AGENDA

LAKE WORTH INLET
PALM BEACH COUNTY, FLORIDA

CIVIL WORKS REVIEW BOARD
24 January 2014

0900 Welcome
MG John Peabody
CWRB Chair and
Deputy Commanding General for Civil and Emergency Operations

0905 Introductions
MG John Peabody
CWRB Chair

0910 Project Briefing
COL Alan Dodd
District Commander, Jacksonville District

0950 Sponsor Support
Mr. Edward Oppel
Vice-Chair, Port of Palm Beach District, Board of Commissioners
Mr. Manuel (Manny) Almira
Executive Director, Port of Palm Beach
Mr. Carl Baker
Director of Planning and Development, Port of Palm Beach

1000 Division Support
BG Donald (Ed) Jackson, Jr.
Commander, South Atlantic Division

1010 Agency Technical Review
Mr. Terry Stratton
SAD Senior Economist, on behalf of Deep Draft Navigation Planning Center of Expertise

1015 Independent External Peer Review
Ms. Karen Johnson-Young
IEPR Program Manager, Battelle Memorial Institute
Mr. Daniel Smith
Lead IEPR Panel Member, Economics

1025 Break (15 minutes)
MG John Peabody
CWRB Chair

1040 Policy Review Assessment
Mr. Gary Faraday
Review Lead, Office of Water Project Review

1050 Board Discussion
MG John Peabody
CWRB Chair
- Member Questions
- Office of ASA(CW), OMB Questions

1120 Action
Mr. Theodore Brown
Chief, Planning Community of Practice

1125 Lessons Learned / After Action Report:
COL Alan Dodd
District Commander, Jacksonville District
- What was supposed to happen?
- What did happen?
- Why did it happen that way?
- How will we improve next time?

1130 Lessons Learned
SAD, OWPR, Sponsor, Others

1135 Close
MG John Peabody
CWRB Chair
LAKE WORTH INLET
PALM BEACH COUNTY, FLORIDA
Integrated Feasibility Study
and Environmental Impact Statement
National Pilot Planning Project

Presented by Colonel Alan M. Dodd
U.S. Army Corps of Engineers, Jacksonville District
24 January 2014
EXISTING AUTHORIZED PROJECT

- Annual dredging of channel and settling basin
- Ocean Dredged Material Disposal Site (ODMDS) 5 miles offshore
- Beach and/or Nearshore Placement
- Upland Disposal Site - Peanut Island (limited capacity)

**OTHER FEATURES**

**ENTRANCE CHANNEL**
- 400' width

**INNER CHANNEL**
- 300' width

**SAND TRANSFER PLANT AND SETTLING BASIN**

**PROJECT DEPTHS**
- 35'
- 33'
- 25'

**BACKGROUND**

- NMW: North Marginal Wharf
- MMW: Main Marginal Wharf
- MDMW: Mid Marginal Wharf
- SMW: South Marginal Wharf
- MTB: Main Turning Basin
- NTB: North Turning Basin

*Image and map of the existing authorized project with labels for different wharves and features.*
PORT OF PALM BEACH
Carl Baker, Director of Planning and Development
Port of Palm Beach District
On January 18, 1920 Lake Worth was opened to the sea with a 200 foot wide by 4.5 foot deep inlet.

On January 20, 1920, *The Palm Beach Post* reported:

> The inlet is open — and it isn’t open. But at dark yesterday a bar of sand stretched from the south jetty to the north jetty, above the level of the ocean. While that bar is there no boats can pass — and to that extent the inlet is closed.
January 4, 1926: Voters approved a $3,250,000 bond issue to dredge the inlet to 18 feet. Approximately $42,000,000 in today’s dollars.

In 1945 the channel was dredged to a depth of 25 feet.

