

WATER INFRASTRUCTURE & RESILIENCY FINANCE CENTER



WATER INFRASTRUCTURE & RESILIENCY FINANCE CENTER

The Water Finance Center is an **information and assistance center**, helping communities make informed decisions for **drinking water, wastewater, and stormwater infrastructure** to protect human health and the environment.



Research

Advise

Innovate

Network

<https://www.epa.gov/waterfinancecenter>

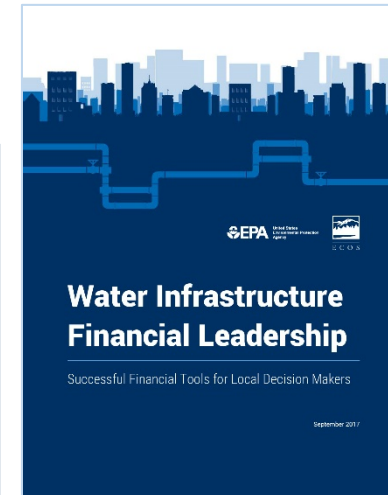
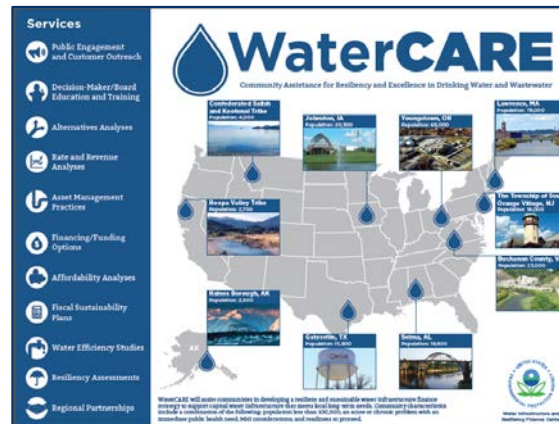
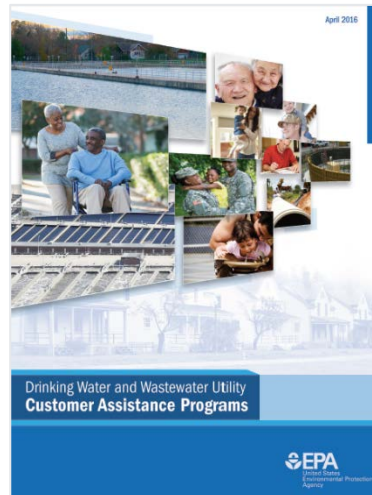
Water Finance Center Activities

An Information and Assistance Center

- Focus on drinking water, wastewater and stormwater– funding and financing sustainable and resilient infrastructure
- Work with states, local decision makers, water sector associations, our federal family, and NGOs to share models of financial leadership and success
- Manage grants to regional Environmental Finance Centers (EFCs)
- Oversee the U.S. EPA Environmental Financial Advisory Board (EFAB)

Current Activity Areas:

- Water Finance Clearinghouse
- Public-Private Partnerships & Emerging Finance Models
- Affordability Programs for Communities in Need
- WaterCARE Technical Assistance Initiative
- Marketplace Solutions for Drought Resiliency
- Regional Finance Forums



Water Infrastructure Financial Leadership

Successful Financial Tools for Local Decision Makers



- Worked with ECOS to develop—released September 2017!
- Document is designed for local decision makers to navigate the process of investing in water infrastructure.
- Helps identify:
 - what is needed for financial planning,
 - determine how to fund and finance a project, and
 - how to consider strategic approaches to protect investments based on specific local needs.
- Case examples show how communities with limited resources can achieve water infrastructure financial leadership.

Water Infrastructure Financial Leadership

Successful Financial Tools for Local Decision Makers

- **Introduction: Water Infrastructure**
- **Step 1: Preparing Your Community for Water Infrastructure Projects**
 - Asset Management
 - Financial Planning
 - Stakeholder Engagement
- **Step 2: Bringing Capital into Your Community**
 - Generating Revenue to Fund Water Infrastructure and Operations
 - System Partnerships
 - Finding Funding and Financing
- **Step 3: Maintaining Strong Financial Leadership Practices**
 - Contributing to Community Economic Development
 - Addressing Household Affordability
 - Checking Up on Your System's Financial Health
 - Communicating the Value of Water to Your Community

Case Example Topic Areas

- Financial Planning/Project Planning
- Project Capital
- Revenue Generation
- Revenue Management
- Economic Development
- Customer/Community Assistance



Introduction: Water Infrastructure Financial Leadership



Who is this document for?

- Designed for *local decision makers* to navigate the complex process of investing in water infrastructure.
- Practices can apply to *any community* seeking to plan or fund an infrastructure project.

What are characteristics of Communities in Need?

- Communities in Need can range in demographics and characteristics. Indicators include:
 - High unemployment
 - Declining rate base/population
 - Median household income (MHI) level below the Federal Poverty Level (FPL)
 - Low bond/credit rating that limits its ability to finance improvement projects
- Communities in Need may also be referred to as:
 - Disadvantaged communities
 - Economically challenged communities
 - Resource constrained communities
 - Environmental Justice (EJ) communities

Step 1: Preparing Your Community for Water Infrastructure Projects

“Does my community know what its water infrastructure needs are? Are we ready to fund or finance those water infrastructure needs?”

Asset Management



Asset Inventory



Operation & Maintenance



Capital Improvement Plan

Financial Planning



Rate Study with
Affordability Considerations



Alternatives Analysis



Budgets



Reserve Accounts

Stakeholder Engagement



Communication to
Governing Bodies/Decision
Makers



Communication to
Customers and Community
Groups

Step 2: Bringing Capital into Your Community

“How can my community fund water infrastructure through our rates or other sources of revenue? Do we need financing through a loan or bond?”

Funding vs Financing

Funding: Providing “one-way” financial resources to support a need, program, or project. This term is used when:

- Rate revenues, cash reserves, and connection fees is referred to as “pay as you go” or “Pay Go” funding, and
- Grants that do not require repayment and do not carry an interest expense.

Financing: The “two-way” acquisition of money for a program or project. The term financing is used when :

- Loans, municipal bonds, and other sources of monetary resources that require repayment of principal and interest.

Key Elements to Success When Combining Multiple Funding and Financing Sources

Meet Early and Often: Strive to set the pace for a successful project from the start—the earlier you can meet with key parties (project design team, funding/financing organizations, stakeholders), the better.

Regularly Update Funders and the Public: Keep your funders and the public in the loop—and help them develop a sense of ownership in the project. Public involvement is necessary for the successful implementation of any project.

Involve Regulators: Make regulators your advocates—there is nothing to lose but valuable time and money with compliance challenges.

