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Statement of

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Chairman Graves, ranking member Napolitano, and members of the subcommittee, my name is Nicole Carter. I am a Specialist in Natural Resources Policy at the Congressional Research Service (CRS). Thank you for inviting CRS to testify. This CRS statement focuses on the project delivery processes and authorities of the U.S. Army Corps of Engineers (Corps), including related background, context, and recent developments.

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I will start by providing context for concerns regarding Corps project delivery, then discuss the standard delivery process for Corps project studies and construction. I will next describe alternative project delivery authorities. Finally, I will provide background on Corps permissions that are in some cases required for projects pursued under alternative delivery authorities.

Concerns Related to Corps Project Delivery

Delayed completion of water resource projects can postpone some or all of a project's anticipated benefits. The impact of these delays varies by the type of project. Delayed completion of flood risk reduction projects may prolong a community's vulnerability to certain coastal and riverine floods, thereby contributing to the potential cost of disaster response and recovery. Delayed investment in navigation projects may result in postponed transportation cost savings from improved efficiency and in greater reliance on road and rail transport. Delayed aquatic ecosystem restoration projects may result in missed opportunities to attenuate wetlands loss and realize related ecosystem benefits, such as those for water quality and fisheries.

Only a subset of authorized Corps construction activities is included in the President's budget request and funded annually by federal appropriations. Consequently, numerous authorized Corps projects or project elements have not received federal funding nor begun construction. Some $75 billion in authorized Corps construction projects and an additional $20 billion in Corps dam safety work are eligible for annual Corps construction appropriations, which have averaged $1.8 billion in recent years. Cost estimates are not available for reinvestment and major rehabilitation for maintaining performance and safety (e.g., levee safety) for the full portfolio of Corps-owned and Corps-constructed water resource infrastructure. The agency operates more than 700 dams; improves and maintains more than 900 coastal, Great Lakes, and inland harbors, 13,000 miles of deep-draft channels, and 12,000 miles of inland waterways; and has built 14,500 miles of levees.

For those Corps projects that receive federal appropriations, there is little available documentation on whether most are fully funded in a fiscal year, referred to as the project's capability level, or funded at a lower level. The Government Accountability Office (GAO) in a 2013 report titled *Cost Increases in Flood Control Projects and Improving Communication with Nonfederal Sponsors* summarized its findings regarding cost growth at Corps flood control projects. GAO's detailed review of eight projects found that a factor contributing to cost increases at these Corps-led flood risk reduction projects was funding below the capability level; other factors included design changes, initial Corps cost estimates being lower than later cost estimates, and differences in contract estimates and actual contract costs.

Data across the portfolio of Corps civil works projects have not been systematically collected and analyzed to document the factors contributing to project cost growth and schedule growth. Some argue that having Corps projects federally funded on an annual basis may contribute to the cost and duration of project delivery. The annual funding approach and other construction contracting restrictions contribute to the Corps entering into multiple contracts for complex and multiyear construction projects. Each individual contract may require mobilization and demobilization actions. While some information on cost

growth and schedule growth for specific contracts is available from Corps databases, these data do not capture information related to the efficiency of dividing up work for a single construction project across multiple contracts over multiple years. When testifying before this subcommittee at a June 5, 2013, hearing titled *A Review of the U.S. Army Corps of Engineers Chief's Reports*, Major General Michael J. Walsh identified that how much funding is put toward a project significantly impacts the duration of project delivery.

