



ASCE Alternative (P3) for Waterways Infrastructure Subcommittee

Briefing on the USACE Alternative Finance
Pilot Program

ASCE COPRI

- The Coasts, Oceans, Ports & Rivers Institute, (COPRI) was created in 2000
- The purpose of the Waterways Committee created in Nov 2014:
 - study and report on methods and problems of planning, design, construction, maintenance, and operation of waterways
 - including dredging, stabilization, navigation, flood control and regulation, with consideration of their effects on the environment.
 - The committee coordinates with the Ports and Harbors Committee as well as other technical committees.

Purpose and Goals

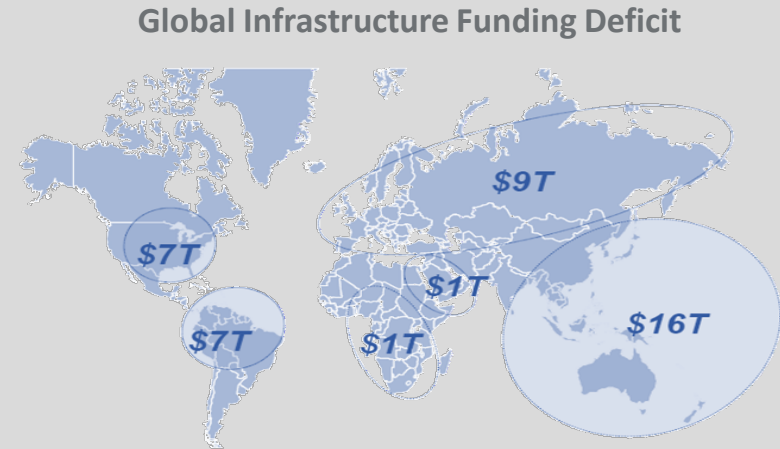
- The Alternative Finance for Waterways Infrastructure Subcommittee has three defined goals – Educate, Advocate and Facilitate
- To Educate – we have engaged the Alternative Finance Team at the USACE HQs and USACE Institute of Water Resources in publishing papers on P3s being implemented by the USACE as Public-Public-Private-Partnerships (P4s)
- To Advocate – we are publishing a Finding's Report for Testimony in Congress

