

Drinking Water and Water Quality in the IIJA

Infrastructure Investment and Jobs Act Advisory Services Policy Brief #13

The United States' drinking water infrastructure has 2.2 million miles of pipe with a C-minus rating from the American Society of Civil Engineers.¹ This relatively poor assessment of a complex system of assets indicates the tremendous challenges this country faces when considering the need for clean, reliable water. The Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law, provides the potential for more than \$72 billion toward clean water programs for drinking water, stormwater and wastewater. This policy brief describes the programs modified and created by the IIJA that support water infrastructure.

State Revolving Funds

The Environmental Protection Agency (EPA) administers two separate State Revolving Fund Programs: the Drinking Water State Revolving Fund (DWSRF) and the Clean Water State Revolving Fund (CWSRF). Both programs provide funds to eligible recipients to improve water infrastructure, with different eligibilities and funding mechanisms.

Drinking Water State Revolving Fund

As the name implies, the DWSRF is a financial assistance program to help water systems in states achieve the health protection objectives of the Safe Drinking Water Act². The EPA uses funds appropriated by Congress to issue capitalization grants to the states, based on need and requiring a 20% local match. The federal and state match funds are bundled into a dedicated revolving loan fund that provides loans and other assistance to water systems for eligible infrastructure projects such as:

- Improving drinking water treatment
- Fixing leaky old pipes
- Improving source of water supply
- Replacing or constructing finished water storage tanks

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Advisory Services professionals review infrastructure policy developments and prepare summaries of key provisions to help keep our clients informed of the changing landscape in Washington, D.C.

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1 <https://infrastructurereportcard.org/cat-item/drinking-water/>
2 <https://www.epa.gov/sdwa>

Financial assistance provided by states under the DWSRF include:

- Loans
- Refinancing
- Purchasing
- Guaranteeing local debt
- Purchasing bond insurance

Additional information is available from the EPA's [DWSRF Eligibility Handbook](#).

Clean Water State Revolving Fund

Similar to the DWSRF, the CWSRF is a partnership between the EPA and the states to provide a financial assistance program that funds a wide range of water infrastructure projects, including:

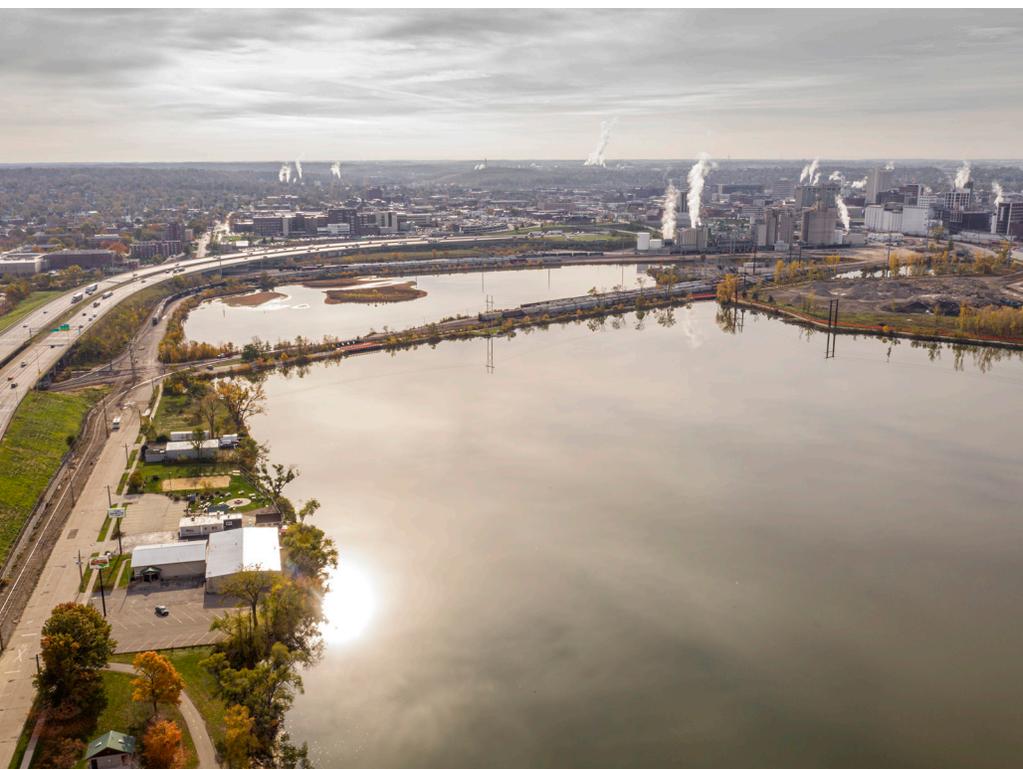
- Constructing municipal wastewater facilities
- Controlling nonpoint sources of pollution such as stormwater runoff
- Building decentralized wastewater treatment systems
- Creating green infrastructure projects
- Protecting estuaries
- Other water quality projects