Budget requests by the George W. Bush, Obama, and Trump Administrations focused their funding requests on Corps projects near completion and projects with high expected economic returns (as measured principally by a project's ratio of benefits to costs); additionally, recent budget requests proposed initiating few new studies and construction projects. Recent Administrations also focused requested funds on Corps projects within the agency's primary missions of flood and storm damage reduction, navigation, and aquatic ecosystem restoration. Enacted appropriations bills for FY2011 through FY2013 barred funding for new construction starts, whereas enacted appropriations for FY2014 through FY2017 allowed for a limited number of new construction starts. These limits ranged from four each in FY2014 and FY2015 to six each in FY2016 and FY2017. Overall, the agency's construction account has declined as a percentage of the agency's discretionary appropriations since FY2007; it has fallen from above 40% in the mid-2000s to 31% in FY2016 and FY2017. At the same time, the operations and maintenance (O&M) account has increased as a share of the total Corps budget, from 37% in FY2007 to 52% in FY2016 and FY2017. During roughly this same time period, Congress provided the Corps with supplemental appropriations for not only natural disaster response and repairs but also construction projects; this construction funding was concentrated on flood risk reduction projects in areas affected by certain natural disasters and was not available broadly for Corps civil works projects.

Congress has enacted various changes in recent water resource authorization legislation that respond to interest in accelerating the delivery of authorized Corps studies and projects and water resource projects more generally. The 113th Congress enacted the Water Resources Reform and Development Act of 2014 (WRRDA 2014; P.L. 113-121) in June 2014. Among its provisions, the legislation altered the authorities guiding Corps studies, expanded alternative study and project delivery opportunities, and authorized new financing approaches. The 114th Congress enacted the next Water Resources Development Act (WRDA) in December 2016 as a title in the broader Water Infrastructure Improvements for the Nation Act (WIIN Act; P.L. 114-322). Provisions in that legislation further altered how nonfederal project sponsors may work on water resource activities and receive credit or be eligible for federal reimbursement for project-related expenditures.

In a June 21, 2017, memorandum, the agency's Director of Civil Works announced the initiation of a comprehensive review to identify opportunities to enhance project delivery and organizational efficiency and effectiveness. The memorandum also described a multipronged effort for improved project delivery and management that included adoption of a risk-informed decisionmaking approach and delegation of certain decisionmaking authority. It also referenced incorporation of a broader array of social and environmental benefits into project formulation and implementation, as well as replacement of the Civil Works Review Board (which for roughly a decade functioned as a senior-level review panel for projects nearing a final agency report and recommendation for congressional authorization) with a new approach for senior-level engagement in study decisions.

Standard Project Delivery

Standard Corps project delivery consists of the Corps leading the study, design, and construction of authorized civil works projects. Nonfederal project sponsors share in study and construction costs, providing the land and other real estate interests and identifying locally preferred alternatives. Since the 1950s, questions related to how project beneficiaries and sponsors should share in the cost and delivery of

Corps projects have been the subject of debate and negotiation. Much of the basic arrangement for how costs are currently shared was established by Congress in the 1980s, with adjustments in subsequent legislation, including in recent statutes. As nonfederal entities have become more involved in Corps projects and their funding, they have expressed frustration with the time it takes the Corps to complete studies and construction.

Corps Studies

For the Corps to perform a feasibility study for a project, the study must first be authorized by Congress. Once a feasibility study has congressional authorization, the next step is securing the federal appropriations to perform the study. Years may pass between the authorization for the Corps to perform the feasibility study and the study receiving federal appropriations; other authorized studies may never receive funding and eventually may be de-authorized. To expedite ongoing studies, Congress, in recent appropriations cycles, has limited the number of new Corps studies that can be initiated in a particular fiscal year. For example, in FY2015, FY2016, and FY2017, Congress statutorily limited the number of new studies that could be started to 10, 10, and 6, respectively.

The objective of the feasibility study is to formulate, evaluate, and recommend actions to alleviate a water resource problem. Early in the study process, the Corps investigates the nature of the problem and assesses the federal government's interest in addressing the problem. The Corps study team next formulates alternative plans, investigates technical feasibility, conducts benefit-cost analyses, and begins an environmental review under the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. §§4321 et seq.). The evaluation of Corps water resource projects is governed by detailed agency and executive branch guidance documents (including the 1983 *Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies*) and provisions established by Congress in statute. Once the final feasibility report is available, the Chief of Engineers reviews whether the project warrants further federal investment and makes a recommendation regarding congressional construction authorization; the Chief's Report is submitted to Congress for its consideration typically as part of an omnibus WRDA bill.

