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Water Infrastructure Financing: Proposals to Create a Water Infrastructure Finance and Innovation Act (WIFIA) Program

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Summary

Policy makers have recently been considering several legislative options to help finance water infrastructure projects, including projects to build and upgrade wastewater and drinking water treatment systems. This report examines one particular option being debated, creation of a “Water Infrastructure Finance and Innovation Act,” or WIFIA, program. Although several other approaches have also been proposed, much of the recent legislative and policy attention has been on WIFIA. In the 113th Congress, House and Senate conferees have included a WIFIA pilot program in H.R. 3080, the Water Resources Reform and Development Act of 2014, or WRRDA. As enacted (P.L. 113-121), the legislation adopts WIFIA provisions from Senate-passed S. 601 with some additions and modifications. H.R. 3080 as passed by the House did not include similar provisions.

The WIFIA concept is modeled after a similar program that assists transportation projects, the Transportation Infrastructure Finance and Innovation Act, or TIFIA, program. Proponents of the WIFIA approach, including water utility organizations, cite several potential benefits.

- WIFIA could provide credit assistance to large water infrastructure projects that otherwise have difficulty obtaining financing.
- Because WIFIA would access funds from the U.S. Treasury at Treasury rates, the mechanism could lower the cost of capital for borrowers.
- WIFIA assistance would have much less of a federal budgetary effect than conventional project grants that are not repaid, because only the subsidy cost of a loan (representing the presumed default rate on loans) would be scored. Thus, if only an average 10% subsidy cost is charged against budget authority, a \$20 million budgetary allocation theoretically supports \$200 million in loans.
- To be eligible for assistance, projects must be determined to be creditworthy, with a revenue stream for repayment, thus limiting the federal government’s exposure to default and also encouraging private capital investment in the project.

On the other hand, opponents of the WIFIA approach, including organizations that represent state environmental agency officials, cite several concerns, which were raised with policy makers during debate over the pilot program proposed in S. 601.

- Under WIFIA, decision making for financing of water infrastructure projects would shift from the state and local level to federal officials.
- Funding for a WIFIA program likely would have a detrimental effect on federal support for established and successful State Revolving Fund (SRF) programs that provide the largest source of water infrastructure assistance today.
- While WIFIA is intended to assist large and costly projects, the majority of water infrastructure needs are for smaller projects. Especially if SRF assistance is decreased, these smaller projects would face significant financing challenges.
- The Congressional Budget Office (CBO) has warned that the costs of a WIFIA program to the federal budget may be underestimated.

Contents

Introduction.....	1
Proposals to Create a WIFIA Program.....	1
WIFIA Pilot Program in P.L. 113-121	3
Discussion.....	4
Conclusion	7

Contacts

Author Contact Information.....	7
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Introduction

Policy makers have recently been considering several legislative options to help finance water infrastructure projects, including projects to build and upgrade wastewater and drinking water treatment systems. This report examines one particular option being debated, creation of a “Water Infrastructure Finance and Innovation Act,” or WIFIA, program. Although several other approaches have also been proposed, such as a water infrastructure trust fund,¹ much of the recent legislative and policy attention has been on WIFIA. In the 113th Congress, House and Senate conferees have included a WIFIA pilot program in H.R. 3080, the Water Resources Reform and Development Act of 2014, or WRRDA. The President signed the bill into law on June 10 (P.L. 113-121).

Localities are primarily responsible for providing water infrastructure services. According to the most recent estimates by states and the Environmental Protection Agency (EPA), funding needs for such facilities total \$676 billion over the next 20 years.² While some analysts and stakeholders debate these estimates, and whether they understate or overstate capital needs, most agree that communities face formidable challenges in providing adequate and reliable water infrastructure services.