Coordinate Funding Requirements: Minimize duplication by targeting funding where it best fits the project, relative to implementation phases and eligibility requirements.

Manage Implementation Schedules: Manage project implementation cycles around funding cycles.

Be Ready to Move: Projects will move to construction quickly and efficiently when the pieces are already in place and ready to go as soon as the funding/financing becomes available.

Source: Pennvest (Pennsylvania Infrastructure Investment Authority)

How Can My Community Learn More About Combining Funding and Financing Sources?

If combining sources to fund a project is something that your community is interested in pursuing, your local technical assistance providers and state finance authorities can help your community to come up with a package that works for you. You can also use the [Water Finance Clearinghouse](#) to find a range of funding and financing sources that can be combined for your project.



Several examples of how communities of different sizes and a range of economic contexts have successfully combined funding and financing sources are included in [Appendix A](#). Each example of combined project funding includes a summary table of the total project cost, and all funding/financing sources utilized by the community. [Click the icon to learn more.](#)

Step 2: Bringing Capital into Your Community

- **Generating Revenue to Fund Water Infrastructure and Operations**
 - **User rates**
 - Increasing Block Rate Structure (price of water goes up as the amount used increases)
 - PeakSet Base Model (individualized base rates calculated using a customer's historical maximum month of consumption)
 - **Rate Stabilization Funds**
 - **Innovative Revenue Generation Approaches**
 - Leasing space on water towers
 - Selling grid service to a local electric utility
 - Selling fertilizer as a product
- **System Partnerships**
- **Finding Funding and Financing**
 - **Governmental Sources**
 - **Philanthropic Sources**
 - **Private Sources**
 - **Water Bonds**

THE WATER FINANCE CLEARINGHOUSE

The U.S. EPA Water Finance Center has developed a "Water Finance Clearinghouse" to help community and utility leaders make informed decisions for their drinking water, wastewater, and stormwater infrastructure needs. The Clearinghouse is your one-stop-shop for searching funding and financing sources, and learning about important topics and challenges around infrastructure funding and financing. The Clearinghouse has two searchable databases—one for funds and one for resources.



Funding Sources: Clearinghouse users can identify water infrastructure funding and financing sources, including:

- Public sector loans and grants—federal, state, and local
- Philanthropic sources

Financing Mechanisms and Approaches: Users can explore how specific funding and financing approaches can be used to achieve water quality and quantity goals, including:

- Public-Private Partnerships
- Public-Public Partnerships
- Bonds, Taxes, and Fees
- Customer Assistance Programs
- Rate and Revenue Structures
- Incentives

Funding Access and Readiness: Includes resources to prepare communities to access capital, and once accessed, utilize it efficiently to address their needs:

- Pre-development Assistance
- Asset Management
- Technical Assistance for Financing
- Coordinated Funding Opportunities
- Financial Analysis Tools
- Program Costs

Special Topics and Additional Filters: Includes resources that cover specific water financing topics and challenges.

[VISIT THE WATER FINANCE CLEARINGHOUSE ONLINE](#)

Step 3: Maintaining Strong Financial Leadership Practices

“How can my drinking water and wastewater utility continue to contribute to the long-term financial health of my community?”

- **Contributing to Community Economic Development**
 - How utilities can attract businesses into the community
- **Addressing Household Affordability**
 - How utilities are developing Customer Assistance Programs to assist customers having difficulty paying water/sewer bills
- **Checking Up on Your System’s Financial Health**
 - Reviewing rates
 - Managing the utility’s credit rating
- **Communicating the Value of Water to Your Community**
 - Conveying the importance of drinking water and wastewater delivery services to influence customer acceptance of infrastructure investments

SIX KEYS TO IMPROVING YOUR UTILITY’S CREDIT RATING

When seeking financing, credit rating is critical to being an “attractive borrower.” Having a high credit rating will help improve your community’s chances of being approved for the financing that you seek, and will also help to keep your interest rates low. Below are the University of North Carolina Environmental Finance Center’s [Six Keys to Improving Your Utility’s Credit Rating](#).

1

Existence of a Rate Stabilization Fund: This is money that is set aside for a rainy (or not so rainy) day. In general, the existence of these funds boosts a utility’s rating. However, anything more than planned, occasional use of the funds can send the wrong signal. Recurring reliance on the rate stabilization fund indicates that rate increases are not happening as they should.

2

Low Dependence on Connection Fees: These one-time fees as new customers hook up to the system can hurt the utility’s financial performance if development slows down and it is too reliant on these fees. From a credit-worthiness perspective, these fees can overstate revenues available to the utility for debt service.

3

Significant Portion of Revenues from Fairly Reliable Customers: Examples of this include wholesale customers, a large university, or a military base. Large customers serve to stabilize the local economy. This can be a slippery slope, though, because too much concentration on one large customer can have devastating financial impacts on the utility if that customer leaves the community.

4

Insignificant Additional Upcoming Debt: A utility that has small projected needs for debt is a less risky borrower than a utility facing large additional debt. To improve the chances of finding a funder and to reduce the interest on large debts, having a preapproved multiyear rate increase can help the utility’s credit rating.

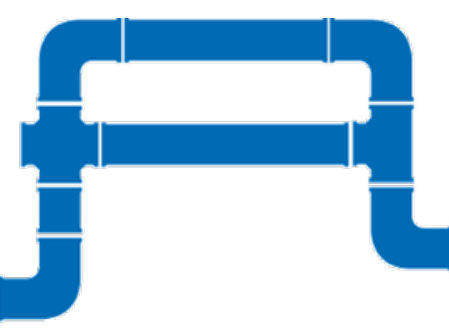
5

Fully-Funded Pension and Post-Employment Benefits: The Governmental Accounting Standards Board and credit rating agencies have recently emphasized these types of long-term liabilities in financial statements. A utility’s pension plan must be part of the parent government’s umbrella plan to have its credit rating based on the assumption that the utility’s funded ratio is proportional to that of the parent government.

6

Strong Management Team: The management team’s ability to quickly implement measures to respond to challenges is instrumental in a higher credit rating because it helps the rating agency to look beyond the utility’s current financial results to evaluate the direction in which its financial indicators may be heading.

