"Innovative, alternative delivery method for rehab/replacement of locks and dams"

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Describe challenges facing large public water infrastructure projects, and propose an alternate delivery model to expedite and improve delivery of these projects.



Agenda

- Problem definition
- Delivery model options
- New delivery model enablers
- Challenges
- Opportunities
- Case studies
 - Alameda Corridor
 - Midwest Waterways
- Discussion



Problem Definition

- \$60B in backlogged water infrastructure projects
- D- grade from ASCE
- Existing infrastructure mainly beyond design life
- Majority of projects are Federal responsibility
- Limited Federal budget for the foreseeable future
- Increasing demand for waterborne cargo movement (congestion, Panama, green transportation, increased domestic energy production)

Result: Many more requirements than available Federal funding

Potential Project Delivery Models

- Status quo: Fully Public wait on federal funding, Corps managed projects
- Fully privatized approach private equity, private O&M
- Hybrid approach: Construction projects managed by non-Federal entity, facilities remain Federal for long-term O&M



Delivery Model Spectrum

	Fully Public	Public-Private Partnership	Fully Privatized
Financing	Fed budget / IWTF	P3 Model, Majority Non-Fed	Private, Venture Capital
New Locks in Operation	2026 or later	8 years from start	8 years from start
Governance	Federal-led	Local Joint Power Auth.• Corps• Shipping• Producers• Environmental• Labor• Others	Commercial company
O&M	Federal / Corps	Rehab: JPA Long-term: Corps	Commercial company
Owner	Corps	Corps	Commercial company, long-term lease

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Public-Private Partnership Enablers

- Authorizing Legislation
- Governance
- Financing
- Private/Commercial Delivery





Public-Private Partnership Enablers Authorizing Legislation

- To allow/direct the Corps to transfer project control to a non-Federal organization
- Maintain Federal connection through long term O&M



- Corps is team member rather than project manager
- Requires strong congressional and state level legislative support
- Authorized project or eligible "pilot projects"

Public-Private Partnership Enablers Governance

- Existing or new non-Federal organization to lead/manage project – become "owner operator" of project
- Project partnership agreement with Corps
- Must have revenue collection, financing and contracting authority and ability
- Represents all major stakeholders



Public-Private Partnership Enablers Financing

- Timely capital provided for efficient construction
- Non-Federal or private sources willing to accept P3 risks
- Non-Federal or hybrid revenue stream to service debt
 - o State/local bonding
 - o Federal backed loans
 - o Other federal revenue sources
 - USACE O&M funding
 - Future IWTF funding
 - Other
 - \circ User fees
 - o Other beneficiaries' fees



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Public-Private Partnership Enablers Private/Commercial Delivery

- Directed by governing organization with non-federal members
- Controls cost and schedule
- Leverages efficiencies and private sector best practices.
- Responsive directly to stakeholder needs
- Balanced risk/rewards
- Risk appetite for new delivery model
- Tolerance for complex delivery tactics



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Challenges

- Diverse stakeholders with diverse and competing objectives
- Revenue to service debt
- Users' willingness to pay for services
- No existing regional governance organization
- Congressional log jam for legislation
- Prioritizing prospective pilot projects
- Fierce pricing competition in transportation industry
- Volatility of shipping demand

... Very complex undertaking



Opportunities

- Accelerate improvement of deteriorating infrastructure
- Doesn't rely on federal funding
- Improved system reliability (Reduced river closures, etc)
- Potential increased navigation volume
- Potential hydropower generation
- Reduced congestion and deterioration on other modes
- Jobs creation
- Model likely to garner bi-partisan support



Example: Alameda Corridor Transportation Authority

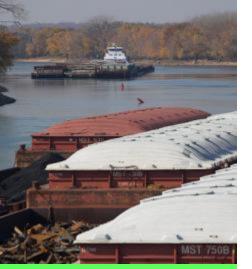






- 20-mile long rail cargo expressway in southern Los Angeles County connecting the ports of Long Beach and Los Angeles north to downtown Los Angeles.
- <u>Project need</u>: The Alameda Corridor was developed in response to concerns that the rail network serving the ports was not sufficient to handle cargo volumes.
- Project origin: In 1981, the Southern California Association of Governments created the Ports Advisory Committee to address concerns about the ability of the ground transportation system to accommodate port traffic . The PAC formed the ACTA.
- <u>Governance:</u> The project was built by the Alameda Corridor Transportation Authority a joint powers authority formed by the cities and Ports of Long Beach and Los Angeles for the purpose of designing and constructing the Alameda Corridor.

- <u>Alameda Corridor Operating Committee</u>, includes representatives from the major railroads and provides user feedback to the ACTA.
- <u>Construction:</u> \$2.4B project that consolidated four low-speed branch rail lines, eliminating conflicts at more than 200 at-grade crossings, providing a high-speed freight expressway, and minimizing the impact of freight movement on communities. Started in 1997 and completed in 2002
 - <u>Financing:</u> \$2.4B financing including federal, local and private funding. Railroads agreed to pay user fee to create revenue stream to repay debt.
 - <u>Results:</u>
- - 106% growth in cargo movement within the Corridor (2003 -2008)
 - o 32% increase in TEUs transported (1 year)



Program Scope

- Design, construct
 1,200'chambers at
 5 Mississippi River and
 2 Illinois River locks
- Total program cost \$4.4B
- Balanced ecosystem restoration



Case Study: Midwest Waterways P3

<u>Project</u>: Use of a P3 or other innovative financing to deliver USACE's Navigation Ecosystem Sustainability Program lock expansion program.

<u>Problem statement</u>: No federal funding for NESP in FY12 -FY14 budgets, despite support from industry (commodities, navigation) and environmental groups.

Challenges/Risks:

- Very complex stakeholder environment.
- No Regional Governance Authority to oversee program.
- Lack of consensus how to generate revenue.
- First-of-its-kind opportunity with USACE.

<u>Desired Outcome</u>: Develop a new P3 model to finance and deliver the upgrade / construction of the locks covered by NESP.



Phase 1

- Design, construct 1,200' chambers at 2 Mississippi River and 2 Illinois River locks
- Est cost \$400M per lock
- Operational in 8yrs

Phase 2

 3 locks on the Upper Mississippi River



Status of Midwest Waterways Initiative

Legislation

- Language proposed to authorize a P3 pilot program for water infrastructure
- P3 Pilot program included in both the Senate and House versions of WRRDA/WRDA

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o Bi-partisan support from Illinois² federal delegation

Governance

- o Initial discussions with vested stakeholders
- o Potential organization structure developed

Funding

- Private capital interested in viable investment opportunities
- o Revenue stream still to be resolved

Delivery

o Private delivery capacity available

Next steps

- Continue the push for authorizing legislation
- Refine/establish non-federal governance organization
- Develop consensus on the financing structure and revenue stream
- Continue engagements with expanded group of vested stakeholders





Discussion