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Potential and Implementation of Alternative Funding and Finance of the USACE Civil Works Mission: APPENDIX B

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USACE Civil Works Mission and the Potential for Alternative Financing

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Summary of Potential Alternative Finance Strategies

The first phase in the development of a White Paper on alternative finance for USACE is the compilation of an annotated summary of strategies with the potential to expand and enhance funding for the Civil Works Program. The strategies have been drawn from successful examples currently applied by USACE, effective practices at work in other federal agencies, and proposals identified in a review of the literature on innovative finance for infrastructure investment. The strategies can be organized into four overall categories: a) techniques for increasing capitalization; b) opportunities for enhancing user fee collection; c) strategies for asset divestiture and privatization; and d) other revenue enhancement techniques. The strategies that are candidates for further research and investigation during development of the White Paper are summarized below.

A. **<u>Techniques for Increasing Capitalization</u>** - Funding for the Civil Works Program has traditionally relied on annual federal government appropriations to provide direct project grants that are used in conjunction with local cost share contributions. The strategies summarized below are designed to leverage federal funds and expand the pool of funds available to recapitalize the vital infrastructure currently maintained by USACE.

1. **Public Private Partnerships (PPPs)** - USACE has entered into a variety of partnerships with private parties (i.e., for-profit firms, not-for-profit organizations, cooperatives) to advance projects and augment federal funds. Examples include site concessions at Corps recreational facilities, hydropower licenses, and partnerships on ecosystem restoration. Additional effective practices can facilitate expansions of PPPs for Civil Works projects. These practices can help USACE leverage federal funding with private capital, transfer the risk of cost and schedule overruns and lifecycle cost escalation, and promote efficiency in project delivery.

1.1. ***PPP Project Delivery Methods*** - There are several key forms PPPs can take to expand the project delivery options used by the Corps and local government stakeholders.

1.1.1. Long-term lease to operate a facility funded through the collection of fees (Design Build Operate Maintain + Finance – DBOM+F)

1.1.2. Availability Payment program where a private party would be responsible for design, construction, and operations and would be reimbursed by USACE as long as standards are met (DBOM). This allows USACE immediately fund projects through small appropriations stretched over time.

1.1.3. <u>Design Build</u> - USACE would enter into firm fixed price contract for design and construction transferring cost and delivery risk to private party.

1.1.4. <u>Maintenance Program</u> - USACE would contract out ongoing maintenance for firm fixed price. Private partner would adhere to standards and assume risk of O&M cost escalation.

1.2. ***Financing to Facilitate PPPs*** - Federal and state agencies have identified several effective practices in project finance to encourage and facilitate private partner participation.

1.2.1. <u>Credit Assistance/Enhancement Program</u> - Establish a program to encourage PPPs and assist local governments with project finance. Program could be modeled on successful USDOT programs (TIFIA and RRIF). The program could offer the following products.

1.2.1.1. *Loan Guarantees* - The program would provide a repayment guarantee for bank loans to substantially reduce the cost of borrowing by PPP participants.

1.2.1.2. *Bond Insurance* - The program would provide guarantees to bonds issued by states, municipalities, and public authorities to reduce the cost of borrowing and increase bonding capacity.

1.2.1.3. *Construction Bridge Loans* - The program would provide construction period funding at reduced cost.

1.2.1.4. *Subordinate Loan* - The program would provide subordinate tranche loans to reduce amount and cost of borrowing for non-federal parties (municipalities and/or private partners in PPPs.

1.2.1.5. *Reserve Funding or Guarantee* - The program could pledge funds to cover project debt service reserve or O&M reserve (bank loan or bond issue).

Rates for these products would be at the federal government cost of borrowing but could include premium or upfront points to cover repayment risk and administrative costs. Rate premium could be set to a sliding scale based on applicant need, credit risk, and project purpose and need. Program rules would ensure priority over disbursements to equity and standards for maintenance and handback of the asset to the government at the end of the lease term.

1.2.2. <u>Bond Solutions</u> - USACE could seek legislative authorization to provide new sources of bond financing for projects. This could include the following.

1.2.2.1. *Private Activity Bonds (PABs)* - Removal of the allocation cap for PABs for all USACE project purposes (including FRM, water supply, waterborne transport infrastructure). Uncapped PABs authorization (as is current practice in USDOT regulated transportation sector) would allow private partners in PPPs to issue tax-exempt bonds funding through user fee revenue streams.

