

# Public-Private Partnerships (P3) and the Illinois Waterway P3 Demonstration Project

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US Army Corps of Engineers  
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# Civil Works Infrastructure Challenges

- **Infrastructure Investment = Global Challenge**
- **Corps Civil Works Portfolio: 3,000+ Operational Projects, with Replacement Value of ~\$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, Waterways = “D” → \$140B
- **CW Infrastructure Systems Aging, Experiencing Negative Performance Trends Across Portfolio (Serviced by ~\$4.6B Annual Budget Nationally....)**



# National Research Council Findings

- NRC Suggests Appropriate Maintenance Investment Range of 2-4% PRV
- FY 15 USACE Infrastructure Plant Replacement Value\* (PRV) = \$268B

Est FY15 PRV = \$268,000,000,000 % PRV

NRC "High" (4%) = \$10,720,000,000 4.00%

NRC "Low" (2%) = \$5,360,000,000 2.00%

**TOTAL** FY15 O&M Budget = \$2,600,000,000 0.97%

O&M Allocated for Just Maintenance = \$618,500,000 0.23%

Fiscally Impossible

Exceeds Corps  
TOTAL Budget

< 1%, Incl "O"

Current Reality and  
*WHY O&M Efficiencies  
are SO Important*

Akin to buying a \$30,000 car and  
spending \$69 annually on  
maintenance and repair for its life,  
with no warranty service

Like Other Agencies, the Corps is Not Close to NRC Recommendations... EVEN  
IF O&M is Optimized...this is a National Infrastructure Priority



# Upper Mississippi River Navigation System


## Background

- Navigation System infrastructure largely constructed in 1930s (37 Locks and Dams, 1,200 river miles), and is past design life
- O&M budget is stagnant nationally
- Over \$1.2 billion budgeted, but unfunded for Upper Mississippi Navigation maintenance needs
- Aging infrastructure is experiencing significant deterioration
- Reliability of the system is decreasing and risks to users/shippers are increasing
- Negatively impacting commerce with service interruptions