Once a Corps study is initiated, the degree to which specific factors and requirements contribute to the time it takes to complete the feasibility study and Chief's Report has been difficult to determine. For example, activities performed to demonstrate compliance with applicable environmental requirements may occur concurrent to the Corps completing actions required by other laws, such as preparing analyses necessary to determine a project's economic costs and benefits. Often, the larger, more complex, and costly the project being studied, the longer each step takes in the study process. Anecdotal evidence indicates that some individual studies have taken longer due to disagreements with federal resource agencies or state permitting agencies, but there are limited data available to determine whether such delays are systemic or project-specific.

To address concerns regarding the pace of Corps studies, Congress made various changes to the feasibility study process in WRRDA 2014; it

- established requirements that feasibility studies be completed within three years of initiation (unless the Secretary of the Army determines a study is too complex to comply with this requirement), have a maximum federal cost of $3 million, and be concurrently reviewed within the Corps;
- altered the study process, principally by eliminating the reconnaissance phase and requiring reporting on study milestones; and
- enacted provisions in Section 1005—Project Acceleration—regarding the environmental review process and preparation of documents necessary to comply with NEPA.

The Corps has implemented the first two of these requirements and the portion of Section 1005 of WRRDA 2014 regarding NEPA categorical exclusions; however, the agency has not published implementation guidance on the Section 1005 provisions on expediting NEPA compliance for studies of Corps water resource projects.

NEPA requires federal agencies to fully consider a federal action's significant impacts on the quality of the human environment, and to inform the public of those impacts, before making a final decision. The Corps integrates its NEPA compliance process with the development of a feasibility study. That is, during the study process, the Corps identifies impacts of a potential project, any environmental requirements that may apply as a result of those impacts, and takes action necessary to demonstrate compliance with those requirements. To date, the Corps reports that it is continuing to develop the implementation guidance for the majority of the provisions of Section 1005 of WRRDA 2014. Until the guidance has been issued and takes effect in the Corps study process, it is difficult to determine the extent to which the WRRDA 2014 procedural changes may have measurable effects on the agency's existing environmental review process. The Corps published implementation guidance for the categorical exclusion portion of Section 1005 on August 30, 2016; the provision called for the agency to survey its use of categorical exclusions and to identify and publish new categorical exclusion categories that merit establishment. To date, the Corps has not established new categorical exclusion categories pursuant to Section 1005 of WRRDA 2014.

WRRDA 2014 required the Corps to report to Congress annually on missed study milestones. The 2017 report provided milestone information on the agency's 110 active studies as of August 1, 2017; of these, 18 studies had their Chief's Report delivery date extended by more than three months and another 16 either had been terminated or were on hold (i.e., they were identified as being under review with no revised schedule for completion). The reported explanations for the postponed milestones included the need for improved models and simulations (e.g. ship simulations), the incorporation of local-level data, and additional time for environmental review and public input.

Construction Projects

Once a Corps project receives congressional authorization for construction, federal funds for construction may be sought through the annual appropriations process. As previously noted, only a subset of authorized activities are eventually funded by enacted appropriations. Once construction funds are available, the Corps typically functions as the project manager; that is, Corps staff, rather than the nonfederal project sponsor, typically are responsible for preconstruction engineering and design (PED) and contracting for the project's construction. Although some construction may be performed by Corps personnel and equipment, the majority of work typically is contracted out to private engineering and construction firms. Post-construction ownership and operational responsibilities depend on the type of project. When construction is complete, the Corps may own and operate the constructed project (e.g., navigation improvements) or ownership and operations may transfer to the nonfederal sponsor (e.g., most flood damage reduction projects).