In 1963 the Army Corps of Engineers dredged the Lake Worth Inlet to 33 feet.
Port of Palm Beach Today

4th Busiest Container Port in the State of Florida

254,664 TEU’s

2,249,779 Tons of Cargo

345,970 Cruise Passengers

1,234 Vessel Calls

$5.3 Billion Cargo Value

Acres

161
Port Imports – $1,336,244,213 in 2013

- Food Products: $224,920,775
- General Cargo: $457,206,403
- Petroleum Products: $20,804,088
- Construction Materials: $42,383,144
- Clothing: $22,308,724
- Yachts & Marine Parts: $67,660,358
- Industrial Chemicals: $333,759,270
- Machinery: $167,201,451

U.S. ARMY CORPS OF ENGINEERS | Jacksonville District

10
Liquid Asphalt
Port Exports – $3,786,074,497 in 2013

- Food Products, $1,075,098,320
- General Cargo, $862,107,281
- Construction Equipment, $490,283,910
- Machinery, $616,380,116
- Industrial Chemicals, $236,677,828
- Petroleum Products & Gasoline, $164,524,925
- Yachts & Marine Parts, $221,275,065
- Clothing, $119,727,052
Sugar - 537,517 Tons
$188,130,950
M-95 Maritime Highway
Port Infrastructure Improvements

SkyPass - 1999
$30,000,000

Cruise Terminal
$16,000,000

Third Slip
$10,000,000
Slip #3 – Current Reconstruction

Project Length – 18 Months

Completed Work – 38%

Estimated Completion Data – March 2015
**Project Significance**

Overall - $1.6 Billion in Economic Output

<table>
<thead>
<tr>
<th>Cargo</th>
<th>2,488 Jobs</th>
<th>$154 Million in Business Revenue</th>
<th>$15 Million in State and Local Taxes</th>
</tr>
</thead>
</table>

| Cruise      | 410 Jobs   | $30 Million in Business Revenue  | $2 Million in State and Local Taxes  |
Project Significance

Transportation Niche:
- On-Dock and On-Port Rail
- Sugar and Molasses Loading Facilities
- Break Bulk, Dry Bulk, Liquid Bulk Facilities

Strategic Location for Service to South Florida and the Caribbean
House Resolution Docket 2559, 25 June 1998:
“That the Secretary of the Army is requested to review the report...with a view of determining if the authorized project should be modified in any way at this time, with particular reference to widening the existing interior channel through Lake Worth Inlet.”
STUDY PURPOSE

To determine a plan to reduce transportation costs, reduce navigation concerns, and improve operation and maintenance at Lake Worth Inlet.

**LARGEST VESSEL**

**EXISTING PROJECT:**
- 37,000 DWT
- 583' LOA
- 94' BEAM
- 35.6' DESIGN DRAFT

**FUTURE PROJECT:**
- 60,000 DWT
- 656' LOA
- 106' BEAM
- 41' DESIGN DRAFT

The Port of Palm Beach is asking to catch up and improve channels and turning basins to 20th century Panamax sizes (versus 21st century Post-Panamax sizes).

BACKGROUND
LAKE WORTH INLET CHALLENGES

Conditions
- Inadequate Depths/Widths
- Strong currents and tidal influences
- High Shoaling

Navigation Concerns
- Navigation Restrictions
- Maneuverability difficulties
- More frequent O&M

Economic Inefficiencies
- Vessel light-loading
- Tidal delays
- Loss of business
- Higher O&M costs
# Lake Worth Inlet Significance

**Embracing niche markets...**

<table>
<thead>
<tr>
<th>BULKER</th>
<th>TANKER</th>
<th>SPECIALTY</th>
<th>CONTAINER</th>
<th>CRUISE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specializes in cement and cement production input materials</td>
<td>Only Florida port possessing onsite molasses/sugar loading equipment</td>
<td>Unique cargo services</td>
<td>4th busiest Florida container port</td>
<td>Home to Bahamas Celebration</td>
</tr>
<tr>
<td>Dry bulk</td>
<td>Petroleum</td>
<td>Yachts and project Cargo</td>
<td>Serves Caribbean (small container vessels)</td>
<td>Home to day cruise, sailing twice daily</td>
</tr>
</tbody>
</table>

**Background**

U.S. Army Corps of Engineers | Jacksonville District
LAKE WORTH INLET SIGNIFICANCE

One of 16 net export ports in U.S.
LAKE WORTH INLET
KEY AGENCIES FOR CURRENT STUDY

- Port of Palm Beach
- Palm Beach Pilots Association
- USACE Jacksonville District and South Atlantic Division
- National Marine Fisheries Service (NMFS)
- U.S. Fish and Wildlife Services (FWS)
- Environmental Protection Agency (EPA)
- Florida Department of Environmental Protection (FDEP)
- U.S. Coast Guard
- Palm Beach County
- Town of Palm Beach (and surrounding municipalities)
PROBLEMS