# Civil Works Transformation

## Infrastructure Strategy Components



**Infrastructure Strategy**

**Alternative Financing**

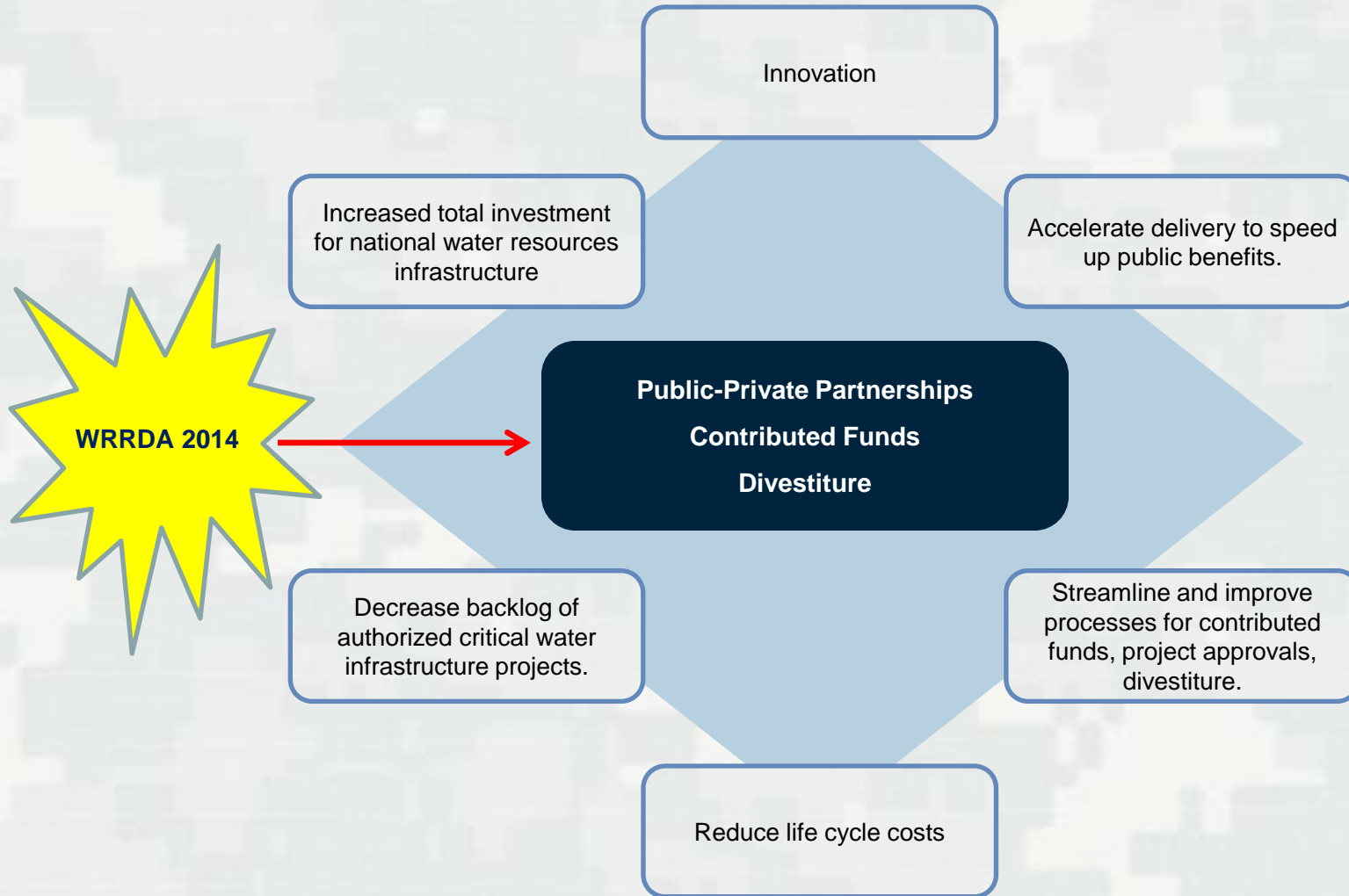
**Life Cycle Management**

**Asset Management**

- **Asset Management:** Assets identification, assessment of conditions/reliability, categorization
- **Life Cycle Portfolio Management (LCM):** Ensure future systems' viability through risk assessment and management, funding prioritization in a systems decision making process
- **Alternative Financing:** Identify alternative financing mechanism and options to leverage funding to increase infrastructure investments



# Alternative Financing and Public-Private Partnerships (P3)



# WRRDA 2014 Section 5014 Public-Private Partnership (P3) Pilot Program

- Program to evaluate effectiveness and efficiency of allowing non-Federal pilot applicants to carry out authorized water resources development projects



# WRRDA 2014 Section 5014 Public-Private Partnership (P3) Pilot Program



## Major Program Components

- 5-year program to identify 15 authorized water resources projects for private participation
- Program allows non-Federal pilot applicants to enter into partnership on authorized water resources development projects
- Implements process to evaluate cost effectiveness and project delivery efficiency
- Viable projects include: Channel improvement, inland navigation, flood damage reduction, aquatic ecosystem restoration, hurricane and storm damage reduction
- Agreement is executed detailing project financing, planning, design, construction, operation and maintenance





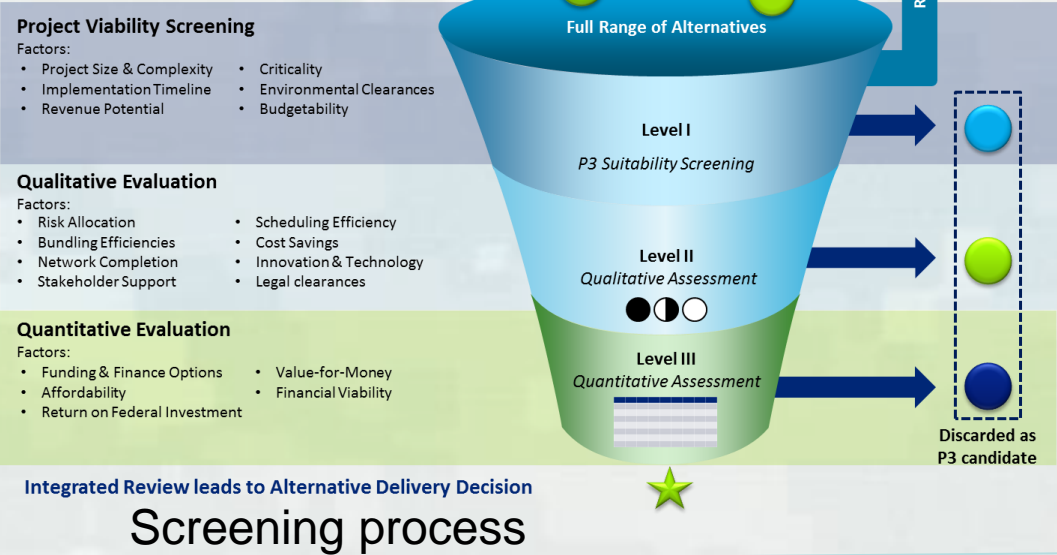
# WRRDA 2014 Section 5014 Public-Private Partnership (P3) Pilot Program