Capital investments in water infrastructure are necessary to maintain high quality service that protects public health and the environment, and capital facilities are a major investment for local governments. Almost all capital projects are debt-financed (not financed on a pay-as-you-go basis from ongoing revenues to the water utility). The principal financing tool that local governments use is issuance of tax-exempt municipal bonds—at least 70% of U.S. water utilities rely on municipal bonds and other debt to some degree to finance capital investments. In 2011, bonds issued for water, sewer, and sanitation projects totaled \$29.6 billion, of which \$14.2 billion was new-money financing and the remainder was for refunding to refinance prior governmental bonds.³ Beyond municipal bonds, federal assistance through grants and loans is available for some projects, but is insufficient to meet all needs. Finally, public-private partnerships, or P3s, which are long-term contractual arrangements between a public utility and a private company, provide limited capital financing. While they are increasingly used in transportation and some other infrastructure sectors, especially P3s that involve private sector debt or equity investment in a project, most P3s for water infrastructure involve contract operations for operation and maintenance.

Proposals to Create a WIFIA Program

The WIFIA approach for supporting investment in water infrastructure is modeled after an existing Transportation Infrastructure Finance and Innovation Act (TIFIA) program. As the name

¹ For discussion of several other legislative options to help finance water infrastructure, see CRS Report R42467, *Legislative Options for Financing Water Infrastructure*, by Claudia Copeland, Steven Maguire, and William J. Mallett.

² EPA’s most recent estimate of capital needs for wastewater infrastructure was published in 2010. See U.S. Environmental Protection Agency, *Clean Watersheds Needs Survey 2008, Report to Congress*, EPA-832-R-10-002, May 2010. The most recent EPA needs estimate for drinking water infrastructure was issued in 2013. See U.S. Environmental Protection Agency, *Drinking Water Infrastructure Needs Survey and Assessment*, EPA-816-R-13-006, April 2013.

³ Thomson-Reuters, *The Bond Buyer 2012 Yearbook*, p. 159.

suggests, only transportation projects are eligible for TIFIA assistance, but operation of the TIFIA program over the past 15 years has generated interest in creating a similar program for water infrastructure.⁴

TIFIA was enacted in 1998 as part of the Transportation Equity Act for the 21st Century (TEA-21; P.L. 105-178) and was reauthorized in July 2012 in the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141). TIFIA provides federal credit assistance up to a maximum of 49% of project costs in the form of secured loans, loan guarantees, and lines of credit (23 U.S.C. 601 et seq.). Transportation projects costing at least \$50 million (or at least \$25 million in rural areas) are eligible for TIFIA financing.⁵ Projects must also have a dedicated revenue stream to be eligible for credit assistance. TIFIA can provide senior or subordinated debt. With the enactment of MAP-21, funding authorized for the TIFIA program has increased from \$122 million annually to \$750 million in FY2013 and \$1 billion in FY2014.

Prior to the enactment of MAP-21, a project seeking TIFIA assistance had to satisfy a number of eligibility criteria such as project cost and planning requirements. Projects were then selected by the Department of Transportation (DOT) from among those eligible based on eight weighted factors: private participation (20%); environmental impact (20%); national or regional significance (20%); project acceleration (12.5%); creditworthiness (12.5%); use of new technologies (5%); reduced federal grant assistance (5%); and consumption of budget authority (5%). MAP-21 eliminates these selection criteria and now provides TIFIA assistance purely on a project's eligibility. One of the key eligibility criteria is the creditworthiness of the project. To be eligible, a project's senior debt obligations and the federal credit instrument must receive an investment-grade rating from at least one nationally recognized credit agency. The TIFIA assistance must also be determined to have several beneficial effects: fostering a public-private partnership, if appropriate; enabling the project to proceed more quickly; and reducing the contribution of federal grant funding. Other eligibility criteria include satisfying planning and environmental review requirements and being ready to contract out construction within 90 days after the obligation of assistance.

Since the beginning of the program in 1998, TIFIA has provided assistance to 35 projects, mostly in the form of direct loans. Loan amounts ranged from \$40 million to \$900 million. Total credit assistance provided over the life of the program amounts to \$11.8 billion, as of September 2013. The amount of credit assistance is much larger than the appropriated amount over this period because the appropriated funds need only cover the administrative and subsidy cost of the program (see below for a more detailed discussion of this point). Projects involving TIFIA amount to \$46 billion in total financing costs.⁶ TIFIA typically provides financing to fill a gap in a much larger financial package that sometimes involves private equity and private debt. For example, the \$2.6 billion IH-635 Managed Lanes project in Dallas, TX, is being financed with \$615 million in private activity bonds, a \$664 million equity contribution from the private sector

⁴ For example, see American Water Works Association, Water Environment Federation and Association of Metropolitan Water Agencies, "A Cost Effective Approach to Increasing Investment in Water Infrastructure, The Water Infrastructure Financing Innovations Authority (WIFIA)," <http://www.awwa.org/portals/0/files/legreg/documents/wifia.pdf>.

