



# East San Pedro Bay Ecosystem Restoration Study

June 22, 2010

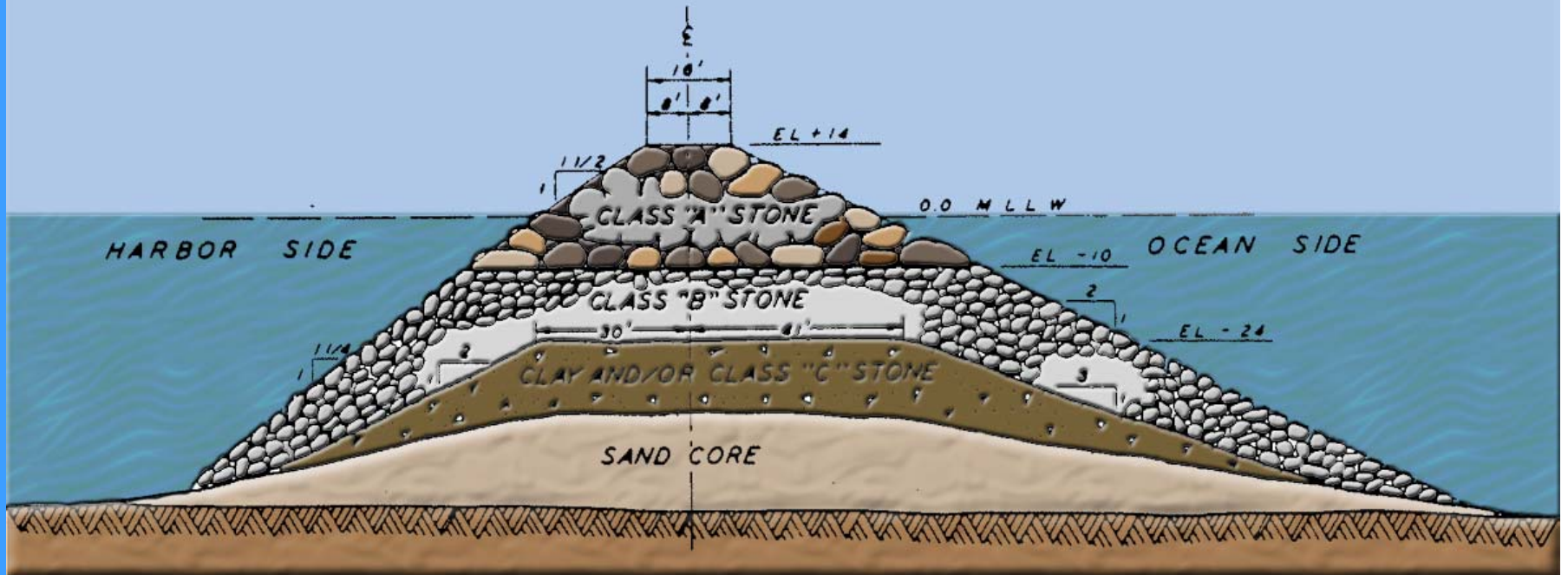
# Presentation Overview

- History of the Council's Action on the Breakwater
- Review of City's Reconnaissance Study
- Overview of the Army Corps' Study
- Feasibility Study Overview
- Funding Options to Become the Local Sponsor

# Background

- The Breakwater is owned and operated by the federal government (Army Corps of Engineers)
  - Authorized in 1940 as an extension to the San Pedro Breakwater
  - Construction began in 1941 on the 2.5 mile eastern leg of the breakwater and was completed in 1949
  - The US Army Corps of Engineers maintains jurisdiction over the Breakwater

# Breakwater Profile View



LONG BEACH BREAKWATER

SCALE 20 0 20 40 60 80 FEET

# Federal Breakwater System



**Long Beach Breakwater**

# Previous Council Action

- July 5, 2005
  - City Council requested the federal government to conduct a one-year reconnaissance study
  - Goal: To determine if there is federal interest for a reconfiguration of the Long Beach Breakwater

# Long Beach Reconnaissance Study

- July 24, 2007: City Council voted to approve a \$100,000 Reconnaissance Study
  - Funds from Tidelands Fund and Coastal Conservancy
- Long Beach's efforts are unprecedented
  - Army Corps cannot recall a Reconnaissance Study that was conducted by a city

# Study Process

- Moffatt & Nichol selected June 17, 2008 through a competitive process
- Study began August 2008, and was completed within the usual 12 months timeframe
- No new research usually completed, but Moffatt & Nichol went above and beyond what is usually included in a Reconnaissance Study



