Legislative Options for Financing Water Infrastructure

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Summary

This report addresses several options being considered by Congress to address the financing needs of local communities for wastewater and drinking water infrastructure projects and to decrease or close the gap between available funds and projected needs. Some of the options exist and are well established, but they are under discussion for expansion or modification. Other innovative policy options have recently been proposed in connection with water infrastructure, especially to supplement or complement existing financing tools. Some are intended to provide robust, long-term revenue to support existing financing programs and mechanisms. Some are intended to encourage private participation in furnishing drinking water and wastewater services.

Six options that are reflected in current or recent legislative proposals, including budgetary implications, are discussed.

- Increase funding for the State Revolving Fund (SRF) programs in the Clean Water Act (H.R. 3145 in the 112th Congress) and the Safe Drinking Water Act (H.R. 5320 in the 111th Congress),
- Create a federal water infrastructure trust fund (H.R. 3145 in the 112th Congress and H.R. 3202 in the 111th Congress),
- Create a "Water Infrastructure Finance and Innovation Act" Program, or WIFIA (H.R. 3145 in the 112th Congress),
- Create a National Infrastructure Bank (H.R. 402 and S. 652 in the 112th Congress),
- Lift private activity bond restrictions on water infrastructure projects (S. 1813, S. 939 and H.R. 1802 in the 112th Congress), and
- Reinstate authority for the issuance of Build America Bonds (included in the Administration's FY2013 budget request).

A number of these issues and options have been examined in recent hearings by the House Transportation and Infrastructure Subcommittee on Water Resources and Environment (on February 28 and March 21, 2012) and by the Senate Environment and Public Works Subcommittee on Water and Wildlife (December 13, 2011, and February 28, 2012).

Consensus exists among many stakeholders—state and local governments, equipment manufacturers and construction companies, and environmental advocates—on the need for more investment in water infrastructure. There is no consensus supporting a preferred option or policy, and many advocate a combination that will expand the financing "toolbox" for projects. Some of the options discussed in this report may be helpful, but there is no single method that will address needs fully or close the financing gap completely. For example, some may be helpful to projects in large urban or multi-jurisdictional areas, while others may be more beneficial in smaller communities. It is unlikely that any of the recently proposed options could be up and running quickly, meaning that, at least for the near term, communities will continue to rely on the existing SRF programs, tax-exempt governmental bonds, and tax-exempt private activity bonds to finance their water infrastructure needs.

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Introduction

This report examines several legislative options to help finance water infrastructure that currently are receiving attention in Congress. The options discussed here are intended to address capital needs for building and upgrading wastewater and drinking water treatment systems and improving water quality in order to meet requirements under federal law.

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 $633 billion over the next 20 years, while EPA has estimated that the financing "gap" between current capital spending levels and projected needs is $224 billion over 20 years, or $11 billion per year, if spread evenly over that period.[1]

Some analysts and stakeholders take issue with such estimates. Some say that EPA's needs estimates are too low because they do not fully reflect types of projects not currently eligible for federal assistance, such as repair and replacement of aging systems, or needs that currently are not well met by existing programs, such as security-related projects; on-site treatment systems in small, dispersed communities; and projects that include mixed elements such as developing and treating new water supply, especially in rural areas. Other estimates much larger than EPA's have been made by a number of groups. For example, the American Water Works Association recently estimated that investment needs for "buried drinking water infrastructure" total more than $1 trillion over the next 25 years.[2]

However, assessing "need" is complicated by differences in purpose, criteria, and timing, among other issues. One of the major difficulties is defining what constitutes a "need," a relative concept that is likely to generate a good deal of disagreement. In the infrastructure context, funding needs estimates try to identify the level of investment that is required to meet a defined level of quality or service, but this depiction of need is essentially an engineering concept. It differs from economists' conception that the appropriate level of new infrastructure investment, or the optimal stock of public capital (infrastructure) for society, is determined by calculating the amount of infrastructure for which social marginal benefits just equal marginal costs.[3]

Whether the estimates made by states and EPA understate or overstate capital needs, communities face formidable challenges in providing adequate and reliable water infrastructure services. Congress is considering ways to help meet those challenges.

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[1] 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 2009. See U.S. Environmental Protection Agency, *Drinking Water Infrastructure Needs Survey and Assessment*, EPA-816-R-09-001, February 2009. Also see U.S. EPA, *The Clean Water and Drinking Water Infrastructure Gap Analysis*, EPA-816-R-02-020, September 2002. Estimates in the latter report of the "gap" between needs and current wastewater spending are very likely to be larger today than when that report was written 10 years ago, because projected needs have increased, while available funds have not.

[2] American Water Works Association, *Buried No Longer: Confronting America's Water Infrastructure Challenge*, March 2012, http://www.awwa.org/files/GovtPublicAffairs/GADocuments/BuriedNoLongerCompleteFinal.pdf.

[3] For additional discussion, see CRS Report RL31116, *Water Infrastructure Needs and Investment: Review and Analysis of Key Issues*, by Claudia Copeland and Mary Tiemann, and CRS Report R42018, *The Role of Public Works Infrastructure in Economic Recovery*, by Claudia Copeland, Linda Levine, and William J. Mallett.

Six Policy Options

This report addresses several financing options intended to address overall needs and decrease or close the funding gap. Some of the options exist and are well established, but they are under discussion for extension or modification. Other innovative policy options have recently been proposed in connection with water infrastructure, especially to supplement or complement existing financing tools. Some are intended to encourage private participation in furnishing drinking water and wastewater services. Some are intended to provide robust, long-term revenue to support existing financing programs and mechanisms. This report analyzes six policy options, including budgetary implications, related to financing water infrastructure that are reflected in current or recent legislation.[4]

- *Increase funding for the State Revolving Fund (SRF) programs in the Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA).* Some propose increasing federal appropriations for these existing programs, under which federal capitalization grants are provided to states for the purpose of making loans to communities for water infrastructure and other eligible projects.
- *Create a federal water infrastructure trust fund.* Establishing such a fund could help to provide a dedicated source of federal funding for water infrastructure.
- *Create a "Water Infrastructure Finance and Innovation Act" Program (WIFIA).* Modeled after the existing Transportation Infrastructure Finance and Innovation Act (TIFIA) program, a WIFIA program would provide federal credit assistance in the form of direct loans and loan guarantees to finance water infrastructure projects.
- *Create a National Infrastructure Bank*. This federal entity would provide low-interest loans and other types of credit assistance to stimulate investments by states, localities, and the private sector in a variety of infrastructure projects.
- *Lift private activity bond restrictions on water infrastructure projects*. This proposal would eliminate the limit on the amount of tax-exempt private activity bonds issued by states and localities to provide financing for privately owned water infrastructure facilities.
- *Reinstate authority for the issuance of Build America Bonds (BABs)*. BABs are taxable bonds for which the U.S. Treasury pays a direct subsidy of the interest costs to the issuer (a state or local government), thus helping finance capital projects with lower borrowing costs.

A number of these issues and options have been examined in recent hearings by the House Transportation and Infrastructure Subcommittee on Water Resources and Environment (on February 28 and March 21, 2012) and by the Senate Environment and Public Works Subcommittee on Water and Wildlife (December 13, 2011, and February 28, 2012).