Community Examples: Real-World Examples of Financial Leadership Practices in Action



City of Crisfield (Maryland)

Leveraging Funding Sources for a Renewable Energy Upgrade and Associated Cost Savings

- Energy consumed by the wastewater treatment plant accounted for over half of the City's energy expenditures.
- City applied for financing to build a **wind turbine** to power the City of Crisfield Wastewater Treatment Plant.
- Estimated that a single wind turbine at 750 KW would save between \$140,000–\$165,000 each year on energy costs.
- **Funding/Financing**
 - CWSRF Loan: \$453,000
 - CWSRF Principal Forgiveness: \$3.17 million
 - HUD CDBG Grant: \$530,000

Case Example Content: City of Crisfield (Maryland)

Financial Planning/ Project Planning	Project Capital	Revenue Generation	Revenue Management	Economic Development	Customer/ Community Assistance Programs
		✓			

Community Characteristics:

- Population Served: 2,671
- State MHI: \$74,551
- Local MHI: \$33,056
- Service Area Poverty Rate: 25.8% (Poverty rate for Crisfield not available. Poverty rate listed for Somerset County)

Combined Project Capital Sources Used

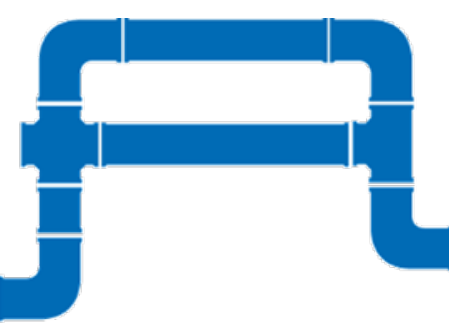
Total Funds: \$4.17 million

- CWSRF (Loan): \$453,000
- CWSRF (Subsidy): \$3.17 million
- HUD CDBG (Grant): \$530,000

Reasons for Combining Various Capital Sources

- Single source not sufficient to cover project needs
- Manage interest rates
- Bring additional community benefits to the project

Community Examples: Real-World Examples of Financial Leadership Practices in Action



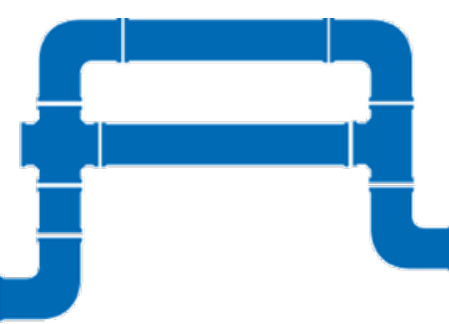
City of Detroit and Detroit Water and Sewerage Department (Michigan)

Combining Grant Funds to Manage Stormwater and Transform the Urban Landscape

- The Recovery Park **stormwater retention projects** are two complementary projects – *reduces pressure on city’s combined sewer system through green infrastructure*.
 - *Project 1*: Transformed vacant lots into urban farm plots- stormwater collected in the retention area **used for farming** and decreases urban runoff through land’s absorption and evapo-transpiration processes.
 - *Project 2*: Uses shallow retention ponds on city-owned lots to capture runoff and retain stormwater. **Existing streets channel stormwater** through swales into ponds with capacity to hold a two-year storm without overflow.
- **Funding**
 - Great Lakes Shoreline Cities Green Infrastructure Grant: \$1 million
 - Erb Foundation Grant: \$500,000
 - Kresge Foundation Grant: \$500,302

Case Example Content: City of Detroit (Michigan)					
Financial Planning/ Project Planning	Project Capital	Revenue Generation	Revenue Management	Economic Development	Customer/ Community Assistance Programs
	✓				
Community Characteristics: <ul style="list-style-type: none"> • Population Served: 677,116 • State MHI: \$49,576 • Local MHI: \$25,764 • Service Area Poverty Rate: 40.3% 					
Combined Project Capital Sources Used			Reasons for Combining Various Capital Sources		
Total Funds: \$2 million <ul style="list-style-type: none"> • GLSCGI (Grant): \$1 million • Erb Foundation (Grant): \$500,000 • Kresge Foundation (Grant): \$500,302 			<ul style="list-style-type: none"> • Single source not sufficient to cover project needs • Bring additional community benefits to the project 		

Community Examples: Real-World Examples of Financial Leadership Practices in Action



City of Sturgis (South Dakota)

Expanding Infrastructure to Increase Community Economic Development Opportunities

- Received a **\$244,357 match grant** from *Local Infrastructure Improvement Program (LIIP)* – state program that provides funding construction or reconstruction of infrastructure to serve **economic development projects**.
 - Extended utilities -**water, sewer, electric, gas**- to a newly annexed portion of the City.
 - Supported development of Belle Joli Winery, South Dakota’s first “**sparkling wine**” production facility.
 - This \$1 million infrastructure investment project created **new local jobs** and supports major **year-round tourist** draw.
 - Also enhances South Dakota’s agricultural sector, using **local grapes** to produce their sparkling wines.
 - Also facilitated development of a \$3.2 million, 19-unit **residential project** to meet the housing demand of Sturgis’ growing workforce – project significantly enhances property values and tax revenues.

Case Example Content: City of Sturgis (South Dakota)					
Financial Planning/ Project Planning	Project Capital	Revenue Generation	Revenue Management	Economic Development	Customer/ Community Assistance Programs
				✓	
Community Characteristics: <ul style="list-style-type: none"> • Population Served: 6,688 • State MHI: \$50,957 • Local MHI: \$35,818 • Service Area Poverty Rate: 15.8% 					

Community Examples: Real-World Examples of Financial Leadership Practices in Action

Village of Menomonee Falls (Wisconsin)

Keeping Rates Low through Water Tower Leases to Cellular Service Companies

- Village has **leased water tower space** to cellular service providers since 1996.
- Have several contracts with five different wireless companies (including major carriers such as **T-Mobile, Verizon Wireless, Sprint, and AT&T**) to lease space on two water towers.
- Most recent is a five-year contract with T-Mobile for \$28,500 per year, approved unanimously by the Village Board in March 2017.
 - Includes a 3% annual increase for each of the five years, with the option for up to four more automatic five-year term renewals.
- These contracts provided a **total revenue of \$217,388 in 2016**, making the leases approximately 3.5% of the utility's total 2016 revenue.

