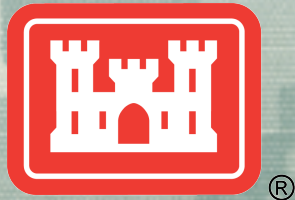
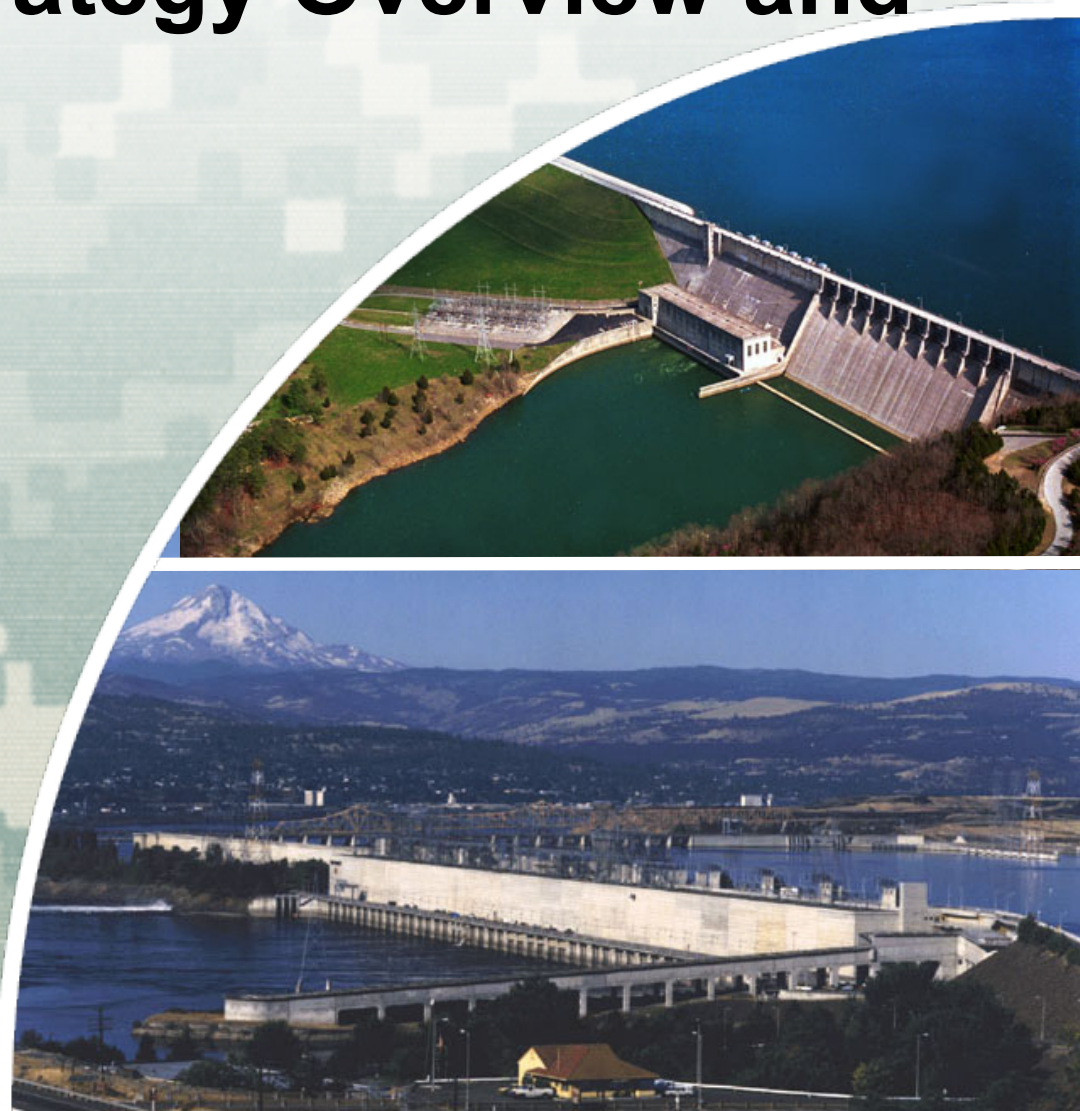


Western Dredging Association Eastern Chapter Annual Meeting Infrastructure Strategy Overview and P3/P4 Review