1.2.2.2. *Bond Underwriting* - Implement government backed bond issues available to municipalities and public authorities modeled after the successful Build America Bonds (BABs) program.

1.2.3. <u>Revenue Sources</u> - Non-federal partners, whether private partners or state or municipal authority partners, will require ongoing revenue sources to finance their contribution to project capital and/or maintenance costs. USACE can provide access to or identify sources for these revenue streams to facilitate successful partnerships. These sources include user fees and value capture (see Section 2 – Fee Enhancement, below).

1.2.4. Investment Tax Credit Program - To encourage private partners to contribute funds to recapitalization projects, USACE could seek legislative authorization for an investment tax credit program.

1.2.5. Infrastructure Bank - An infrastructure bank is a method of organizing access to partnering funds and evaluating and prioritizing project funding. The infrastructure bank could be organized for USACE as a whole or organized by district or business lines. Infrastructure banks have been the subject of recent administration and congressional proposals, and were authorized at the state level through Transportation Equity Act for the 21st Century (TEA-21, Public Law 105-178, as amended by title IX of Public Law 105-206). The bank could contain some or all of the following features.

1.2.5.1. *Seed Funding* - Initial capital funds for the infrastructure bank could come from one or more of the following sources 1) one-time appropriation; 2) divestiture or sale of excess no-income USACE property or facilities; 3) Sale to private entities of USACE facilities that produce income (converts income streams to lump sums); fees or trust fund revenues.

1.2.5.2. *Revolving Fund* - With the initial capital, a revolving fund is established and loans are made to non-Federal entities for construction of various USACE related facilities. Low interest rates (small premium above the current federal cost of borrowing) would be charged to retain the value of the revolving fund and recapture any administrative costs, and loan repayment risk. As funds are repaid they would be available for other projects reducing need for ongoing appropriations.

1.2.5.3. *Leverage* - The initial seed capital could be leveraged in the following ways.

1.2.5.3.1. Bank Bond Issuance - The infrastructure bank could sell bonds to investors with using its portfolio of loans as collateral. A conservative ratio of 3:1 or 4:1 leverage would be established.

1.2.5.3.2. Loan Packaging or Securitization - The infrastructure bank could sell packages of its loan portfolio to private investors; also with conservative leverage 3:1 or 4:1 limits.

1.2.5.3.3. Equity Participation - Federal funds loaned out or pledged to projects would be further leveraged by local matching funds and private equity participation (equity participation in infrastructure projects typically ranges from 20 to 40 percent).

1.2.5.4. *Grant, Credit Assistance, and Bond Authority* - The bank could have the authority to make direct grants, or provide credit (see 1.2.1) or bond (see 1.2.3) assistance.

1.2.5.5. *Credit Standards and Evaluation* - Loans are disbursed based on application process that evaluates project purpose and need, project implementation plan, and creditworthiness of borrowers. USACE could establish a grant program to cover all or part of the project planning and application cost to encourage participation.

B. **<u>Fee Enhancement</u>** - A move by USACE away from reliance on appropriations for project funding and toward more innovative mechanisms of finance would require broadening of the fee base to include all users/beneficiaries of USACE projects and funding (including grants, loans, and credit assistance). Changes in the formulation and collection of fees would further facilitate PPP initiatives, expansion of local government partner participation, and USACE control over capital and lifecycle maintenance priorities. Key enhancements could include the following.

1. **Expand Trust Fund Usage** - Establish a trust fund legislatively and capture user fees and other sources of funds that would be dedicated to USACE programs. Establishment of a trust fund would establish USACE budget authority versus contract authority and provide authorization continuity to the program. Current examples include Harbor Maintenance Trust Fund, Inland Waterways Trust Fund, and direct funding of Power Management Authority (PMA) costs as implemented by Bonneville PMA.

2. **Freight User Fee Enhancement** - Increase current freight user fees or impose new fees to recover construction, operating, and maintenance costs at their true value and to not violate international trade agreements. Conduct studies to ensure that the fees are recovering all costs. Fees could be administered and collected by USACE or USACE could authorize local port authorities or non-federal parties to collect. To ensure that fees are used for valid purposes that would provide benefits to port users rules similar to FAA Passenger Facility Charge (PFC). USACE would conduct studies to determine price elasticity of demand to set caps for total fees and would encourage uniform application of fees to mitigate against undue reduction in cargo shipments or diversion of cargo to competing facilities or modes of shipment. Fees could include the following:

   2.1. ***Ad Valorem* Fee for Bulk Cargo** - Enhancement and expansion of the value-based harbor maintenance fee

   2.2. ***Docking or Access Fee or Surcharge*** - Surcharges to docking and drayage fees collected by port operators could be used to defray costs of dredging or improvements.