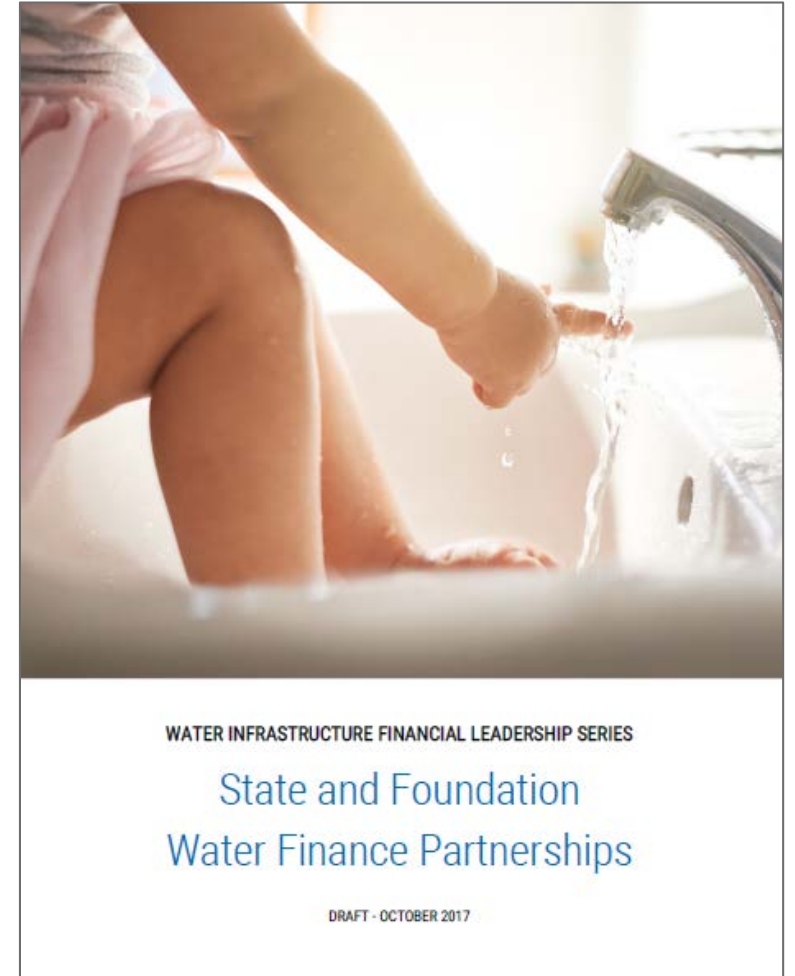
Case Example Content: Village of Menomonee Falls (Wisconsin)

Financial Planning/ Project Planning	Project Capital	Revenue Generation	Revenue Management	Economic Development	Customer/ Community Assistance Programs
		✓			
Community Characteristics: <ul style="list-style-type: none">• Population Served: 36,119• State MHI: \$53,357• Local MHI: \$73,350• Service Area Poverty Rate: 3.7%					

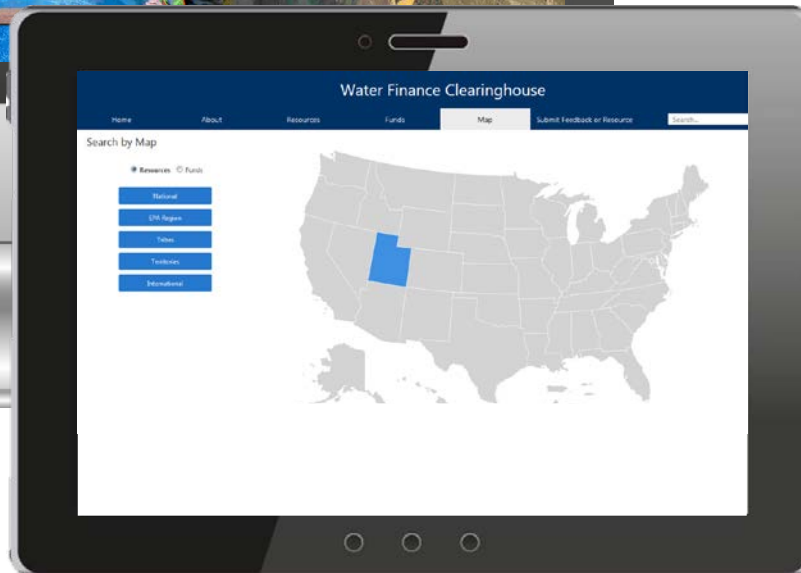
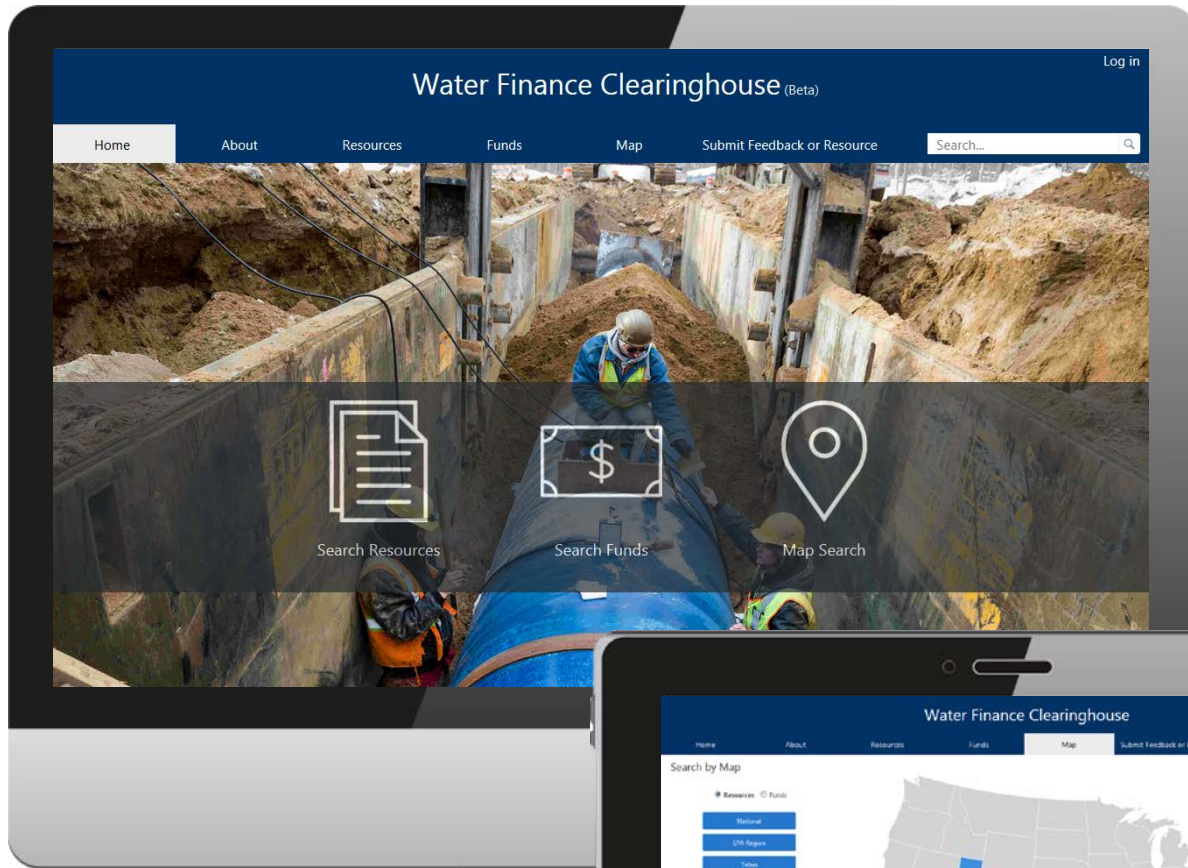
Financial Leadership Series

