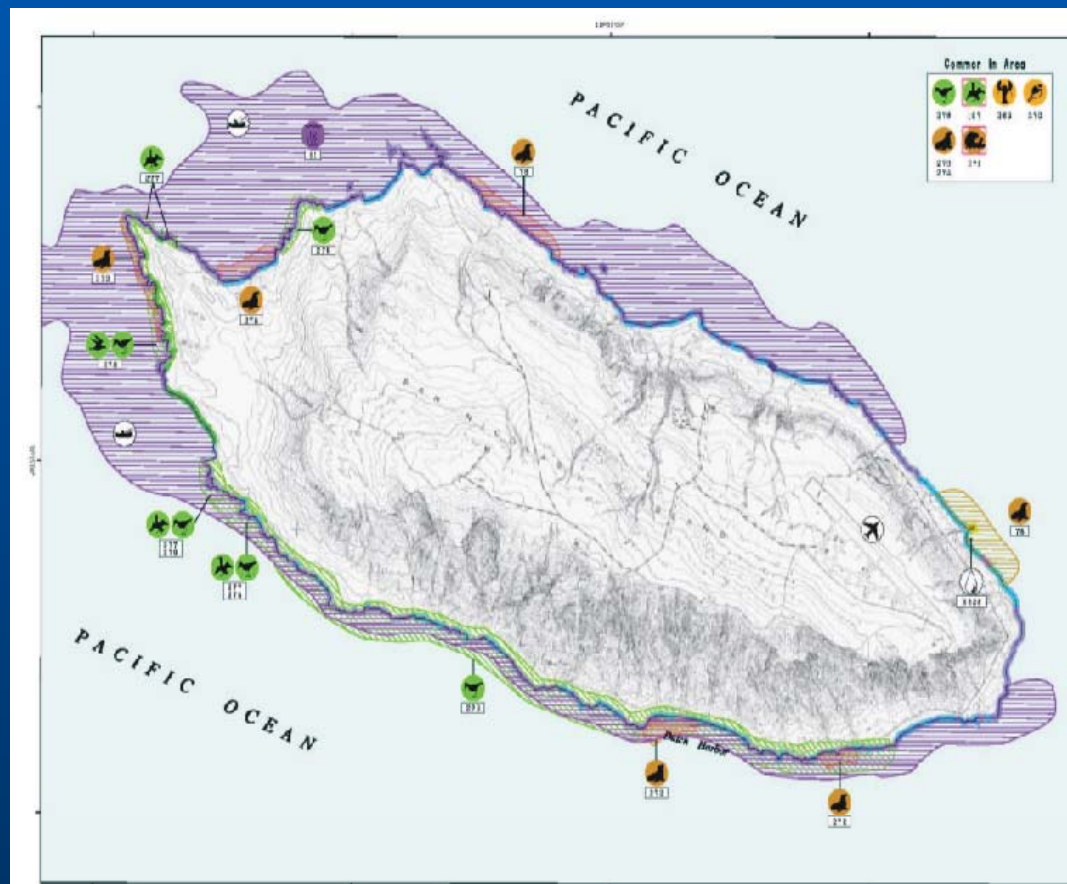
Southern California Bight – Study Area



 Planning Area

Restoration Plan Data Gathering

- Locations of natural and artificial hard substrates
- Kelp beds
- Oil platforms
- Sensitive bird foraging & nesting areas
- Wetlands
- Coastal access



Discussion Topics

- **Draft Goals and Objectives**
- **Draft Screening and Evaluation Criteria**
- **Restoration Concepts**

draft MSRP Goals

- Restore, replace, rehabilitate, and/or acquire the equivalent of the natural resources injured and services lost as result of Montrose et al. releases of DDTs and PCBs.
- Administer settlement funds to the maximum benefit of natural resources.
- Inform and engage the public throughout program implementation.