Goals and Workshops

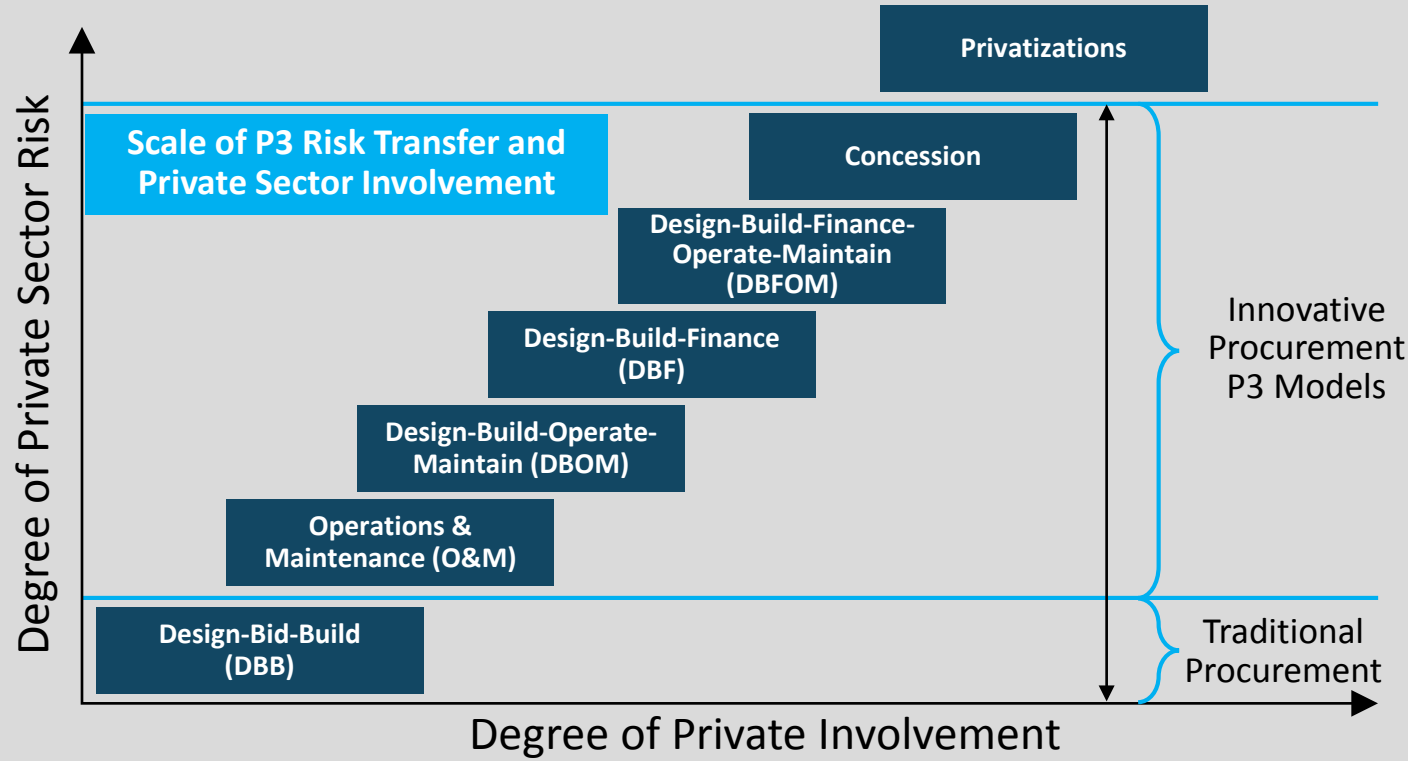
- To Facilitate – we have been holding workshops
- Our 1st workshop was held in New Orleans with over 100 targeted Non-Federal Sponsor and Stakeholders were in attendance. September 10, 2015
- Our 2nd workshop will be held in New York City on January 22, 2016. Again, the Non-Federal Sponsors and Stakeholders, USACE HQs, North Atlantic Division, New York District and Baltimore District
- Our 3rd workshop was in St. Paul, and
- Our 4th workshop was in the SF Bay Area with their respective Divisions and Districts of the USACE