IIJA Investments in State Revolving Fund Programs

The IIJA makes substantial investments in both the CWSRF and the DWSRF programs, recognizing that “[t]he nation has underinvested in water infrastructure for too long, putting communities at risk.”³ Over \$72 billion is provided for the SRF programs, with the majority of this funding directed to the DWSRF, and being administered through both new and existing programs.

Starting with the existing DWSRF, the IIJA provides both advance appropriations as well as increases in future authorizations, representing over a 700% increase in funding. In addition to the traditional DWSRF, the IIJA also creates two new dedicated funding streams for specific project types: the Lead Service Line Replacement program and the Emerging Contaminants program, bringing annual

³ White House guidance Building a Better America: Build.gov



Authorization is the amount of funding that Congress has “authorized” to be appropriated during federal budget cycles.

Appropriation is Congress making funds available to a program, typically within the authorized amounts.

Advance Appropriation is Congress funding programs in advance of annual budget cycles; these appropriations are not subject to authorized limits.

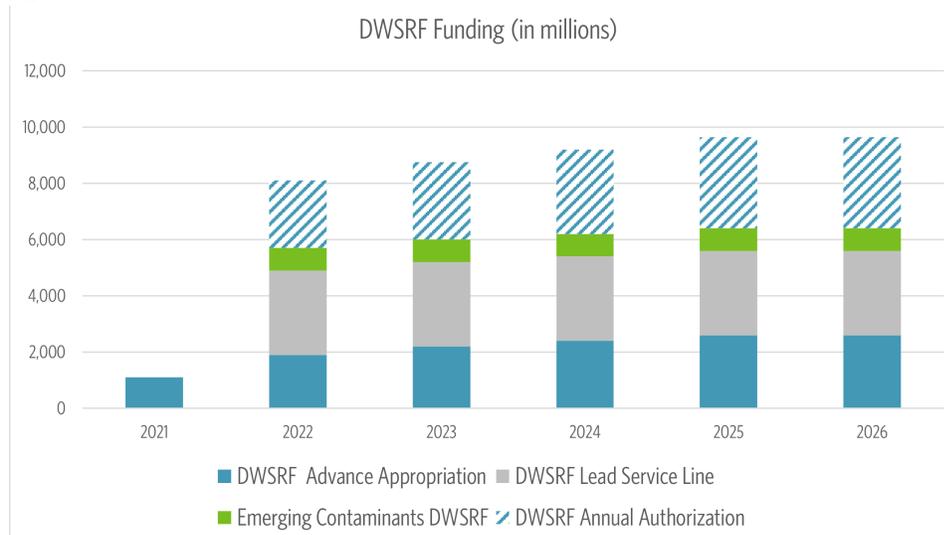
funding potential for the DWSRF to more than \$8 billion in fiscal year 2022 and close to \$10 billion in 2026, as shown in **Figure 1**.