DRAFT DOCUMENT

- Next in the Financial Leadership Series
 - State and Foundation Water Finance Partnerships
 - **Section 1: Water Infrastructure Funding**
 - How Do States Coordinate?
 - How Does Foundation Funding Work?
 - **Section 2: State/Foundation Collaboration**
 - How Can States and Foundations Build Relationships for Funding Collaboration?
 - What Are Opportunities for Foundations to Fill Water Sector Funding Gaps?
 - **Section 3: Selected Experiences**
 - Examples of State Funding Agency Coordination
 - Examples of Foundation Funding in the Water Sector



WATER FINANCE CLEARINGHOUSE



Meeting the Needs of Key Stakeholders

The Water Finance Clearinghouse is an **easily navigable web-based portal** that helps communities locate **information** and **resources** that will assist them in making **informed decisions** for their drinking water, wastewater, and stormwater infrastructure needs.

CONTENT



WATER FINANCE RESOURCES

Reports, websites, trainings,
and other types of
information about water
infrastructure financing.



WATER FUNDING SOURCES

Current federal, state, local,
private, or other sources of
funding for water
infrastructure projects.

CONTENT

Essential Resources and Information in the Clearinghouse

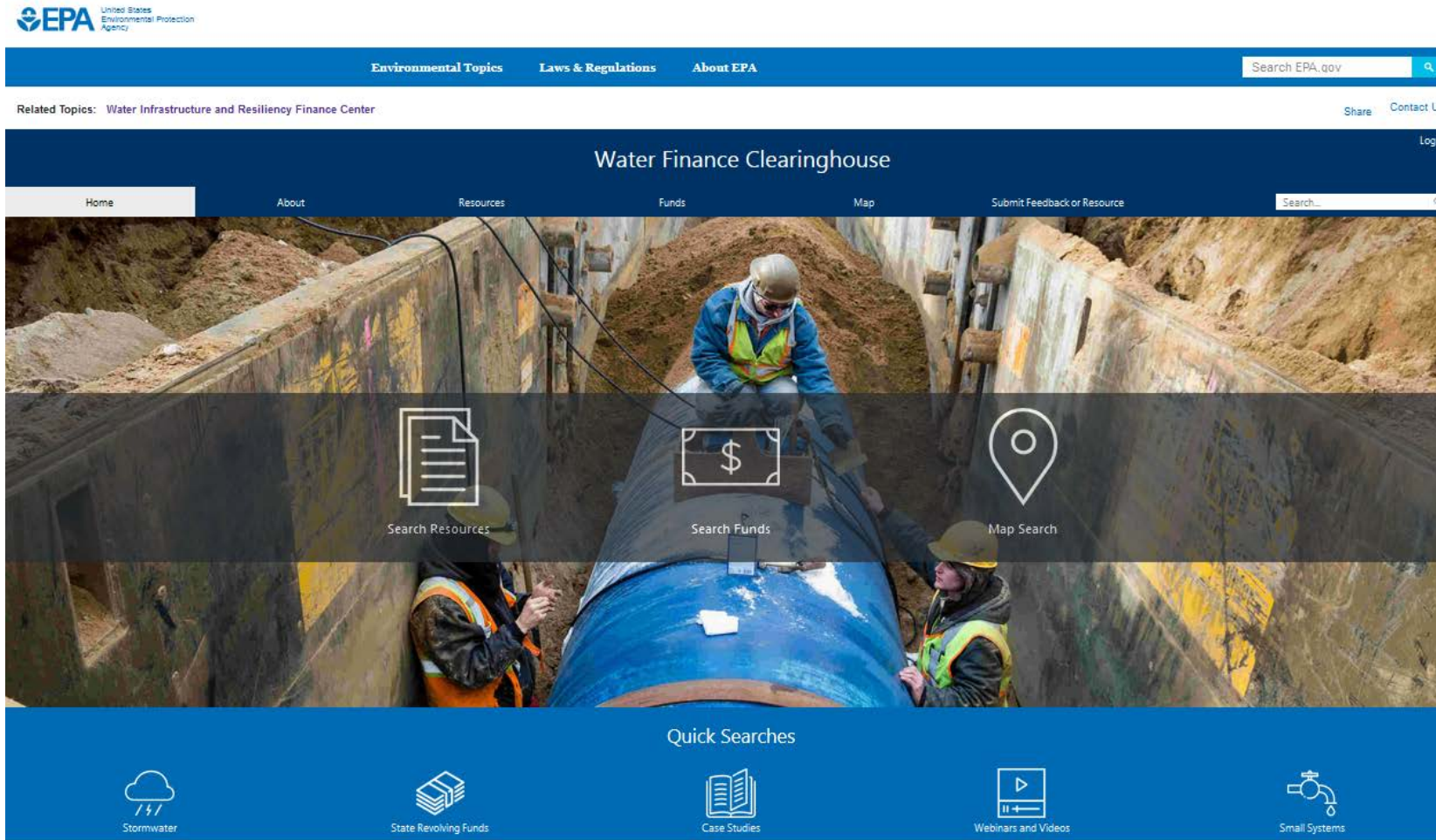
RESOURCES

- Reports
- Webinars
- Case Studies
- Videos
- Websites
- Trainings
- Guides
- Outreach
- Presentations
- Events
- Feasibility Studies
- Resource Lists
- Tools
- Other

FUNDING SOURCES

- **Federal funding** – grants and loan programs that support water infrastructure project development and construction
- **Regional funding** opportunities
- **State funding** – grant and loan programs
- **Foundation** opportunities
- **NGO**

WATER FINANCE CLEARINGHOUSE



- 2 Databases in 1
 - Funds
 - Resources
- Can search multiple ways:
 - Resources Icon/Tab
 - Funds Icon/Tab
 - Map Search
 - Global Search – searches both databases using key word/s
 - Quick Searches (applies filters for user)