**LIGHT-LOADING**

Existing Vessels

- **94' Beam**
- **35' Design Draft**
- **30' Sailing Draft**
- **33' Existing Channel Depth**
- **3' Underkeel Clearance**

**Additional Capacity Not Used**

**PRIMARY PROBLEM**

Economic inefficiencies exacerbated further by channel and turning basins that do not meet current world fleet

- **Existing Vessel**
  - Sailing draft (loaded capacity): 30 feet
  - Tonnage: **26,300** metric tons (77% loaded)
- **Potential Vessel**
  - Sailing draft (loaded capacity): 36 feet
  - Tonnage: **45,800** metric tons (83% loaded)

**OTHER PROBLEMS**

- Maneuverability
- Tidal Delays
- High Shoaling

**PROBLEMS/OPPORTUNITIES**

U.S. ARMY CORPS OF ENGINEERS | Jacksonville District
OPPORTUNITIES

- Reduce transportation costs (caused by light loading and tidal delays) for:
  - Bulk carrier vessels with cement/concrete
  - Tanker vessels with liquid petroleum/asphalt/molasses
  - General Cargo vessels with specialty cargo
  - Bahamas Celebration cruise ship

- Improve navigation maneuverability

- Reduce frequency of operation and maintenance dredging intervals
OBJECTIVES

FEDERAL OBJECTIVE

- Increase net value of national output of goods and services

PROJECT OBJECTIVE (2017 – 2067)

1. Reduce transportation costs
2. Reduce navigation concerns in the harbor
3. Maintain or improve maintenance dredging intervals
CONSTRAINTS

- Avoid or minimize potential impacts on manatees and marine grass beds
- Avoid or minimize impacts on environmental resources including seagrass, hardbottom and softbottom
- Avoid adverse impacts of shoreline erosion along Lake Worth Inlet
EXISTING CONDITIONS

Natural

THREATENED & ENDANGERED SPECIES

VL Sea Turtles: Green, loggerhead, Kemp’s ridley, Hawksbill, leatherback
VL Seagrass: Johnson’s
NL Whales: Blue, humpback, sei, fin, sperm
NL Fish: Smalltooth sawfish
VL Other: West Indian (Florida) manatee

FISH & WILDLIFE RESOURCES

VL Beach habitat, marine life, common shorebirds, seagrasses

ESSENTIAL FISH HABITAT (EFH)

VL Federally managed species of fish (i.e., brown shrimp, spiny lobster); prey species (i.e., horse conch, bay anchovy)

PRESENCE:
VL: Very Likely
NL: Not Likely

HARDBOTTOM HABITAT

VL Sponges, bryozoans
EXISTING CONDITIONS
Navigation and Related Restrictions

A: Offshore current (up to four knots) render entry difficult
B: Too narrow for preparation for sharp turn ahead and recovery from previous corrective action
C: Sharp turn and abrupt transition from 400’ to 300’ width (ebb tide currents pull vessels toward rock outcroppings to northeast)
D: Shoaled area affects cruise ship maneuverability, which in turn, blocks container ship access; also suction effects during flood tide
E/F/G: Larger vessels may need additional room for turning

U.S. ARMY CORPS OF ENGINEERS | Jacksonville District
NAVIGATING THROUGH LAKE WORTH INLET
PALM BEACH HARBOR
Captain Hansen, Harbor Pilot
400 ft.
EXISTING CONDITIONS
Economic: Main Commodities and Vessels

TYPICAL VESSEL TONNAGE AND SAILING DRAFT

<table>
<thead>
<tr>
<th>Tide</th>
<th>Existing Sailing Draft</th>
<th>Existing Tonnage</th>
<th>Potential Sailing Draft</th>
<th>Potential Tonnage</th>
<th>Difference (tonnage per trip)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>30 ft</td>
<td>26,300 tons</td>
<td>36 ft</td>
<td>45,800 tons</td>
<td>+74%</td>
</tr>
<tr>
<td>High</td>
<td>33 ft</td>
<td>30,400 tons</td>
<td>39 ft</td>
<td>51,500 tons</td>
<td>+69%</td>
</tr>
</tbody>
</table>

- Existing and future demand to support capacity of potential vessels
- Port can support capacity of potential vessels
- Nearing 75% more tonnage with potential vessel