# Reconnaissance Study Goals

- To improve water quality
- To promote ecosystem restoration
- To increase recreational activity opportunities
- To protect existing infrastructure



# **Long Beach Breakwater Reconfiguration Study**

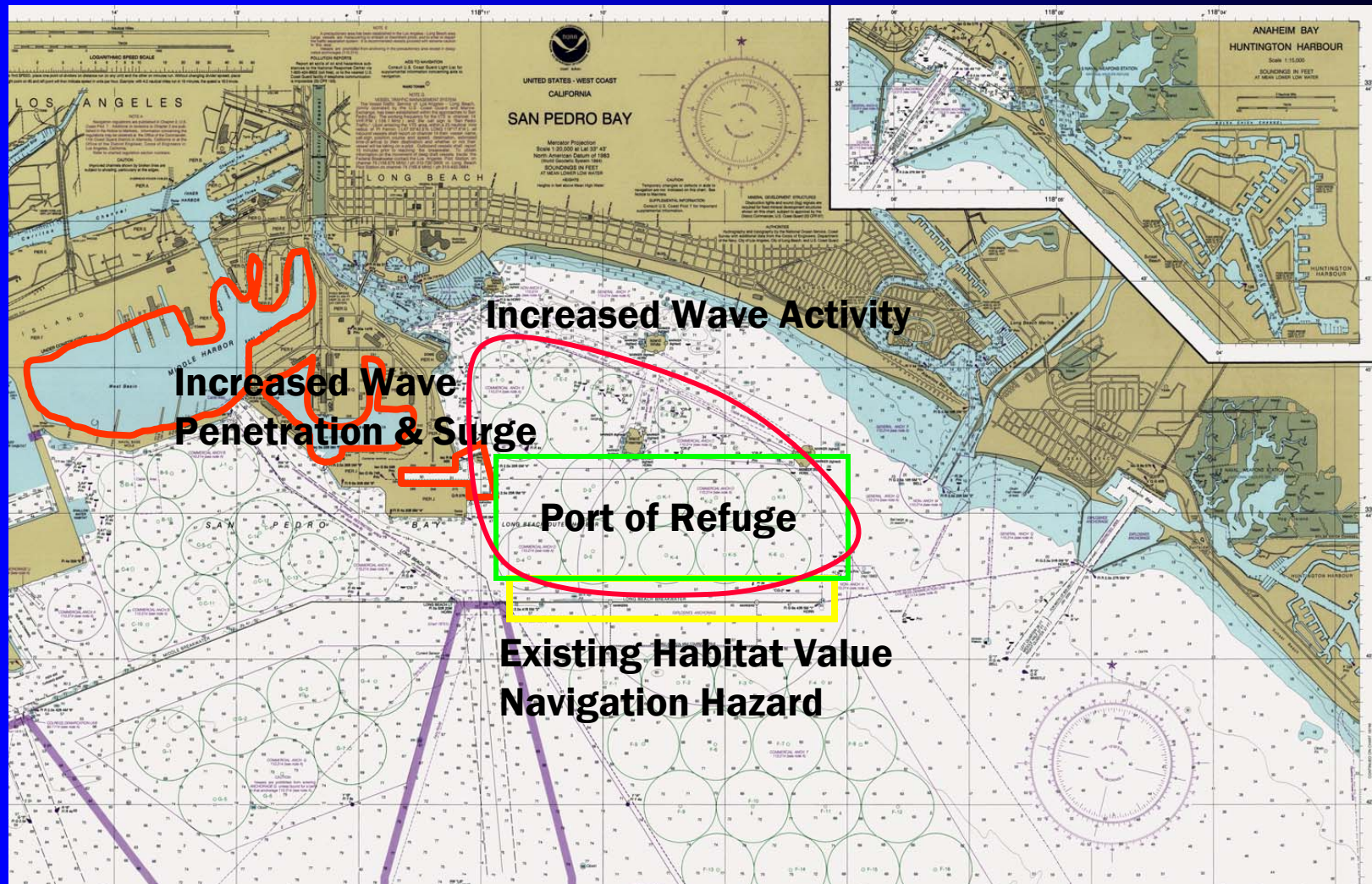
**Becomes...**

# **East San Pedro Bay Ecosystem Restoration Study**

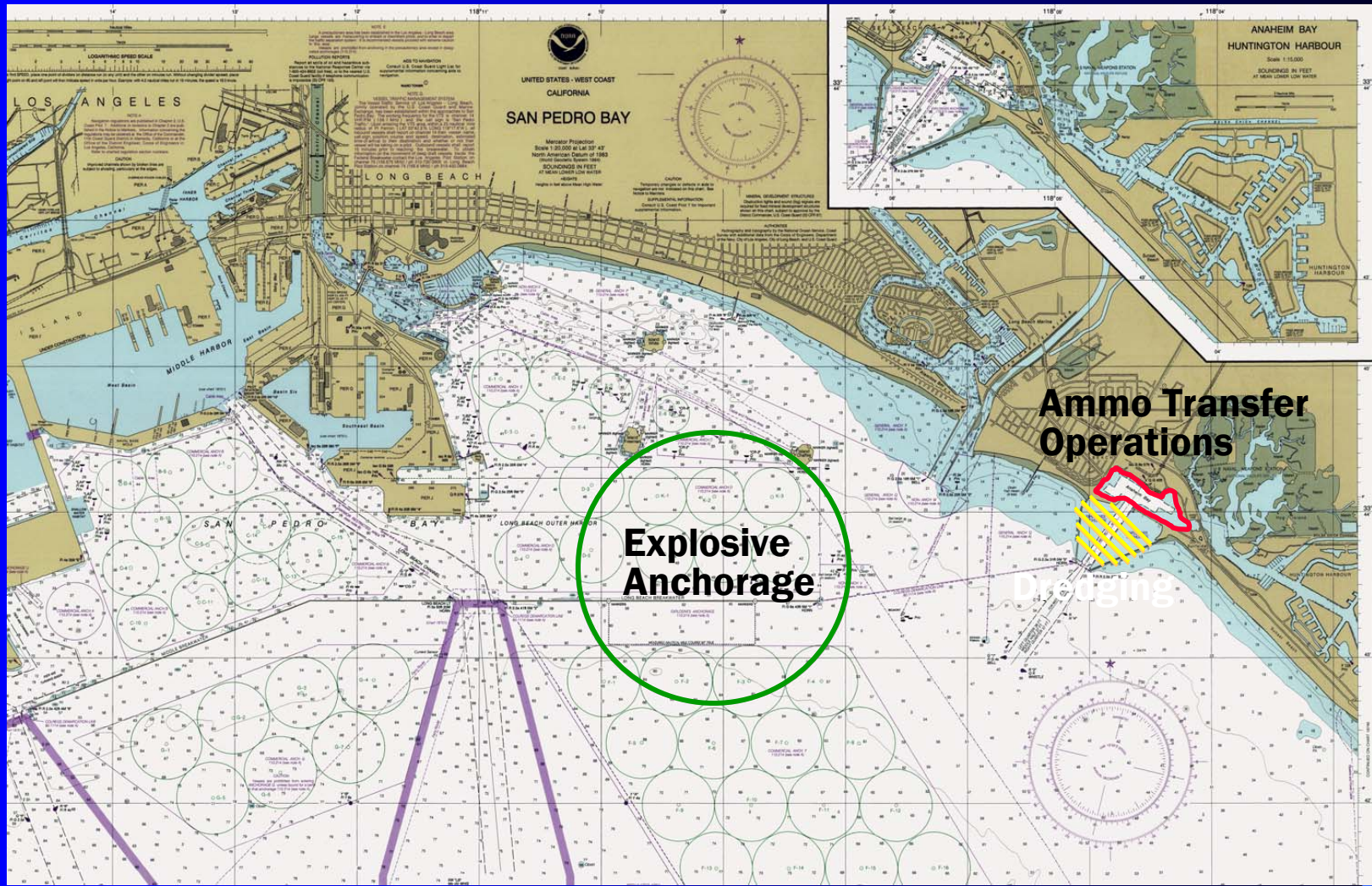
# Stakeholder Issues: LB Lifeguards & Marinas