   2.3. ***Container Fee*** - Establish a per container fee at maritime ports to raise funds for dredging of deep draft vessels

   2.4. ***Facility Access Fees or Access Road Charge*** - Recover costs for facility improvements by charging for port access (potential for cooperation with federal agency or local partner)

   2.5. ***Lock User Fees*** - Capture cost of lock improvements at individual location through setting fees to cover capital and maintenance needs (users benefit from reliability, speed, and expanded capacity). USACE could revive studies that have examined congestion pricing at locks or the establishment of tradable lockage fees.

   2.6. ***Fuel Taxes*** - Increase in towing vessel fuel taxes to match inland waterway capital needs.

   2.7. ***Waterway Tolls*** - Explore use of real time vessel tracking technology to impose distance fees or waterway tolls for vessels, towing vessels, and/or barges.

3. **Value Capture Program** - USACE can conduct study of feasibility of value capture techniques to recover costs through fees to beneficiaries of FRM, Recreation, FUSRAP, and other programs. These value capture mechanisms could be implemented directly by USACE, or more likely, by non-federal parties to provide ongoing fees to finance projects. For local non-federal implementations of value capture, USACE could provide grant funding and/or technical assistance to conduct the studies required to set and maintain fees. Value capture mechanisms could include the following.

   3.1. ***Tax Increment Finance Districts*** - A tax on the incremental increase on property values that result from a USACE improvement (e.g. major FRM, recreation, or FUSRAP project).

   3.2. ***Developer Fees*** - New developers benefiting from an infrastructure project would contribute a one-time fee based on square footage or number of units to cover anticipated costs.

   3.3. ***Special Improvement or Tax District*** - Business and residents within an area benefiting from infrastructure would be charged a special assessment to contribute to cost.

4. **Asset Divestiture/Privatization** - USACE could study the select divestiture of assets through sale and privatization to raise funds for priority capital programs more closely related to the core Civil Works mission. The divestiture could take the form of outright sale of a public asset to a private party, cooperative, or non-federal governmental authority, or the long-term lease (50-99 year term of an asset with requirement for upkeep and handback condition). Strategies for divestiture may require cooperation with other federal agencies. Divestiture is most applicable to Hydropower (e.g., divestiture of Alaska PMA), recreation, and water storage. Contracts would have to include provision for capital improvement and lifecycle maintenance for multiple use projects (e.g., recreation, waters storage). Divestiture/privatization could take the following general forms.

   4.1. ***Upfront fee*** - A one-time fee for sale or lease of an asset to be applied toward immediate capital needs, trust fund, or infrastructure bank capitalization.

   4.2. ***Annual Lease Fee/License*** - Rent payments to be applied toward immediate capital needs, trust fund, or infrastructure bank capitalization.

5. **Other Revenue Sources** - Effective practices in use by other federal, state, and local infrastructure owners could be adopted by USACE to augment existing revenue sources. These initiatives could include the following.

   5.1. ***Technology Transfer/Assistance Charges*** - Establish a program for fee charges for USACE technology and assistance. This would start to shift USACE away from free assistance model to fee based service model. The program could expand access to Corps services and technology to non-federal parties. Examples include the current Army Technical Assistance Program aimed at private firms seeking overseas contracts; the Construction Engineering Research Laboratory (CERL); and centers of excellence. This program could include the following features.

5.1.1. <u>Royalty Program</u> - Non-federal users could employ innovative technology developed by the Corps for a license fee meant to cover R&D and administrative costs.

5.1.2. <u>Technical Assistance</u> - Competitive or reduce rate charges for USACE provided technical assistance and or O&M services.

Royalty and fee rates could be based on a sliding scale that considers the non-federal party's ability to pay, the compatibility of the project with USACE goals, and other criteria to further and expand the USACE Civil Works mission.

5.2. ***Easements*** - Sell right-of-way easements (fiber optic access or utilities) or where appropriate air rights. Another example would be selling the rights to locate facilities such as cell towers.

