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

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Summary

Policymakers 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, because legislation passed by the Senate in the 113th Congress (S. 601, the Water Resources Development Act of 2013, or WRDA) includes a WIFIA pilot program.

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.

- 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.

In the 113th Congress, the debate over these issues is centered on the WIFIA provisions included in S. 601. Similar House-passed WRDA legislation, H.R. 3080, does not contain WIFIA provisions.
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Introduction

Policymakers 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, much of the recent legislative and policy attention has been on WIFIA, because legislation passed by the Senate in the 113th Congress (S. 601, the Water Resources Development Act of 2013, or WRDA) includes a WIFIA pilot program.

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. While some analysts and stakeholders debate these estimates, and whether they underestimate 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. 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, P3s are uncommon in the water sector; most P3s for water infrastructure involve contract arrangements 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 suggests, only transportation projects are eligible for TIFIA assistance, but operation of the TIFIA

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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.


3 Thomson-Reuters, The Bond Buyer 2012 Yearbook, p. 159.
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 21\(^{st}\) Century (TEA-21; P.L. 105-178) and was reauthorized in July 2012 in the Moving Ahead for Progress in the 21\(^{st}\) 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 financing amount to $46 billion in total 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.


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

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

**113\(^{th}\) Congress Proposals**

In the 113\(^{th}\) Congress, two bills to create a WIFIA program have been introduced.\(^8\) The first, S. 335, would empower the Administrator of EPA to provide credit assistance to drinking water and wastewater infrastructure projects, much like TIFIA is able to do for transportation projects. WIFIA credit assistance (secured loans or loan guarantees) would be available directly to sponsors of projects or to state infrastructure financing authorities for a group of projects that are combined for the purpose of receiving credit assistance. Eligible projects could include capital projects at wastewater treatment and community drinking water facilities, stormwater management projects, drinking water source protection projects, security enhancement projects, and water conservation or efficiency projects, among others. The Administrator of EPA would select projects for assistance based on a number of criteria such as creditworthiness; the need for federal assistance; the contribution of non-federal assistance, including from the private sector; and the extent to which the project is of national or regional significance. Credit assistance provided through the program, at terms prescribed by EPA, would have to be for projects (individual or grouped) totaling not less than $20 million and would be repaid within 35 years. This bill directs that projects receiving assistance comply with prevailing wage requirements of the Davis-Bacon Act and use American iron, steel, and manufactured goods (“Buy America” provisions).

A second measure is S. 601, the Water Resources Development Act of 2013 (WRDA), which the Senate passed on May 15, 2013. Title X of the bill authorizes a five-year WIFIA pilot program. Under the bill, EPA would be authorized to provide credit assistance for drinking water and wastewater projects, and the U.S. Army Corps of Engineers would be authorized to provide similar assistance for water resource projects, such as flood control or hurricane and storm damage reduction. The House also has passed WRDA legislation, H.R. 3080, but this bill does not include a WIFIA provision.\(^9\)

Under S. 601, EPA and the Corps each would be authorized $50 million annually to provide assistance. Projects would have 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 projects costs of $5 million or more. Like S. 335, WIFIA credit assistance under S. 601 would 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 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 would be

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\(^8\) Another bill, H.R. 1877, would not create a WIFIA program, but it would authorize the EPA Administrator to make loans to state infrastructure financing authorities for large wastewater infrastructure projects that, because of scope and cost, are unlikely to receive Clean Water Act assistance.

49% of eligible 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 S. 601 would include project development and planning, construction, acquisition of real property, carrying costs during construction, and refinancing. Categories eligible for assistance by the Army Corps would include flood control or hurricane and storm damage reduction projects. Categories eligible for assistance by EPA would 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, would 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 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. Wastewater treatment works projects receiving WIFIA assistance 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.

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. The subsidy cost largely determines the amount of money that can be made available to project sponsors. DOT estimates that after administrative costs and other deductions it will have $690 million for credit subsidy support in FY2013 and $920 million in FY2014. Assuming an average subsidy cost of 10%, this may 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.

Proponents of a WIFIA argue that loans for water projects could be even less risky than transportation projects, because water rates are an established repayment mechanism, thus the

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10 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).


subsidy cost would be lower and the amount of credit assistance higher (per dollar of budget authority). 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.

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. The WIFIA bills, with similar 49% caps on assistance (and under S. 601, all sources of federal assistance may not exceed 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. 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 S. 335 and S. 601 could be about the right level so as not to duplicate assistance from SRFs. Both bills, however, also provide access to WIFIA financing for smaller projects by grouping, or aggregating, them through an SRF to meet the $20 million threshold, and S. 601 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 have opposed the WIFIA provisions of S. 601 because, they contend, it could result in reduced spending on the SRF programs, which are capitalized by

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14 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.
15 For background, see CRS Report RL31116, Water Infrastructure Needs and Investment: Review and Analysis of Key Issues, by Claudia Copeland and Mary Tiemann.
federal appropriations. States are concerned that WIFIA would likely be funded at the detriment of the SRF programs.\(^\text{17}\) 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.\(^\text{18}\)

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, under S. 601), a change that concerns some stakeholders. Prior to the enactment of MAP-21, authority to make TIFIA loans and to provide other credit assistance was vested in DOT. MAP-21 makes DOT’s role more administrative, predominantly by making the program based on eligibility. Among other things it is hoped that this will speed the delivery of credit assistance.

Another 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.\(^\text{19}\) 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.\(^\text{20}\)

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, concluded that the WIFIA provisions would cost $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.\(^\text{21}\) 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

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\(^{17}\) 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.


issue tax-exempt bonds in order to acquire additional funds not covered by WIFIA assistance.\textsuperscript{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 (Section 10009(a)(5) of S. 601). 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, but it would have no impact on revenues, because the demand for federal credit would be lower without the option of using tax-exempt financing.\textsuperscript{23} 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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