WRRDA 2014 and WRDA 2016 attempted to address frustrations among some stakeholders with the pace of construction of Corps projects by allowing interested nonfederal entities, including private interests, to have greater roles in project development, construction, and financing.

Alterative Project Delivery Authorities

Congress has authorized alternative ways to advance and deliver studies and projects for flood risk reduction, aquatic ecosystem restoration, and navigation projects. These authorities include flexibility in the nonfederal funding of Corps-led activities, nonfederal leadership of Corps studies and projects, and public-private partnerships (P3s). WRRDA 2014 also authorized, through the Water Infrastructure

Finance and Innovation Act (WIFIA), a Corps program to provide direct loans and loan guarantees for navigation, flood risk reduction, and ecosystem restoration projects. Each of these alternative project delivery authorities is discussed below in more detail.

Competition for Corps discretionary appropriations has increased interest in alternative project delivery and financing. In addition to expediting project completion, there may be other motivations for pursuing alternative delivery. For example, part of the local value of nonfederal entities leading water resource studies and construction projects may be their ability to combine project elements that fall within the traditional Corps project purposes (e.g., coastal and riverine flood risk reduction) with project elements that fall outside the traditional mission areas of the Corps (e.g., stormwater management, riverfront redevelopment). That is, local leadership may allow for multiple project elements and features to be combined into more comprehensive and integrated local actions.

Additional nonfederal public and private investments may, in the near term, achieve progress on some projects, thereby potentially making federal funding available for other water resource projects or project elements; however, achieving these benefits through some of these authorities may come with potential trade-offs for the federal government, including reduced future Corps budget flexibility (given expectations of nonfederal reimbursements and private sector payments) and reduced federal influence over the set of water resource studies and construction projects receiving and eligible for federal support. A related federal policy question is the balance between providing incentives and opportunities for attracting nonfederal public and private investment in water resource infrastructure and managing the current and future water resource activities that are funded with federal appropriations.

Nonfederal Funding and Leadership of Corps Studies and Projects

Various authorities exist for the Corps to accept funds from nonfederal entities to accelerate, advance, or otherwise contribute to Corps studies, construction activities, and operations and maintenance. Contributed funds are provided by a nonfederal entity with no expectation for reimbursement or credit; WRRDA 2014 expanded the authority for the Corps to accept contributed funds. Accelerated funds are nonfederal funds that exceed the amount required by the level of federal appropriations that have been provided but fall within the overall nonfederal cost share of the study or project. Advanced funds are nonfederal funds that exceed the nonfederal cos share required for the project; nonfederal entities advancing funds for Corps-led construction projects may be eligible to receive reimbursement (without interest) subject to the availability of appropriations. There is no publicly available information documenting the aggregate use of these authorities and the amount of potential reimbursements that remain outstanding across the agency's districts.

As previously noted, nonfederal project sponsors traditionally participate in, but do not lead, project planning and construction for Corps projects. WRRDA 2014 and WRDA 2016 expanded and consolidated the authorities for nonfederal entities to both perform studies and construct projects (or elements of projects) that typically would have been undertaken by the Corps. These statutes also provided that the cost of these nonfederal-led activities are shared by the federal government largely as if the Corps had performed them. These authorities typically require that the nonfederal entity leading the project comply with the same laws and regulations that would apply if the work were being performed by the Corps. Producing a study or construction project that complies with the latter requirement may be a challenge for many nonfederal interests. When a nonfederal entity undertakes construction of a federal project under these authorities, that entity is eligible for reimbursement or, in some cases, credit for what would have been the federal portion of construction costs.