draft MSRP Objectives

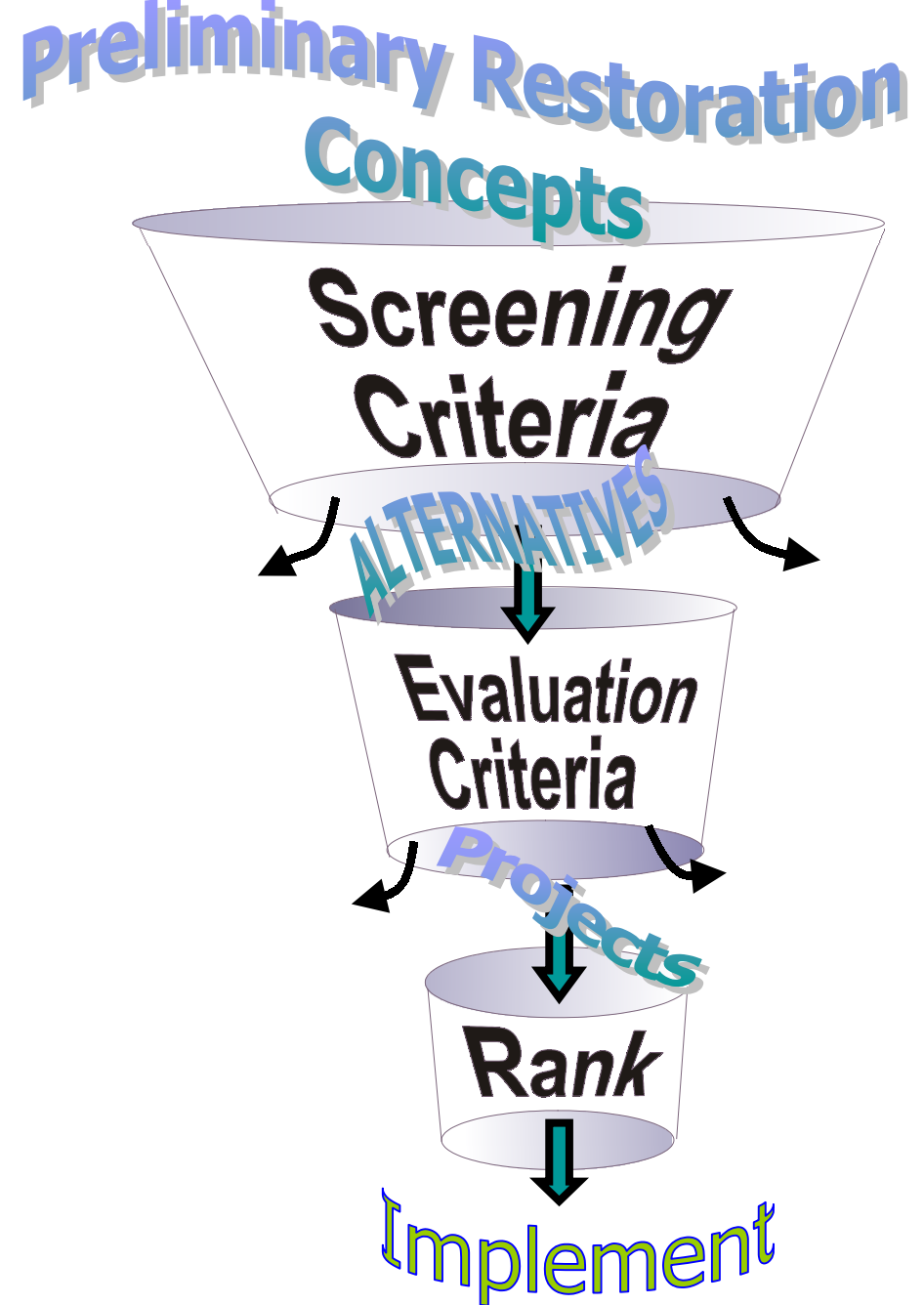
- **Restore bald eagle population within Southern California Bight (SCB).**
 - **Restore peregrine falcon population within SCB.**
 - **Restore injured seabird populations within SCB.**
 - **Increase recreational & subsistence fishing opportunities within SCB.**
-

draft MSRP Objectives

- **Increase public awareness of fish contamination issues within SCB.**
 - **Obtain/solicit input and feedback from public in development & implementation of Restoration Plan.**
 - **Promote public participation.**
 - **Maximize efficient use of regional partnerships.**
 - **Minimize administrative operating costs of program.**
-