The Lead Service Line Replacement program is a dedicated funding stream with \$15 billion of direct funding through the DWSRF to replace lead service lines. Although these replacement activities are already eligible expenses under the DWSRF, this newly dedicated funding will target the 6–10 million lead service lines currently in use in the U.S.⁴ Nearly half — 49% — of the funding available for lead service line replacement in disadvantaged areas is eligible as a grant or 100% principal loan forgiveness.

The CWSRF received an identical increase in its core program — with advance appropriations and authorizations more than doubling the available amounts. As described above, the CWSRF has broader eligibilities to improve water quality in our lakes, rivers and estuaries. However, the IIJA does provide additional funding to the base amounts of the CWSRF to support the treatment of emerging contaminants, again similar to the DWSRF. These amounts are less than what’s available under the DWSRF, as illustrated in Figure 3 below, but still reflect \$1 billion available over the five years of the bill.



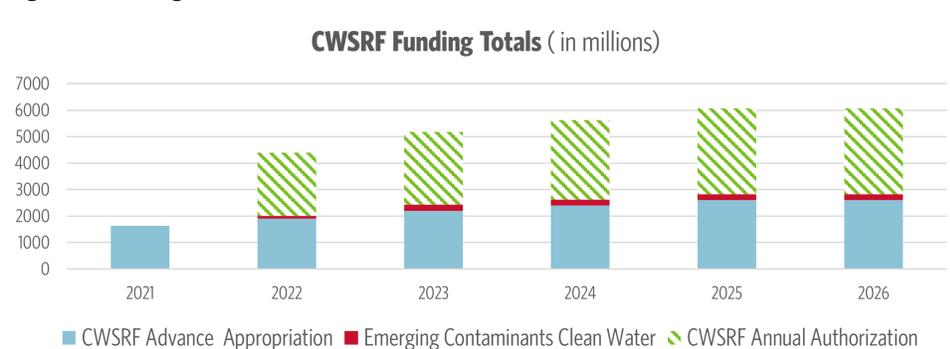
Figure 1 - DWSRF Appropriations and Authorizations Under the IIJA.



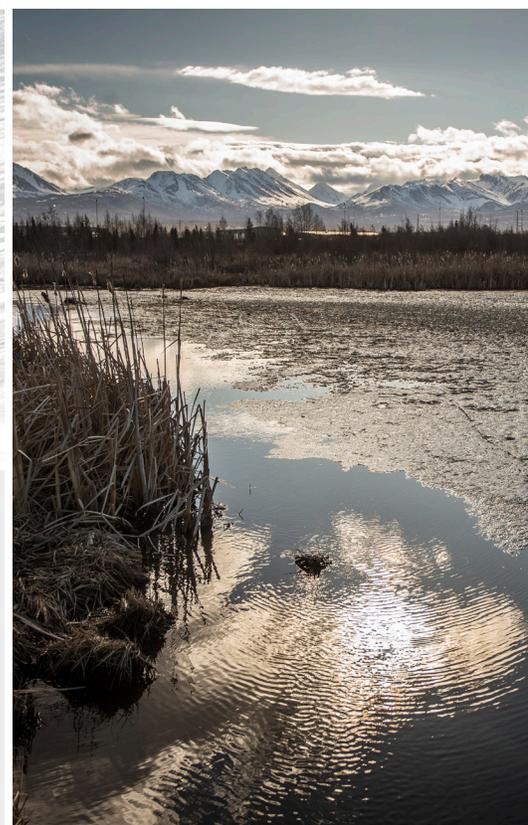
Emerging Contaminants Programs

Emerging Contaminants Programs provide funding for states and water utilities for use in the treatment of any pollutant that is a perfluoroalkyl or polyfluoroalkyl substance (PFAS), or any pollutant identified by the EPA as a contaminant of emerging concern. These contaminants include manufactured or naturally occurring physical, biological or nuclear materials — which are known

Figure 2 - Funding Totals for CWSRF Under the IIJA



⁴ <https://www.epa.gov/ground-water-and-drinking-water/lead-service-line-replacement>