⁵ The threshold for Intelligent Transportation Systems projects is \$15 million.

⁶ Federal Highway Administration, "Projects and Project Profiles: TIFIA Portfolio," http://www.fhwa.dot.gov/ipd/tifia/projects_project_profiles/tifia_portfolio.htm.

partner, \$17 million in toll revenues, \$490 million in public funds, and an \$850 million TIFIA loan.⁷

WIFIA Pilot Program in P.L. 113-121

In the 113th Congress, House and Senate conferees included a WIFIA pilot program as part of H.R. 3080, the Water Resources Reform and Development Act of 2014 (WRRDA).⁸ Title X of Senate-passed S. 601 included a five-year pilot program, while House-passed H.R. 3080 included no similar provisions. Under the conference report on H.R. 3080/P.L. 113-121, Title V, Subtitle C, of the bill authorizes a five-year WIFIA pilot program. Under the bill, EPA is authorized to provide credit assistance (secured loans or loan guarantees) for drinking water and wastewater projects, and the U.S. Army Corps of Engineers is authorized to provide similar assistance for water resource projects, such as flood control or hurricane and storm damage reduction.

Under H.R. 3080 as enacted, EPA and the Corps each are authorized a total of \$175 million over five years (beginning with \$20 million for each agency in FY2015 and increasing to \$50 million in FY2019) to provide assistance. Projects are required to be \$20 million or larger in costs to be eligible for credit assistance, except that projects in rural areas (population 25,000 or less) must have eligible project costs of \$5 million or more. WIFIA credit assistance is to be available to project sponsors (a corporation; partnership; joint venture; trust; or a federal, state, local, or tribal government) or to state infrastructure financing authorities for a group of projects. In the case of projects carried out by a private entity, such projects are to be publicly sponsored. To meet the requirement that a WIFIA-assisted project must be publicly sponsored, the legislation allows a project applicant to demonstrate to the Corps or EPA that the affected state, local, or tribal government supports the project. To ensure that ownership of the water project does not become private (which would limit availability of some other sources of federal financing), the maximum amount of a loan is to be 49% of eligible project costs, but the legislation authorizes EPA or the Corps to make available up to 25% of available funds each year for credit assistance in excess of 49% of project costs. Except for certain projects in rural areas, the total amount of federal assistance (i.e., WIFIA and other sources) shall not exceed 80% of a project's cost.

Activities eligible for assistance under the WIFIA pilot program include project development and planning, construction, acquisition of real property, and carrying costs during construction. Categories eligible for assistance by the Army Corps would include flood control or hurricane and storm damage reduction projects, environmental restoration, coastal or inland harbor navigation improvement, or inland and intracoastal waterways navigation improvement. Categories eligible for assistance by EPA include projects at wastewater treatment and community drinking water facilities, projects for enhanced energy efficiency of a public water system or wastewater treatment works, repair or rehabilitation of aging wastewater and drinking water systems, desalination or water recycling projects, or a combination of eligible projects. The Secretary of the Army or EPA Administrator, as appropriate, are to determine eligibility based on a project's creditworthiness and dedicated revenue sources for repayment. Selection criteria would include the national or regional significance of the project, extent of public or private financing in addition to WIFIA assistance, use of new or innovative approaches, the amount of budget

⁷ Federal Highway Administration, "TIFIA Project Profiles: IH 635 Managed Lanes," http://www.fhwa.dot.gov/ipd/project_profiles/tx_lbj635.htm.

⁸ A standalone measure to create a WIFIA program also was introduced in the 113th Congress. S. 335 would empower the Administrator of EPA to provide credit assistance to drinking water and wastewater infrastructure projects.

authority required to fund the WIFIA assistance, the extent to which a project serves regions with significant energy development or production areas, and the extent to which a project serves regions with significant water resources challenges.