Edward J Hecker
Senior Policy Advisor
Institute for Water Resources
US Army Corps of Engineers
Alexandria, Va
29 October 2015



US Army Corps of Engineers
BUILDING STRONG®



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" → \$140
- **CW Infrastructure Systems Aging, Experiencing Negative Performance Trends Across Portfolio (Serviced by ~\$4.6B Annual Budget Nationally....)**



Navigation Investment Challenges

- The United States is a Maritime Nation
- Navigation Infrastructure Investment is an Essential Component of a Vibrant Economy and Global Trade
- Federal Fiscal Constraints will Persist
 - ▶ Unfunded Backlog of Authorized Navigation Projects (Some Sponsors Accelerating non-Federal Share and/or Advancing Federal Share of Deepening Projects)
 - ▶ Doesn't Provide for Authorized Channel Dimensions (Some Sponsors Providing Contributed Funds)
- Low Commercial Use Projects: Underfunded or Unfunded
- Other Business Realities: Increased Cost of Doing Business; Aging Infrastructure; Environmental Restrictions and Placement Sites Increasing Costs



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/P4 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

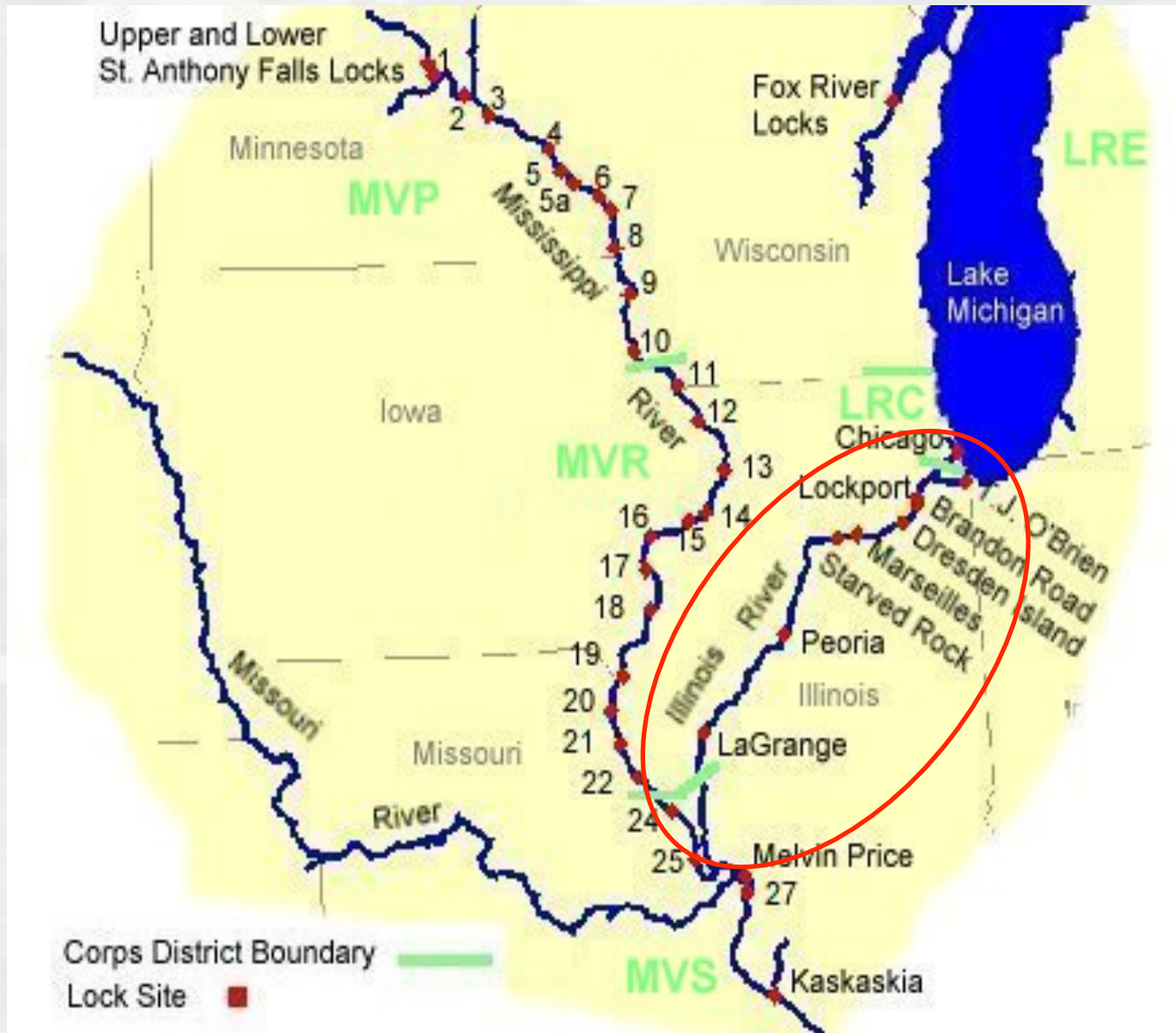


Corps' P3/P4 Journey

- **Ongoing P3/P4 Demonstration Program (w/i Existing Auth/Policy)**
 - ▶ Most Mature: Fargo-Moorhead Metro (FRM Construction)
 - ▶ Most Sophisticated: Illinois Waterway (Inland Navigation O&M)
- **Administration Interest**
 - ▶ OMB
 - Exploring Revenue Generation Options
 - Exploring Alternative Budget Scoring Approaches (i.e. FROI)
 - Discussing Policy Framework for P3 Investment