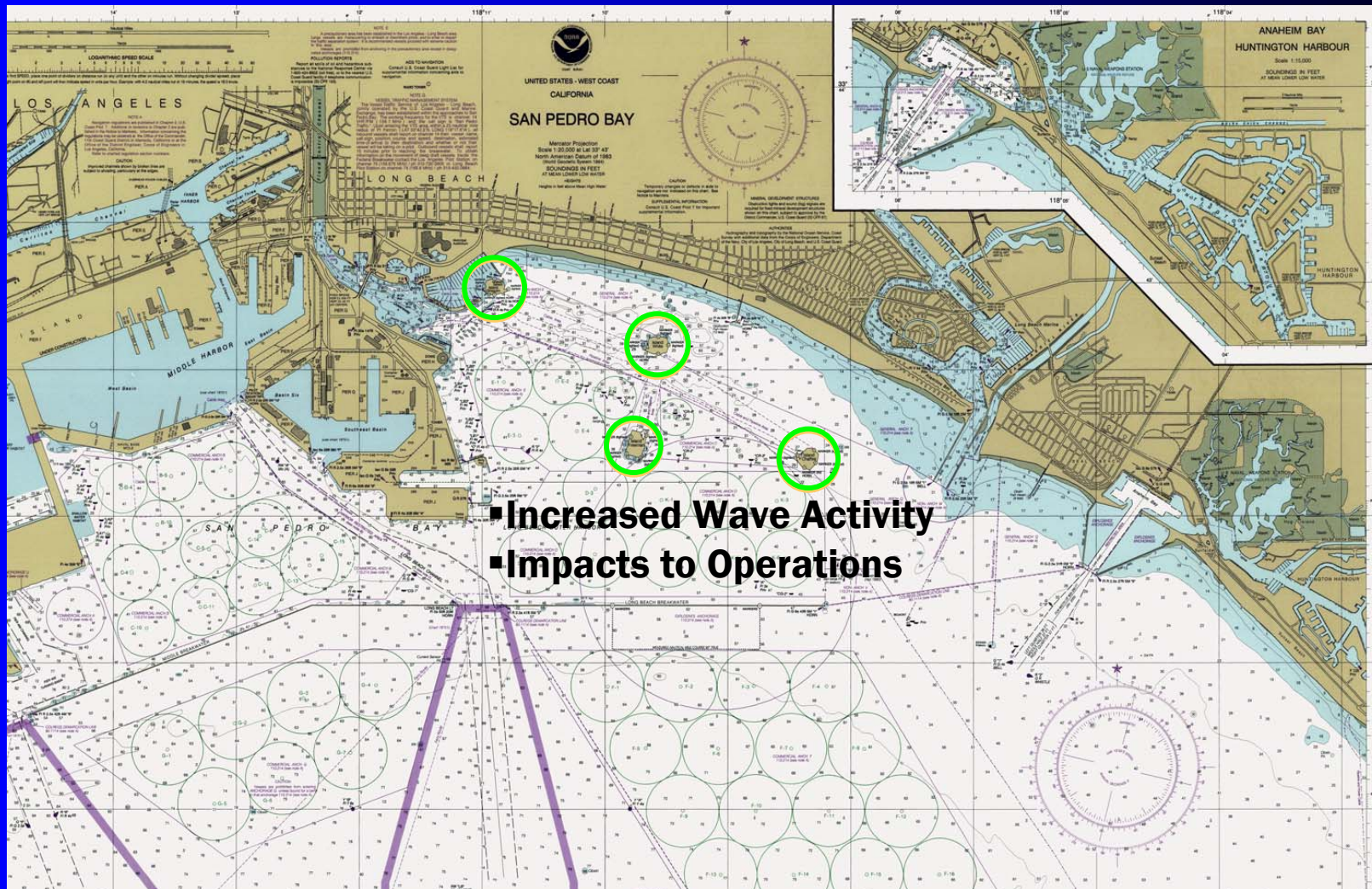
# Stakeholder Issues: Port of Long Beach/Port Pilots & Operators/USCG