The Need for Private Capital

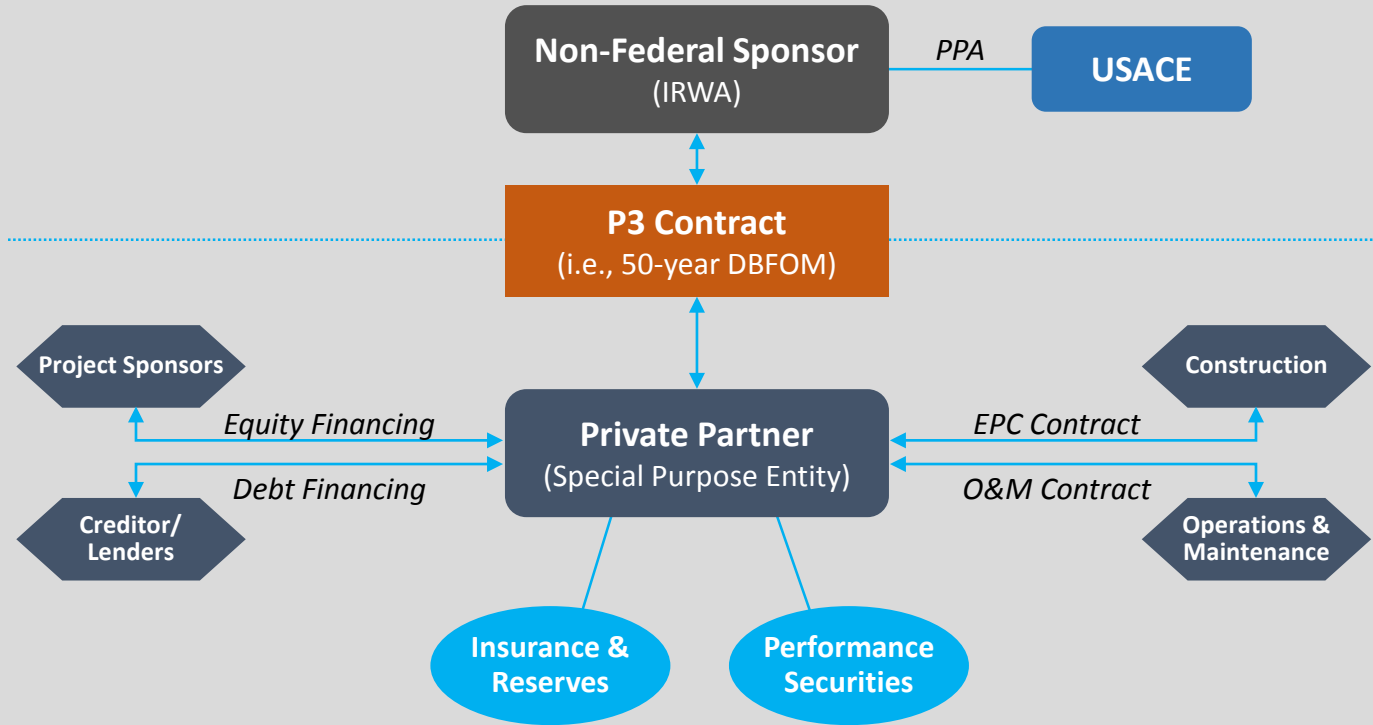
- Global infrastructure investment needs by 2030 estimated at **\$57-\$67 Trillion** (OECD/WEF)
- US infrastructure needs estimated at over **\$7T** by 2030, **\$4.7T** by 2025 years or **\$3.6T** by 2020
- Majority of these investments cannot be funded by public authorities alone
- Further, governments and public agencies being asked to do more with less