GAO, in a December 2016 report titled *Better Guidance Could Improve Corps' Information on Water Resources Projects Undertaken by Nonfederal Sponsors*, found that the number of federal water resources studies and projects that nonfederal sponsors have undertaken, and the amounts they have been

reimbursed, could not be reliably determined. According to GAO, Corps headquarters does not centrally track this information, and the information that headquarters provided to GAO did not match the information that GAO collected from Corps districts. The information that GAO collected indicated that nonfederal sponsors have led or are leading Corps-related studies and projects with total estimated costs of approximately $4 billion and that the federal government had reimbursed $400 million to cover some of the federal costs related to these projects. GAO did not report what would be the total remaining potential reimbursement amount to cover the federal cost share associated with these studies and projects. The scope of GAO's report did not appear to cover the use of advanced funding authorities or related crediting and reimbursements associated with Corps-led projects. It is not publicly known how the annual level of nonfederal-led study and project agreements and advanced funding agreements for Corps-led studies compares to the $100 million annual cap for credit and reimbursement agreements established in statute pursuant to FY2006 Energy and Water Development Appropriations Act (P.L. 109-103; 33 U.S.C. §2221). GAO reported that Corps headquarters began collecting reimbursement data from district offices in 2006 when Congress enacted the annual reimbursement agreement limit, and as a result reimbursement agreement information prior to 2006 is less reliable.

Financing Authorities

In recent years, there has been increased interest in the potential for alternative financing arrangements, including P3s and related approaches. Private sector access to financing and expertise and experience with complex project management are all seen as potential advantages for the delivery of some types of public infrastructure. Interest has expanded in recent years in allowing private engagement in U.S. water resources projects, which would follow the models used in other U.S. infrastructure sectors, such as transportation, and international examples of private provision of public infrastructure and related services. WRRDA 2014 and WRDA 2016 authorized two alternative means of finance: a public-private sector pilot program for Corps projects, and the Water Infrastructure Finance and Innovation Act program, which provides federal credit support for water infrastructure projects, including public-private partnerships. These authorities are discussed below.

Public-Private Partnerships

WRRDA 2014 directed the Corps to establish pilot programs to evaluate the effectiveness and efficiency of allowing nonfederal applicants to carry out certain authorized projects, including a P3 pilot program in Section 5014 of the bill. Under Section 5014, Congress directed the Secretary of the Army to identify at least 15 authorized Corps construction projects for the P3 pilot program. Nonfederal applicants for these pilot projects may include a range of eligible nonfederal public or private entities—the nonfederal project sponsor, legally constituted public bodies and certain qualifying nonprofit entities (as defined in Section 221 of the Flood Control Act of 1970 (42 U.S.C. §1962d-5b)), or a private entity with consent of local governments. Section 5014 requires an assessment by the Secretary that each project provides enhanced public and financial benefits compared to a similar transaction using public funding or financing. There is no dollar limit for the partnership agreements for individual P3 projects or for the pilot program as a whole; Section 5014 provides that the activities undertaken pursuant to the pilot program authority are authorized only to the extent provided for in subsequent appropriations acts. WRRDA 2014 required a report on implementation of the pilot program to relevant authorizing committees by June 2017. The Corps published preliminary implementation guidance for Section 5014 in September 2015; in that guidance the Corps reported that, until funds are specifically appropriated for Section 5014 activities, no other implementation guidance or project development activity would go forward under the pilot program. In February 2016, the Corps reported to Congress that a number of demonstration projects that spanned the agency's civil works activities were being evaluated. The Corps noted that these projects could be undertaken as "proof of concept" projects that may identify replicable practices. In the

explanatory statement for the FY2017 Consolidated Appropriations Act (H. Committee Print 25-289), concerns were raised that the Corps was developing project-specific P3 arrangements rather than a comprehensive policy. The statement directed that the Corps discontinue all work on project-specific P3s with the exception of the Fargo-Moorhead Project and directed the Corps to develop a comprehensive P3 policy. The Corps reportedly has developed a draft comprehensive P3 policy, which is currently under agency review.