Responding to concerns from some groups that WIFIA could impair and diminish support for clean water and drinking water State Revolving Fund (SRF) programs under the Clean Water Act and Safe Drinking Water Act (see discussion below), the legislation includes language requiring the EPA Administrator, when the agency receives applications for WIFIA assistance, to give state infrastructure financing authorities a “right of first refusal” to assist the project through SRF monies.

WIFIA-assisted projects must use American-made iron and steel products (“Buy America” provisions), and wastewater treatment works projects must comply with the prevailing wage requirements of the Davis-Bacon Act, in the same manner that they would under the SRF provisions of the Clean Water Act.

P.L. 113-121 requires EPA and the Corps to provide information on an Internet website concerning applications and projects that have received assistance, and it directs the Government Accountability Office to report to Congress on the pilot programs in four years, along with recommendations for continuing, changing, or terminating the WIFIA program. EPA recently announced that agency officials will hold listening sessions in several U.S. cities this summer, seeking public input about procedures for evaluating WIFIA applications and selection criteria.

Discussion

From the federal perspective, an advantage of TIFIA is that it can provide a large amount of credit assistance relative to the amount of budget authority provided. The volume of loans and other types of credit assistance that TIFIA can provide is determined by the size of congressional appropriations and calculation of the subsidy cost.⁹ The subsidy cost largely determines the amount of money that can be made available to project sponsors.¹⁰ DOT estimated that after administrative costs and other deductions it would have \$690 million for credit subsidy support in FY2013 and \$920 million in FY2014.¹¹ Assuming an average subsidy cost of 10%, this could provide DOT with the capacity to lend \$6.9 billion in FY2013 and \$9.2 billion in FY2014. If the subsidy cost for water projects averages 10% and is the only charge against available budget authority, a \$20 million budgetary allocation theoretically supports \$200 million in loans. In budgetary terms, WIFIA (or TIFIA) assistance has much less of an impact than a water infrastructure grant, which is not repaid to the U.S. Treasury.

⁹ According to the Federal Credit Reform Act of 1990, the subsidy cost is the “estimated long-term cost to the Government of a direct loan or loan guarantee, calculated on a net present value basis, excluding administrative costs” (104 Stat. 1388-610). The Federal Credit Reform Act of 1990 was enacted as part of the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508).

¹⁰ Douglas J. Elliott, *Budgeting for Credit Programs: A Primer*, Center for Federal Financial Institutions, April 2004, at <http://www.coffi.org/pubs/Budgeting%20Primer.pdf>.

¹¹ Department of Transportation, “Letters of Interest for Credit Assistance Under the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program,” 77 *Federal Register* 45411-45415, July 31, 2012, http://www.fhwa.dot.gov/ipd/pdfs/tifia/fy2013_tifia_nofa_073112.pdf.

Proponents of a WIFIA have argued that loans for water projects could be even less risky than transportation projects, because water rates are an established repayment mechanism, thus the subsidy cost would be lower and the amount of credit assistance higher (per dollar of budget authority).¹² However, analysts note that, even with stable rate mechanisms, some communities and water utilities have recently experienced problems with borrowing and bond repayments, so repayment of a WIFIA loan is not a certainty.¹³

One of the main benefits of the TIFIA program is that it provides capital at a low cost to the borrower, because even though the interest on 30-year Treasury securities is taxable, Treasury rates can be less expensive than rates on traditional tax-exempt municipal debt. Moreover, TIFIA financing is often characterized as patient capital, because loan repayment does not need to begin until five years after substantial completion of a project, the loan can be for up to 35 years from substantial completion, and the amortization schedule can be flexible. In addition, there is less perceived investment risk, because the project has been determined to be creditworthy (i.e., there is a revenue stream for repayment). The WIFIA legislation likewise is intended to provide these benefits. As total TIFIA assistance cannot exceed 49% of project costs, it is intended to encourage non-federal and private sector financing. P.L. 113-121, with a similar 49% cap on assistance (and limits on all sources of federal assistance to no more than 80% of project cost), would likely encourage some non-federal financing, including from the private sector, but how much is unclear.