PFAS are widely used, long-lasting chemicals, components of which break down very slowly over time. Because of their widespread use and persistence in the environment, PFAS are found in the blood of people and animals all over the world. PFAS are present in water, air, fish, and soil, and PFAS exposure in the environment may be linked to harmful health effects in humans and animals. For more, see [EPA PFAS Explained](#).

or anticipated in the environment — that may pose newly identified or reemerging risks to human health, aquatic life or the environment.⁵ The IIJA creates two programs focused on PFAS — the Water Infrastructure Improvements for the Nation’s Small and Underserved Communities Emerging Contaminants Grant Program, and the DWSRF Emerging Contaminants Program. Funding under these programs is directed to projects with the primary purpose of treating the emerging contaminants.

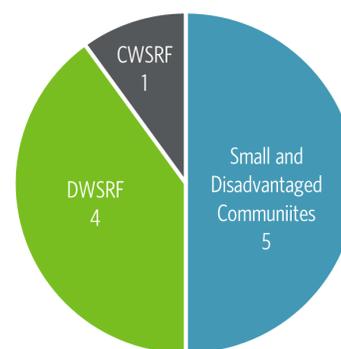
The Water Infrastructure Improvements for the Nation’s Small and Underserved Communities Emerging Contaminants Grant Program allocates \$1 billion per year for a total of \$5 billion in grants to public water systems in small and underserved/disadvantaged communities that are unable to finance activities needed to comply with drinking water regulations. Funds are allocated to the states and then awarded to grantees by the states. Each state will determine the definition of “disadvantaged community” based on affordability criteria established by the state.

The DWSRF Emerging Contaminants Program has \$4 billion available through the DWSRF dedicated to projects that address emerging contaminants, such as PFAS. As with

lead service line replacement, investments in combating emerging contaminants are an eligible expense under the existing DWSRF, but this dedicated stream of \$800 million/year focused solely on emerging contaminants will help make critical progress in treatment and remediation of contaminants that pollute our drinking water systems.

Figure 3 - Breakdown of Funding Programs Addressing Emerging Contaminants

Emerging Contaminants Programs in the IIJA
 (values in \$ billions)



⁵ 2020 White House Office of Science and Technology Policy document, which focused on drinking water/human health.



Assistance for Small, Disadvantaged and Rural Communities

Beyond making investments to address the emerging contaminant issues in small and disadvantaged communities, the IIJA creates several new programs that provide additional assistance for these communities to access safe, clean drinking water.

The IIJA creates a new competitive grant program authorized at \$20 million per year through 2026 “for the purpose of improving the general welfare” by providing “funds to assist eligible individuals in covering the costs incurred by the eligible individual in connecting the household ... to a public water system.” In other words, the EPA administrator will award grants that help fund connections to rural water systems or other public water systems.

Another competitive grant program is created with \$50 million per year authorized to provide funding to underserved communities to help them achieve the requirements of the Safe Drinking Water Act. This program is in addition to the existing, noncompetitive Small, Underserved and Disadvantaged Communities Grant Program.⁶

A new Operational Sustainability of Small Public Water Systems Program, authorized at \$50 million per year, will provide grants to “improve the operation of a small system through the identification and prevention of potable water loss due to leaks, breaks, and other metering or infrastructure failures.”⁷ The program defines small systems as public water systems that serve fewer than 10,000 people and are owned by a public entity or nonprofit. Eligible costs include asset inventory, mapping, leak detection technology, metering technology, and training.

Another \$50 million per year is authorized for competitive

grants to private nonprofit organizations to support the construction, repair or replacement of household decentralized wastewater treatment systems, also known as septic systems. These grants target low- and moderate-income households with combined income of not more than 50 percent of the median nonmetropolitan household income for the state or territory, according to the latest census data.