The potential uses of P3 arrangements have been the subject of several reports. The House Transportation and Infrastructure Committee created a Panel on Public-Private Partnerships in January 2014. The panel's report, *Public Private Partnerships: Balancing the needs of the public and private sectors to finance the nation's infrastructure*, made a number of observations regarding the role of P3s in various infrastructure sectors. The report states that

> The Panel found that P3 procurements have the potential to deliver certain high-cost, technically complex projects more quickly or in a different manner than would otherwise occur under traditional procurement and financing mechanisms. However, given the limited number of high-cost, complex projects, P3 projects have the potential to address only a small portion of the Nation's infrastructure needs. One consistent theme throughout the Panel's work was that P3s are not a source of funding and should not be thought of as the solution to overall infrastructure funding challenges.

Other recent reports include a March 2017 report sponsored by the American Society of Civil Engineers titled *Alternative Financing and Delivery of Waterways Infrastructure* and a January 2017 report by Harvard's Kennedy School titled *Tapping Private Financing and Delivery to Modernize America's Federal Water Resource*.

In addition to clarifying that P3s represent a financing mechanism (rather than a funding stream that will ultimately pay for a project), these reports, along with the Corps, stakeholders, and other observers, have cited various challenges in developing guidance and a path forward for Corps participation in P3s for federal water resource projects. Some of the commonly cited challenges to date include the following:

- Contracts and Budget Scoring—The Corps may lack the authority to enter into the type of long-term contracts that would be necessary to commit to a P3. Under current budgeting requirements, federal commitments to budget-based P3 payments are scored as a capital lease or a lease-purchase, which means that the full federal cost of the agreement is scored at the time that the P3 obligation occurs. Thus, anticipated savings from long-term P3 arrangements are not reflected in the current-year budget context.
- Revenue Generation/Availability—The Corps currently lacks the authority to redirect or assess project-specific user fees (or to allow a private entity to do so) to raise the revenues necessary to commit to a long-term P3 arrangement for a fee-based infrastructure project. The agency's ability to dedicate collections to a specific project also is unclear.
- Demand for P3s/Support for Fees—There is some uncertainty regarding the level of demand for Corps P3 projects and how many projects would be financially viable through a Corps P3. For instance, it is unclear how many Corps projects could sustain or increase their user base if they were converted to a P3 arrangement that required increased user fees or contributions. For example, the House Transportation and Infrastructure Committee's Public-Private Partnership Panel stated in its September 2014 report that inland waterways are in need of infrastructure improvements, but the users of the system are opposed to tolls, so pursuing a P3 may be challenging without a revenue source.

As noted above, the Corps-related P3 project that has advanced the furthest to date is the Fargo-Moorhead flood diversion project. The project is often described as a "split delivery." That is, the Corps is expected to be responsible for construction of a segment of the project using the standard Corps project delivery process (i.e., subject to annual appropriations); the nonfederal project sponsor is expected to be responsible for construction of the other project segments. The nonfederal sponsor has been pursuing its portion of project construction and operations and maintenance using a P3. The Corps is not anticipated to be directly engaged in the P3 agreement, which is why the effort is referred to as a public-public-private-partnership (P4). The local flood control authority completed its Request for Qualifications (RFQ) for respondents to design, build, finance, operate, and maintain the flood control project. The Request for Proposals (RFP) process is awaiting the identification of a new project alternative that satisfies state and local laws in North Dakota and Minnesota and provides for equity in project impacts; as of December 2017, the alternatives under consideration consisted principally of refined alignments of various structural components that would stay within the existing congressional construction authorization.

WIFIA

Title V of WRRDA 2014, as amended, authorizes the Corps and the U.S. Environmental Protection Agency (EPA) to provide direct loans and loan guarantees to state infrastructure financing authorities (including state governments, corporations, and joint ventures) for partial funding of certain water projects. The program, known as WIFIA, is similar to an established program within the Department of Transportation—Transportation Infrastructure Finance and Innovation Act (TIFIA, established in 1998).

