

STATE OF THE SECTOR

Improving the odds

Agencies looking to obtain Bipartisan Infrastructure Law funding must assess their priorities, work closely with state and federal programs

Jay Landers

Enacted in November 2021, the law variously known as the Bipartisan Infrastructure Law (BIL) or the Infrastructure Investment and Jobs Act included approximately \$57 billion over 5 years for water-related infrastructure programs overseen by the U.S. Environmental Protection Agency (EPA) and the U.S. Bureau of Reclamation. Although this funding surge represents a unique opportunity for water and wastewater agencies, accessing the dollars requires a degree of knowledge and upfront legwork that may dissuade some from applying, particularly smaller or disadvantaged communities.

For this article, *WE&T* contacted water sector experts who are familiar with the processes for obtaining funding from various federal programs. What follows are their recommendations for how utilities can improve their chances of obtaining federal funding and maximize their use of the money once in hand.

A Boost for SRFs

Within the programs administered by EPA, by far most of the BIL funding was allotted to the state revolving fund (SRF) programs for clean water and drinking water. These programs provide low-interest loans and grants to municipalities and other entities for projects within these categories. The Clean Water SRF (CWSRF) and the Drinking Water SRF each received approximately USD \$11.7 billion for the 5-year period spanning fiscal year (FY) 2022 through FY 2026.

Another USD \$15 billion was appropriated to the Drinking Water SRF for replacing lead service lines, while a total of USD \$10 billion for addressing emerging contaminants was split among the Drinking Water SRF, the Clean Water SRF, and the Water Infrastructure Improvements for the Nation Grants. Under the BIL, Reclamation received USD \$8.3 billion for water infrastructure projects to repair aging water delivery systems, finish rural water projects, protect aquatic

ecosystems, and secure dams.

The sudden influx of funding to the SRF programs bodes well for those aiming to secure loans or grants, says Steve Dye, Director of Legislative Affairs for the Water Environment Federation (Alexandria, Virginia). “Most states are going to get double the amount of money they actually had back in FY 2021, before the BIL passed,” he says. As a result, states will be able “to fund a lot more projects.”

Upfront Work Required

Even with the funding boost to the SRF programs, small and medium-sized communities, in particular, may still face obstacles in obtaining loans or grants. In some cases, these communities lack the “technical capability, the knowledge, or the manpower” to navigate the SRF application process, Dye says.

Successful SRF applications “require quite a bit of upfront work,” which can prove a major hurdle for smaller communities, says Stacy Passaro, President of Passaro Engineering LLC (Mount Airy, Maryland). Passaro has helped municipalities of various sizes obtain SRF funding. Such work can include planning to identify key priorities and conducting preliminary engineering for the priority projects, Passaro says, while noting that individual SRF programs vary in their application requirements. “Lots of these small- and medium-sized utilities don’t have that capability in-house” and must hire outside help, Passaro says.

In such cases, cash-strapped utilities face the conundrum of having to spend money on efforts to obtain SRF funding that might not materialize.

“There’s no guarantee at all that they’re going to get funded,” Passaro says. “So, they don’t want to put a lot of cash into something that may not ever come through for them.”

That said, such investments are worth it, Passaro says. “I would recommend to anybody that they go ahead and do some planning work,” she says. “It’s always beneficial for them to know their next highest-priority project.”

Conferring With the SRF

Checking in with representatives of your state’s SRF to discuss deadlines and requirements is critical, says Deirdre Finn, Executive Director of the Council of Infrastructure Financing Authorities (Washington, D.C.), which represents SRFs.

“My recommendation is always to reach out to your state revolving fund,” Finn says. Project eligibility also warrants discussion. “Don’t be afraid to ask what’s eligible, especially on the clean water side,” she notes. The types of projects eligible for CWSRF funding are “incredibly expansive,” Finn says.

“Every state’s SRF programs are open to

Strings Attached

Federal funding and Build America, Buy America requirements

In passing the Bipartisan Infrastructure Law (BIL), Congress included the Build America, Buy America (BABA) Act. This legislation requires federal agencies to ensure that no federal funds are obligated for a project “unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States,” according to the BIL.