MAP SEARCH

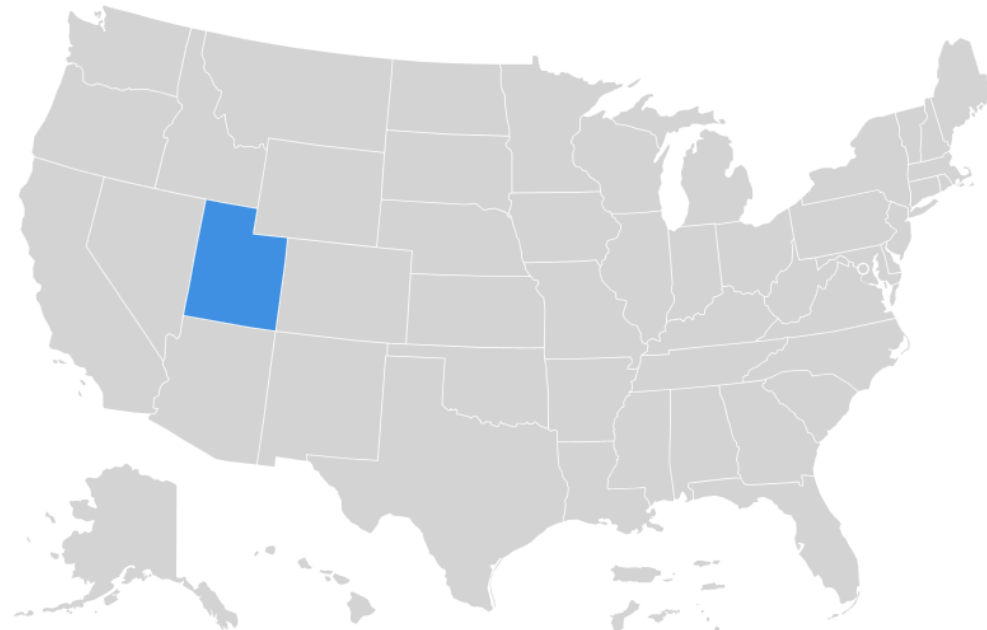
Water Finance Clearinghouse

Home About Resources Funds **Map** Submit Feedback or Resource Search...

Search by Map

Resources Funds

- National
- EPA Region
- Tribes
- Territories
- International



Key Features:

- Users can click on any state – will populate search results for resources tagged for that state.

SEARCH RESOURCES

Water Finance Clearinghouse (Beta) Log in

Home About **Resources** Funds Map Submit Feedback or Resource

Resource Search Results: [Apply search filters below to narrow your resources](#)

Sectors Funding Sources Financing Approaches Special Topics Scope Author Resources Types Dates

Rows 50

Resource Title	Author	Description	Resource Type	Year
U.S. Economic Development Administration Funding Opportunities	U.S. Economic Development Administration (EDA)	Website with current funding opportunities available for economic development. Opportunities vary, but can include technical assistance for feasibility studies and impact development as well as for public works programs.	Website, Resource List	2017
SEARCH - Special Evaluation Assistance for Rural Communities and Households	U.S. Department of Agriculture (USDA) - Rural Development	Website provides overview of SEARCH program	Website	2017
Pennsylvania Department of Community and Economic Development	Pennsylvania Department of Community and Economic Development	Searchable website that filters funding programs for businesses, communities, and local governments in Pennsylvania across a range of sectors.	Website	2017

Key Features:

- Drop-down filters at the top of the search results.
- Information Displayed:
 - Clickable Resource Title
 - Author
 - Brief Description
 - Resource Type
 - Year

RESOURCES: FILTER DROP-DOWN MENU

The screenshot shows the Water Finance Clearinghouse (Beta) website. The navigation bar includes Home, About, Resources (highlighted), Funds, Map, and Submit Feedback or Resource. A search bar is present in the top right. Below the navigation, the page displays "Resource Search Results: We've found 173 resources that match your filter". A filter bar shows "Drinking Water" and "Wastewater" selected. A dropdown menu is open, showing various filter categories: Sectors, Funding Sources, Financing Approaches, Special Topics, Scope, Author, Resources Types, and Dates. Under Resources Types, several checkboxes are visible: Combined Sewer System, Green Infrastructure, Groundwater, Stormwater, Drinking Water (checked), Greywater, ReUse, and Wastewater (checked). An "Apply Filters" button is located at the bottom right of the dropdown. Below the dropdown, there is a search bar with a dropdown arrow, a "Search" button, a "Download" button, and a "Rows" selector set to 50. The page shows "1 - 50 of 173" results. The table below has columns for Resource Title, Author, Description, Resource Type, and Year.

Resource Title	Author	Description	Resource Type	Year
U.S. Economic Development Administration Funding	U.S. Economic Development	Website with current funding opportunities available for economic development. Opportunities vary, but can include	Website, Resource List	

Users can apply multiple filters by clicking on the gray tabs & selecting filters.

RESOURCES: FILTER DROP-DOWN MENU

The screenshot shows the Water Finance Clearinghouse (Beta) website. The top navigation bar includes links for Home, About, Resources, Funds, Map, and Submit Feedback or Resource, along with a search bar. Below the navigation, a message states "Resource Search Results: We've found 173 resources that match your filter". A filter bar shows "Drinking Water" and "Wastewater" selected, with a "Remove all Filters" button. A filter drop-down menu is open, displaying various filter categories: Sectors, Funding Sources, Financing Approaches, Special Topics, Scope, Author, Resources Types, and Dates. The "Resources Types" section is expanded, showing checkboxes for "Combined Sewer System", "Green Infrastructure", "Groundwater", "Stormwater", "Drinking Water" (checked), "Greywater", "ReUse", and "Wastewater" (checked). An "Apply Filters" button is visible. Below the filter menu, there is a search bar, a "Download" button, and a "Rows" dropdown set to 50. The main content area displays a table of search results with columns for Resource Title, Author, Description, Resource Type, and Year.

Resource Title	Author	Description	Resource Type	Year
U.S. Economic Development Administration Funding	U.S. Economic Development	Website with current funding opportunities available for economic development. Opportunities vary, but can include	Website, Resource List	

Users can apply multiple filters by clicking on the gray tabs & selecting filters.

Can remove individual or all filters by clicking on the "X".

SEARCH FUNDS

Water Finance Clearinghouse (Beta) Log in

Home About Resources **Funds** Map Submit Feedback or Resource Search...