Spectrum of Infrastructure Procurement



P4 Model

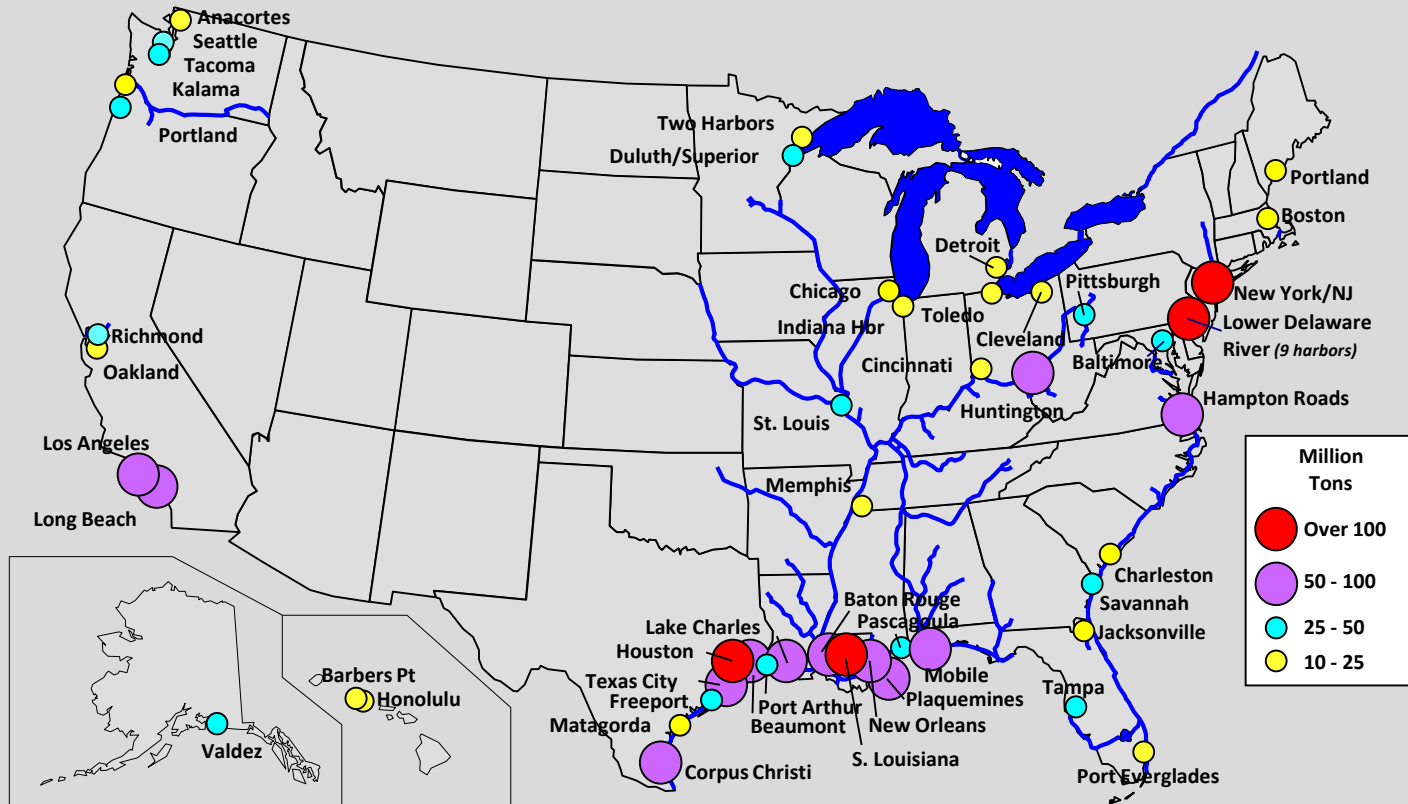


Waterways Infrastructure Opportunity

- Infrastructure Investment = Global Challenge
- 3,000+ Operational Projects, with Replacement Value of \$268B
- USACE Civil Works Asset Classes are Diverse
- Demands on Civil Works are Expanding with SLR / Climate Change
 - Requires Very Difficult Choices in a Declining Budgetary Climate → \$5.5B/year
 - Civil Works Infrastructure Aging, 50% locks > 50 years old with 52 interruptions/day
 - ASCE: Dams, Levees, IWW's = "D" → \$140B by 2020 and \$60B Congressional Backlog
- Infrastructure Strategy
 - Asset Management
 - Life Cycle Portfolio Management
 - Alternative Financing – Public-Public-Private-Partnership (P4)

USACE Alternative Finance Program

- Ongoing P3/P4 Demonstration Program (within Existing Auth/Policy)
 - Most Sophisticated: Illinois Waterway (Inland Navigation O&M)
 - Most Mature: Fargo-Moorhead Metro (FRM Construction)
- Administration Interest
 - OMB
 - White House Build America Initiative → Water Infrastructure
 - April 2015 Treasury Report → “....years of underinvestment in our public infrastructure have imposed massive costs on our economy”
- Sponsors and Stakeholder Interest
- Challenges and Issues Under Discussion
 - Revenue Generation and Ring Fencing; Budget Ranking and Scoring



95% of all U.S. imports & exports -- about \$1.4 trillion
-- move on waterways and/or ports.

Tonnage on Domestic Waterway

- 12,000 miles of inland waterways
- 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
 - 60% of nation's grain exports
 - 22% of coal for electricity generation (10% of all electricity used in the U.S.)
 - 22% of domestic petroleum and petroleum products