The law provides for a process by which federal agencies may waive BABA requirements under certain conditions. On Sept. 2, EPA issued a temporary waiver suspending the requirements for 6 months for projects funded by the agency.

Even with the waiver, the BABA requirements will complicate the process of completing federally funded projects, says Greg Fogel, Director of Government Affairs for the WaterReuse Association (Alexandria, Virginia). “For future products, utilities may struggle to find domestically produced products and technologies,” Fogel says. “The waiver approval process will likely be quite cumbersome.”

Ultimately, BABA requirements can be expected to result in higher project costs and greater unpredictability, says Josh Mahan, Director of Government and Industry Relations at the water technology company Xylem Inc. (Washington, D.C.). “We hear from utilities and other water industry leaders that they expect projects to be delayed or canceled in the future because of the uncertainty about available products, approvals, costs, and red tape associated with compliance,” Mahan says.

El Paso Water recently received USD \$20 million in grant funding from the U.S. Bureau of Reclamation for its planned Advanced Water Purification Center, shown here in this rendering. Carollo Engineers



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Employees of the City of Toledo Public Utilities Water Treatment Division replace lead service lines that the city located with assistance from the water analytics company BlueConduit.



having discussions with applicants regarding their projects,” says Seema Chavan, Associate Vice President and National Strategic Funding Leader for the water consulting firm Carollo Engineers Inc. (Walnut Creek, California). Such discussions can provide critical insights, Chavan notes.

“Based on discussions with program managers, agencies can understand funding availability, the flow, timing and allocation of BIL monies, and key dates and deliverables,” Chavan says. “In addition, agencies are able to get feedback on their projects to understand the potential success of receipt of funding, identify project enhancements to increase funding success, and understand how much funding could be secured for a project.”

SRF representatives also can help newcomers as they seek to understand how best to proceed with the application process, Passaro says. For example, they might identify which funding program is best for a given project or which program might have the most available funding, she notes.

Along with contacting its state’s SRF, an agency seeking funding should confer with the

state’s regulatory authority at the same time, Dye says. “You want to make sure that the regulatory authority is going to say that the project for which funding is being sought will satisfy your regulatory requirements,” he says. For projects requiring a construction permit, discussions also should be held with the appropriate state construction permitting agency, Dye says.

To help communities improve their chances of obtaining federal funding, EPA recently selected 29 “environmental finance centers” that will provide free technical assistance to applicants seeking funding for “infrastructure and greenhouse gas reduction projects that improve public health and environmental protection,” according to the agency’s Nov. 4 news release announcing the selections. The environmental finance centers will receive up to USD \$150 million in grant funding from EPA during the next 5 years.

Showcasing Projects

To succeed in obtaining funding, agencies must understand the “nuances” of a given funding

program and ensure that their projects meet its requirements, Chavan says. “You may have a project on your capital improvement plan that’s a high priority, but it really doesn’t fit a program.” In such cases, applying for funding “doesn’t seem to make sense,” she says. “The key to securing funding for projects is understanding the project and its components to develop a funding strategy that allows an agency to identify and pursue multiple funding sources and ‘stack’ them together to optimize project funding, which can help move a project forward toward implementation.”

Regardless of their size or the funding program to which they are applying, water and wastewater agencies must take care to showcase their funding requests in the most advantageous manner possible, says Sanaan Villalobos, Vice President and Texas Business Development Manager for Carollo. To this end, “you have to understand program priorities and focus on what’s important to” the funding agency when preparing a funding application for a project, Villalobos says. “You need to present [a project] in a way that will gain the maximum amount of points for whatever application you’re going after,” she says.

Carollo recently supported El Paso [Texas] Water in its successful bid to obtain grant funding for its planned Advanced Water Purification Facility, which will recycle treated wastewater for the purposes of direct potable reuse.

In August, El Paso Water received USD \$20 million for the project’s construction from Reclamation’s WaterSMART Water Recycling and Reuse grants program, which was funded by the BIL. Construction of the Advanced Water Purification Facility is scheduled to begin in early 2023, according to El Paso Water’s August 19 news release announcing the award. Previously, Reclamation provided USD \$3.5 million in grant funding to the project for its design.