Funds Search Results: [Apply search filters below to narrow your funding sources](#)

Funding Sources Sectors Eligible Uses Eligible Applicants

Search [] Search

Download Rows 50

1 - 50 of 408

Program Name	Source	Description	How To Apply	Current Funding Level	Contact
Drinking Water State Revolving Fund (DWSRF)	Wyoming Department of Environmental Quality	The Drinking Water State Revolving Fund (DWSRF) makes loans to public entities for improvements of drinking water systems, including source, treatment plant, storage tank, and transmission and distribution line projects.	SRF loan application forms are available on the internet at the OSLI SRF website or directly from OSLI. For more detailed instructions, visit the website.		Beth Blackwell elizabeth.blackwell@wyo.gov 307-777-6373 Office of State Lands and Investments Herschler Building, 3W 122 West 25th Street Cheyenne, WY, 82002
Clean Water State	Wyoming Department of	The Clean Water State Revolving Fund	SRF loan application forms are available on the internet at the OSLI SRF website		Beth Blackwell elizabeth.blackwell@wyo.gov

Key Features:

- Drop-down filters at the top of the search results.
- Information Displayed:
 - Clickable Funding Option
 - Source
 - Description
 - How to Apply
 - Current Funding Level
 - Contact Information

KEY CLEARINGHOUSE FEATURES

The screenshot displays the 'Water Finance Clearinghouse (Beta)' website. The navigation bar includes 'Home', 'About', 'Resources', 'Funds', 'Map', and 'Submit Feedback or Resource'. A search bar is located on the right. Below the navigation, a message states 'Funds Search Results: We've found 6 funding sources that match your filter'. Filters for 'Ohio' and 'Capital Projects' are visible. The main content area shows a table of funding sources with columns for 'Program Name' and 'Source'. A blue button labeled 'Export Your Results' is highlighted with an orange box. A file dialog window is open over the table, titled 'Opening funds_report.csv'. The dialog shows the file is a 'Microsoft Excel Comma Separated Values File (2.9 KB)' from 'https://ofmpub.epa.gov'. It asks 'What should Firefox do with this file?' and offers three options: 'Open with Microsoft Excel (default)', 'Save File', and 'Do this automatically for files like this from now on.' The 'Open with' option is selected. 'OK' and 'Cancel' buttons are at the bottom.

Program Name	Source
Rural Water Loan Fund	National Rural Water Association (NRWA)
Community Development Program	Ohio Development Services Agency

Key Features:

- Export search results at any time to an excel file – includes hyperlink.
- Search within search results.
- Reorganize search results by clicking on column header.
- Remove columns of information for customizable display.

GENERAL USER ACCOUNT

Water Finance Clearinghouse (Beta) Login **Create Account**

Home About Resources

Create Account

To create a Water Finance Clearinghouse account, please fill out the form below. This information will be used to review your request and will not be shared outside of EPA.

Account Option
 General Contributor

Work Email

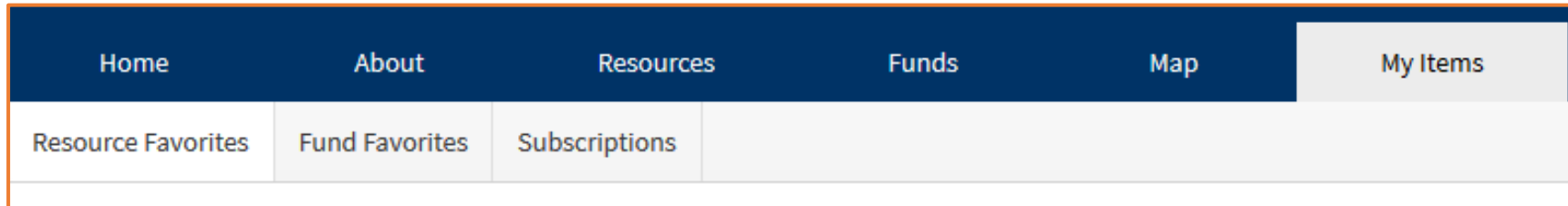
Submit Request

Search Resources Search Funds Map Search

Create a “General User” Account:

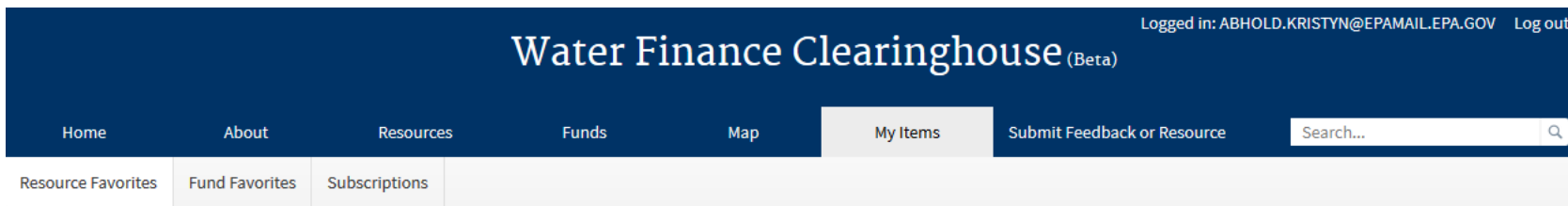
- Click on “Create Account” and select “General”
- Type in your email address and click “Submit”
- General Users can:
 - Favorite resources and funding sources for quick access at any time
 - Subscribe to receive email updates for new additions/edits to specific filters options.

GENERAL USER - MY ITEMS



When logged-in as a General User, in the “My Items” tab you can:

- View
 - Favorite Resources.
 - Favorite Funding Sources.
- You can “favorite” items by clicking on the STAR icon on the left-side of each Clearinghouse entry.
- Un-favorite by deselecting STAR icon



	Resource Title	Author	Description
★	Utilizing SRF Funding for Green Infrastructure Projects	EPA Environmental Financial Advisory Board	The report considers the historic agreement between EPA and the City of Philadelphia to meet clean water goals with state-of-the-art green infrastructure project solutions and the limited involvement of the Clean Water State Revolving Funds (the "CWSRFs"). The purpose of the report is to analyze the potential of the CWSRFs to provide credit guarantees to green infrastructure projects within current program eligibilities and resources.
★	SRF Investment Function: Current Status and Prospects for Enhancing SRF Sustainability	EPA Environmental Financial Advisory Board	The purpose of this report is threefold: (1) to assess state SRF administrator's current authority and use of the investment function in managing SRF programs; (2) to identify and assess state-of-the-art investment practices and strategies currently being used and (3) consider the benefits of expanded SRF investment authority of SRF performance.
★	Developing Dedicated Stormwater Revenue	EPA Environmental Financial Advisory Board (EFAB)	This report examines ways that the Water Infrastructure and Resiliency Finance Center (WIRFC) can help local governments develop dedicated stormwater revenue mechanisms. The Board recommends that that WIRFC help local governments determine costs, evaluate revenue options, examine equity and affordability concerns, create a frame-work for collecting and segregating revenues, use technology in determining costs, and communicating effectively with stakeholders.

GENERAL USER - MY SUBSCRIPTIONS

Water Finance Clearinghouse (Beta) Logged in: ABHOLD.KRISTYN@EPAMAIL.EPA.GOV [Log out](#)

Home About Resources Funds Map **My Items** [Submit Feedback or Resource](#)

Resource Favorites Fund Favorites Subscriptions

You are subscribed to receive email notifications for new additions of content to the Water Finance Clearinghouse with any of the following labels.

