Public-Private Partnerships (P3), Resilient Inland Waterways and the Illinois Waterway P3 Demonstration Project

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TISP CIS Panel
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Challenges and Opportunities

- Infrastructure Investment = Global Challenge

- Corps Civil Works Portfolio: 3,000+ Operational Projects, with Replacement Value of Approx $268B

- Corps Civil Works Asset Classes are Diverse
  - Flood & Coastal Storm Damage
  - Coastal and Inland Harbors
  - Inland Waterways
  - Hydropower
  - Dam & Levee Safety Programs
  - Water Storage
  - Aquatic Ecosystems
  - Water-Based Recreation

- Demands for CW Infrastructure Maintenance, Operations, and Capital Investment are Expanding
  - Civil Works New Construction Backlog $ 60B
  - ASCE: Dams, Levees, IWW’s = “D” $140B

- CW Infrastructure Systems Aging, Experiencing Negative Performance Trends Across Portfolio (Serviced by ~$4.6B Annual Budget Nationally....)
The United States Is A Maritime Nation
Inland Marine Transportation System + Ports Vital to U.S. Trade and National Economy

IMTS is a Distribution System for Coastal Ports...

- Nearly 12,000 miles 9 ft deep & more
- 196 lock sites / 241 chambers
- Moving over 600 million tons
- Carries 18% of Nation’s inter-city freight (by ton-mile) at a cost of 2/3 that of rail and 1/10 of truck
National Research Council Findings

- NRC Suggests Appropriate Maintenance Investment Range of 2-4% PRV

- FY 15 USACE Infrastructure Plant Replacement Value* (PRV) = $268B

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<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>PRV</th>
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<tr>
<td>Est FY15 PRV</td>
<td>$268,000,000,000</td>
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<td>NRC &quot;High&quot; (4%) =</td>
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<td>NRC &quot;Low&quot; (2%) =</td>
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<td>TOTAL FY15 O&amp;M Budget</td>
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<td>O&amp;M Allocated for Just Maintenance</td>
<td>$618,500,000</td>
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Like Other Agencies, the Corps is Not Close to NRC Recommendations... EVEN IF O&M is Optimized...this is a National Infrastructure Priority

Akin to buying a $30,000 car and spending $69 annually on maintenance and repair for its life, with no warranty service
Integrated Investment Strategy
Inland Navigation Portfolio

GOAL: Move Risk Profile to the Left with Best Mix of Construction and O&M Investment

20 Year CIS - Major Rehab/ Modernize

National IMTS Portfolio (Approx 207 Projects)

O&M – Minor and Major Maintenance

O&M – PM, Corrective and Minor Maintenance

O&M – Minimal PM, Recurring and Minor Corrective Maintenance

Life-Cycle Asset Management Strategy
What are P3/P4s? And Why?

- Long Term Contract Between Public Sector Contracting Authorities and a Private Sector Consortium to Deliver Public Infrastructure Outputs

- Successful P3/P4 Transactions Typically Share the Following:
  - Life Cycle Perspective: Private Partner Provides Full Up Front Financing with “Bundled” Project Delivery Across Phases (Any Combination of Design, Construction, Operations, Maintenance, and/or Rehab)
  - Incentivized Risk Sharing: Private Partner Assumes Substantial Risks for Compensation Based on Key Performance Outcomes
  - Public Ownership: Public Partner Retains Project Ownership and Ultimate Control

Benefits of P3s

- Faster Delivery of Infrastructure
- Efficiency Gains from Innovation and Life-Cycle Cost Savings
- Incentive-Driven Performance Results in Better Service Provision
- Single Source of Accountability
Key P3/P4 Principles

- **P3/P4 Background and Operating Context**
  - P3/P4 Not as Mature in US: Municipal Bond Market, Unique US Risk Profile
  - P3/P3 is Essentially Another Acquisition Tool, Though Complex & Longer Term
  - P3/P4 Cost of Money and Investor ROI, and Primacy of Federal/Taxpayer Equities
  - P3/P4 Application in Water Resources Context is Presenting Challenges

- **P3/P4 Can Help the Corps/Sponsors Address Two Critical National CW Infrastructure Challenges**
  - Existing Infrastructure: Sustain Performance, Extend Service Life, and/or Buy Down Risk for the Nation
  - New Infrastructure: Accelerate Delivery, Reduce Life Cycle Costs and Achieve Earlier Accrual of Project Benefits to the Nation

- **Three Primary P3 Revenue Generation Mechanisms**
  - User Payments
  - Availability Payments (Federal Budget)
  - Commercial/Ancillary Revenues
Proposed IWW P3 Demonstration Project

- Examining ways to address maintenance backlog at eight locks and dams on the IWW (Value = LaGrange: 26M tons/$10B shipped in 2014)
- Proposed work: Ranges from addressing maintenance requirements to 2 new 1,200-foot locks
- Examining opportunities to plan, design, construct, operate, and maintain
- Benefits: Accelerate maintenance efforts, reduce costs, reduce delays and risks - improve system reliability (>50% IWW vessels experienced delays)
- Preliminary cost estimate: $300M - >$1B (depending on magnitude of effort)
- Potential funding mechanisms: User fees, tonnage fees, State financing, Federal funds, etc.
- Non-Fed partner: Proposing State regional authority
Public-Private Partnership
IWW P3 Project

P3 Challenges

- Federal Payment Mechanisms
  - Inability to make commitments on future appropriations

- Revenue Generation
  - New authority is needed to allow for a project revenue stream

- Budgetability
  - Lacks full alignment with prioritization of projects within current budget policy (BCR)

- Non-Federal Partner
  - A lead non-Federal partner is needed for this effort

- Program Authorization
  - No authorization/funding to move forward with P3 pilot project at this time
Public-Private Partnership
IWW P3 Project

Closing Thoughts

- **A Serious Problem:** Water Resources infrastructure deterioration and risks are an increasing challenge, and impact the economic growth potential of the US
- **Partnering:** The Corps cannot solve this national issue alone
- **Potential Solution:** P3 is a tool being explored with stakeholders to leverage alternative financing and project delivery mechanisms
- **Demo Projects & Challenges:** Demonstration projects are being developed to examine P3 structures, identify implementation challenges and develop solutions
- **Next Steps:** Continue to work closely with partners to advance the IWW P3