Plan Implementation

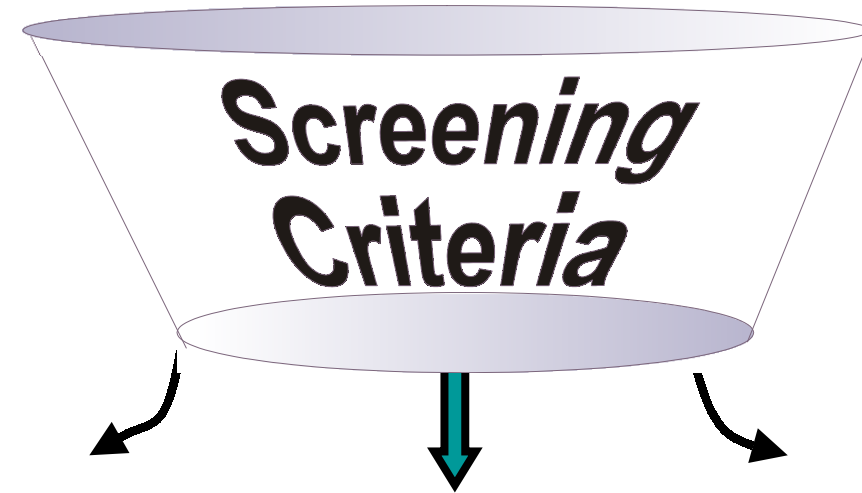
- Tiered Approach
- Screen Concepts
- Evaluate Alternatives
- Rank Projects
- Schedule Implementation



Draft Screening Criteria

- Nexus to Injured or Equivalent Resources
- Geographic Location
- Environmental Contribution
- Duplicate Funding
- Legality

