On January 18, the Committee on Transportation and Infrastructure’s Subcommittee on Water Resources and Environment met for a hearing on “America’s Water Resources Infrastructure: Approaches to Enhanced Project Delivery.” The Subcommittee’s summary memo noted that few water resource projects have been completed in recent years due to lack of sufficient funding and institutional process impediments. It said that modernizing our water infrastructure “requires examination of current policy and practice, as well as consideration of new, innovative, and alternative approaches to drive efficient, effective project delivery.” The memo discussed the backlog of U.S. Army Corps of Engineers (Corps) projects, valued at $75B for project construction plus $21B for dam safety, operations, and maintenance, compared to average annual appropriations of around $5B.

Witnesses at the hearing included: Mike Inamine, Executive Director, Sutter Butte Flood Control Agency (SBFCA), Yuba City, California; Leah Pilconis, Senior Counsel on Environmental Law and Policy, Associated General Contractors of America (AGC); Jill Jamieson, Managing Director, Jones Lang LaSalle; Nichole Carter, Specialist in Natural Resources Policy, Congressional Research Service; and on behalf of the Corps, Major General Donald Jackson, the Deputy Commanding General for Civil and Emergency Operations, and James Dalton, Director of Civil Works.

Inamine discussed the benefits of recent changes the Corps has implemented, expediting 33 USC §408 permission for non-federal repairs of aging Corps levees on the Feather River below the Oroville Dam in California, and a new financing approach to enable project completion with non-federal dollars ahead of the federal schedule. He noted that the Clean Water Act §404 contains emergency procedures that are lacking in §408, and making necessary emergency repairs requires “gaming the system.” The levee repairs would normally have been delayed by three years to obtain §408 permission. “To their great credit, the Corps granted permission in about five weeks, facilitating the completion of a $28M levee repair just in time for the current flood season. Again, 100% of this cost was at non-federal expense. This expedited 408 approval was made possible by regulatory reform underway under the leadership of Corps Civil Works Director James Dalton,” who delegated §408 authorities to Division and District offices. “We applaud his appreciation for real-world difficulties faced by local agencies and hope to see these changes expanded and formally codified.”

Inamine said that while large projects are still best left to the Corps to deliver, local agencies can often execute §408 projects faster and at a lower cost, and should be accommodated and prioritized by the federal government beyond the study phase. “As the non-federal sponsor, SBFCA has spent $130M to improve 36 miles of levee out of the total 41 miles of federal project authorized in 2014. What remains out of the $689M…project is just five miles of work at a total estimated cost of $77M. The federal cost share of the remaining project is $49M, which essentially leverages $640M of federal construction by non-federal sponsors – a fantastic deal by any measure.” That calculation doesn’t account for the added benefits of project delivery a decade ahead of federal implementation, increasing the cost-benefit ratio. However, he added that SBFCA has exhausted their resources and cannot complete the final section of the project without the federal appropriations.

Inamine added some thoughts on infrastructure following the lessons of the Oroville Dam incident. “The Oroville spillway incident was a wake-up call for civil engineers around the world. Once again, we are reminded that infrastructure falls apart without ongoing, thoughtful investment. Just because a structure performed well for 50 years (or for levees, 150 years) is no assurance it will perform well tomorrow.” He pointed out that the dams and downstream levees are an integrated system, but they are built to different standards, and this needs to be addressed for public safety before spending limited federal dollars. “Regardless of our preparations and planning, unexpected events will always occur,” highlighting the need to build resilience into all our major public safety structures and aging water infrastructure systems.

Pilconis provided a flowchart AGC created to diagram the dozens of federal environmental approvals needed before a construction contractor can break ground on infrastructure projects. “There is a backlog of more than 1,000 authorized water resources construction projects that will cost more than $90B to complete.” These projects require sequential and duplicative environmental reviews, presenting massive schedule,
budget, and legal hurdles with repeated analyses, studies, mitigation, and planning as projects make their way through lengthy permits and litigation, for even minor project modifications. "WRDA-authorized water resource projects are caught on a NEPA treadmill."