Another possible benefit of a WIFIA program is that it is intended to not duplicate existing water infrastructure financing tools. Many argue that the principal federal programs that assist local wastewater and drinking projects—State Revolving Fund (SRF) programs under the Clean Water Act and Safe Drinking Water Act—are useful primarily for smaller communities and smaller projects.¹⁴ This might argue for expanding the SRF program, while keeping the WIFIA solely for larger projects. Arguably, then, the \$20 million minimum threshold for credit assistance contained in the new law could be about the right level so as not to duplicate assistance from SRFs.¹⁵ The legislation, however, also provides access to WIFIA financing for smaller projects by grouping, or aggregating, them through an SRF to meet the \$20 million threshold, and it sets a lower threshold (\$5 million) for projects in rural areas. One possible downside of providing smaller projects access to WIFIA financing, grouped or not, is the time and expense of administering the program.

A major source of debate among opponents and proponents is potential adverse impacts of WIFIA on funds for the Clean Water Act and Safe Drinking Water Act SRF programs. Several groups representing state environmental officials opposed the WIFIA provisions of the 113th Congress

¹² U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment, *Testimony of Aurel Arndt*, Hearing on Innovative Funding of Water Infrastructure of the United States, 112th Cong., 2nd sess., February 28, 2012, <http://republicans.transportation.house.gov/Media/file/TestimonyWater/2012-02-28-Armdt.pdf>.

¹³ LaShell Stratton-Childers, “Navigating a Rough Terrain,” *Water Environment and Technology*, January 2012, pp. 24-29. This article describes the November 2011 bankruptcy filing by Jefferson County, AL, in part resulting from the county’s inability to cover debts for wastewater system upgrades.

¹⁴ For background, see CRS Report RL31116, *Water Infrastructure Needs and Investment: Review and Analysis of Key Issues*, by Claudia Copeland and Mary Tiemann.

¹⁵ U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment, *Testimony of Aurel Arndt*, Hearing on Innovative Funding of Water Infrastructure of the United States, 112th Cong., 2nd sess., February 28, 2012, <http://republicans.transportation.house.gov/Media/file/TestimonyWater/2012-02-28-Armdt.pdf>.

legislation because, they contend, it could result in reduced spending on the SRF programs, which are capitalized by federal appropriations. States are concerned that WIFIA would likely be funded at the detriment of the SRF programs.¹⁶ On the other hand, water utility groups argue that WIFIA would complement, not harm, existing SRF programs. In their view, WIFIA will provide a new funding opportunity for large water infrastructure projects that are unlikely to receive SRF assistance.¹⁷ As described above, in part to address concerns about impacts of WIFIA on the SRF programs, the enacted legislation would give state infrastructure financing authorities a “right of first refusal” to provide SRF funds for a project when EPA receives an application for WIFIA assistance.

A WIFIA program may shift some decision making for financing water infrastructure projects from the state and local level to the federal level, specifically to the EPA or the Army Corps, a change that concerns some stakeholders. Indeed, in a letter to the conferee managers, the Administration expressed concerns with the WIFIA proposal in S. 601 during Senate consideration of that bill, “which would expand the Environmental Protection Agency’s and the Corps’ role in local water infrastructure projects and not provide Federal assistance in the most efficient manner.”¹⁸

Another perceived benefit of the TIFIA program from the federal perspective is that it potentially limits the federal government’s exposure to default by relying on market discipline through creditworthiness standards and the encouragement of private capital investment. On the other hand, the Congressional Budget Office (CBO) argues that the federal government underestimates the cost of providing credit assistance under programs like TIFIA.¹⁹ This is because it excludes—

the cost of market risk—the compensation that investors require for the uncertainty of expected but risky cash flows. The reason is that the FCRA [Federal Credit Reform Act] requires analysts to calculate present values by discounting expected cash flows at the interest rate on risk-free Treasury securities (the rate at which the government borrows money). In contrast, private financial institutions use risk-adjusted discount rates to calculate present values.²⁰