 - P3/P4 vs Privatization/Divestiture
 - ▶ 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.”*
- **Congressional, Sponsor and Stakeholder Interest**
- **Challenges and Issues Under Discussion**
 - ▶ Legislative: Revenue Generation and Ring Fencing
 - ▶ Budgetary: Budget Ranking and Scoring for P3 Transactions



Illinois Waterway



IWW P3 Demonstration Project



BENEFITS

- 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

CHALLENGES

- The eight IWW Locks and Dams were constructed in the 1930s and are past their useful 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 to users/shippers are increasing with repeated service interruptions negatively impacting commerce
- Many issues remain to close an IWW P3 (e.g., revenue stream development, identification of non-Federal partner, building user coalition, advancing a system budgeting project, no authority or funding)

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 (3 months): 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

P3/P4 Challenges

- **Payment Mechanisms, Availability Payments**
 - ▶ Inability to Make Commitments on Future Appropriations
- **Budget Scoring**
 - ▶ Scores Full Federal Project Cost Up Front in First Year
- **Revenue Generation and Ring-Fencing**
 - ▶ Ability to Collect, Retain and Reinvest Fees/Charges
- **Budgetability**
 - ▶ Prioritization of Projects Within Current Budget Policy (Benefit-Cost Ratio)



Section 5014 of WRRDA 14

- **Section 5014 of WRRDA 14**

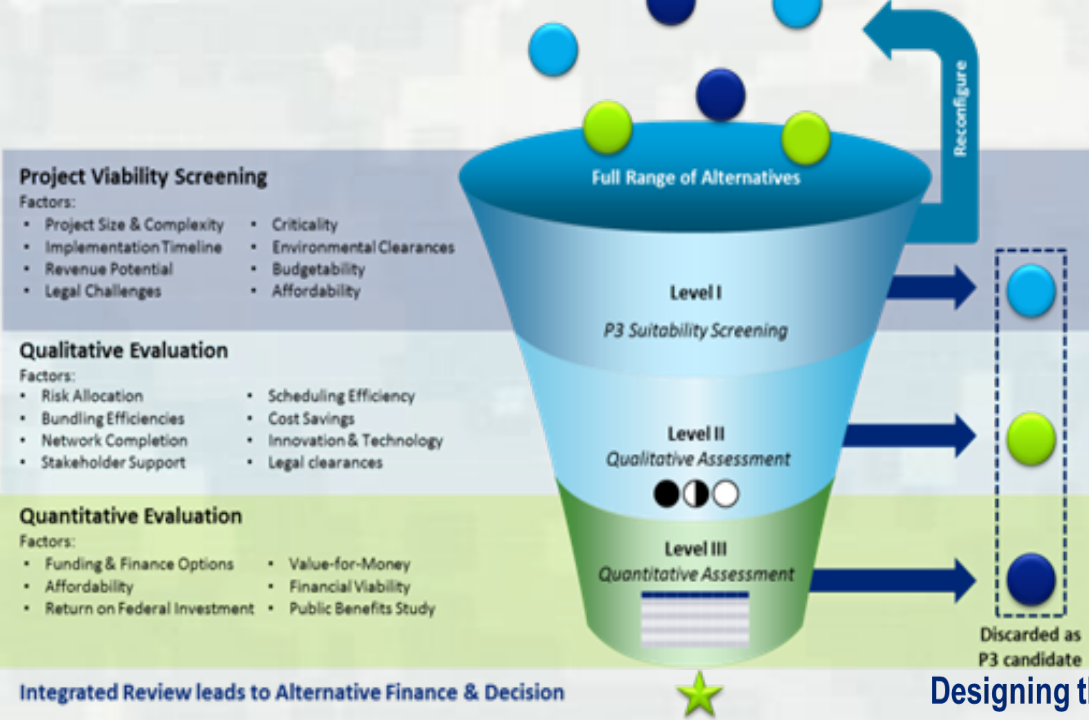
- ▶ Implementation Guidance Issued 30 Sep 15
- ▶ No Implementation or Further Action on Pilot Projects Unless/Until Appropriations Provided