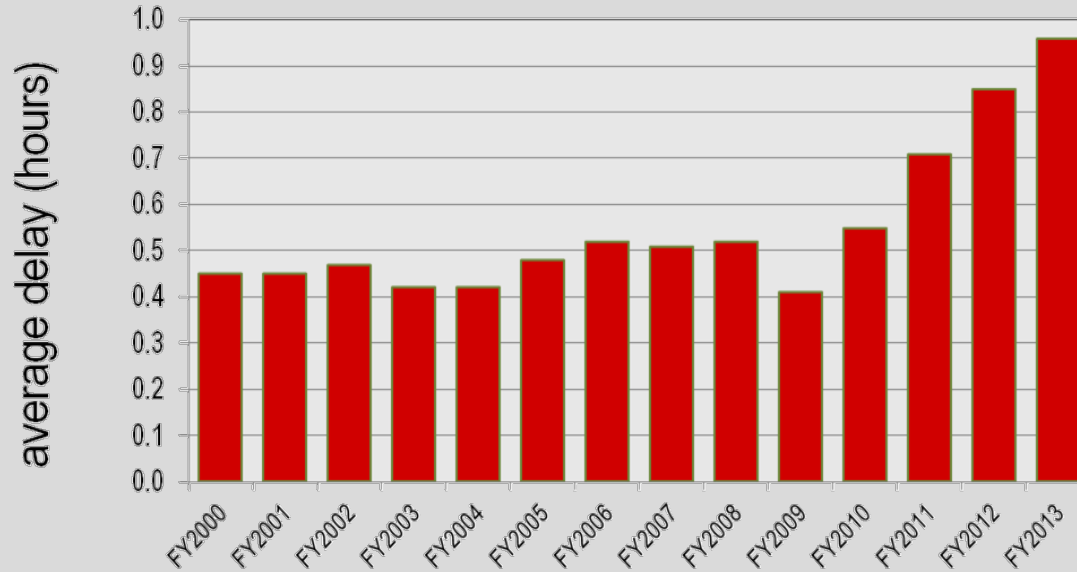


Continued Declining Rating

- Much of our nation's infrastructure is aging and investment is lacking
- System performance is unsustainable at current investment levels
- We need a resilient, reliable and sustainable 21st century infrastructure to remain globally competitive



Vessel Delays at Locks



Since 2000:

- ~50% decrease in availability
- Twofold increase in scheduled outages

Illinois Inland Waterway (IWW)



- The eight IWW Locks and Dams were constructed in the 1930s and are past their design life - aging navigation infrastructure is experiencing significant deterioration
- Corps O&M budget is not keeping up with need, the IWW has \$600M in deferred unfunded maintenance needs
- Reliability of the system is decreasing and risks are increasing

- Helps address Corps navigation deferred maintenance and associated system risks
- Greatly speed up repairs to aging lock and dam infrastructure (reset system in 7-10 years)
- Provide significant cost savings to the Federal Government
- Improve reliability of this vital navigation system (>26M tons/\$10B shipped through LaGrange in 2014)
- Reduce risks to users/shippers and improve the economic viability of the nation



The Way Ahead for IWW

- **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:** Further refine and communicate IWW P3 project, Work with Illinois Governor and Legislature to establish non-Federal partner, Build stakeholder coalition, ISA completes economic analysis

Fargo Moorhead Diversion

- Major Flooding in 51 of Past 113 years, Every Year from 1993 through 2014 Except 2012
- 225,000 People Live and Work in Fargo-Moorhead Metro Area
- Major Health, Educational, Cultural and Commercial Center
 - Generates \$4.35 billion in Annual Non-Farming Wages
 - Generates Over \$2.77 Billion in Annual Taxable Sales
 - \$14 Billion in Property Value
- North Dakota is Second in National Oil Production (Over 1,000,000 barrels/day)
 - Roughly Half the Oil Travels Through Fargo-Moorhead on the DOD's Strategic Rail Corridor Network (STRACNET)

Diversion Channel: Non-Federal Sponsors

- Southern Embankment (dry dam) and Mitigation: Corps/Sponsor



Recent USACE Activities

WEBINARS held in December 2018

- Provide information on Public Private Partnerships (P3) policy
- Initiate discussions on establishment of a P3 pilot program
- Provide information on the Federal Register notice
- Identify known constraints

Recent USACE Activities

ASA(CW) 13 September 2018 Memo directs:

- Identification of up to 10 additional pilot projects.
- Must generate significant national or regional economic and public benefits
- Initial Screening and Selection Criteria
- Corps budget will be based on capabilities.
- Requires life-cycle budget submission on all projects
- Corps to exercise governance and oversight on projects.
- P3 program to be overseen by USACE Infrastructure Team.