Recognizing the needs of rural and urban low-income populations, the IIJA also directs the EPA administrator to conduct a needs assessment, studying the prevalence of water providers that service a disproportionate percentage of qualifying households with need, or have taken on an unsustainable level of debt due to customer nonpayment. This needs assessment is paired with a Rural and Low-Income Water Assistance Pilot Program that will provide funds to 40 eligible entities to support direct financial assistance, lifeline rates, bill discounting, hardship provisions, percentage-of-income payment plans, or debt relief to the servicing entity. This pilot program will follow completion of the needs assessment but must begin before November 2024.

The IIJA also directs the EPA administrator to evaluate how funds under the Federal Water Pollution Act and the Safe Drinking Water Act were distributed to small and disadvantaged communities. It further directs the evaluation to identify new opportunities and methods to improve on the distribution of funds under these programs to low-income communities, rural communities, minority communities and communities of Indigenous peoples.

⁶ https://www.epa.gov/system/files/documents/2021-08/2104_factsheet_august_2021.pdf

⁷ Section 50106 of the IIJA



Cybersecurity and Resiliency of Water Infrastructure

Across multiple programs, the IIJA advances the concept of resilient infrastructure that is protected from risks associated with natural disasters as well as cyberattacks. For water infrastructure, there are a few key provisions worth highlighting:

The Clean Water Infrastructure Resiliency and Sustainability Program will provide grants to increase the natural resiliency of publicly owned treatment works to a natural hazard or cybersecurity vulnerabilities. Funds can be used to plan, design or construct projects that increase resiliency through:

- Conserving water.
- Enhancing water use efficiency.
- Enhancing wastewater and stormwater management by increasing watershed preservation and protection.
- Modifying or relocating an existing publicly owned treatment works, conveyance or discharge system component that is at risk of significant impairment from a natural hazard.
- Developing and implementing projects to increase the resiliency of publicly owned treatment works to natural hazards or cybersecurity vulnerabilities.
- Enhancing energy efficiency or the use and generation of recovered or renewable energy in the management, treatment or conveyance of wastewater or stormwater.

The program is authorized at \$25 million per year and requires a 25% local match.

Another data- and cybersecurity-focused program is the newly created Water Data Sharing Pilot Program, which provides competitive grants to “establish systems that improve the sharing of information concerning water quality, water infrastructure needs, and water technology, including cybersecurity technology, between states or among counties and other units of local government.” Eligible grantees under this program include states, counties or units of local government that have:

- Coastal watershed with significant pollution levels,
- Water system with significant pollution levels, or
- Significant individual water infrastructure deficits.

The program is authorized at \$15 million per year through 2026 and requires the administrator of the EPA to prepare and submit a report to Congress on the efficacy of the pilot program.