- **Section 5014....**

- ▶ Sets Forth a Process for Implementing a P3 Pilot Program
- ▶ Allows for Design/Build/Finance P3 Structure
- ▶ Focus on Authorized Backlog (Construction)
- ▶ Encourages Greater Non-Federal Investment in Infrastructure



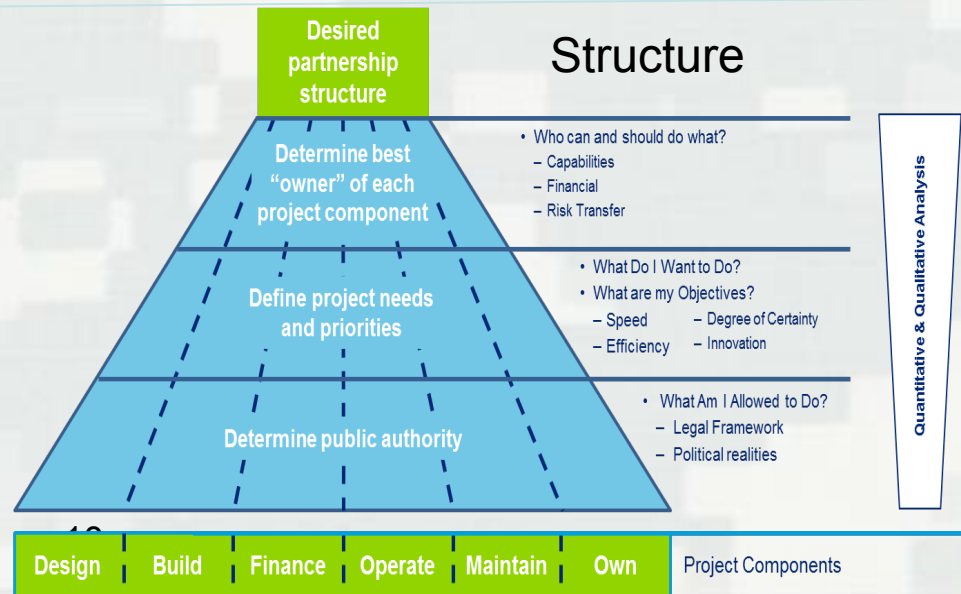
Demo Project Screening & Structuring



Screening process

Designing the structure

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

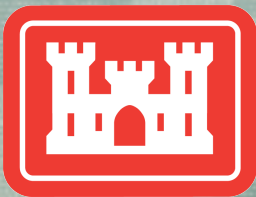


Closing Thoughts

- **Addressing the Nation's Infrastructure Investment Needs and Challenges is a Shared Responsibility...Not Just About Current and Future Corps "Portfolio"**
- **Infrastructure Investment: Financial (and Generational...) Challenge**
- **P3: Another Tool in Toolbox...Not Magic (and Not Entirely New)**
- **P3 is Not Just About Money...It's About Transferring Risk that will Accelerate Project Delivery and Accrual of Benefits to Achieve a Lower Lifecycle Cost**
- **The Corps Doesn't Deliver Anything by Itself... Critical that We not Lose Focus on Traditional Resourcing Engines and Our Local Sponsors as We Leverage Alternative Financing**
- **Need Some Creative "Game Changers" to Develop New Ways to Address Infrastructure Needs (Both Existing and New Systems)...**
What are YOUR Ideas?