[4] This report does not address certain other concepts that have been suggested from time to time to help localities meet financial challenges through better planning and prioritization of water infrastructure. For example, EPA encourages localities to improve management of their infrastructure assets in order to extend current life and reduce need for new infrastructure. Likewise, EPA and municipalities have recently begun discussion about ways to integrate infrastructure planning and permitting, in order to prioritize investments.

Increase Funding for the SRF Programs

The most prominent source of federal financial assistance for municipal water infrastructure projects is the SRF programs, which can assist a variety of types of projects, including building new and improving existing wastewater treatment and drinking water treatment facilities needed to comply with standards and requirements of the CWA and SDWA. Clean water and drinking water SRFs have been set up in all 50 states, and the programs are widely supported. The programs' principal strengths are that they are well established; project selection criteria are well known; states have considerable flexibility in selecting which projects to assist; and operations and procedures are familiar to stakeholders.

Established by Congress in the 1987 CWA amendments (P.L. 100-4), the clean water SRF program provides seed money to states in the form of capitalization grants, which are matched by states at least by 20%. A state, in turn, uses the combined federal-state monies to provide various types of assistance, including making low- or no-interest loans, refinancing, purchasing or guaranteeing local debt, and purchasing bond insurance. Loan recipients repay assistance to the state, under terms set by the state, thus providing a permanent, revolving source of funds for additional projects over time. In 1996, Congress enacted a similar drinking water SRF program in the SDWA (P.L. 104-182). At the federal level, the SRF programs are administered by EPA, but actual implementation is done by states.

Both programs allow federal, state, and local agencies to leverage limited dollars. According to EPA, because of the funds' revolving nature, the federal investment can result in the construction of up to four times as many projects over a 20-year period as a one-time grant. Further, to the extent that a state uses monies in its SRF to secure bonds and then lends proceeds from the bonds for SRF-eligible activities, loan funding is increased. This financing technique, called leveraging, is used by 27 states and provides funding that exceeds the contribution from federal capitalization grants. In total from 1988 through mid-2010, leveraged bonds have comprised 48% of funds in clean water SRFs, while federal capitalization grants and state contributions have comprised 44% and 4%, respectively. Since the beginning of the drinking water SRF program in 1997, leveraged bonds have comprised 28% of that program, while federal capitalization grants and state contributions have comprised 58% and 11%, respectively.

Although the SRF programs are considered to be highly successful in addressing water quality problems, there are several concerns and criticisms of them.

First, the SRF is a loan program, but some communities have long favored grants, which the CWA (but not the SDWA) previously provided. The cost burden per customer of capital projects tends to be greater in small communities, and rural and disadvantaged communities prefer grants because many of them lack the tax base needed to repay a loan. Congress has responded to this concern in several ways, including providing earmarked grants in appropriations acts until recently and authorizing a separate CWA grant program for "wet weather" projects to address sewer overflow problems, which has never received appropriations. Further, Congress specified in recent appropriations acts (such as EPA's FY2012 appropriation, P.L. 112-74) that states shall use a portion of both programs' capitalization grants to provide subsidy in the form of principal forgiveness, negative interest loans, or grants.[5] Critics of the latter point out that, to the extent

[5] The SDWA already allows but does not require states to provide subsidized assistance from drinking water SRFs.

SRF assistance is partially subsidized and not fully repaid, the corpus of the state's loan fund is diminished, along with its capacity to make future loans.

Second, the potential for leveraging to increase overall funding is limited, because nearly half of the states do not use that financing technique.

Third, some stakeholders—especially large cities—contend that the SRF programs favor small and medium communities. According to this view, the programs do not benefit large projects, because assistance to individual projects is limited to $20 million. However, the general validity of that concern is unclear, because where limits are imposed, this results from state policies, not federal. Neither the CWA nor the SDWA requires a state to limit SRF assistance, and states establish their own criteria for selecting projects, which are identified annually in Intended Use Plans (IUPs). In order to extend aid to more communities, some states may adopt dollar limits by rule or practice, but this is not universally the case.

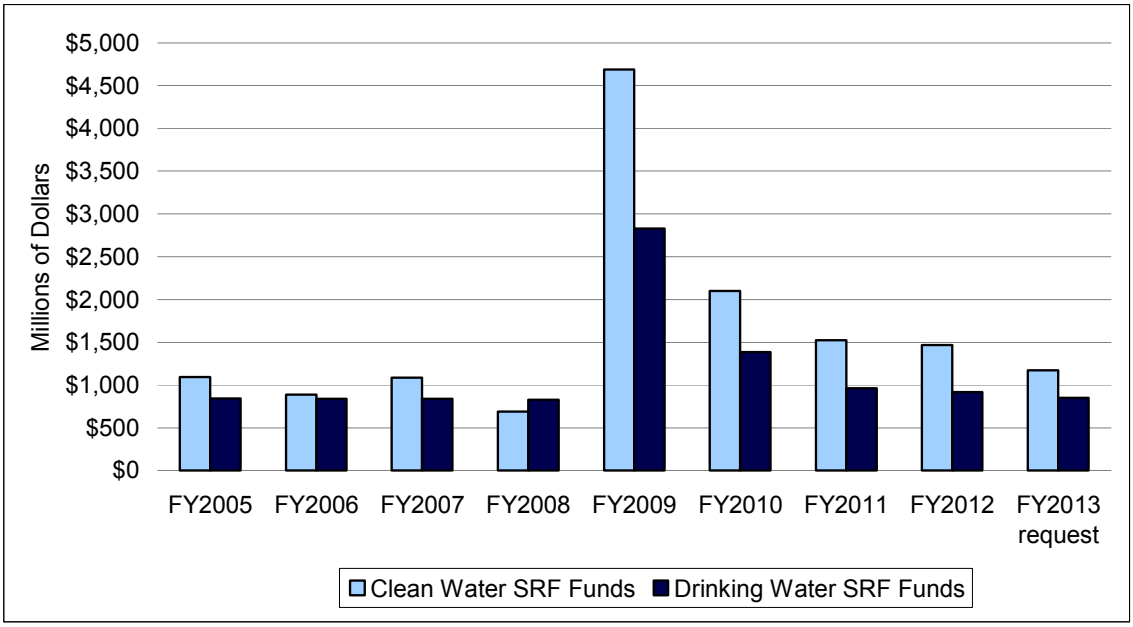
Fourth, the CWA restricts SRF assistance to municipal, intermunicipal, interstate, and state agencies, thus barring private utilities from the program. Some in the private sector contend that this restriction provides an advantage to publicly owned utilities. Several legislative proposals to allow clean water SRFs to assist non-public entities have been considered, but none has been enacted. Modifying the CWA in that manner would conform the clean water program to its counterpart in the Safe Drinking Water Act. However, critics of providing federal assistance to private utilities contend that the credit subsidies have the potential of offering windfalls to those companies.

Fifth, some are critical that Congress imposes restrictions on SRF capitalization grants in order to achieve broad policy objectives. Examples include Buy America or Davis-Bacon prevailing wage requirements. According to this view, by mandating that all funded projects meet certain non-water quality requirements, or that states use a minimum percentage of funds for "green" infrastructure such as energy efficiency projects, Congress adds to projects costs and limits state flexibility.