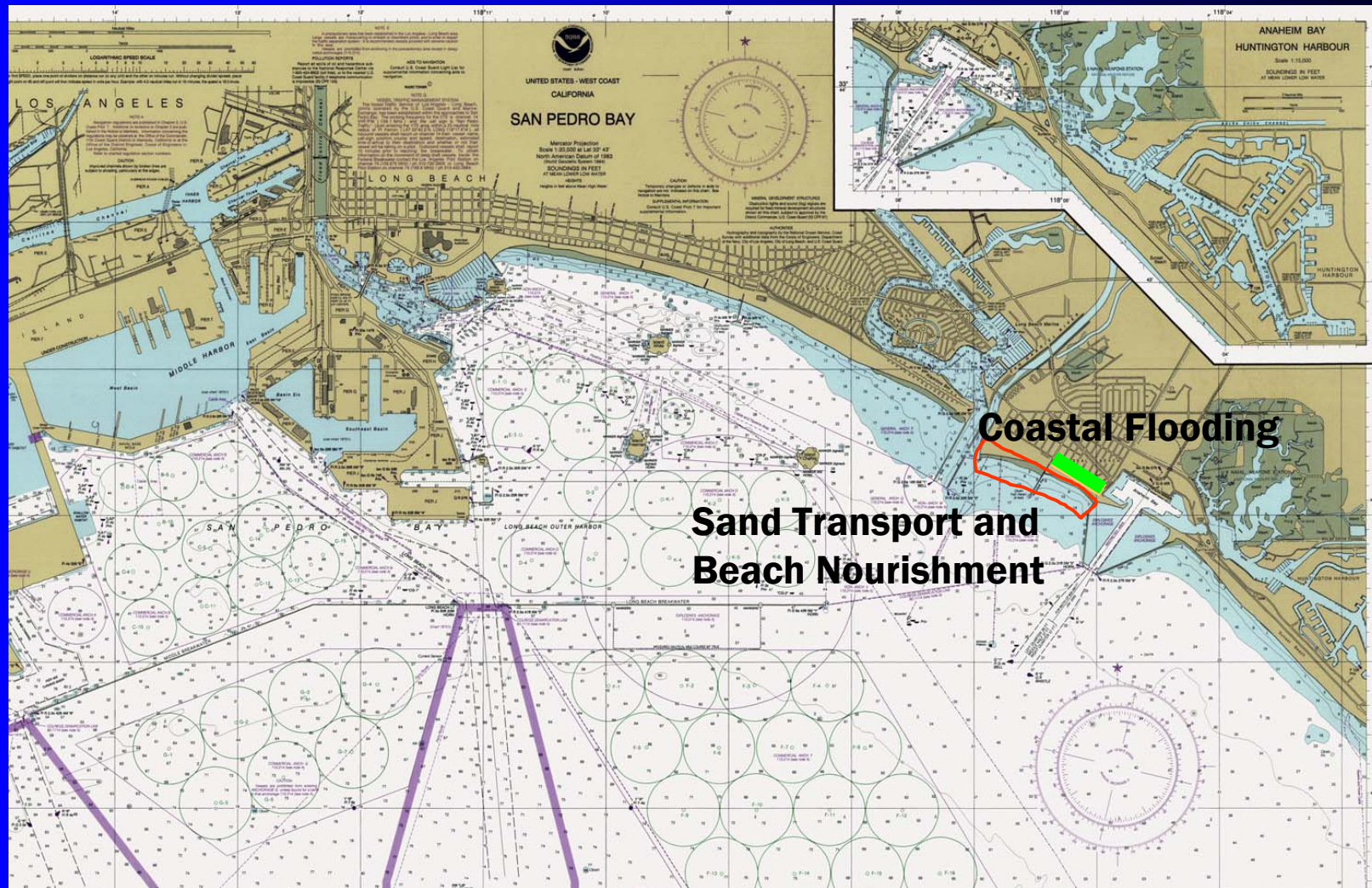
# Stakeholder Issues: U.S. Navy – Seal Beach Naval Weapons Station