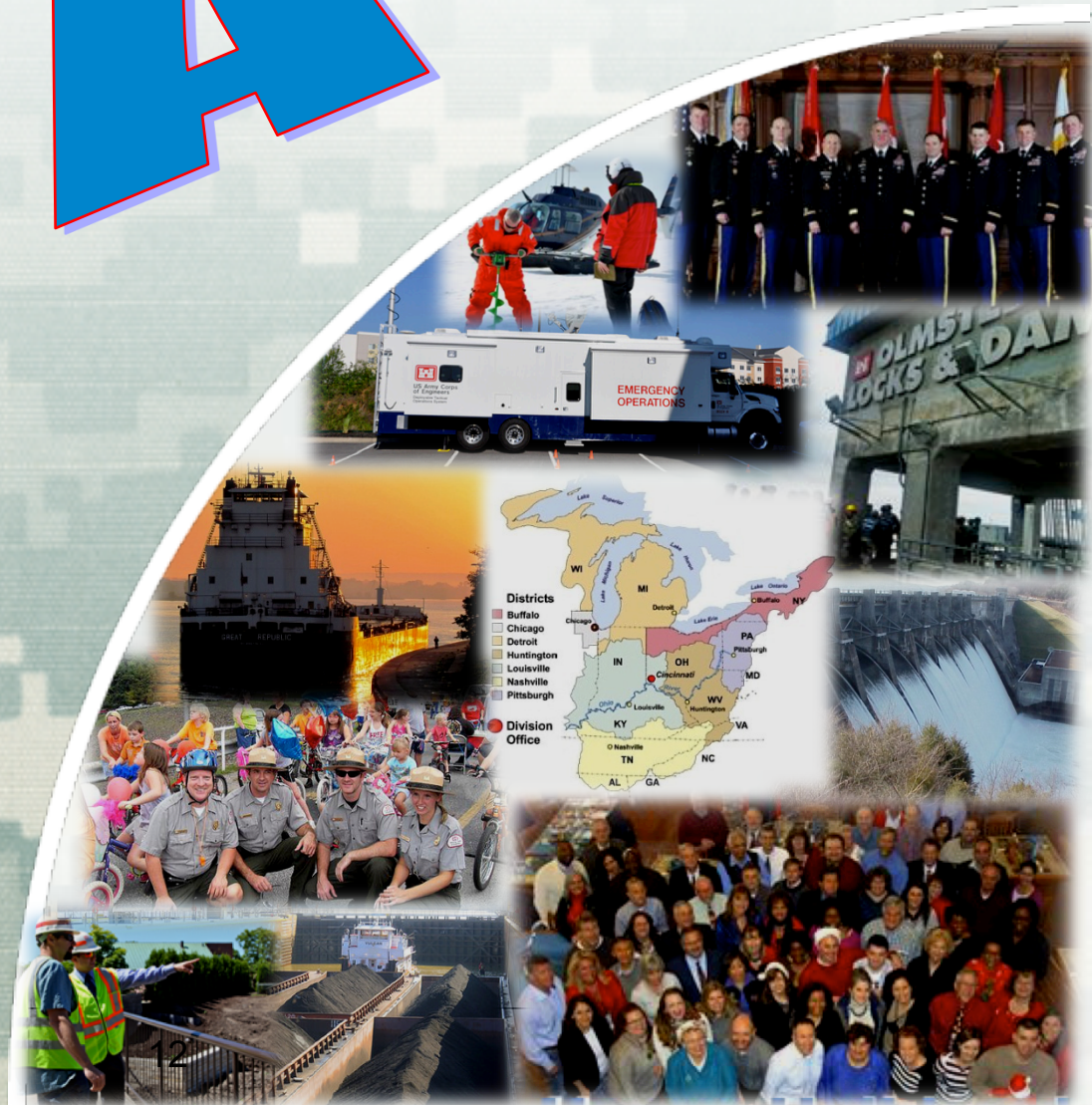


Q1A



®

US Army Corps of Engineers
BUILDING STRONG®



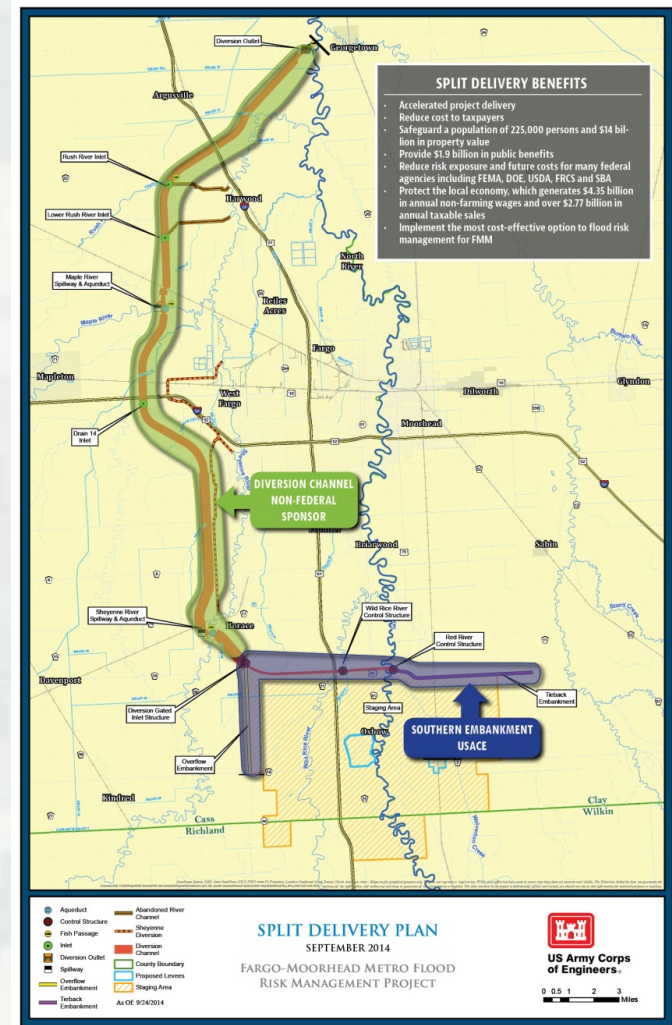
Fargo-Moorhead Metro Project, ND/MN

- **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)



P4 Split Delivery Plan

- **Diversion Channel: Non-Federal Sponsors**
- **Southern Embankment (dry dam) and Mitigation: Corps/Sponsor**
- **Accelerates Project Delivery with Optimal Delivery Schedule of 6.5 Years, within Existing Authority**



IMPLEMENTATION ... SPLIT DELIVERY VS. TRADITIONAL



TOTAL
16 YRS+ / \$850M+ ... ? ...
BUILDING STRONG®

Great Lakes Demonstration Project

- Background
 - ▶ USACE spends approx \$40M on dredging and dredged sediment disposal on the Great Lakes annually
 - ▶ Only a portion of the 135 harbors can be dredged due to funding constraints
 - ▶ Three Challenges: dredging backlog, dredged material treated as a waste product and confined disposal facilities are nearing capacity
- Where we are
 - ▶ Sources sought released Jan 2015; Industry Forum held on 10 February; one-on-one discussions conducted April-Jun. Transition from Division Research & Development Phase to District Execution Phase completed Sept 2015.
- Next Steps
 - ▶ Partnering with Toledo-Lucas County Port Authority to explore a P3/P4 arrangement for annual maintenance dredging at Toledo Harbor, possibly establishing a Great Lakes Dredged Material Center for Innovation. The Port Authority would like to accomplish various pilot studies with beneficial use of dredged material to help determine best practices in agricultural field improvements, soil blending, and other applications.



Sabine-Neches Demonstration Project

- Background

- ▶ \$1.2 billion channel deepening project in the Sabine-Neches waterway would provide \$7.8 billion in regional benefits annually for additional 6 foot depth

- Where we are

- ▶ Project on hold as an existing authorities demonstration project pending revised B/C analysis and stakeholder evaluation
- ▶ Local Sponsor is not willing to finance and charge stakeholders for the federal share of the project
- ▶ Given low/non-competitive Benefit-Cost Ratio, the project would not likely be funded from federal appropriations without special Congressional action
- ▶ Acceptance of advanced funds would eliminate OMB scoring issue

- Next steps

- ▶ Non-Federal sponsor assessing funding options with existing users of the SNWW
- ▶ Final update of economic/cost data expected in Fall/Winter 2016 may spur potential investor interest
- ▶ Economic/cost update will include an update of total project costs