Perhaps the most critical concern is the fact that federal capitalization grants are entirely subject to appropriations, which generally have been flat or declining for more than a decade, as shown in **Figure 1**. The FY2009 exception to this trend reflects temporary funding under the American Recovery and Reinvestment Act (ARRA, P.L. 111-5). The President's FY2013 budget request for capitalization grants for the two SRF programs is 15% below the $2.38 billion total appropriated in FY2012.

Figure 1. SRF Appropriations, FY2005-2013 Request

(millions of dollars)



Source: Compiled by Congressional Research Service from appropriations acts and FY2013 Budget Justification for EPA.

Notes: FY2009 funding included supplemental appropriations under the American Recovery and Reinvestment Act of $4.0 billion for the clean water SRF and $2.0 billion for the drinking water SRF.

Securing future SRF appropriations is likely to be more difficult after FY2012, under general deficit reduction pressures and specific discretionary spending caps imposed by the debt agreement embodied in the Budget Control Act of 2011 (BCA, P.L. 112-25).[6] In a multi-step process, the statute set caps on discretionary budget authority (appropriations) and resulted in automatic spending reductions, which will reduce the deficit by a combined $2.1 trillion over the FY2012-FY2021 period. The precise programmatic impact of reductions in discretionary spending on clean water and drinking water SRF capitalization grants will be determined in the appropriations process. However, if the appropriations process does not result in spending levels that adhere to the cap levels and the cap levels are breached, a specified enforcement process follows, beginning with sequestration in FY2013.[7] If sequestration occurs, the FY2013 automatic reduction in spending for non-exempt nondefense discretionary accounts is projected to be 8.5% below the BCA cap. Moreover, while the BCA caps represent the upper limit of spending that will meet the act's deficit reduction targets, some Members of Congress favor even lower levels of

[6] For full discussion, see CRS Report R42013, *The Budget Control Act of 2011: Effects on Spending Levels and the Budget Deficit*, by Marc Labonte and Mindy R. Levit.

[7] In addition to the deficit reduction achieved through the statutory caps on discretionary spending, the BCA put in place an automatic process in the event a special joint committee fails to reach an agreement on spending reductions. The BCA "Super Committee" announced in November 2011 that it had failed to reach such an agreement. As a result, an automatic spending reduction process has been triggered to begin in January 2013 unless Congress and the President act to eliminate or change the process before then. The automatic spending reductions affecting discretionary accounts will take place via a sequestration process in FY2013 and a reduction in the original BCA caps in FY2014 and beyond. Although some discretionary programs are exempt from the sequester process in FY2013, the clean water SRF program is not. Ibid.

spending than the BCA allows. The FY2013 budget resolution adopted by the House on March 29 (H.Con.Res. 112) sets a discretionary spending cap that is $19 billion (2%) below the 2013 level established in the BCA and removes defense discretionary spending from possible sequestration, meaning that nondefense discretionary programs would be affected to a greater degree. Overall, no matter how much support there may be for more SRF spending, Congress faces difficult choices.

Authorization of appropriations for clean water SRF capitalization grants expired in FY1994 and for drinking water SRF capitalization grants in FY2003. Congress has considered water infrastructure funding issues several times since the 107th Congress, but no legislation other than appropriations has been enacted. Recent proposals have included provisions for more robustly funded SRFs. In the 112th Congress, H.R. 3145 would reauthorize the clean water SRF program at a total of $13.8 billion over five years, as would have bills passed by the House in the 111th (H.R. 1262) and 110th Congresses (H.R. 720). Regarding the drinking water SRF, in the 111th Congress, the House passed a bill to reauthorize that program at a total of $4.8 billion over three years (H.R. 5320). Also in the 111th Congress, a bill to reauthorize both SRF programs was reported in the Senate (S. 1005); it included $20.0 billion for the clean water SRF program and $14.7 billion for the drinking water SRF program, each for five years. No similar House or Senate bill has been introduced in the 112th Congress.

Legislation reported by congressional committees typically is "scored" by the Congressional Budget Office (CBO) for the effects on discretionary and mandatory, or direct, spending and by the Joint Committee on Taxation (JCT) for effects on revenues. Discretionary spending is the part of federal spending that lawmakers generally control through annual appropriation acts. In general, legislation that authorizes future appropriations for discretionary programs, by itself, does not increase federal deficits or decrease surpluses. Any subsequent discretionary appropriation to fund the authorized activity would affect the federal budget and would be subject to spending limits under a budget resolution or the BCA.

Enacting legislation that only authorizes future discretionary appropriations would not result in an increase in CBO's projection of federal deficit under its baseline assumptions and would not implicate pay-as-you-go rules or the Statutory Pay-As-You-Go Act (P.L. 111-139), or PAYGO, which generally require that direct spending and revenue legislation not increase the federal deficit or that the spending be offset. However, authorizing legislation that affects direct spending or federal revenues is subject to budgetary rules. Direct spending is provided in or controlled by authorizing laws, generally continues without any annual legislative action, and includes spending authority provided for in such programs as Medicare and unemployment compensation. Direct spending also includes many offsetting collections, such as Medicare premiums, which are treated as negative spending instead of as revenues.

Perspective on how the SRF provisions of H.R. 3145 likely would be scored is provided by CBO's report on H.R. 1262 in the 111th Congress, which similarly authorized appropriations totaling $13.8 billion for clean water SRF capitalization grants. The CBO report stated that certain provisions of the bill would affect direct spending and revenues, and it cited the JCT's estimates that by increasing funds available under the clean water SRF, H.R. 1262 would result in some states leveraging SRF grants by issuing additional tax-exempt bonds to finance water infrastructure projects. The JCT estimated that those additional bonds would result in reductions

in federal revenue totaling $700 million over 10 years.[8] To offset the reduced revenue, H.R. 1262 (and H.R. 3145 in the 112th Congress) included offsetting receipts resulting from an increase in per-ton duties imposed on vessels arriving at U.S. ports from foreign ports. These receipts offset direct spending. The significance of needing to include the offsetting receipts in the legislation is that, if states were to increase leveraging and issue more tax-exempt bonds—such as might occur if the state volume cap on private activity bonds were lifted (see discussion below)—additional offsetting receipts likely would be required in SRF reauthorization legislation.

Create a Federal Water Infrastructure Trust Fund

One of the most common criticisms of the SRF programs, that capitalization grants are subject to annual appropriations, is the focus of proposals to create a federal water infrastructure trust fund modeled after existing mechanisms such as the airport and airways trust fund and the highway trust fund for other types of infrastructure. A trust fund supported by dedicated revenues would be intended to provide sustainable and reliable long-term financing of water infrastructure projects. Proponents contend that trust fund expenditures would not impact the federal deficit (assuming that revenues are at least as large as program spending), because they would be drawn from collections that are dedicated by law for specified purposes. Whether the mechanism is created as a trust fund per se is not the critical issue,[9] but, rather, the critical issue is creation of a dedicated revenue and how it is recorded in the budget.

