Creating a Confined Aquatic Disposal Facility in Port Hueneme Harbor

A partnering success story between the Oxnard Harbor District, US Navy and USACE

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Presented by:
Oxnard Harbor District
&
Anchor Environmental CA L.P.
Port Hueneme History

• Oxnard Harbor District (OHD) formed in 1937 with 322 acres
• Harbor constructed and operations began in 1940
• Constructed harbor = not state lands
• U.S. Navy acquired harbor by paying off bonds in May, 1942
• Navy agrees to lease 16 acres to OHD in 1947 – commercial operations begin again
Current Uses

• Oxnard Harbor District (Port of Hueneme)
  – Produce import/export
  – RO/RO automobile imports

• U.S. Navy (Naval Base Ventura County)
  – Construction Battalion Center
  – Naval Surface Warfare Center
  – Pacific Missile Test Range
Port Hueneme – Joint Use

Naval Base Ventura County

Oxnard Harbor District
Multiple Issues for Harbor

- Federal Channel has accumulated ~200,000 meters of O&M material
- USACE has authority to deepen Federal Channel by ~1.5 meters
- None of the berths have been dredged in decades resulting in modified operations
- Contaminated sediments exist throughout Harbor
Port Hueneme Sediment Issues

Naval Base Ventura County
Port Hueneme Sediment Issues

Naval Base Ventura County

Oxnard Harbor District
Port Hueneme Sediment Issues

Naval Base Ventura County

USACE Federal Channel

Oxnard Harbor District
Sediment Contamination

- Total ~250,000 cubic meters
- Approximately 60% from berths/40% from Federal Channel
- COCs include PAHs, PCBs, DDT, TBT
- Mostly fine sands, silts and clays – low organic carbon
Management Alternatives

- Landfill Disposal
- On-site near shore Confined Disposal Facility (CDF)
- Port fill site at POLA or POLB
- Contained Aquatic Disposal (CAD)
Management Alternatives

- Landfill Disposal
- Near shore Confined Disposal Facility (CDF)
- Port fill site
- Contained Aquatic Disposal (CAD)
Aquatic Capping Process

Level Bottom Capping

Contained Aquatic Disposal

- **Dredged Material**
- **Cap Material**
Rationale for CAD Selection

- Provides on-site solution
- Not tied to other development or funding
- Environmentally protective
- Opportunities for beach nourishment
- Allows for Harbor deepening to advance
- Restores 100% use of Naval/OHD wharves
- Provides total solution for all 3 projects
- Shared resources = cost effective
Port Hueneme CAD Solution

Naval Base Ventura County

Target CAD Site (700’ x 700’)

Oxnard Harbor District
Expected Construction Sequencing

Step 1: Excavate Pit
Expected Construction Sequencing

Step 1: Excavate Pit

Beach Fill
Step 2: Place Contaminated Sediment in Pit
Expected Construction Sequencing

Step 3: Allow Material to Settle
Expected Construction Sequencing

Step 4: Place Cap Material
Proposed CAD Cross-Section

-83' MLLW
-52' MLLW
-42' MLLW
-35' MLLW

Existing Mudline

Contaminated Layer

Cap Layer

Future Mudline
Proposed CAD Solution
Benefits

• Provides on-site solution
• Not tied to other development or funding
• Environmentally protective
• Restores Hueneme Beach
• Allows for deepening project to advance
• Restores 100% use of Naval wharves
• Provides total solution for all 3 projects
• Cost effective
Permitting Strategy

- Existing USACE Environmental Assessment for O&M dredging
- Oxnard Harbor District and U.S. Navy Joint Application for CEQA/NEPA
  - CAD cell construction and beach nourishment
  - Wharf dredging and CAD placement
Funding Strategy

• Challenges
  – Raising funds (total project ~ $15 million)
  – Coordinating schedules
  – Contractor negotiations and scheduling

• Opportunities
  – All participants had some funds allocated for a reduced project
  – Staff committed from the top down
  – Significant project momentum
Cost Sharing Approach

• Break project into segments (e.g., CAD excavation, Navy Wharves, cap armor placement, etc)
• Assign segments to participants based on either ownership or limitations in authority
• Fine tune cost segments to accommodate secondary cost sharing strategies and funding schedules
Cost Sharing Outcome

• OHD and Navy responsible for the following:
  – Design and permitting for CAD excavation, beach nourishment, contaminated sediment disposal and wharf dredging
  – CAD excavation & beach placement
  – OHD and Navy wharf dredging and placement
  – Rock armor placement
  – Long-Term monitoring of the cap
Cost Sharing Outcome Cont.

- USACE responsible for:
  - Design and permitting for Federal Channel dredging and placement in CAD
  - Equipment mobilization and demobilization
  - Federal Channel contaminated sediment dredging and placement in CAD
  - O&M dredging for cap construction
Contracting Approach

• USACE has existing contract with Manson Construction for O&M dredging in Port Hueneme and Channel Islands Harbor
• Modification issued for additional work
• OHD/USACE Cost Sharing Agreement
• USACE/Navy Cost Sharing Agreement already in place for dredging
Contracting Approach Cont.

• OHD/Navy Agreement for CAD construction and long-term monitoring/liability
• All funds transferred to USACE for contracting and management
Project Schedule

- Conceptual design for project completed in April 2007
- Design and permitting completed in August 2008
- Construction will begin in December 2008
- Estimated completion is June 2009
Questions?