WRRDA 2014 establishes that to be eligible for Corps WIFIA assistance, the Secretary of the Army must determine that a project is technically sound, economically justified, and environmentally acceptable. The types of projects the Corps is authorized to support through WIFIA include projects that reduce flood damages, restore aquatic ecosystems, improve coastal or inland harbors, and improve the inland and intracoastal waterway navigation system. Projects eligible for EPA assistance include those for drinking water and wastewater treatment; those for desalination and water recycling; and those that prevent, reduce, or mitigate the effects of drought. To be eligible for credit assistance under WIFIA, total project costs must be $20 million or more, except in some rural areas, where costs can be $5 million or more. Additionally, most WIFIA funding cannot exceed 49% of project costs and total federal assistance for a project may not exceed 80% of total project costs. Projects and borrowers also must be judged to be creditworthy by the applicable agency head.

WRRDA 2014 authorized $175 million over five years for the two agencies to carry out this authority, beginning with $20 million for each agency in FY2015 and increasing to $50 million in FY2019. Congress has not provided for an authorization of appropriations beyond FY2019. To implement the WIFIA program, an appropriation of funds is needed to cover the credit support's subsidy costs, which represents the presumed default rate on the loans.

To date, the Administration has not requested and Congress has not appropriated funds for Corps WIFIA implementation. However, since WRRDA 2014 enactment, the Corps reports that it has taken steps to inform implementation of its WIFIA program. In 2015, the agency completed a feasibility analysis evaluating which types of Corps water resource projects and nonfederal project sponsors may be viable targets for WIFIA loans. According to the Corps, the Corps and EPA also are engaging in partnership discussions that may expedite implementation. Efforts at the Corps to evaluate the potential demand among target projects and borrowers are ongoing, and past efforts to draft proposed program eligibility rules represent initial steps toward Corps WIFIA guidelines.

In contrast, EPA has made significant progress in implementing its WIFIA program. It conducted a series of listening sessions in 2014, and in 2016 and 2017 it issued two rules that, among other things, set application and selection guidelines and fee structures under its WIFIA program. As part of FY2015 and

FY2016 enacted appropriations, EPA received $2.2 million in funding to hire staff and design its WIFIA program; in FY2017 enacted appropriations, Congress approved $25 million for subsidy costs and to begin making loans. EPA has stated the combined appropriation will allow it to lend $1.5 billion for projects. In January 2017, EPA issued a notice of funding availability, and it collected 43 letters of interest from prospective borrowers in April 2017. On July 19, 2017, EPA announced the selection of 12 projects that are to continue with the application process. EPA reportedly encountered challenges in implementation of its WIFIA program, including the initial prohibition on WIFIA projects having financing from tax-exempt bonds (which was subsequently repealed in 2015) and concerns related to the project limit for WIFIA credit assistance, which is generally capped at 49%.

A concern for WIFIA implementation by both EPA and the Corps is the pending expiration of WIFIA authorizations of appropriations at the end of FY2019. Overall, challenges for implementation of the Corps WIFIA program appear to be more significant than challenges for EPA's WIFIA program. The use of the WIFIA approach by the Corps and for water resource projects faces various challenges, including the following:

- Lack of Corps Experience with Loan Programs—The Corps has little experience with operating a loan program. Corps personnel (and many traditional Corps nonfederal project sponsors) may be unfamiliar with potential requirements and their application. These requirements include creditworthiness assessments, credit subsidy cost estimation, and transaction and loan servicing, among others.
- Creditworthiness of Projects—For those projects for which a revenue stream can be identified and established, project-based revenue streams may be insufficient (i.e., not creditworthy) to repay WIFIA loans. For example, a nonfederal authority may have the ability to raise user fees for a project, but those fees may be inadequate to repay project costs funded by WIFIA, thus resulting in the project being evaluated as not creditworthy.
- Scoring—Congress must appropriate funding to cover the administrative and subsidy costs of the WIFIA program. In the past, similar loan programs for water resource-type projects reportedly have been held up due to relatively high subsidy cost requirements. It is unclear to what extent this could be a factor for the Corps WIFIA program as a whole or specific types of projects, and how the subsidy costs for a Corps WIFIA program may compare to those required for the TIFIA or EPA WIFIA programs.
- Demand for Corps WIFIA—Although there is a widely acknowledged demand for more funding for Corps projects, it is unclear based on existing information whether the terms of WIFIA (i.e., a nonrefundable processing fee, repayment to the federal government with interest) would be sufficient to attract nonfederal borrowers in a water resource project context.
- Ownership/Revenue Generation—In contrast to EPA WIFIA projects (which are generally for water systems that are nonfederally owned), some projects eligible for Corps WIFIA support are for work at structures or improvements that are federally owned (e.g., inland or intracoastal waterways) or for types of projects for which few direct fees for services historically have been collected (e.g., current navigation user fees are collected at the system level rather than established at the project level). For these types of water resource projects, nonfederal entities may have difficulties committing existing revenues or creating new revenue streams that could be committed to repayment of WIFIA credit assistance. Additionally, for nonfederal WIFIA projects at federally owned structures and improvements, nonfederal entities may require congressional authorization of project-related user fees or charges (or may seek alterations to existing federal trust funds collections or their use).

Section 408 Permissions

The previously discussed alternative delivery authorities expand the opportunities for nonfederal public and private entities to be able to work on water resource projects. If that nonfederal work may affect or alter an existing U.S. Army Corps of Engineers project (including a project that was constructed by the Corps and operated and maintained by a nonfederal project sponsor), the Corps must grant permission before that work can proceed. The Corps authority to allow alterations to its projects derives from Section 14 of the Rivers and Harbors Act of 1899, also known as Section 408 (based on its codification at 33 U.S.C. §408). This provision states that the Secretary of the Army may "grant permission for the alteration or permanent occupation or use of any of the aforementioned public works when in the judgment of the Secretary such occupation or use will not be injurious to the public interest and will not impair the usefulness of such work." In 2015, the Corps released new regulations for how the agency would process requests for Section 408 permissions—Engineer Circular (EC) 1165-2-216, *Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408*. Pursuant to the regulations, the Corps conducts a technical review of the proposed work's effects on Corps projects. As part of the technical review, the Corps complies with other federal statutes, such as NEPA, and provides public notice of the opportunity for public input. At the end of the Section 408 process, the Corps chooses to approve or deny permission for the alteration to the Corps project; the Corps also can attach conditions to its Section 408 permission. EC 1165-2-216 (as drafted in 2015 and updated in 2016) provided some time frames for specific steps within the agency's review process; it did not specify guidance on or requirements for a timeline for completing the entire permission process. EC 1165-2-216 also did not specify that the Corps needed to identify an application as complete or incomplete. Instead, it indicated that the Corps district would work with the applicant to determine the level of detail necessary to make a decision for a particular request and that the Corps district may request additional information from the applicant during the agency's review.

The 114th Congress addressed the agency's Section 408 permission process in Section 1156 of WRDA 2016; it amended the Section 408 authority to require the Corps to

- indicate whether the application is complete within 30 days of receiving the application,
- decide on the Section 408 permission or provide a schedule of when the decision would be made within 90 days of receiving a complete application, and
- coordinate its NEPA review of an activity requiring a Section 408 permission with other NEPA reviews related to that activity (including any review under the agency's regulatory authorities or led by another agency).

WRDA 2016 also allowed the Corps to accept and expend funds received from nonfederal public and private entities to evaluate an alteration or permanent occupation or use of a work built by the United States. In June 2017, the Corps released its implementation guidance for Section 1156. The guidance indicates that EC 1165-2-216, which was set to expire on September 30, 2017, is in the process of being revised to include lessons learned and to implement the changes made in statute in 2016 and 2014 (Section 1007 of P.L. 113-121). The Corps has not published a revised version of the regulation.

This concludes my statement. I would be happy to answer any questions you may have.