This idea is not new: Legislation was introduced in the House in 1993 to support clean water infrastructure by creating a fund that would accrue $6 billion annually in revenues through a combination of user fees and excise taxes. In 1996 EPA issued a report, requested by Congress, on alternative financing options for water infrastructure, including a trust fund, and a 2009 Government Accountability Office (GAO) report, also requested by Congress, similarly assessed options to generate revenue for a clean water trust fund.[10] Legislation has been introduced (H.R. 4560 in the 109th Congress, H.R. 3202 in the 111th Congress, and H.R. 3145 in the current Congress). Issues associated with alternative financing options have been explored during hearings by the House Transportation and Infrastructure Water Resources and Environment Subcommittee in 2005, 2009, and 2012.

These proposals would create a dedicated revenue source that would be counted as an offsetting receipt or collection and would be recorded in the budget as reducing or netting out outlays for

[8] See U.S. Congress, House Committee on Transportation and Infrastructure, *Water Quality Investment Act of 2009*, report to accompany H.R. 1262, 111th Congress, 1st session, H.Rept. 111-26, pp. 49-54. Similarly, the JCT estimated that H.R. 5320 in the 111th Congress, authorizing capitalization grants for the drinking water SRF program, would reduce federal revenues by $337 million over 10 years by increasing the use of tax-exempt bonds by states. Pay-as-you-go procedures would apply because enacting the legislation would affect revenues. See U.S. Congress, House Committee on Energy and Commerce, *Assistance, Quality, and Affordability Act of 2010*, report to accompany H.R. 5320, 111th Cong., 2nd sess., July 1, 2010, H.Rept. 111-524, pp. 20-21.

[9] Whether a particular fund is designated in law as a trust fund is, in many cases, arbitrary. In the federal budget, there is no substantive difference between a trust fund (such as the Highway Trust Fund) and a special fund (e.g., the Nuclear Waste Disposal Fund) or a revolving fund (such as the Postal Service Fund). All receive collections that are dedicated by law for specific purposes. Office of Management and Budget, "Budget of the United States Government: Analytical Perspectives, Supplemental Materials Fiscal Year 2013," p. 455.

[10] U.S. Environmental Protection Agency, *Alternative Funding Study: Water Quality Fees and Debt Financing Issues, Final Report to Congress*, June 1996; and U.S. Government Accountability Office, *Clean Water Infrastructure, A Variety of Issues Need to Be Considered When Designing a Clean Water Trust Fund*, GAO-09-657, May 2009. Hereinafter, 2009 GAO Report.

water infrastructure projects.[11] Proponents contend that the proposal would be deficit-neutral (again assuming that new revenue sources match or exceed program outlays) and would be a consistent and protected source of revenue to help states replace, repair, and rehabilitate critical water infrastructure facilities.[12] Both the 1996 EPA and 2009 GAO reports identified a number of issues that need to be addressed in establishing a clean water trust fund, including how it should be administered, whether it would be used to fund the clean water SRF or a separate program, what type(s) of financial assistance should be provided for projects (grants or loans), and what activities should be eligible for funding. These design issues are necessary, but they are relatively straightforward to resolve legislatively.

The most difficult issues conceptually and politically concern how to generate the revenues. Clean water lacks as clear a basis for charging or taxing a set of users as exists for either the highway or aviation trust funds. As GAO observed, "each funding option poses various implementation challenges, including defining the products or activities to be taxed, establishing a collection and enforcement framework, and obtaining stakeholder support."[13] Consensus on these issues has been elusive. H.R. 3202 in the 111th Congress proposed to raise at least $10 billion annually through excise taxes on water-based beverages, pharmaceutical products, and items disposed in wastewater (such as cosmetics and toilet paper), plus a corporate profits tax. These revenues would be available to fund clean water and drinking water SRF programs, as well as security upgrades at treatment plants, wastewater and drinking water technology research, grants to water utilities for climate change adaptation, and other programs. Other revenue options proposed in the past include fees on industrial discharge of toxic pollutants, and an excise tax on the active ingredients of pesticides and fertilizers. The current proposal, in Title IV of H.R. 3145, also proposes a $10 billion per year fund, but it defers identifying potential funding mechanisms and funding sources, pending a study by CBO.

From a budgetary perspective, there are no hurdles to enacting legislation to collect revenues for a water infrastructure trust fund. That is, assuming that the policy issues of who or what to tax and at what levels are resolved, budget rules do not prohibit enacting a measure to collect new revenues. However, most programs with dedicated revenues, including most trust funds, are not set up to be spent without authorization or appropriation by Congress, making it difficult to assure that all revenues and interest will be spent each year for water infrastructure purposes. Accomplishing the objectives laid out by proponents of the clean water trust fund would involve complicated steps: creating dedicated revenue that is classified in the budget so that it will net out the outlays, preventing spending on the program from being reduced by the congressional authorization and appropriation process, and setting up the program to ensure that it does not count against congressional budget rules such as PAYGO and discretionary spending caps.

In the past, Congress has sought to create a mechanism to guarantee spending for some existing infrastructure trust funds. For example, since 2000, legislation authorizing appropriations from the Airport and Airway Trust Fund included a provision making it out of order in the House or Senate to consider legislation that fails to use all aviation trust fund receipts and interest annually.

[11] Offsetting collections are usually authorized to be spent for specified purposes and generally are available for use when collected, without further action by the Congress. Offsetting receipts may or may not be designated for a specific purpose. If designated for a particular purpose, in some cases the offsetting receipts may be spent without further action by Congress. When not so designated, offsetting receipts are credited to the general fund. See "Analytical Perspectives on the FY2013 Budget," http://www.whitehouse.gov/omb/budget/Analytical_Perspectives.

[12] Rep. Earl Blumenauer, "The Water Protection and Reinvestment Act," (H.R. 3202), July 14, 2009.

[13] 2009 GAO report, p. 13.

The recently enacted FAA reauthorization act, P.L. 112-95, modifies this guarantee to restrict the amount made available for each fiscal year to 90% of the receipts of the aviation trust fund plus interest credited for the respective year as estimated by the Secretary of the Treasury.[14] Further, since 1998, House rules effectively created funding guarantees for transportation activities within the highway and mass transit categories by making any legislation that would cause spending to be less than the amount authorized subject to a point of order. This rule, in clause 3 of Rule XXI, was amended at the beginning of the 112th Congress to allow an appropriations measure to reduce spending for highway and mass transit activities below the authorized level, as long as those funds were not made available for a purpose not authorized in the surface transportation act.[15] These two examples illustrate the difficulty of assuring that trust fund revenues that are subject to appropriations are spent fully. Moreover, spending guarantees can still be trumped by broader budget policy goals (such as deficit reduction) or by the spending priorities of appropriators—that is, points of order can be waived.

Conceptually, creating a mechanism to protect spending could be done by amending the Balanced Budget and Emergency Deficit Control Act of 1985 to create a separate budget category for water infrastructure programs. Funding from within this category could not be used to, in effect, offset increased spending elsewhere in the budget, thereby removing any incentive for restraining the spending of available trust fund revenues. However, this option reduces the appropriations committees' influence on spending, which they could be expected to vigorously resist, and also would involve amending the Budget Act, thus requiring the acquiescence of the House and Senate budget committees.

