The Increasing Challenge of Keeping the Nation's Waterways Reliable

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Seattle, Washington

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Southwestern Division
U.S. Army Corps of Engineers

13 September 2011
US Ports & Waterways Convey > 2.2 billion Tons Commerce
Corps Maintained Ports Provide Strategic Deployment Capability
HMTF collects $1.3 billion revenue

Recreation areas: 370 M Visitors/yr
Generate $18B in economic activity, 500,000 jobs

Water-based Recreation
54,879 Miles Of Shoreline at USACE Lakes

¼ of Nation’s Hydropower:
$800M + in power sales

12,000 miles of Commercial Inland Waterways transport goods at
½ the cost of rail or
1/10 the cost of trucks

692 Dams and 11,750 Miles of Levees: avg annual flood losses prevented = $25.5B
over past 10 years

Stewardship of 11.7 Million Acres Public Lands

Maintenance of ~200 Shallow & Deep Draft Harbors

137 Major Environmental Restoration Projects
• In 1928, MG Edgar Jadwin, then Chief of Engineers, developed a plan to prevent disastrous floods on the Lower Mississippi River.

• In 2011, that plan proved its worth as USACE battled floodwaters similar to those of 1927.
USACE Civil Works Program

FY12 Budget Request

Deliver enduring, comprehensive, sustainable, and integrated solutions to the Nation’s water resources and related challenges through collaboration with our stakeholders (Regions, States, Localities, Tribes, Other Federal Agencies)

($1.575 B) Navigation (34%)

($1.447 B) Flood Risk (31%) Management

($742 M) Ecosystem (16%) Restoration & Infrastructure

($182 M) Hydropower (4%)

($259 M) Recreation & Natural (6%) Resource Management

($196 M) Regulatory Program: (4%) Wetlands & Waterways

($34 M) Disaster Preparedness (0.7%) & Response

($6 M) Water Supply (0.1%)

($185 M) Expenses (3%)
Corps Navigation Mission

Provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of commerce, national security needs, and recreation.
# Navigation Funding – Pres Budget

($million)

<table>
<thead>
<tr>
<th>Pres Bud</th>
<th>Coastal</th>
<th>Inland</th>
<th>Nav</th>
<th>CW total</th>
<th>Nav Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY12</td>
<td>$832</td>
<td>$744</td>
<td>$1576</td>
<td>$4631</td>
<td>34</td>
</tr>
<tr>
<td>FY11</td>
<td>$873</td>
<td>$779</td>
<td>$1652</td>
<td>$4939</td>
<td>33</td>
</tr>
<tr>
<td>FY10</td>
<td>$971</td>
<td>$796</td>
<td>$1767</td>
<td>$5125</td>
<td>35</td>
</tr>
<tr>
<td>FY09</td>
<td>$969</td>
<td>$931</td>
<td>$1900</td>
<td>$4741</td>
<td>40</td>
</tr>
<tr>
<td>FY08</td>
<td>$957</td>
<td>$1057</td>
<td>$2014</td>
<td>$4900</td>
<td>41</td>
</tr>
</tbody>
</table>

THE TREND is declining funds
Navigation down 22% in the last 5 years.
Reductions masked by ARRA funding in FY09 and FY10
Flood Damage Reduction increased due to DSAC results; Environment also increased.
Coastal Navigation

- Value of all foreign trade represents nearly 30% of Nation’s GDP
- Overseas waterborne trade
  - 95% of overseas trade by volume
  - 75% of overseas trade by value
  - 16 million jobs
- About $2.3T in economic activity
- Many coastal ports nearing capacity
- Cargo volumes of 2000 projected to double by 2025
- Already a generation behind in channel design – but West Coast in better shape
- Capacity constraints increase transportation costs, pollution, congestion
Coastal Navigation Capital Investment Program

Replace, Recapitalize, Retire

Divest

Plan

Design

Construct

Operate & Maintain

5 Projects: Brazos Island TX, Palm Beach FL, Tybee Island GA, Mile Point FL, Los Angeles CA

1 Project Savannah

3 Projects
Jacksonville Harbor
NY/NJ
Sacramento/Stockton

Annual O&M Budget
U.S. Ports: Vital to Trade and Our National Economy

59 harbors – coastal, inland, Great Lakes - handle over 10 million tons each year…
Coastal Navigation Channel Performance

- High Use Projects, >10M tons/year
- Goal: Half channel width, 95% of time
- Actual: 35% of time

Analogy to building a 2-lane road; Present funding allows one lane, one-third of the year.
Inland Navigation Challenges

• Aging Infrastructure/System Reliability
  – 50% Locks > 50yrs old
  – Increase in Lock down time or delays
  – Increase in emergency repairs

• Funding to support Navigation
  – O&M flat-lined in constant dollars
  – Limited Construction funds for improvements

• Increased demands for water transport
  – Need for increased Lock sizes
Inland Navigation Capital Investment Program

Plan
- 4 Projects: Upper Ohio, PA
- Missouri River
- GIWW – Calcasieu
- GIWW channel, TX

Design
- 1 Project
- Bayou Sorrel, LA

Construct
- 4 Projects
- Olmsted, Emsworth, Monongahela Locks
- 2, 3 & 4, PA
- MS River Lock 27
- Note: 2 Projects suspended in FY12
- Chickamauga, TN
- Kentucky Lock, KY

Replace, Recapitalize, Retire

Operate & Maintain
- Annual O&M Budget

Divest
Transforming the Pre-Authorization Study Process for the 21st Century: A New Planning Paradigm
**NEW PARADIGM: PREAUTHORIZATION STUDY PROCESS**