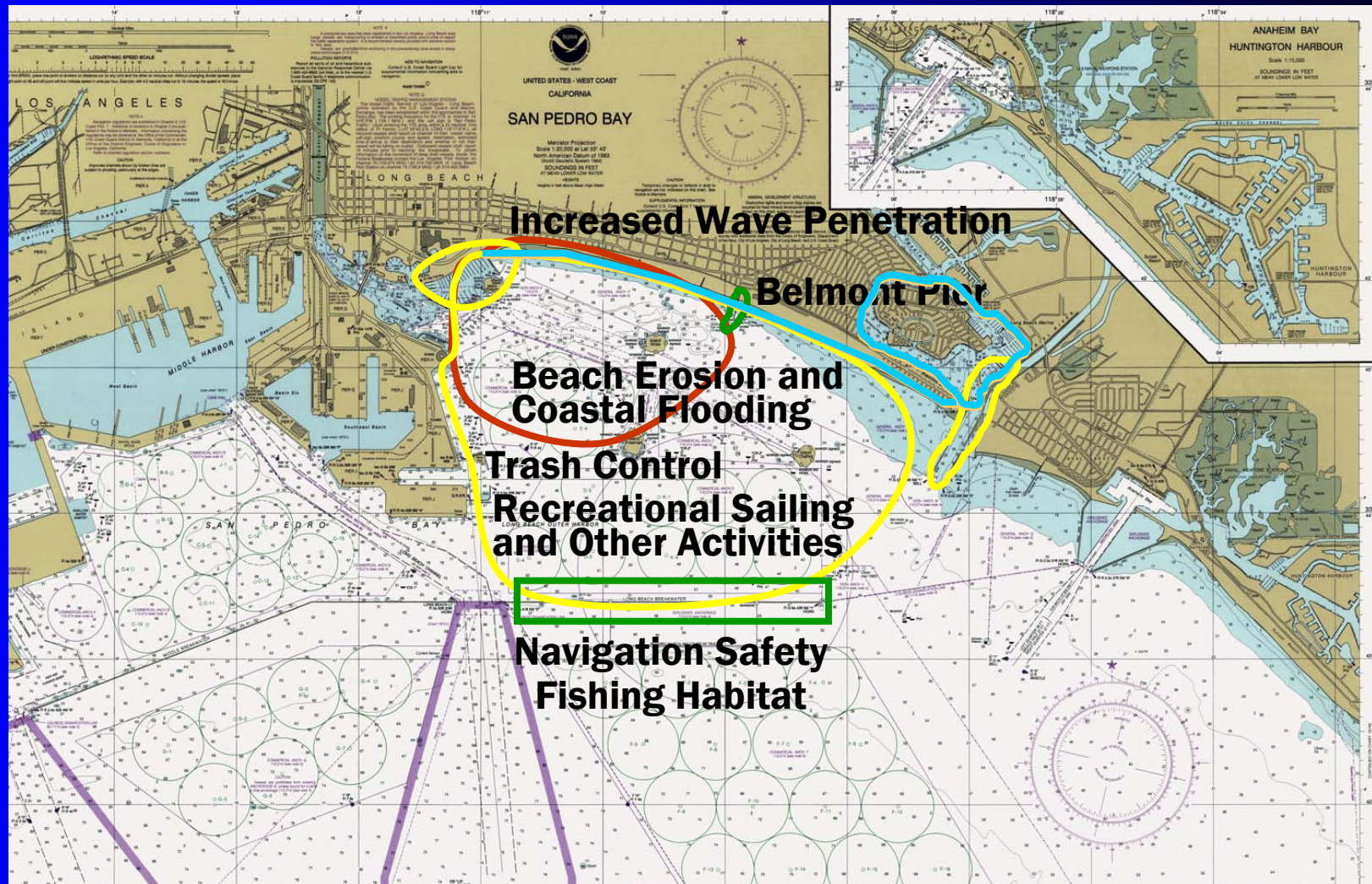
# Stakeholder Issues: THUMS Oil Islands



# Stakeholder Issues: City of Seal Beach



# Stakeholder Issues: Peninsula Beach Preservation Group



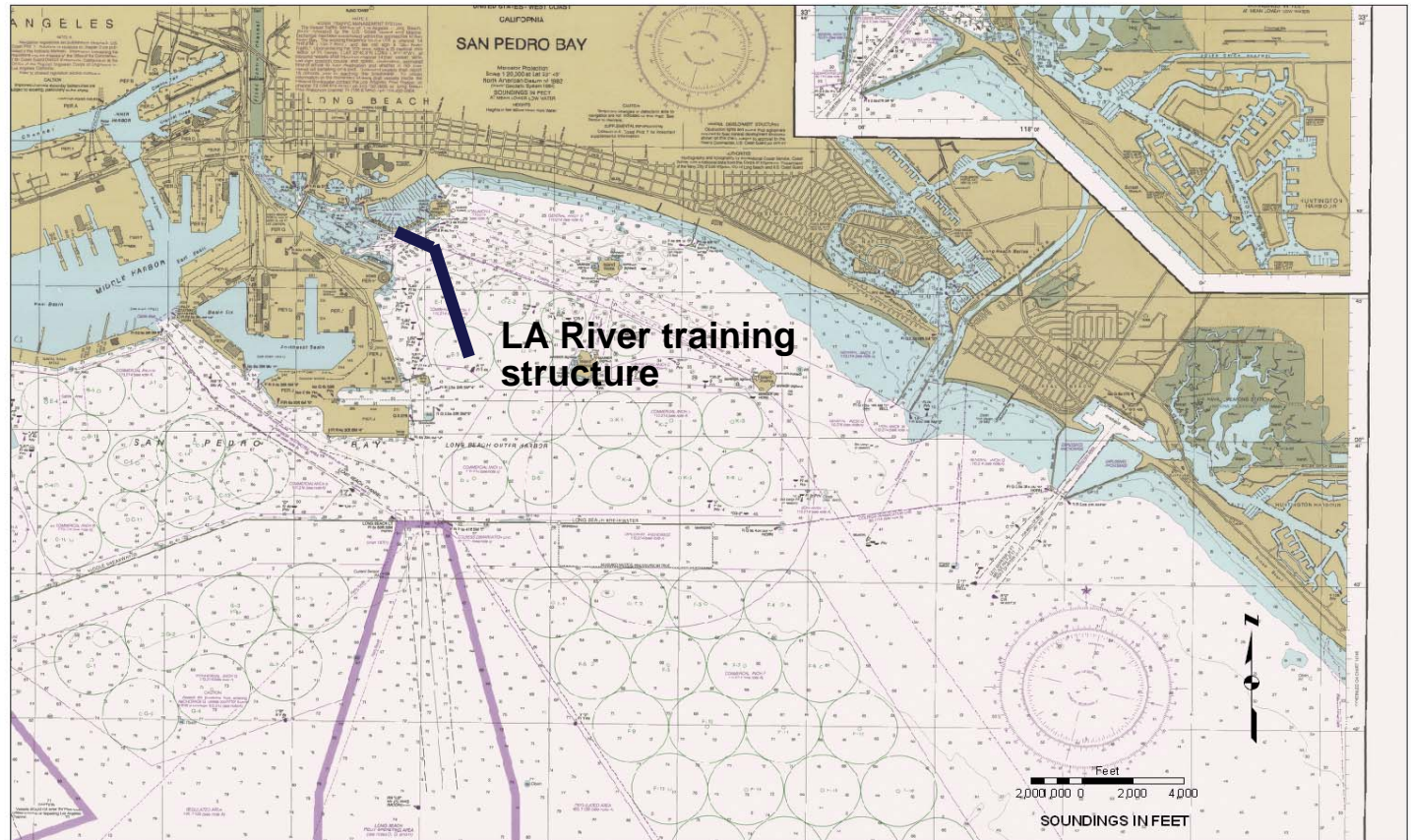


# Long Beach Reconnaissance Study Scope



- Moffatt and Nichol examined four alternatives
- The four alternatives were selected for their potential to improve the surrounding ecosystem and enhance recreational value

# Alternatives



# Long Beach Study Findings: Economic Benefits

## Maximum Potential Benefits Include...

- Additional 3 million beachgoers annually
- \$27 million federal recreation benefits (annualized)
- Local benefits
  - \$52 million annual spending increase
  - \$7 million annual taxes and parking fees

# Long Beach Study: Major Findings

- Various alternatives identified to improve the ecosystem and create recreational value
- Possibility to create up to 500 acres of kelp bed
- Potential to create up to 300 acres of rocky reef habitat
- Potential for wave heights up to 4 times present size in some areas

# Long Beach Study: Major Findings (continued)

- Identifies various breakwater reconfigurations and changes to the Los Angeles River
  - Must protect Port infrastructure, THUMS oil islands, Navy anchorage, and City beaches
  - May be possible to reconfigure the breakwater to generate some wave activity without damage to existing infrastructure