Create a "Water Infrastructure Finance and Innovation Act" Program (WIFIA)

One option for supporting investment in water infrastructure is the creation of a program modeled on the 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 program over the past 14 years has generated interest in creating a similar program for water infrastructure, a so-called Water Infrastructure Finance and Innovation Act (WIFIA) Program.[16]

TIFIA, enacted in 1998 as part of the Transportation Equity Act for the 21st Century (TEA-21; P.L. 105-178), provides federal credit assistance up to a maximum of 33% 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 $15 million in the case of Intelligent Transportation Systems projects) are eligible for TIFIA financing. Projects must also have a dedicated revenue stream to be eligible for credit assistance. TIFIA can provide senior or

[14] This restriction in the bill was described in the House Transportation Committee's report, H.Rept. 112-29, pt. 1, as necessary to "mitigate the effect of over-optimistic revenue projections in the future." The 90% restriction would provide room for error in revenue estimates. Once the actual level of revenues for the trust fund is known, an adjustment would be made in the amount actually made available from the trust fund for that year, according to the committee's report.

[15] See CRS Report R41926, *House Rules Changes Affecting the Congressional Budget Process Made at the Beginning of the 112th Congress*, by Bill Heniff Jr.

[16] For example, see American Water Works Association and Water Environment Federation, "A Water Infrastructure Financing Innovations Authority (WIFIA) and Other Infrastructure Financing Tools," http://www.awwa.org/files/GovtPublicAffairs/PDF/2011WIFIA.pdf.

subordinated debt. The senior debt obligations for the project must receive an investment grade rating from a nationally recognized credit agency.

The TIFIA program is currently funded at $122 million annually and is administered by the Department of Transportation (DOT). Project selection authority rests with the Secretary of Transportation, who is advised by a 13-member Credit Council comprised of senior DOT officials. Projects are evaluated on eight criteria with different weights: 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%).

From the beginning of the program through February 3, 2012, TIFIA has provided 25 direct loans and one loan guarantee. Loan amounts have ranged from $42 million to $900 million. Total credit assistance provided over the life of the program amounts to nearly $8.7 billion. 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). Project costs involving TIFIA financing total $33 billion.[17] 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 $606 million in private activity bonds, a $672 million equity contribution from the private sector partner, $17 million in toll revenues, $490 million in public funds, and an $850 million TIFIA loan.[18]

A draft discussion WIFIA bill has been circulated by the Water Resources and Environment Subcommittee. It would empower the Administrator of the Environmental Protection Agency (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 would be available directly to sponsors of projects or to state revolving funds (SRFs) for a group of projects that are combined for the purpose of receiving credit assistance. 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. According to the draft bill, credit provided through the program would have to be for $20 million or more.[19]

One of the main benefits of the TIFIA program is that it provides capital at a low cost to the borrower. 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 35 years from substantial completion, and the amortization schedule can be flexible. The draft WIFIA bill likewise is intended to provide these benefits. As total TIFIA assistance cannot exceed 33% of project costs, the program is intended to encourage non-federal

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

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

[19] The draft discussion bill differs from WIFIA-type legislation introduced in the 112th Congress, H.R. 3145 (Title V). For example, assistance under H.R. 3145 would be limited to wastewater projects, while the draft discussion bill would allow assistance for wastewater and drinking water capital projects. H.R. 3145 does not specify a threshold for assistance. H.R. 3145 would provide WIFIA assistance through the existing SRF program, but not directly to owners or operators of a water infrastructure facility, as the draft bill would.

and private sector financing. The draft bill would likely encourage some non-federal financing, including from the private sector, but how much is unclear because it does not contain a maximum amount or share of a project's cost that WIFIA could fund or guarantee.

Another possible benefit of a WIFIA program is that it would not duplicate existing water infrastructure financing tools. Many argue that the SRF program is useful primarily for smaller communities and smaller projects, as discussed previously. 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 draft bill could be about the right level so as not to duplicate assistance from SRFs.[20] The draft bill, however, also provides access to WIFIA financing for smaller projects by grouping, or aggregating, them through a SRF. One possible downside of providing smaller projects access to WIFIA financing, grouped or not, is the time and expense of administering the program. One criticism of the TIFIA program is that it takes too much time and effort to render judgment on project applications.

As provided under the draft bill, a WIFIA may shift some decision making for financing water infrastructure projects from the state and local level to the federal level, specifically to the EPA. In the TIFIA program, decision-making authority is vested in DOT. Surface transportation reauthorization legislation in the House and Senate,[21] however, proposes to largely abolish the criteria on which DOT evaluates TIFIA credit assistance applications, and to base the evaluation solely on a project's eligibility on a first-come, first-served basis.

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.[22] The subsidy cost largely determines the amount of money that can be made available to project sponsors.[23] Currently in the TIFIA program, the average project subsidy cost is approximately 10%. Of the $122 million annual appropriation for TIFIA, DOT is able to use approximately $110 million annually to cover loan subsidy costs. The rest goes for administrative costs and other deductions. DOT estimates that $110 million supports about $1.1 billion in TIFIA credit assistance ($110 million divided by 10% equals $1.1 billion).[24] 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

[20] 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-Arndt.pdf.

[21] The House bill is H.R. 7, the American Energy and Infrastructure Jobs Act. The Senate bill is S. 1813, the Moving Ahead for Progress in the 21st Century Act (MAP-21), which the Senate passed on March 14.

[22] 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).

[23] 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.

[24] Department of Transportation, "Notice of Funding Availability for Applications for Credit Assistance Under the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program; Clarification of TIFIA Selection Criteria; and Request for Comments on Potential Implementation of Pilot Program to Accept Upfront Payments for the Entire Subsidy Cost of TIFIA Credit Assistance," 74 *Federal Register* 63497-63501, December 3, 2009, at http://www.fhwa.dot.gov/ipd/pdfs/tifia/fy2010_tifia_nofa.pdf.

mechanism, thus the subsidy cost would be lower and the amount of credit assistance higher (per dollar of budget authority).[25] However, analysts note that, even with stable rate mechanisms, some communities and water utilities have recently experienced problems with borrowing and bond repayments.[26] The draft bill would also allow borrowers to pay the subsidy and administrative costs associated with a loan or loan guarantee, potentially enlarging the amount of credit assistance available.

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 argues that the federal government underestimates the cost of providing credit assistance under programs like TIFIA.[27] 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."[28]

Create a National Infrastructure Bank

Another idea for improving the nation's investment in infrastructure is the creation of a national infrastructure bank.[29] Several bills to establish a national infrastructure bank have been introduced in the 112th Congress including the Building and Upgrading Infrastructure for Long-Term Development (S. 652) and the National Infrastructure Development Bank Act of 2011 (H.R. 402). An infrastructure bank is a government-established entity that provides credit assistance to sponsors of infrastructure projects. An infrastructure bank can take many different forms, such as an independent federal agency, a federal corporation, a government-sponsored enterprise, or a private-sector, non-profit corporation. Both S. 652 and H.R. 402 would create a wholly owned federal government corporation. [30]

The wholly owned government corporation created by S. 652 would be called the American Infrastructure Financing Authority (AIFA). AIFA would be governed by seven presidentially appointed board members. AIFA would be authorized to provide loans and loan guarantees to

[25] 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-Arndt.pdf.