Pilconis made several detailed suggestions on ways to improve the process: (1) require all relevant federal agencies to do a joint NEPA review for a given project, with firm deadlines and a single Record of Decision issued by the lead agency, and if the Corps is not the lead agency it should be a mandatory cooperating agency; (2) merge the NEPA review with the CWA §404 and RHA §408 permitting processes, revise their respective analyses of project alternatives to allow more flexibility in project decisionmaking, and rely on state and local environmental plans to identify the purpose, need, and alternatives for the project; (3) direct agencies to clearly delineate what constitutes a material change in a project meritng a re-evaluation of previously-approved environmental documentation; (4) ensure that permit requirements are achievable, practical, and consistent, protecting the environment with flexibility for real-world implementation during construction activities; (5) provide reliable standards and consistent requirements for compensatory mitigation opportunities, with coordinated planning between the Corps, Fish and Wildlife Service, and non-federal partners; (6) eliminate EPA’s final authority over Corps determinations under CWA §404; and (7) reform citizen suit provisions to prevent misuse of environmental laws, requiring early involvement for standing to sue, shorter statutes of limitation, bonds to reduce delay tactics that harm taxpayers and private parties, and additional clarifications of federal environmental rules and enforcement.

Jamieson described many of the policy, legislative, and fiscal challenges to using performance-based contracting, such as public private partnerships (P3s), to efficiently deliver water infrastructure projects. She noted that our nation’s infrastructure problems require long-term solutions from authorization and financing new projects to operation and maintenance of assets through their life-cycle. She talked about deferred maintenance, a “fix-as-fails” approach, with a federal budget that has been essentially flat for the past 50 years, protracted appropriations, and uncertainty about the timing and amount of appropriations that lead to escalating costs and delayed public benefits. She said we need to look beyond funding and address the problem in a holistic manner. P3s are not a panacea or suitable for every project, she said, but they “have demonstrated their benefit by accelerating project delivery and generating better value-for-money for taxpayers through innovation, life-cycle asset maintenance, enhanced efficiency, reduced costs, and optimized risk allocation. In most instances, despite the private sector’s higher cost of capital, P3s have been able to deliver infrastructure to taxpayers at savings ranging anywhere from 15 to 25 percent when compared to traditional public delivery.”

Jamieson emphasized that P3s and performance-based contracts are delivery tools, not a funding strategy. “They can help deliver infrastructure in a timelier and more cost-effective manner, with enhanced transparency into how taxpayer dollars are spent, but they are not a means of funding projects.” She proposed several solutions to overcome the current systemic constraints that severely restrict or prohibit federal agencies from leveraging P3s and similar arrangements for water resource projects. The agencies don’t have the ability or legislative authority to dedicate a funding stream to compensate the costs and risks through usage payments. Existing trust funds, including the Reclamation Fund, Inland Water Trust Fund, and Harbor Maintenance Trust Fund, could be legislatively reformed to dedicate some portion of their revenue to create a repayment stream for project-specific purposes and enhanced delivery and life-cycle management of federal water resources. Current budget scoring guidelines would consider P3 projects as capital leases that have to be scored up-front, rendering the projects financially infeasible for Congress to pass. The underlying accounting rules that formed our current budgetary scorekeeping rules have changed in the past 25 years, and “there is a strong argument to be made for OMB to establish [separate] budget scoring guidelines for water resource infrastructure” that distinguish leasing and capital purchases from service concession arrangements and P3s.

Jamieson also talked about cost-share programs, and the need for technical assistance and viability gap funding to balance the playing field for rural and poorer communities. “This should include expansion of the WIFIA program, as well as the authorization of expanded grant and revenue guarantee programs for water resource infrastructure. The program could be administered within relevant federal agencies, such as USACE or USBR, or delegated to the EPA Water Infrastructure and Resiliency Finance Center.”
Carter addressed several of the challenges the Corps' WIFIA program is experiencing compared to EPA's WIFIA program. Although authorized, Congress has not yet appropriated funds for the Corps' WIFIA program. The Corps completed a feasibility analysis in 2015 to evaluate the types of Corps water resource projects and nonfederal project sponsors that may be viable candidates for WIFIA loans. The Corps is uncertain that relevant water resource projects would have sufficient revenue streams to be creditworthy and able to repay WIFIA loans. Many projects would be for work on structures that are federally-owned, making it difficult for nonfederal entities to commit existing revenues or to create new revenue streams that could be committed to repayment, particularly if the fees or charges require congressional authorization.

Jackson noted that the Corps dedicates a significant amount of its resources to maintain key features of infrastructure built around 50 to 100 years ago. He said the Corps has implemented changes to improve its Section 408 processes, and is also working toward electronic applications and jurisdictional determination requests. Because the needs of the Nation have changed over time, the Corps is operating and maintaining some water resource infrastructure that may no longer be needed, and they are conducting studies to determine the viability of deauthorization. The Corps has provided implementation guidance on most of the provisions included in WRRDA 2014 and WRDA 2016. “You have both my commitment and that of Mr. Dalton, to complete implementation guidance for the remaining provisions as soon as possible.”