5.3. ***Branding Rights*** - Sell branding rights for various facilities. A corollary would be the federal program for charging commercial entities for putting their logos on way-finding signs.

C. <u>Techniques for Lowering the Cost of Program Delivery</u> - USACE already employs value engineering and related requirements to reduce the cost of program delivery. USACE could seek legislative authorization for additional programs modeled after effective practices in USDOT, including the following.

1. **Special Experimental Program Delivery (SEPD)** - Establish legislative authority for a SEPD. This would allow the Corps to develop experimental contractual arrangements apply to a limited amount of projects to determine their effectiveness. This program is similar to the authority that allowed experimenting with the design build program.

2. **Advanced Construction Program -** Establish an advanced construction program. Legislatively the Corps would be authorized to permit advance construction by states or other non-federal or private entities to initiate projects. Advance construction would NOT create an obligation by the USACE but rather would allow non-federal entities to initiate projects prior to federal funding authorization. After funding is made available the project would be permitted to be converted to an obligated project. The non-federal agency would be responsible for any cost incurred and carry the risk if no future federal funds become available. The process would allow projects to be initiated in advance of federal fund availability. This would expand and enhance Section 204(e) of the Water Resources Development Act (1986).

3. **LIFE (Long-lasting, Innovative, Fast and Efficient) program** - Establish a program modeled after FHWA's program to reduce construction time and lower construction costs. Program includes financial incentives to project sponsors to promote the following.

3.1. Adoption of technology or methods for efficiencies in construction.

3.2. Value engineering and streamlining in the project development process.

3.3. Adoption of innovative technologies and techniques to enhance project life or reduce life-cycle costs.

The program could expand and enhance current USACE efforts through Diffusion of Innovative Technologies (DoIT) work unit of Dredging Operations and Environmental Research (DOER).

4. **Budget Flexibility** - Redefine maintenance versus preservation and allow greater flexibility for transfer program funds.

D. **Techniques for Expanding and Optimizing Cost Sharing** - Even in the absence of PPP, fee enhancement or other initiatives, USACE could explore change in cost sharing with local partners and other federal agencies to promote timely and efficient delivery of projects and a coordinated approach to capital planning. Potential initiatives could include the following.

1. **Change Cost Share Standards -** Implementation of innovative finance techniques would allow for an increase in the non-federal cost share through provision of a variety of mechanisms to facilitate municipal finance or encourage PPPs. This could be justified based on following.

   1.1. Non-federal partners would be given access to toolkit of innovative finance techniques to mix and match methods to meet cost share.

   1.2. USACE could establish a technical assistance service to guide non-federal partners in implementing the toolkit.

   1.3. Corps policy on grants/appropriation funds would be focused on project planning and technical assistance.

   1.4. Project prioritization could be based on level on non-federal funds leveraged for the projects (match could slide from a minimum to maximum level or be uncapped).

2. **Prioritize Local Contributions** - Consider the level of matching funds from non-federal organizations as one of the criteria used for selection project criteria in discretionary programs. Establish programs where the state and local agencies (including multi-stated consortiums propose projects and compete for discretionary programs.

3. **Promote Donations and Not-for-Profit Partnerships -** Promote donation of funds through a conservancy program. USACE could expand and enhance existing initiatives in Recreation, allowing private not-for-profit organizations to raise funds to cover or contribute to project costs. The Corps could also enter into agreements with these organizations to provide ongoing maintenance and life-cycle renewal through ongoing donations and/or work in kind contributions.

4. **Explore Cost Sharing and Coordination with Other Federal Agencies -** Strategies for a coordinated federal approach to infrastructure planning and funding could include the following.

   4.1. Explore opportunities for eliminating overlapping responsibilities with other Federal agencies. For example agencies identified as part of the Watershed Approach collaborative program, including Environmental Protection Agency, U.S. Fish and Wildlife Service, National Resources Conservation Service, Bureau of Reclamation, and U.S. Geological Survey.

4.2. Explore opportunities for cost sharing for multi-use facilities. Cost sharing opportunities would be across Federal and State agencies.

4.3. In federal and non-federal cost sharing and in revenue identification, explore opportunities to consider actual use, not just authorized purpose.

4.4. Legislatively establish and participate with other agencies in cost sharing of freight multimodal corridor programs.