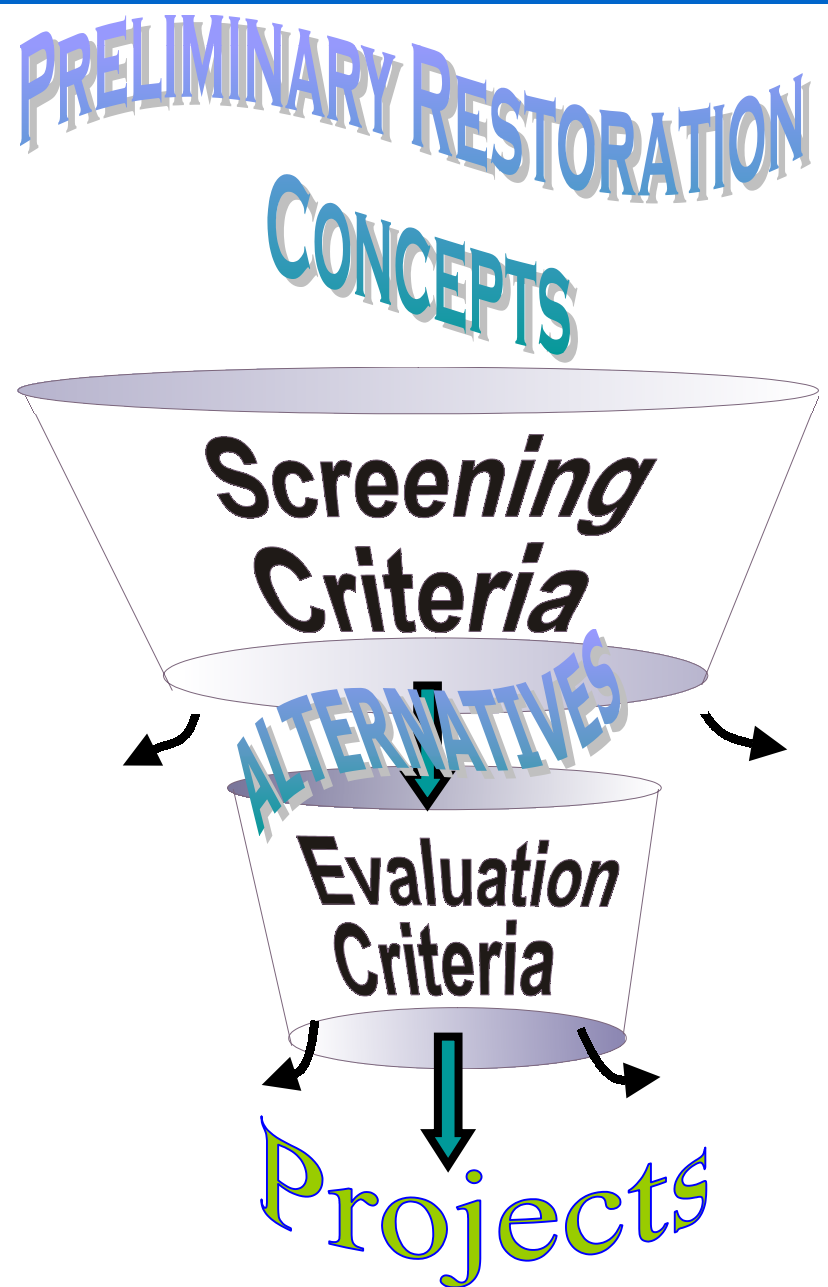
PRELIMINARY RESTORATION
CONCEPTS



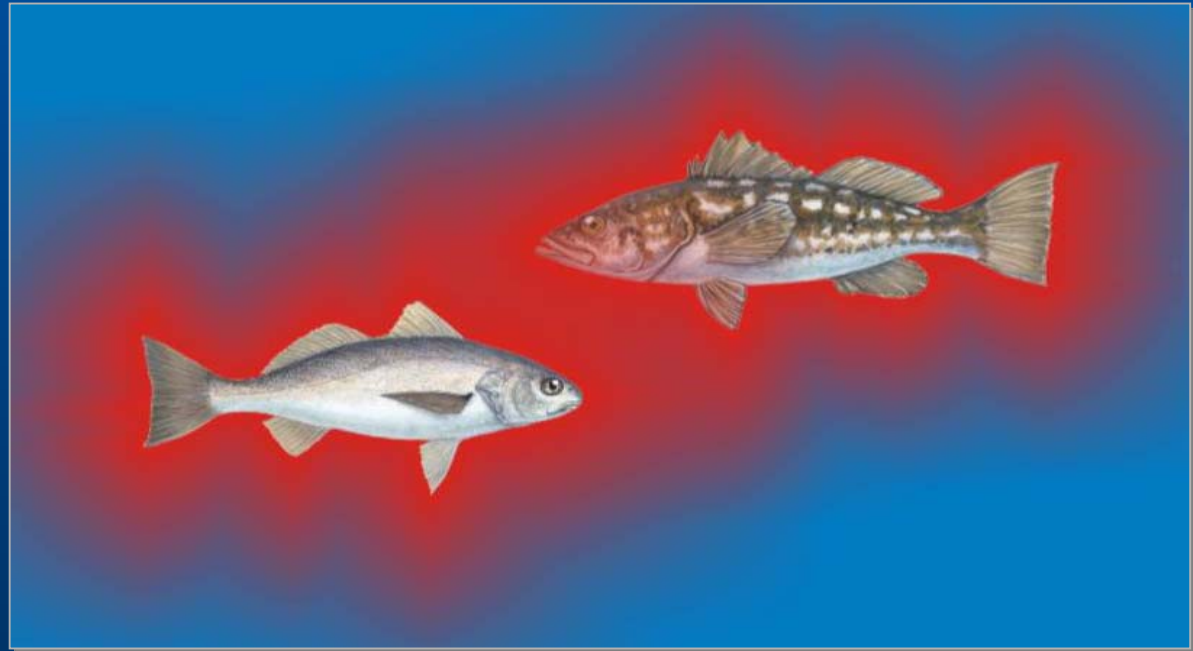
Alternatives

Draft Evaluation Criteria

- Cost Effectiveness
- Technical Feasibility
- Likelihood of Success
- Level of Benefit
- Multiple Resource Benefits
- Duration of Benefit
- Public Health and Safety
- Environmental Acceptability
- Public Acceptability
- Opportunities for Collaboration