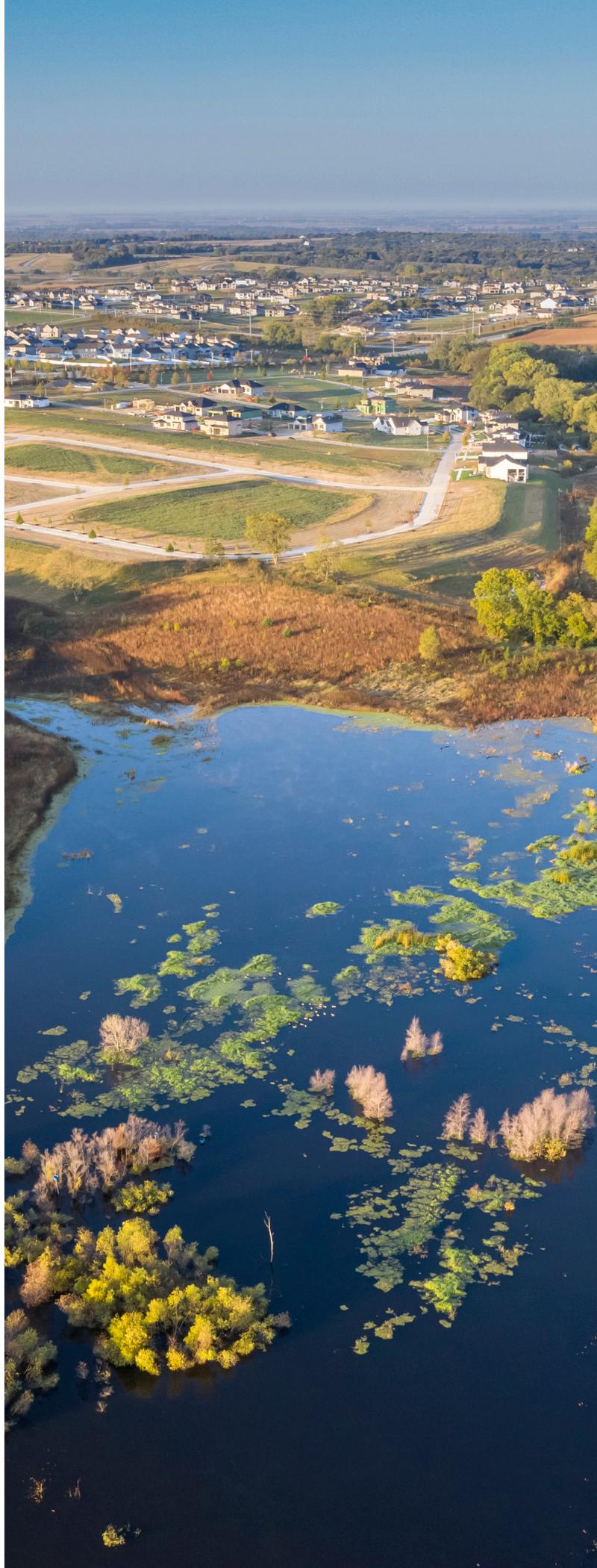
SRF Implementation Guidance from EPA

A March 8, 2022 memorandum from Radhika Fox, EPA's assistant administrator for water, provided further direction to EPA Regional Water Division Directors and State SRF Program Managers on implementing the Clean Water and Drinking Water State Revolving Fund Provisions of the IIJA.⁸ According to an [EPA fact sheet](#), the memorandum directs states to:

- Provide flexibility to meet local water needs — With supplemental funding, states should have a great deal of flexibility in program administration.
- Increase investment in disadvantaged communities — The IIJA directs portions of the funding toward low-income and disadvantaged communities. For states to successfully administer funds consistent with those requirements, they may need to:
 - Evaluate and revise, as needed, the DWSRF disadvantaged community definition and CWSRF affordability criteria.
 - Evaluate the SRF priority point system for project ranking commensurate with need.
 - Use technical assistance funding to help disadvantaged communities identify needs and access funding.
 - Engage residents and community stakeholders in disadvantaged communities.
- Make rapid progress on lead service line replacement — Funding under the lead service line replacement program is provided to states with no match requirement, helping to free states to move quickly to undertake replacement projects.
- Address PFAS and emerging contaminants⁹ — Similar to the lead service line replacement program, dedicated funding for emerging contaminants is provided to states without a match requirement, and must be provided to communities entirely as forgivable loans or grants.
- Support resilience and One Water Innovation — EPA encourages states to use the significant increase in SRF funding for infrastructure projects that make water systems more resilient to all threats, whether natural disasters, climate change, or bioterrorism and cyberattacks.

⁸ <https://www.epa.gov/dwsrf/bipartisan-infrastructure-law-srf-memorandum>

⁹ Emerging contaminants for drinking water include anything on the [Drinking Water Contaminant Candidate List](#).