# Water Quality Improvement (Long Beach & Upstream cities)

- Continue the efforts to capture trash, metals, bacteria before it hits the LA River
- \$10 million Stimulus grant for catchbasin retrofits will help
- More needs to be done as those devices only capture trash and not bacteria / metals
- Breakwater will not be the solution to all water quality issues

# Army Corps Review of the Long Beach Reconnaissance Study



United States Army  
Corps of Engineers  
Los Angeles District

- **FY 2010**
  - Congress appropriated \$90,000 to the Army Corps for the review of the Long Beach Reconnaissance study
- **Purpose:**
  - Army Corps to determine: Is there federal interest?

# Purposes of Reconnaissance Study

- Define water resources problems and identify potential solutions
- Decide whether there is a Federal interest in continuing onto a Feasibility Study
- Identify a local sponsor
- Prepare a Project Management Plan (PMP)



# East San Pedro Bay Ecosystem Restoration

## ECOSYSTEM PROBLEMS

- Lack of rocky reef / hard bottom habitat
- Lack of Kelp, Eelgrass, other habitat
- Impacted harbor water circulation
- Reduced transmissivity (clarity)
- Contaminants in the sediment
- Contaminants in the water column
- Trash/floating debris

## RECREATION PROBLEMS

- Impaired swimming due to bacteria levels and debris
- Lack of wave activity



# Planning Objectives

1. Restore and sustain aquatic habitat
2. Improve water quality to maintain healthy marine habitats
3. Increase recreational opportunities