Restoration Concepts



Bald Eagles

- Continue reintroduction to Santa Catalina Island.
- Expand reintroduction to other Channel Islands.
- Marine mammal carcass beach watch/removal program.
- Supplement eagle diet with clean food.
- Enhance nesting habitat.
- Restore to Baja California coastline



Seabirds



- Enhance nesting habitats on Channel Islands and mainland of Southern California Bight.
- Enhance nesting habitats within range of migratory species.
- Control predator and human disturbance of nesting areas.
- Monitor seabird populations and contaminant levels.

Restoring Sports and Subsistence Fishing

General Concepts:

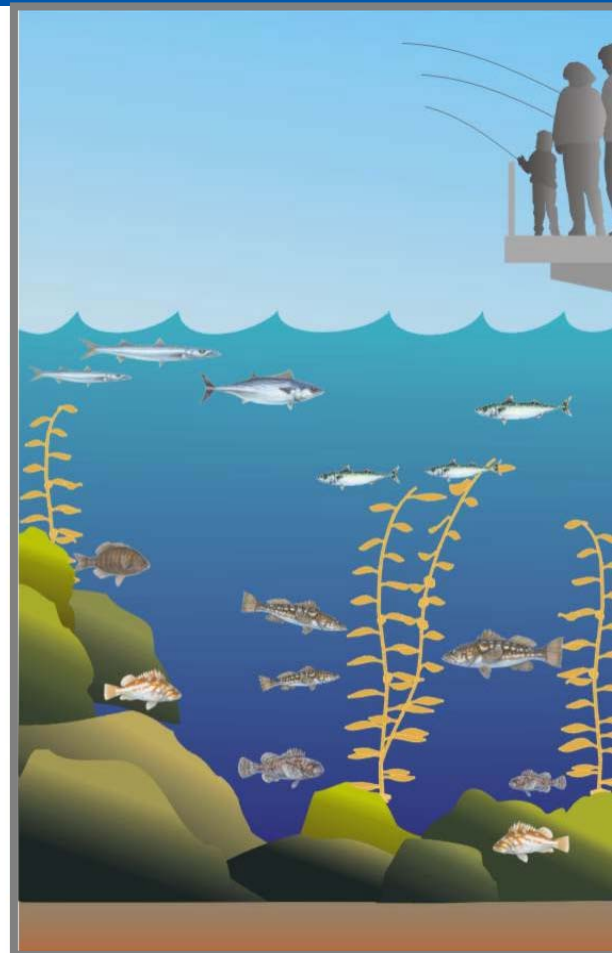
- Providing anglers with more clean fish
- Providing additional fishing opportunities
- Outreach and Education

More Clean Fish

Original Sand Bottom



New Rock Reef



- Artificial reefs on shallow shelf
- Artificial reefs on deepwater shelf
- Development of alternative fishing sites

More Clean Fish



- **Wetland Restoration**
- **Hatchery Programs**

Increase Fishing Opportunities



- Barge
- Boat trips
- Piers

Educational Outreach

- Fish Desirability
- Food Preparation
- Community-Based Organizations
- School Campaign
- Public Service Announcements
- Informational Kiosks
- Pamphlets, posters, mailings