	PROGRAMS	TOTAL FUNDING
1	Columbia River Basin Restoration Program	\$79 M
2	Great Lakes Restoration Initiative	\$1 B
3	Gulf of Mexico	\$53 M
4	Lake Champlain	\$40M
5	Lake Pontchartrain Restoration Program	\$53 M
6	Long Island Sound	\$106 M
7	Northwest Forest	\$4 M
8	South Florida Geographic Initiatives Program	\$16 M
9	Southeast New England Coastal Watershed	\$15 M
10	National Estuary Program Grants	\$132 M
11	Chesapeake Bay Program	\$238 M
12	Puget Sound	\$89 M
13	San Francisco Bay Water Quality Improvement	\$24 M



EPA Administered Geographic Clean Water Programs

The IJIA also provides funding targeted to a number of geographic locations or regions, supporting efforts to improve water quality. These programs are managed differently and may support project implementation through cooperative agreements, grants or a combination of both. The following summaries are pulled from the [“Building a Better America Playbook”](#):

Columbia River Basin Restoration Program

With \$79 million, this program is intended to improve water quality in the Lower Columbia River Basin through specific actions to reduce toxics, increase monitoring and/or increase public education and outreach.

Great Lakes Restoration Initiative

\$1 billion to restore and maintain the chemical, physical and biological integrity of the Great Lakes Basin Ecosystem.

Gulf of Mexico Program

\$53 million is available for this non-regulatory program that facilitates collaborative actions to protect, maintain and restore the health and productivity of the Gulf of Mexico in ways consistent with the economic well-being of the region.

Lake Champlain Basin Program

\$40 million for efforts that benefit the Lake Champlain Basin’s water quality, fisheries, wetlands, wildlife, recreation, and cultural resources, in partnership with government agencies from New York, Vermont, and Quebec, private organizations, local communities, and individuals.

Lake Pontchartrain Restoration Program

\$53 million to carry out the Lake Pontchartrain Basin Comprehensive Management Plan under the authority of Clean Water Act Section 121 and Section 320, to include activities such as conducting water quality monitoring, educating basin residents on water protection and pollution prevention, evaluating sewer system designs, and developing plans to upgrade or replace them in order to prevent or reduce water pollution.

Long Island Sound Program

\$106 million to implement the Long Island Sound Study Comprehensive Conservation and Management Plan and to plan the citizen involvement and education related to reducing pollution and improving the quality of the environment to sustain living resources in the Long Island Sound.

Northwest Forest Geographic Program

\$4 million to address water quality impairments from non-point sources related to Pacific Northwest forest practices and works to improve the quality and quantity of surface water so that beneficial uses and drinking water/source water protection goals are met.

South Florida Geographic Initiatives Program

\$16 million for competitive grants to address the immediate and emerging ecological pressures and threats to nearshore waters, bays, estuaries, beaches, and coral reefs central to South Florida’s economic well-being.

Southeast New England Coastal Watershed Restoration Program

\$15 million to protect and restore water quality, ecological health and diverse habitats by sharing knowledge and resources, promoting innovative approaches, and leveraging economic and environmental investments to meet the need of current and future generations.

Chesapeake Bay Program

\$238 million for competitive grants and cooperative agreements to reduce and prevent pollution and improve the living resources in Chesapeake Bay. Grants support projects as well as technical assistance, monitoring, environmental education and other related activities.

Puget Sound

\$89 million for activities that support water quality in one of 28 estuaries designated as Nationally Significant. Efforts will attain and maintain water quality that will ensure protection of public water supplies and protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife, while allowing recreational activities in and on the water.

San Francisco Bay Water Quality Improvement Fund

\$24 million to improve water quality and restore aquatic habitat by reducing polluted runoff, restoring impaired waters and enhancing aquatic habitat.

What Does It All Mean and How Can HDR Help?

The significant funding made available through the EPA's Geographic or SRF Programs create new opportunities for water systems to address backlogs of needed capital improvement and improve water quality. Prioritizing funding toward low-income and underserved communities will help to close the investment divide, and subsidizing access to safe and clean water will promote greater equity across the country.

Our experts know these programs inside and out, having worked in both the public and private sector implementing them and securing funding for small, medium and large clients. We can assist you with:

- Understanding your state's SRF process and program implementation
- Evaluating your projects and programs for SRF eligibility and financial benefits
- Supporting loan and grant applications
- Providing recommendations and administration oversight

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