El Paso Water’s experience highlights the need for perseverance and communication during the process of seeking funding, Villalobos says. After its initial funding requests proved unsuccessful, the agency “talked with Reclamation to get feedback on its application,” she says. “That helped a lot.”

Project Delivery Is Key

After a community has funding in hand, its focus must shift to using the money as effectively as possible. One approach that can help communities achieve this goal is alternative project delivery, whether it be design/build, construction manager at risk, or something similar, says Katie Jones, an Associate Vice President for the engineering, architecture, and construction firm Dewberry.

Involving the engineer and the contractor early on in the project development process “gives the

Technology to the Rescue

Pinpointing lead service lines for removal

With billions of dollars of federal funding from the Bipartisan Infrastructure Law now available for lead service line (LSL) replacements, U.S. water utilities have a golden opportunity to jumpstart efforts to address a major threat to public health. But how should they determine the extent to which LSLs exist in their service areas, especially when few, if any, historical records are available?

BlueConduit (Ann Arbor, Michigan) has a solution. Formed in response to the lead-related health crisis in Flint, Michigan, the water analytics company uses its predictive, machine-learning software to help utilities find LSLs as efficiently as possible, saving them time, money, and manpower. Starting with data provided by a utility, BlueConduit’s statistical modeling program uses algorithms to predict the likelihood that individual residences have LSLs.

“We’re filling in the gaps in information so that water systems know where they should be prioritizing for lead service line replacement,” says Eric Schwartz, a Cofounder of BlueConduit. “We’re removing as many of the unknowns as possible.”

Utilities using BlueConduit’s approach can prepare a highly accurate accounting of their funding needs related to LSL replacements, improving the quality of their funding application, Schwartz says.

“We’re providing communities with the best available estimate of how many lead pipes they actually have to remove,” he says. “With that number, they can give their state revolving fund an honest assessment” of the estimated cost to conduct LSL replacements, he says. Armed with information, utilities can develop “the most persuasive application” for funding requests, he notes.



owner clarity on how the costs are trending, so that they can make adjustments as necessary to maximize their funding,” Jones says. “You’re able to be more nimble in terms of changing the project scope to match the budget,” she notes.

By fostering greater cooperation among the parties involved in a project, alternative project delivery helps to avoid conflict that otherwise might impede progress and threaten scheduling

and budgets, says Todd Shafer, an associate vice president for Dewberry. “It’s the most efficient way to deliver a project,” Shafer says. 🌊

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Acting Fast on PFAS

Water sector races to translate latest science on PFAS into actionable solutions

Justin Jacques

New research about the risks of prolonged exposure to per- and polyfluoroalkyl substances (PFAS) continues to emerge. Water regulators worldwide are working diligently to devise guidelines to help utilities protect their customers and communities from the PFAS threat. And inventors and engineers are devising technologies that can remove PFAS from water and/or destroy these “forever” compounds.

The landscape for new products targeting PFAS is experiencing an unprecedented boom as veteran equipment manufacturers and hungry startups alike race to meet a growing demand. Likewise, drinking water and wastewater utilities are working proactively to build new facilities founded on these emerging technologies that will enable them to stay ahead of future PFAS regulations and better protect their communities.

Regulatory Pressures

The U.S. Environmental Protection Agency

(EPA) currently recommends three research-backed technologies to remove PFAS from water. The ideal choice depends on specific target chemicals and treatment-train configurations. The technologies are granular activated carbon, ion exchange resins, and high-pressure membrane systems.

About PFAS

PFAS, a class of chemicals once common in an array of consumer products, do not degrade naturally in the environment and are exceedingly difficult to remove from water using conventional treatment technologies. These chemicals are ubiquitous in the environment despite their sharply decreased use by manufacturers. Researchers have detected PFAS in high concentrations in Earth’s most remote biomes and estimate the chemicals now exist in the bloodstreams of approximately 97% of humans.