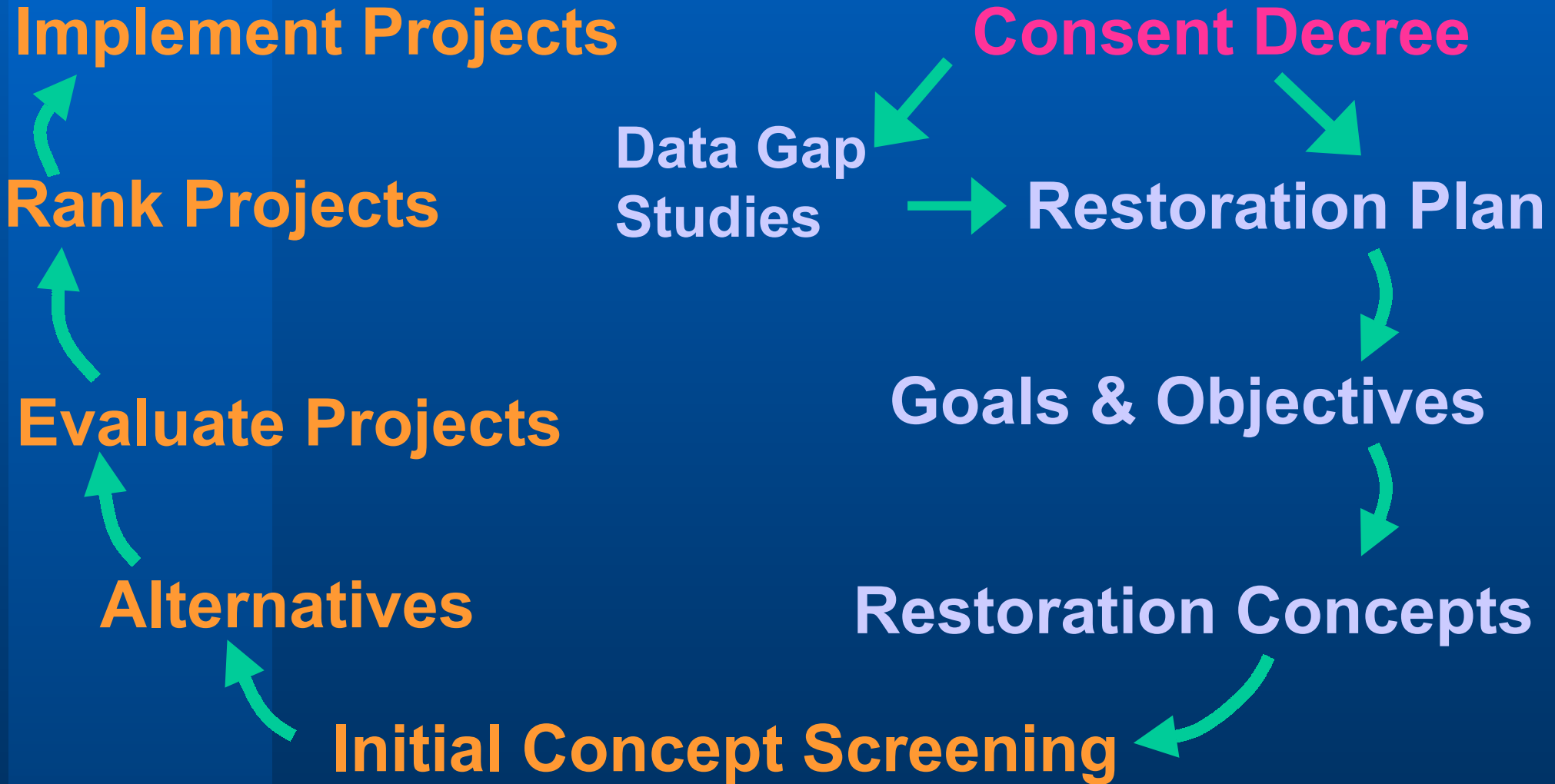
Restoring Sports and Subsistence Fishing

General Concepts:

- Providing anglers with more clean fish
- Providing additional fishing opportunities
- Outreach and Education

MSRP Restoration Planning Process

Next Steps



Involvement Process/Schedule

Next Steps

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2003

Review Restoration Plan

Public Review

Thank You

For Additional Comments and Input

**Contact: pam.castens@noaa.gov
anne_hoecker@r1.fws.gov**

For Additional Information

Access: www.darcnw.noaa.gov/montrose.htm