[26] 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.

[27] 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.

[28] 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.

[29] For more on this topic, see CRS Report R42115, *National Infrastructure Bank: Overview and Current Legislation*, by William J. Mallett, Steven Maguire, and Kevin R. Kosar.

[30] Another infrastructure bank bill introduced in the 112th Congress is the American Infrastructure Investment Fund Act of 2011 (S. 936). S. 936 would create a "fund" within the Department of Transportation.

eligible transportation, water, and energy infrastructure projects. To be eligible for assistance a project would have to cost at least $100 million, or at least $25 million in rural areas. The bank would be capitalized with a $10 billion appropriation. The bank would be permitted to collect fees to cover the administrative costs associated with AIFA.

The wholly owned government corporation created by H.R. 402 would be the National Infrastructure Development Bank (NIDB), governed by five presidentially appointed directors. The NIDB would be able to issue public benefit bonds (PBBs) to help finance infrastructure, mainly through loans and loan guarantees. But the NIDB would also be able to make grants. The bank would be capitalized by Congress with $5 billion annually from FY2012 through FY2016. The total $25 billion appropriation would be 10% of the total subscribed capital of the bank. Up to 90% of the subscribed capital would be callable by the Treasury Secretary. The total outstanding bonds issued by the NIDB would not be allowed to exceed 250% of the subscribed capital.

The NIDB would be authorized to help finance the construction or reconstruction of infrastructure in several areas including energy, water and wastewater, telecommunications, and transportation. State revolving funds would be eligible for assistance. Among the criteria for evaluating projects for assistance from the NIDB would be the extent to which assistance will maximize private investment in the project while providing a public benefit. Unlike other infrastructure bank legislation, H.R. 402 does not include a minimum project size requirement.[31]

According to its proponents, a national infrastructure bank would provide several major benefits for infrastructure projects, including water and wastewater capital projects. An infrastructure bank might help facilitate water infrastructure projects by providing large amounts of financing on advantageous terms, including low interest rates and long maturities. This might encourage investment that would otherwise not take place, particularly in large, expensive projects whose costs are borne locally but whose benefits are regional or national in scope. On the other hand, an infrastructure bank may not be the lowest-cost means of achieving that goal. The Congressional Budget Office has pointed out that a special entity that issues its own debt would not be able to match the lower interest and issuance costs of the U.S. Treasury.[32]

Whether providing financing on advantageous terms by a national infrastructure bank would lead to an increase in the total amount of capital devoted to infrastructure investment is unclear. Another purported advantage of certain types of infrastructure banks is access to private capital, such as pension funds and international investors. These entities, which are generally not subject to U.S. taxes, may be uninterested in purchasing the tax-exempt bonds that are traditionally a major source of project finance, but might be willing to make equity or debt investments in infrastructure in cooperation with a national infrastructure bank. If this shift were to occur, however, it could be to the detriment of existing investment, as the additional investment in infrastructure may be drawn from a relatively fixed amount of available investment funds.

Another putative benefit of a national infrastructure bank is that it might improve project selection. A frequent criticism of current public infrastructure project selection is that it is often

[31] For example, under another current infrastructure bank proposal, S. 652, individual projects eligible for funding would have to be at least $100 million, or, for rural infrastructure projects, $25 million.

[32] Congressional Budget Office, "Issues and Options in Infrastructure Investment," May 2008, p. 28, at http://www.cbo.gov/ftpdocs/91xx/doc9135/05-16-Infrastructure.pdf.

based on factors such as geographic equity and political favoritism instead of the demonstrable merits of the projects themselves.[33] In many cases, funding goes to projects that are presumed to be the most important, without a rigorous study of the costs and benefits. Proponents of an infrastructure bank assert that it would select projects based on economic analyses of all costs and benefits.[34]

Selecting projects through an infrastructure bank has possible disadvantages as well as advantages. First, it would most likely direct financing to projects that are the most viable financially rather than those with the greatest social benefits. Unless there were set-asides for particular types of projects, water and wastewater projects would be in competition with infrastructure projects across a wide spectrum of sectors. Second, financing projects through an infrastructure bank might serve to exclude small urban and rural areas because infrastructure banks would likely focus on large, expensive projects that tend to be located in major urban centers. This may be true even without a minimum project cost threshold set in law. A third possible disadvantage is that a national infrastructure bank may shift some decision making from the state and local level to the federal level.

Once established, a national infrastructure bank might help accelerate worthwhile infrastructure projects by bearing more of the financial risk. Large projects are often slowed by funding and financing problems given the degree of risk. These large projects might also be too large for financing from a state infrastructure bank or from a state revolving loan fund. Moreover, even with a combination of grants, municipal bonds, and private equity, mega-projects often need another source of funding to complete a financial package. Financing is also sometimes needed to bridge the gap between construction and when the project generates revenues. Although a national infrastructure bank might help accelerate projects over the long term, it will likely to take several years for a bank to be fully functioning after enactment.

One attraction of national infrastructure bank proposals is the potential to encourage significant non-federal infrastructure investment over the long term for a relatively small amount of federal budget authority. Ignoring administrative costs, an appropriation of $10 billion for the infrastructure bank, as proposed by S. 652, could provide $100 billion of credit assistance if the subsidy cost were similar to that of the TIFIA program (see above).[35]

The budgetary implications of H.R. 402 are somewhat different from those of other infrastructure bank proposals. This bill proposes to capitalize an infrastructure bank with appropriations of $25 billion and to provide another $225 billion in "callable capital," which would be made available from the Treasury only if it is needed by the bank to meet its obligations. Under this proposal, the bank would be permitted to issue bonds up to 250% of the bank's total capital (capital plus callable capital). This means the bank could support up to $625 billion of bonds, which would be

[33] Everett Ehrlich, *A National Infrastructure Bank: A Road Guide to the Destination*, Policy Memo, Progressive Policy Institute, October 2010, at http://www.progressivefix.com/wp-content/uploads/2010/09/09.2010-Ehrlich_A-National-Infrastructure-Bank.pdf.

[34] The extent to which this would be done varies depending on the specific legislation. If Congress were to direct the bank to consider factors such as job creation and poverty reduction, as H.R. 402 does, then those requirements might constrain its ability to assist the most economically viable projects.

[35] As noted earlier, 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).

backed by the full faith and credit of the U.S. Treasury. In addition to the $25 billion, the callable capital of $225 billion would likely be scored as an appropriation.

The federal government already has a number of programs to support water and wastewater infrastructure projects. But a national infrastructure bank could provide assistance to infrastructure projects that are currently too large to be financed using existing mechanisms. The creation of an infrastructure bank might provide another mechanism for financing drinking water and wastewater projects, but would set those projects in competition with projects in energy, transportation, and telecommunications. A national infrastructure bank is probably most like the existing TIFIA program.[36] Hence, the creation of both a national infrastructure bank and a WIFIA would likely be duplicative.