EXISTING VESSEL SIZE

POSSIBLE VESSEL SIZE

Tankers | Bulk Carriers | Specialty Cargo

EXISTING/FUTURE CONDITIONS
FUTURE CONDITIONS WITHOUT PROJECT

- Due to inadequate widths and depth, continued safety issues and navigation restrictions
- Continued inefficiencies in loading (light loading)
- More frequent vessel calls
- Increased Transportation costs

PORT OF PALM BEACH FUTURE COMMODITY GROWTH PROJECTIONS (2017-2067)

EXISTING/FUTURE CONDITIONS
PLAN FORMULATION
Measures Evaluated

- No-Action
- Non-Structural Measures
  - Tug additional assists
  - High-tide transiting
  - Light-loading
- Structural Measures
  - Deepening and widening of navigational channels
  - Expansion of the turning basins
PLAN FORMULATION
Measures Evaluated

- No-Action
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  - Expansion of the turning basins
**PLAN FORMULATION**

Widening Footprint + Deepening

<table>
<thead>
<tr>
<th>PROJECT (DEPTH)</th>
<th>AVERAGE ANNUAL BENEFITS</th>
<th>AVERAGE ANNUAL COSTS</th>
<th>NET BENEFITS</th>
<th>BCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>38' + Widening</td>
<td>$6,416,498</td>
<td>$2,982,771</td>
<td>$3,433,727</td>
<td>2.15</td>
</tr>
<tr>
<td>39' + Widening</td>
<td>$7,325,811</td>
<td>$3,311,091</td>
<td>$4,014,720</td>
<td>2.21</td>
</tr>
<tr>
<td>40' + Widening</td>
<td>$7,746,616</td>
<td>$3,599,861</td>
<td>$4,146,755</td>
<td>2.15</td>
</tr>
<tr>
<td>41' + Widening</td>
<td>$7,793,759</td>
<td>$4,297,090</td>
<td>$3,496,669</td>
<td>1.81</td>
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</tbody>
</table>

**FIRST ROUND | COSTS, BENEFITS, BCR**

- Rough Order Magnitude Costs
- Fewer Inputs and Iterations of HarborSym Model
- 25% Cost Contingency
- No Advance Maintenance Included

**SECOND ROUND | COSTS, BENEFITS, BCR**

- Greater Detail in Costs
- More Inputs and Iterations of HarborSym Model
- 25% Cost Contingency
- No Advance Maintenance Included
IMPROVED ADVANCE MAINTENANCE FORMULATION

- **Historical Condition:** O&M occurred up to 2 times/year
- **Existing Condition:** Advance Maintenance package (approved Dec. 2011, constructed March 2013) reduces frequency of dredging to 1 time/year
- **Future With-Project:** Reduces frequency of dredging to 1 time/2 years

**RECOMMENDED PLAN**

**PROPOSED SETTLING BASIN (SB) DEPTHS**
- **AREA SB1:** 51 feet
- **AREA SB2:** 34 feet
- **AREA SB3:** 26 feet
- **AREA SB4:** No change

**PROPOSED ADVANCED MAINTENANCE ZONE (AMZ) DEPTHS**
- **AMZA:** 51 feet
- **AMZB:** 47 feet
- **AMZC:** 51 feet
- **AMZD:** 47 feet
IMPROVED ADVANCE MAINTENANCE JUSTIFICATION

AVERAGE ANNUAL BENEFITS AND COSTS FOR 39-FOOT PLAN WITHOUT IMPROVED ADVANCED MAINTENANCE PLAN

- Annual Benefits $7,090,000
- Annual Costs $3,600,000
- Net Annual Benefits $3,490,000

**BCR = 2.0 to 1 (FY14 Price Level/Discount Rate of 3.5%)**

AVERAGE ANNUAL BENEFITS AND COSTS FOR ONLY IMPROVED ADVANCE MAINTENANCE PLAN

- Annual Benefits $850,000
- Annual Costs $450,000
- Net Annual Benefits $400,000

**BCR = 1.9 to 1 (FY14 Price Level/Discount Rate of 3.5%)**

ADVANCE MAINTENANCE FIRST COST: $10,524,000
RECOMMENDED PLAN WITH IMPROVED ADVANCE MAINTENANCE PLAN

Economic Summary

TRANSPORTATION SAVINGS BY BENEFITTING VESSEL CALLS

AVERAGE ANNUAL BENEFITS AND COSTS

- Annual Benefits $ 7,940,000
- Annual Costs $ 3,960,000
- Net Annual Benefits $ 3,980,000