**CURRENT PLANNING PROCESS: 6+ YEARS** (approximate timeframes)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Milestone</th>
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<tbody>
<tr>
<td><strong>RECONNAISSANCE</strong></td>
<td>• Federal Interest Assessed • Identify Sponsor</td>
</tr>
<tr>
<td><strong>STUDY NEGOTIATIONS</strong></td>
<td>• Feasibility Study Scoped • Feasibility Study Agreement Executed</td>
</tr>
<tr>
<td><strong>FEASIBILITY</strong></td>
<td>• Problems &amp; Opportunities • Future Without Project • Management Measures</td>
</tr>
<tr>
<td><strong>FEASIBILITY</strong></td>
<td>• Alternative Plan Development • Design &amp; Cost Estimate • Plan Evaluation &amp; Comparison • Agency Technical Review</td>
</tr>
<tr>
<td><strong>FEASIBILITY</strong></td>
<td>• Plan Selection • Independent External Peer Review • Agency Technical Review • Cost Certification</td>
</tr>
<tr>
<td><strong>FEASIBILITY</strong></td>
<td>• Public Review • Report Finalization</td>
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**REVISED PLANNING PROCESS: 2 YEAR** (approximate timeframes)

<table>
<thead>
<tr>
<th>Fiscal Year 1</th>
<th>Fiscal Year 2</th>
<th>Fiscal Year 3</th>
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<tr>
<td><strong>STUDY SCOPING</strong></td>
<td><strong>STUDY EXECUTION</strong></td>
<td><strong>REPORT FINALIZATION</strong></td>
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<tr>
<td>• Analysis Plan</td>
<td></td>
<td>• Plan Confirmation</td>
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<tr>
<td></td>
<td></td>
<td>• State &amp; Agency Review</td>
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The revised process consolidates key decisions into the early part of the study process, allowing for more clear scoping and focused attention on relevant details. It integrates early decision making with more flexible analysis and emphasizes focused risk management strategies.
The Way Ahead

Corporate Culture Change

- Pilot Projects
- Modify Process
- Improve PL Program Execution
- Amend Laws Improve PL Program
- Policy Change
Pilot Status Update

- **Jordan Creek, MO**
  - Flood Risk Management
  - Initiated Feb 2011
  - Scoping Workshop Apr 2011
  - DP1 - 24 Sept 2011

- **Westside Creeks, TX**
  - Ecosystem Restoration
  - Initiated June 2011
  - Scoping Workshop July 2011
  - DP1 - 1st qtr FY12

- **Sutter Basin, CA**
  - Flood Risk Management
  - Initiated Feb 2011
  - Scoping Workshop May 2011
  - DP1 – 23 Sept 2011

- **Palm Beach Harbor, FL**
  - Navigation
  - Initiated June 2011
  - Scoping Workshop Aug 2011
  - DP1 - 1st qtr FY12
The New Budgeting Paradigm
Aligning Business Lines to National Goals/Priorities and National Objectives
CW Vertical Mapping/Alignment & Sources

- **National Priorities/Goals**
  - OMB/Administration EOs, Annual Msgs, Initiatives, etc

- **National Objectives**
  - ASA(CW) Budget Objectives (+)

- **CW Strategic Plan Goals**
  - Objectives, Strategies, Actions

- **USACE Campaign Plan Goals**
  - Objectives, Strategies, Actions

- **CW Program Priorities/Goals & Objectives**
  - BL-based
National Priorities/Goals

• Reduce the Deficit
• Create Jobs and Restore the Economy
• Improve Infrastructure
• National Export Initiative
• Restore and Protect the Environment
• Maintain Global Competitiveness
• Increase Energy Independence
• Improve Quality of Life

1FY2011 CW Budget Briefings to OMB
2President’s 2011 State of the Union Address
3President’s 2010 State of the Union Address & EO (11 Mar 10)

NOTE: This listing is a listing of priorities/goals, not a ranking.
Water Resources Objectives

• Protect, develop and restore the Nation’s water and related land resources¹
• Operate and maintain existing Corps projects¹
• Train and prepare for emergency response needs¹
• Improve energy, water, and petroleum efficiency²
• Double exports from FY2010 to FY2015³

¹FY2011 CW Press Book Preface
²Executive Order 13514 - Federal Leadership in Environmental, Energy, and Economic Performance
³President’s 2010 State of the Union Address

NOTE: This is a listing of objectives, not a ranking.
Use of Funds

- Make optimal use of available funds
  - Fund fewer projects more efficiently
  - More sophisticated asset management
  - Risk-based maintenance funding
  - Proportionally more for maintenance, less for new or replacement projects
  - Eliminate categories of projects with least national benefits
- Deliver less (flood control, navigation, recreation, hydropower, ....)
- De-authorize constructed projects that no longer serve their authorized purposes
- Educate better: Jobs, Infrastructure, Value to Nation
Find Other Funds

- Seek other sources of funds
  - Harbor Maintenance Trust Fund
    - Seek more of annual revenues for channel maintenance and related activities
  - Inland Waterways Trust Fund
    - Seek additional revenue and revenue sources
  - Direct funding of hydropower or public private partnership funding of some hydro
Summary

• The marine transportation system is a vital part of our Nation’s Infrastructure-critical to America’s continued growth and prosperity
• The Corps is a partner in ensuring the nation’s coastal ports remain viable for the Nation
• Demands for waterway transportation are increasing requiring improved and reliable infrastructure
• To remain an active player in world economy, the United States needs to establish a national strategy
• We need to continue to educate the public on the importance of our Nation’s Coastal infrastructure and its present condition
• Support a collaborative approach to develop a national strategy to meet the future waterborne commerce needs of the nation
Questions / Comments

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