Recent USACE Activities

Initial Screening Criteria - Viable P3 project proposals must:

- have a construction cost in excess of \$50 million;
- have non-federal sponsor support;
- include design, build, finance, operation and maintenance (DBFOM) or some combination thereof for federally authorized projects;
- accelerate project delivery;
- have the ability to generate revenue or leverage non-Federal funding sources;
- be executable under existing authorities
- provide a **qualitative assessment** demonstrating that the P3 will deliver the project faster and/or more cost effectively than traditional delivery
- analysis on the “value of money” will be needed in the future and guidance will be provided but it is NOT required for initial submissions.

Recent USACE Activities

Selection Criteria - Viable P3 project proposals will be ranked on the following:

- **Return on Federal Investment (ROFI):** ROFI will be calculated by annualizing the total project benefits and Federal costs utilizing the current discount rate, and applying the formula: $(\text{Benefits} - \text{Federal Costs}) / (\text{Federal Costs})$.
- **Replicability:** Proposed P3 structure or underlying concepts may be applied to other prospective projects.
- **Reliable Funding Sources:** Reliable non-Federal funding sources for the construction, operation and maintenance of Federally authorized water resource projects are identified.
- **Risk Allocation:** Project effectively allocates delivery and performance risk to non-Federal entities and minimizes Federal direct and contingent liabilities associated with the project.

Recent USACE Activities

Federal Register Notice (Vol. 84, No. 22 on Friday, February 1, 2019)

- Submittals due on or before April 2, 2019.
- Request for information on conceptual P3s for delivery of specific USACE Civil Works Projects.
- Encouraged, but not required, to coordinate with the local USACE District.
- Submittal information will be detailed in P3 Fact Sheet.
- Information provided about known constraints.
- Request for ideas on how to address equity concerns (not required).

Recent USACE Activities

P3 Known Constraints - Information provided by USACE

- Ash Center for Democratic Governance and Innovation. (2017). *Tapping Private Financing and Delivery to Modernize America's Federal Water Resources*. Cambridge, MA: Harvard Kennedy School.
- Alternative Financing for Waterways Infrastructure Final Report by American Society of Civil Engineers (ASCE) Coasts, Oceans, Ports, and Rivers Institute (COPRI)
- Federal Project Benefit Cost Ratio and Scoring Information Paper by ASCE COPRI
- CBO Economic and Budget Issue Brief (2005). *Third Party Financing of Federal Projects*.

Recent USACE Activities

P3 Known Constraints

- Revenue Generation and Ring Fencing -Ability to Collect, Retain and Reinvest Fees/Charges;
- Budget-Based Compensation Structures -Inability to Make Commitments on Future Appropriations;
- Enabling framework and authorities to implement P3 projects;
- Long-term contract authority;
- Budget scoring -Scores Full Federal Project Cost Up Front in First Year; and
- Budgetability-Prioritization of Projects Within Current Budget Policy (Benefit-Cost Ratio)
- P3 on Federally owned assets including navigation and hydropower, both have existing challenges with authorities and budget scoring. These challenges should be considered and understood when providing a response to this request.

Recent USACE Activities

Equity Concerns

- Request for ideas on how to address equity concerns (not required)
- General concern about wealthy communities being able to move up in priority compared to less wealthy communities.
- Ideas on how this could be addressed may include means, methods, analysis, or other modifiers that could allow for an equitable distribution of projects.

Next Steps - Process and Timeline

- **Feb – Apr 2019: Federal Register notice for external proposals**
- **Jan 2019: Internal requests to MSCs and Districts for proposals**
- **Spring 2019 -Preliminary pilots identified and coordination with submitter, sponsor, and district.**
- **Spring 2019–Coordination with ASA(CW) on possible pilots**
- **Spring 2019 -Feedback from participants to improve future process.**

Annual request for information will be issued and posted in the Federal register around January.

Please join us!

Dennis Lambert, Chair

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Any Questions