Lift Private Activity Bond Restrictions on Water Infrastructure Projects

Water infrastructure can be owned and operated by the private sector, a governmental entity, or through a so-called partnership between a government and a private entity. A partnership could involve a private entity investing in water infrastructure and receiving a market rate of return on that investment. This investment could be an equity share (part ownership) or some other agreement that provides a stream of revenue generated by the facility. Or, the partnership could be the government issuing tax-exempt debt on behalf of the private entity with so-called "private activity bonds."

Among the options to modify the existing framework for federal assistance for investment in water infrastructure, one option for greater federal involvement includes expanding the availability of tax-exempt financing to private entities, e.g., private activity bonds.

Background on Private Activity Bonds

Generally, under current law, privately owned water furnishing and water treatment facilities are not eligible for tax-exempt financing. The tax code, however, does provide that privately owned water furnishing facilities that (1) are operated by a governmental unit or (2) charge rates that are approved by a political subdivision of the host community, can issue qualified private activity bonds (PABs) which are tax-exempt.[37] Most qualified PABs, including bonds for water furnishing and water treatment facilities, are subject to a state volume limit.[38] In 2012, the volume cap is the greater of $95 multiplied by the state population or $284,560,000.

The opportunity to use bonds whose interest payments are exempt from federal income taxation confers a considerable subsidy to bond issuers and to investors who buy the bonds. The FY2013

[36] U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Highways and Transit, *Testimony of Geoffrey S. Yarema*, Hearing on National Infrastructure Bank: More Bureaucracy and More Red Tape, 112th Cong., 1st sess., October 12, 2011.

[37] Sections 142(a)(4), 142(a)(5), 142(e), and 146 of the Internal Revenue Code (I.R.C.).

[38] Two types of private activity bonds are outside the annual volume limit, those issued by 501(c)(3) organizations like hospitals and those issued by private universities. For more on private activity bonds, see CRS Report RL31457, *Private Activity Bonds: An Introduction*, by Steven Maguire.

budget estimates that the federal tax expenditure for "water, sewage, and hazardous waste disposal facilities" will be $3.64 billion over the 2013 to 2017 budget window.[39]

The private activity bond volume limit noted above originated in the Deficit Reduction Act of 1984 (P.L. 98-369). The limit was implemented because "Congress was extremely concerned with the volume of tax-exempt bonds used to finance private activities."[40] The limit and the list of qualified activities were both modified again under the Tax Reform Act of 1986 (TRA 1986, P.L. 99-514). At the time of the TRA 1986 modifications, the Joint Committee on Taxation identified the following specific concerns about tax-exempt bonds issued for private activities:[41]

- the bonds represent "an inefficient allocation of capital";
- the bonds "increase the cost of financing traditional governmental activities";
- the bonds allow "higher-income persons to avoid taxes by means of tax-exempt investments"; and
- the bonds contribute to "mounting [federal] revenue losses."

The inefficient allocation of capital arises from the economic fact that additional investment in tax-favored private activities will necessarily come from investment in other public projects. For example, if bonds issued for water infrastructure did not receive special tax treatment, some portion of the bond funds could be used for other government projects such as schools or other public infrastructure.

The greater volume of tax-exempt private activity bonds then leads to the second Joint Committee on Taxation concern listed above, higher cost of financing traditional government activities. Investors have limited resources; thus, when the supply of tax-exempt bond investments increases, issuers must raise interest rates to lure them into investing in existing government activities. In economic terms, issuers raising interest rates to attract investors is analogous to a retailer lowering prices to attract customers. The higher interest rates make borrowing more expensive for issuers.

The final two points are less important from an economic efficiency perspective but do cause some to question the efficacy of using tax-exempt bonds to deliver a federal subsidy. Tax-exempt interest is worth more to taxpayers in higher brackets; thus, the tax benefit flows to higher income taxpayers, which leads to a less progressive income tax regime.

The revenue loss generated by tax-exempt bonds also expands the deficit.[42] A persistent budget deficit ultimately leads to generally higher interest rates as the government competes with private

[39] Office of Management and Budget, "Budget of the United States Government: Analytical Perspectives, Supplemental Materials Fiscal Year 2013," Table 17-1.

[40] U.S. Congress, Joint Committee on Taxation, General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, 98th Cong., 2nd sess. (Washington: GPO, 1984), p. 930.

[41] U.S. Congress, Joint Committee on Taxation, General Explanation of the Tax Reform Act of 1986, 100th Cong., 1st sess. (Washington: GPO, 1987), p. 1151.

[42] The Joint Committee on Taxation estimates that a provision in highway program legislation approved by the Senate on March 14, the Moving Ahead for Progress in the 21st Century Act or MAP-21 (S. 1813), which would lift the volume cap on water infrastructure projects for 6 years, would reduce revenues to the Treasury by $95 million over 6 years, and by $305 million over 11 years. See http://www.jct.gov/publications.html?func=startdown&id=4404.

entities for scarce investment dollars. Higher interest rates further increase the cost of all debt-financed state and local government projects.

Current Proposals

The implicit assumption of several current proposals is that the current cap is binding, preventing the investment in needed water infrastructure projects. Proponents argue that the opportunity for more private entities to meet the requirements for tax-exempt bond financing may induce additional infrastructure investment. What is unclear is how much new investment will be undertaken with PABs if these restrictions were relaxed. Underlying the estimates of potential new investment is demand for new water infrastructure. Following is a discussion of the current use of PABs for water infrastructure.

Demand for the use of PAB capacity for water infrastructure has been relatively low. The Internal Revenue Service (IRS) reports that for the 2008 tax year, new money bonds (in contrast to refunding bonds) were issued for 88 private water furnishing, sewage, and solid waste disposal facilities projects accounting for roughly $2.6 billion of the $50.9 billion of volume capacity available.[43] For comparison, other private activities subject to the cap consumed $12.3 billion: residential rental facilities ($4.6 billion), mortgage bonds ($5.1 billion), small issue bonds ($1.2 billion), and student loan bonds ($1.4 billion). The remainder of the cap space was used for other projects, carried forward to the following year, or abandoned.

The IRS data also provide information on the issuance by state. In 2008, 22 states did not commit any volume capacity to water, sewage, and solid waste disposal. In contrast, two states, California (16 projects) and Texas (17 projects), combined for 33 of the projects and $1.1 billion of the issuance. The limited number of states using PABs may reflect lack of demand for privately owned water infrastructure or may reflect the relative size of water projects limiting the use of PABs. The average PAB amount issued for water, sewer, and solid waste was $29.3 million, whereas the average PAB new money issuance was smaller at $21.4 million. The remainder includes mortgage revenue bonds, which typically have a smaller average issue size.

Private entities also invest in water infrastructure beyond the partnership with governments through PABs. For example, the largest investor-owned U.S. water and wastewater utility company, American Water, reported investing $1 billion in water infrastructure capital in 2008.[44] In its 2010 Annual Report, American Water reported $766 million of capital investment.[45] Private entities like American Water use a mix of current revenue and debt, including PABs, corporate debt, and equity investment, to finance this capital spending.

One legislative option that has been discussed in the 112th Congress is H.R. 1802/S. 939, which would permanently exclude water infrastructure from the volume cap.[46] And as noted above, the Senate has passed legislation (S. 1813) that includes a provision to lift the volume cap for six

[43] Internal Revenue Service, "Tax-Exempt Bonds, 2008," *Statistics of Income Bulletin*, winter 2011, Table 10, p. 147 and Community Development Finance Agencies, 2008 National Volume Cap Report , available at http://www.cdfa.net/cdfa/volumecap.nsf/index.html.