BCR = 2.0 (FY14 Price Level/Discount Rate of 3.5%)

PLAN FORMULATION

U.S. ARMY CORPS OF ENGINEERS | Jacksonville District
**RECOMMENDED PLAN**

<table>
<thead>
<tr>
<th>FEATURE (DEEPENING)</th>
<th>EXISTING</th>
<th>RECOMMENDED PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Turning Basin (NTB)</td>
<td>25'</td>
<td>SAME</td>
</tr>
<tr>
<td>Main Turning Basin (MTB)</td>
<td>33'</td>
<td>39'</td>
</tr>
<tr>
<td>Inner Channel</td>
<td>33'</td>
<td>39' (PROJECT DEPTH)</td>
</tr>
<tr>
<td>Entrance Channel</td>
<td>35'</td>
<td>41'</td>
</tr>
</tbody>
</table>

Advance Maintenance: Reduces maintenance to once every two years

**NOT TO SCALE**

**EXISTING**
- North Marginal Wharf (NMW)
- Main Marginal Wharf (MMW)
- Mid Marginal Wharf (MDMW)
- South Marginal Wharf (SMW)
- Main Turning Basin (MTB)
- North Turning Basin (NTB)

**RECOMMENDED PLAN**

- **North Turning Basin (NTB)**: 25' DEPTH
- **Main Turning Basin (MTB)**: 33' DEPTH
- **Inner Channel**: 33' DEPTH
- **Entrance Channel**: 35' DEPTH

**Advance Maintenance**
- Reduces maintenance to once every two years

**U.S. ARMY CORPS OF ENGINEERS | Jacksonville District**
Environmental Aspects

Seagrass Mitigation
- 11.25 acres (4.5 acres impact)
- Recommended site can accommodate capacity and has similar species currently growing in vicinity
- Method: Fill existing holes in the lagoon with dredged material to elevation; allow natural colonization

Hardbottom Mitigation
- 11.25 acres (4.9 acres impact)
- Recommended site can accommodate capacity and has had proven success with same methodology
- Method: Purchase quarry limestone, create low relief artificial reefs

22.50 total acres of mitigation
RECOMMENDED PLAN  
Sea-level Rise Analysis

- Used EC 1165-2-212 for guidance
- Scenarios based on:
  - Low: extrapolation of historic sea-level rise rates
  - Intermediate: NRC Curve I
  - High: NRC Curve III

- Regional sea-level change: +2.39 mm/year
- Results of analysis for the period of 2017 – 2067:
  - Low: .39 feet
  - Intermediate: .89 feet
  - High: 2.47 feet

CONCLUSION:
Based on these sea-level rise projections and elevations of current and planned port facilities, no impacts are anticipated for berths of benefiting vessels.
### RECOMMENDED PLAN

**Cost-Sharing Summary**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td><strong>Total Project First Cost</strong> =</td>
<td>$88,531,000</td>
</tr>
<tr>
<td>Federal Share</td>
<td>$66,393,000</td>
</tr>
<tr>
<td>Non-federal Share</td>
<td>$22,138,000</td>
</tr>
</tbody>
</table>

*Includes Land, Easements, Right-of-way, and Relocation (LERR)*

<table>
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<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Project Cost</strong> =</td>
<td>$88,556,000</td>
</tr>
<tr>
<td>Federal Share</td>
<td>$57,581,000</td>
</tr>
<tr>
<td>Non-federal Share</td>
<td>$30,975,000</td>
</tr>
</tbody>
</table>

**Aids to Navigation costs**
PILOT STUDY
PUBLIC AND AGENCY INVOLVEMENT

RE-SCOPING FOR PILOT PROCESS

- Pilot Re-scoping Risk Workshop: August 2011
- Public Workshop: May 2013

AGENCY COORDINATION

- Formal comments received:
  - U.S. Environmental Protection Agency
  - U.S. Fish and Wildlife Service
  - National Marine Fisheries Service
  - Florida Department of Environmental Protection

ISSUES RAISED

- Public Issues: opposed mitigation sites were removed, all other comments addressed
- Resource Agency issues resolved
- IEPR comments resolved

Prior to pilot study (original scoping and draft EIS): 2007-2008
USACE COMPLIANCE