Enacting a WIFIA program raises another federal budgetary and revenue issue. Legislation reported by congressional committees typically is scored by the CBO for the effects on discretionary and mandatory, or direct, spending and by the Joint Committee on Taxation (JCT) for effects on revenue. The initial CBO cost estimate for S. 601, as approved by the Environment and Public Works Committee in April 2013, concluded that the WIFIA provisions would cost

¹⁶ Letter from Association of Clean Water Administrators, Association of State Drinking Water Administrators, and Environmental Council of the States, et al. to Honorable Bill Shuster, Chairman, Committee on Transportation and Infrastructure, and Honorable Nick J. Rahall, II, ranking Member, Committee on Transportation and Infrastructure, October 24, 2013.

¹⁷ Letter from American Water Works Association, Association of Metropolitan Water Agencies, and Water Environment Federation to Honorable Barbara Boxer, Chairman, Committee on Environment and Public Works, September 9, 2013.

¹⁸ Letter from Jo-Ellen Darcy, Assistant Secretary of the Army, Civil Works, to Senator Barbara Boxer, Senator David Vitter, Representative Bill Shuster, and Representative Nick J. Rahall, II, December 11, 2013.

¹⁹ For more on this topic generally, see Congressional Budget Office, *Fair-Value Accounting for Federal Credit Programs*, Issue Brief, March 2012, http://www.cbo.gov/sites/default/files/cbofiles/attachments/03-05-FairValue_Brief.pdf.

²⁰ Congressional Budget Office, “Estimating the Value of Subsidies for Federal Loans and Loan Guarantees,” August 2004, p. 2, <http://www.cbo.gov/ftpdocs/57xx/doc5751/08-19-CreditSubsidies.pdf>.

\$260 million over five years. In addition, it would result in certain revenue loss to the U.S. Treasury, thus, pay-as-you-go procedures would apply to the bill.²¹ CBO cited the JCT's estimate that enactment of the bill would reduce revenues by \$135 million over 10 years, because states would be expected to issue tax-exempt bonds in order to acquire additional funds not covered by WIFIA assistance.²² To avoid the pay-as-you-go problem in the bill, the committee added a provision to S. 601 to prohibit recipients of WIFIA assistance from issuing tax-exempt bonds for the non-WIFIA portions of project costs. CBO re-estimated the bill and concluded that, because the change would make the WIFIA program less attractive to entities, most of whom rely on tax-exempt bonds for project financing, the cost of the bill would be \$200 million less over five years. CBO also said that the bill would have no impact on revenues, because the demand for federal credit would be lower without the option of using tax-exempt financing.²³ P.L. 113-121 retains the bar on tax-exempt financing for WIFIA-assisted projects. Thus, the apparent solution to one problem in the legislation—potential revenue loss—raises a different kind of problem for entities seeking WIFIA credit assistance.

Conclusion

Most stakeholders in the debate about water infrastructure financing acknowledge that there is no single solution or alternative that will fit all needs for all communities and all types of projects. Most also recognize that financing, including approaches such as WIFIA, is not new revenue. Investment via a particular financing tool, such as WIFIA, could simply displace existing mechanisms, such as tax-exempt debt, rather than increase total investment in water infrastructure. Whatever the source of funds for a project, communities and other sponsors must still identify a stream of revenue to repay whatever debt is incurred for a given investment. One of the challenges going forward is to ensure that financing is available for all needed projects.

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²¹ “Pay-as-you-go,” or PAYGO, is a budget rule requiring that, relative to current law, any tax cuts or entitlement and other mandatory spending increases must be paid for by a tax increase or a cut in mandatory spending. See CRS Report R41510, *Budget Enforcement Procedures: House Pay-As-You-Go (PAYGO) Rule*, and CRS Report RL31943, *Budget Enforcement Procedures: Senate Pay-As-You-Go (PAYGO) Rule*, by Bill Heniff Jr.

²² Congressional Budget Office, Cost Estimate for S. 601, Water Resources Development Act of 2013, April 9, 2013, p. 6.

²³ Congressional Budget Office, Cost Estimate for S. 601, Water Resources Development Act of 2013, April 17, 2013, p. 7.