[44] American Water, 2008 Annual Report, p. 48.

[45] American Water, 2010 Annual Report, p. 41.

[46] Similar language is included in the draft discussion WIFIA bill that has been circulated by the Water Resources and Environment Subcommittee, discussed above.

years. As the data above suggest, excluding PABs for water infrastructure from state volume caps would likely generate marginally more investment in water infrastructure. The private entities that already have used PABs in conjunction with other financial tools would likely increase the use of PABs. What is unclear, however, is if the expanded use of PABs would necessarily reflect substantially new infrastructure investment or just change the mix of financing tools employed for already planned projects. If the latter, then the potential revenue loss may not achieve the intended policy objective of increasing investment in water infrastructure.[47]

The proposed PAB expansion may also be a limited success as many communities have chosen government provision of water infrastructure. In 2010, over $39 billion in governmental bonds were issued for 1,479 water and sewer projects.[48] The vast majority of these bonds were new money bonds. For 2008, $31.3 billion was issued for 914 water and sewer projects. The reliance on government provision may reflect market conditions that make private provision infeasible or public preference for government owned and operated water infrastructure.

Reinstate Authority for Issuance of Build America Bonds (BABs)

Another option under discussion to modify the existing framework for federal assistance for water infrastructure investment is to expand or extend the use of Build America Bonds (BABs).

BABs were created by the American Recovery and Reinvestment Act of 2009 (ARRA).[49] The volume of BABs was not limited and the purpose was constrained only by the requirement that "the interest on such obligation would (but for this section) be excludible from gross income under section 103."[50] Thus, BABs could have been issued for any purpose that would have been eligible for traditional tax-exempt bond financing *other than private activity bonds*, thus they did not allow for private sector participation (unlike PABs). The authority to issue BABs expired on December 31, 2010.

BABs are modeled after the "taxable bond option," which was first considered in the late 1960s. In 1976, the following was posited by the then president of the Federal Reserve Bank in Boston, Frank E. Morris:

> The taxable bond option is a tool to improve the efficiency of our financial markets and, at the same time, to reduce substantially the element of inequity in our income tax system which stems from tax exemption [on municipal bonds]. It will reduce the interest costs on municipal borrowings, but the benefits will accrue proportionally as much to cities with strong credit ratings as to those with serious financial problems.[51]

[47] The Bush Administration proposed a permanent exemption for water and sewage facilities as part of several budget requests. In the FY2009 budget, the Treasury Department estimated that the revenue effect would be $214 million over 10 years. See http://www.treasury.gov/resource-center/tax-policy/Documents/bluebk08.pdf, pp. 45-46.

[48] Thomson-Reuters, *The Bond Buyer 2011 Yearbook*, p. 160.

[49] For more, see CRS Report R40523, *Tax Credit Bonds: Overview and Analysis*, by Steven Maguire.

[50] 26 U.S.C. § 54AA(d)(1)(A). BAB proceeds that use the direct payment options are to be used only for capital expenditures.

[51] Frank E. Morris, "The Taxable Bond Option," *National Tax Journal*, vol. 29, no. 3, September 1976, p. 356.

BABs offered an issuer a credit equal to 35% of the interest rate established between the buyer and issuer of the bond.[52] The Treasury Department estimated that the $181 billion in BABs issued from April 2009 through December 2010 will allow state and local governments to save an estimated $20 billion in borrowing costs, in present value savings, as compared to issuing traditional tax-exempt bonds.[53]

One option would be to extend BABs to investment in privately owned water infrastructure. Many of the disadvantages cited for PABs identified earlier could be avoided, such as the windfall gain for high-income investors and the economic inefficiency of using a third party to deliver a federal subsidy. [54] The FY2013 budget suggests that the BAB program potentially "… has a more streamlined tax compliance framework focusing directly on governmental issuers who benefit from the subsidy."[55] In the case of PAB-like arrangements, the partner government or water authority would "issue" bonds at the low rate and pass through the value of the subsidy to the private entity. The private entity would own and operate the water infrastructure.

In the 112th Congress, several bills have been introduced to extend and expand a modified version of BABs, including H.R. 11, H.R. 736, H.R. 747, and H.R. 992. The President's FY2013 budget proposal would reinstate BABs at a 30% credit rate for 2013 and 2014 and permanently at 28% thereafter. In addition, the President's FY2013 Budget proposes expanding the eligible uses to Section 501(c)(3) nonprofit entities such as hospitals and universities.

According to CBO, the interest subsidy of BABs would be recorded in the federal budget as outlays, like other payments to state and local governments. At the same time, by substituting taxable for tax-exempt bonds, the program would increase taxable interest income. The Joint Committee on Taxation analyzed a similar proposal in the President's FY2012 budget and estimated that it would boost outlays by $76 billion over 10 years and raise revenues by $70 billion, with a net effect of increasing the cumulative deficit by $6 billion.[56]

Conclusion

Consensus exists among many stakeholders—state and local governments; equipment manufacturers, construction companies, and engineers; and environmental advocates—on the need for more investment in water infrastructure. Many in these varied groups support one or more options for doing so. There is no consensus supporting a preferred option or policy, and many advocate a combination that will expand the financing "toolbox" for projects. Some of the options discussed in this report may be helpful in addressing financing problems, but there is no single method or "silver bullet" that will address needs fully or close the financing gap

[52] Note that the issuer credit is an outlay of the federal government. This simple example does not consider issuance and underwriter fees.

[53] U.S. Department of the Treasury, "Treasury Analysis of Build America Bonds Issuance and Savings," May 16, 2011, p. 11, http://www.treasury.gov/initiatives/recovery/Documents/BABs%20Report.pdf.

[54] Researchers have determined that the federal government subsidy for BABs "… disadvantages individual U.S. taxpayers, who are the main holders of municipal bonds, and benefits new entrants in the municipal bond market." New entrants would include international investors and pension funds. See Ang, Andrew, Vineer Bhansali, and Yuhan Xing, "Build America Bonds," *National Bureau of Economic Research, Working Paper 16008*, May 2010.

[55] U.S. Department of the Treasury, "General Explanations of the Administration's Fiscal Year 2013 Revenue Proposals," February 2012, p. 12.

[56] U.S. Congressional Budget Office, *Preliminary Analysis of the President's Budget for 2012*, March 18, 2011, p. 7.

completely. For example, some such as a WIFIA or National Infrastructure Bank may be helpful to projects in large urban or multi-jurisdictional areas, while others such as expanded SRF programs may be more beneficial in smaller communities. It is unlikely that any of the recently proposed options such as a WIFIA or trust fund could be enacted and up and running quickly, meaning that, at least for the near term, communities will continue to rely on the existing SRF programs, tax-exempt governmental bonds, and tax-exempt private activity bonds to finance their water infrastructure needs.

The Obama Administration's views on these issues are largely unknown for now, except for support of the SRFs and reinstatement of Build America Bonds, as reflected in its budget requests.

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