## Major P3 Efforts Underway

- Draft Implementation Guidance for P3 Pilot Program under review
- P3 Vertical Teams forming and meeting regularly
- Initial P3 Demonstration Projects being conceptually developed
- Development of Illinois Waterway (IWW) P3 Demonstration Project
- Project structures and funding mechanisms to finance P3 projects being explored
- Identification of process/authority/legal hurdles to IWW P3 implementation



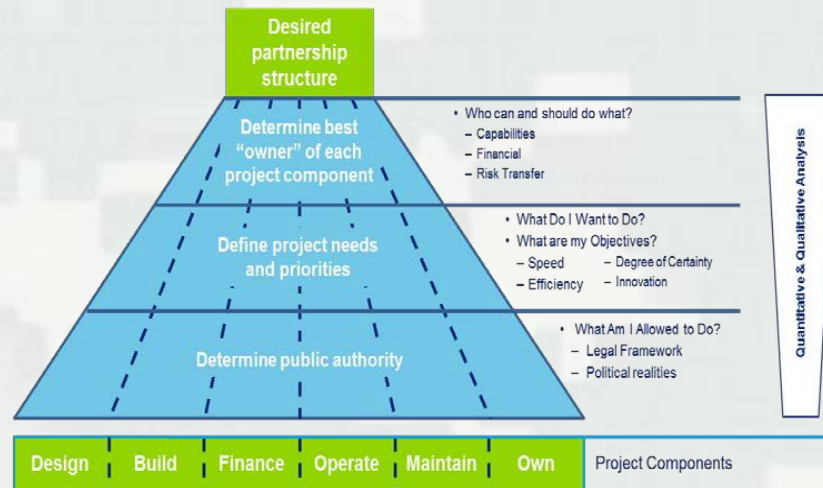
# Demo Project Screening & Structuring



## Designing the structure

## Structure

A systematic process assists in ensuring that the sources of value generation are addressed and maximized in structuring a partnership



# Public-Private Partnership Illinois Waterway P3 Project



## IWW P3 Demonstration Project

- Exploring potential for P3 Pilot Program (WRRDA 2014) to assist in addressing aging navigation infrastructure
- Help address Federal maintenance backlog
- Provide alternative funding sources to address maintenance needs
- Speed up repairs and upgrades to aging lock and dams (reset system in 7-10 years)
- Greatly improve navigation system reliability (>50% vessels experienced delays on IWW in 2014)
- Reduce risks to users/shippers and improve the economic viability of the nation



# Public-Private Partnership IWW P3 Project

## 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
- Potential Benefits: Accelerate maintenance efforts, reduce costs, reduce delays and risks
- 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

### Demonstration Project Status

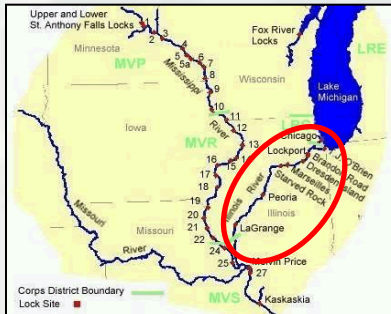
- Meeting regularly with partners, stakeholders, and decision makers to conceptually discuss/evaluate IWW demonstration project structure, needs and challenges
- USACE sharing navigation information to inform P3 process
- Draft P3 Program Implementation Guidance being reviewed at ASA and OMB
- DRAFT IWW P3 proposal being developed by the Illinois Soybean Association (ISA), completing economic analysis as part of this effort
- IWW P3 group working with Illinois to establish State involvement
- Working with industry partners to get input/feedback on funding mechanisms and risk buy down (business models)
- Coordination gaining momentum with Midwest State partners and stakeholders



# Public-Private Partnership IWW P3 Project

## Way Ahead

- Continue to work with partners, stakeholders and senior decision makers to develop and implement the IWW P3 Demonstration Project
- IWW P3 Team (MVR, MVD, IWR, ISA, and others) meets regularly to advance the effort
- Identify key implementation hurdles and work with stakeholders and leaders to advance solutions
- Next steps (by December): Further refine and communicate IWW P3 project, Meet with Illinois to establish non-Federal partner, ISA completes economic analysis, Build stakeholder coalition
- Potential for P3 Federal authority and funding in FY17



# Public-Private Partnership IWW P3 Project

## Closing Thoughts

- **A Serious Problem:** Civil Works infrastructure deterioration and risks are growing
- **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
- **Benefits:** IWW P3 would accelerate inland navigation maintenance efforts, reduce costs, reduce delays and risks to users; improving the economic viability of the nation
- **Next Steps:** Continue to work closely with partners to advance the IWW P3