- Value Engineering - June 2012
- Independent External Peer Review (IEPR) - July 2013
- Final Agency Technical Review (ATR) - August 2013
- Cost Certification - August 2013
- Legal Certification - August 2013
- Mitigation Model (HEA) Approval - October 2013
ENVIRONMENTAL COORDINATION

- National Environmental Policy Act
  - Scoping Letter (6 Dec 2007), Scoping Meeting (January 9, 2008)
  - Draft EIS Notice of Availability (April 19, 2013), Draft EIS Public Meeting (May 9, 2013)
  - Notice of Availability Final EIS (February 7, 2014)
  - Record of Decision (April 2014)

- Issues Raised
  - Concern over two proposed mitigation locations (Turtle Cove & Little Lake Worth)
  - Concern over potential use of blasting
  - Concerns addressed in Final EIS
  - Mitigation plan updated to remove Turtle Cove & Little Lake Worth

- Agency Coordination
  - Formal comments received:
    - U.S. Environmental Protection Agency (EPA)
    - U.S. Fish and Wildlife Service (USFWS)
    - National Marine Fisheries Service (NMFS)
    - Florida Department of Environmental Protection (FDEP)
    - Florida State Historic Preservation Office (SHPO)

There has been no opposition or major issues raised in relation to the deepening and widening itself
ENVIRONMENTAL COMPLIANCE

- **Endangered Species Act**
  - USFWS Concurrence Report (December 12, 2012)
  - NMFS Biological Opinion (November 7, 2013)

- **Clean Water Act**
  - State of Florida Water Quality Certificate

- **Coastal Zone Management Act**
  - State of Florida Consistency Determination (June 14, 2013)
  - Final Consistency Determination upon receipt of WQC

- **National Historic Preservation Act**
  - Florida State Historic Preservation Office Compliance Letter (20 Nov 2013)

- **Marine Protection, Research and Sanctuaries Act**
  - Section 103 permit to be obtained prior to construction

- **Clean Air Act**
  - Suggested revisions by EPA to Draft EIS incorporated
  - Increased growth in use of Port with or without widening & deepening
  - Widening & deepening will allow for larger, more efficient ships (# of ships will remain the same)
  - Project in compliance with the Clean Air Act

- **Environmental Justice (E.O. 12898)**
  - No disproportionate effects to low-income, minorities, or children as a result of the project
<table>
<thead>
<tr>
<th>ENVIRONMENTAL OPERATING PRINCIPLES</th>
<th>RECOMMENDED NATIONAL PRIORITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foster sustainability</td>
<td>Reduce deficit</td>
</tr>
<tr>
<td>Proactive consideration of environmental consequences</td>
<td>Create jobs/restore economy</td>
</tr>
<tr>
<td>Mutually supporting economic and environmentally sustainable solutions</td>
<td>Improve resiliency and safety</td>
</tr>
<tr>
<td>Accountability for activities which may impact human and natural environments</td>
<td>Restore and protect the environment</td>
</tr>
<tr>
<td>Collaborative leveraging of scientific, economic, and social knowledge to understand environmental context</td>
<td>Maintain global competitiveness</td>
</tr>
<tr>
<td>Consideration of environment and risk management in context of project and program lifecycle</td>
<td>Increase energy independence</td>
</tr>
<tr>
<td>Open, transparent process respecting views of individuals and groups interested in Corps activities</td>
<td>Improve quality of life</td>
</tr>
</tbody>
</table>
STUDY MILESTONES

COMPLETED MILESTONES

- 8/11 * National Pilot
- 6/12 Value Engineering Study
- 2/13 Draft Report/EIS
- 4/13 Decision Point 2
- 7/13 IEPR; Comments Addressed
- 12/13 DE Transmittal

- 10/11 Decision Point 1
- 12/12 Cost & Schedule Risk Assessment (CSRA)
- 3/13 DQC ATR
- 5/13 Draft Released to Public, HQUSACE, & IEPR
- 8/13 Final Report

REMAINING MILESTONES

- Final Chief’s Report: 4/14
- PED Duration: 24 months
- Construction Duration: 24 months

* Prior to pilot study (original scoping and draft EIS): 2007-2008

OTHER SUPPORTING INFORMATION
IN CONCLUSION

Brings a port last updated more than 50 years ago to current standards:

- Allows today’s vessels to call at the Port, one of 16 net export ports
- Improves efficiency and overall economic contributions to the Nation
- Reduces risk for commercial and recreational vessels
- Significantly reduces annual O&M maintenance requirements