# Army Corps Review: *Changes to the Scope of Study*

- **Broader Alternatives**

- Creating of rocky reef habitat and kelp features
- Reconfiguring the Long Beach Breakwater
- Changes in alignment of the LA River
- Measures to address pollutants in the LA River
- No specific alternatives identified

# **Army Corps Review:** *Changes to the Scope of Study*

- **Enhanced Los Angeles River Focus**
  - Feasibility Study includes the ability to examine the Los Angeles River
  - Improved water quality is an important component to ecosystem restoration
  - The scope of the LA River focus will be determined in the Feasibility Study

# Army Corps Review: *Changes to the Scope of Study*

- **Simplified Document**

- Long Beach included non-standard components in our Reconnaissance Study
  - Water quality / Wave modeling, economic analysis
  - Army Corps utilized the City's information
- However, those documents are not in the Corps' Reconnaissance Study
- Will be included in the Feasibility Study

# **Army Corps Review:**

## *Changes to the Scope of Study*

- **Enhanced Ecosystem Restoration Focus**
  - More emphasis on restoring lost ecosystem
  - Continues to examine recreation
  - Continues to examine wave activity
  - Continues to examine water quality
  - Continues to keep infrastructure protection high on list of priorities

# Is there Federal Interest?

## YES

- Alternatives to improve water quality, ecosystem restoration and increasing recreational opportunities are viable
- Long-term economic benefits have potential to outweigh implementation costs
- Assumption that without action, the ecosystem will continue to degrade

# What is a feasibility study?

- Describe and evaluate alternative plans
- Describe in detail the recommended plan
- Develop a baseline cost for the project
- Prepare Feasibility Report



# What is a feasibility study?

- Investigates and identifies solutions, which could differ from initial assessment
- Develops conceptual designs, assesses available data and collects necessary new data
- Extensive analysis (wave/water quality modeling, economic analysis, engineering, tidal, sediment transport, etc)
- Full Environmental Assessment
- Consultations with DOD, DOT and Coast Guard
- Creates a cost estimate for construction

# Typical Army Corps Timeline



- Minimum 4 year Feasibility Study
  - May be extended due to funding and scope
- 2-3 years for design and WRDA Authorization
- Construction
  - Dependant on project scope and funding availability

# Pros/Cons of a Feasibility Study

## Pros

- Information to make informed decisions
- May lead to a project that could change Long Beach
- Includes LA River
- Addresses many different community concerns as part of one study

## Cons

- Cost and potential cost overruns
- Potential for no project after a lengthy study process
- Army Corps format may not meet all the City's expectations
- Ultimate cost of the construction project (35% local share)

# Feasibility Study Obligations

- Partnership with Army Corps
- 50/50 cost-share
- Equal and concurrent spending over the course of the study
- Long Beach anticipated cost: \$4,068,700
- Total estimated cost: \$8,337,400
- If sufficient funds are not available, both the City and the Army Corps may suspend the study

# Army Corps Funding

- The Army Corps' share of the \$4.1 million will be met with federal dollars
  - Long Beach submitted a \$1 million federal appropriations for the Corps' share
  - If appropriated, this award will fund the first year of the Army Corps' Feasibility study
- Annual appropriation requests will be needed
- Requires the support of our Congressional delegation

# Long Beach Funding Options

- In-Kind Services
  - Staff time spent on this project by City of Long Beach will reduce the City's cash contribution (\$825,000)
  - Previous studies may reduce the scope of the study, thereby also reducing the cash amount
- Grants
- Future One-Time Tidelands Oil Funds
- One-Time Port Transfer Funds
- Port of Long Beach Support

# Potential Funding Scenario

- \$825,000 in-kind services
- \$2.5 million will be set aside from the requested one-time Port transfer
  - Reserved but not allocated
  - Staff will pursue grants to minimize the use of these funds
- \$743,700 unfunded (in-kind, scope reduction, grants, etc)
- Only appropriate City funds equal to Congressional appropriation
- City will not exceed the annual amount appropriated by the Army Corps

# Potential Funding Scenario

Funding Option	Amount
In Kind Services	\$825,000
Reserve One-time Port Transfer (while seeking grants)	\$2,500,000
Unfunded (in-kind, scope reduction, grants, etc.)	\$743,700
<b>TOTAL COST</b> (over four years)	<b>\$4,068,700</b>



# Questions?

- Email [Breakwater@longbeach.gov](mailto:Breakwater@longbeach.gov)
- Visit [www.longbeach.gov/citymanager](http://www.longbeach.gov/citymanager)
- Contact Tom Modica, Manager of Government Affairs, at (562) 570-5091