Resources
[California](#) [Conservation Financing](#) [Affordability](#)

Funds
[EPA](#) [California](#)

I would like to receive email notifications

Daily
 Weekly
 Monthly

Resource Subscription

[Unsubscribe](#)

Resource Types

<input type="checkbox"/> Article	<input type="checkbox"/> Guide	<input type="checkbox"/> Regulation	<input type="checkbox"/> Training
<input type="checkbox"/> Case Study	<input type="checkbox"/> Other Resource Type	<input type="checkbox"/> Report	<input type="checkbox"/> Video
<input type="checkbox"/> Event	<input type="checkbox"/> Outreach	<input type="checkbox"/> Resource List	<input type="checkbox"/> Webinars & Videos
<input type="checkbox"/> Feasibility Study	<input type="checkbox"/> Presentation	<input type="checkbox"/> Tool	<input type="checkbox"/> Website

Scope

National Tribes & Alaskan Native Villages International

Community Population Size

Small (less than 10,000) Medium (10,000 – 99,999) Large (100,000 and above)

Funding Subscription

[Unsubscribe](#)

Sectors

<input type="checkbox"/> Agriculture	<input type="checkbox"/> Green Infrastructure	<input type="checkbox"/> ReUse
<input type="checkbox"/> Animal Agriculture	<input type="checkbox"/> Greywater	<input type="checkbox"/> Septic/Decentralized
<input type="checkbox"/> Combined Sewer System	<input type="checkbox"/> Groundwater	<input type="checkbox"/> Stormwater
<input type="checkbox"/> Drinking Water Systems	<input type="checkbox"/> Private Drinking Water Wells	<input type="checkbox"/> Wastewater Utilities

Eligible Uses

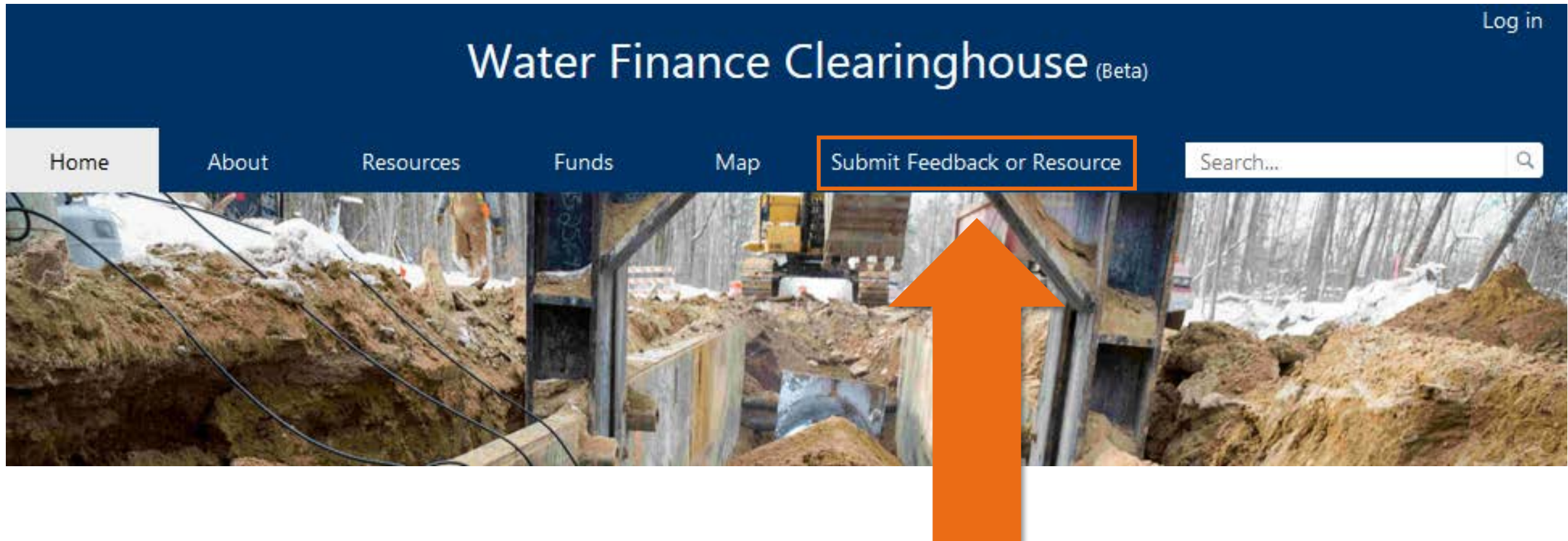
<input type="checkbox"/> Capital Projects	<input type="checkbox"/> Green Projects
<input type="checkbox"/> Conservation	<input type="checkbox"/> Home Repairs & Upgrades
<input type="checkbox"/> Contaminated Site Remediation	<input type="checkbox"/> Operations & Maintenance
<input type="checkbox"/> Planning & Predevelopment	
<input type="checkbox"/> Resiliency & Hazard Mitigation	

Under “My Subscriptions” in the “My Items” tab, General Users can:

- Track and manage email subscriptions.
- You can select filter options for email notifications.
- You can set email frequency.

GENERAL USER FEEDBACK

- Users can provide general feedback – report a broken link, desired content, etc.
- Users can suggest new resources and funding sources be added to the Clearinghouse.



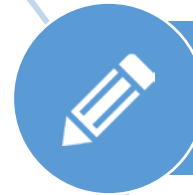
MAINTENANCE

2-Pronged Approach

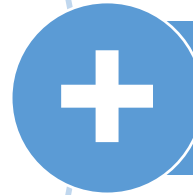
EPA Staff
Annually/Bi-annually

Clearinghouse
Contributors

Desired Contributors:
Individuals who represent entities that routinely publish or produce water finance-specific resources and/or those that manage water funding sources.



Suggest edits to existing content in the Clearinghouse.



Suggest additions of new resources and/or funding sources.

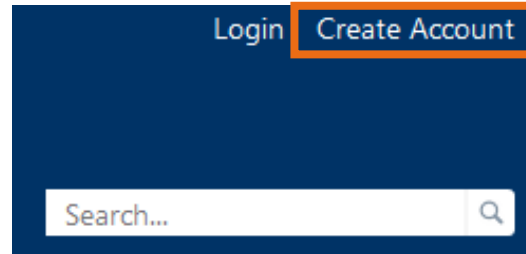


Suggest removal of resources and/or funding sources.

BECOMING A CLEARINGHOUSE CONTRIBUTOR

1

Click on “Create Account” at the top right of screen



Login Create Account

Search...

2

Select “Contributor” Account Option

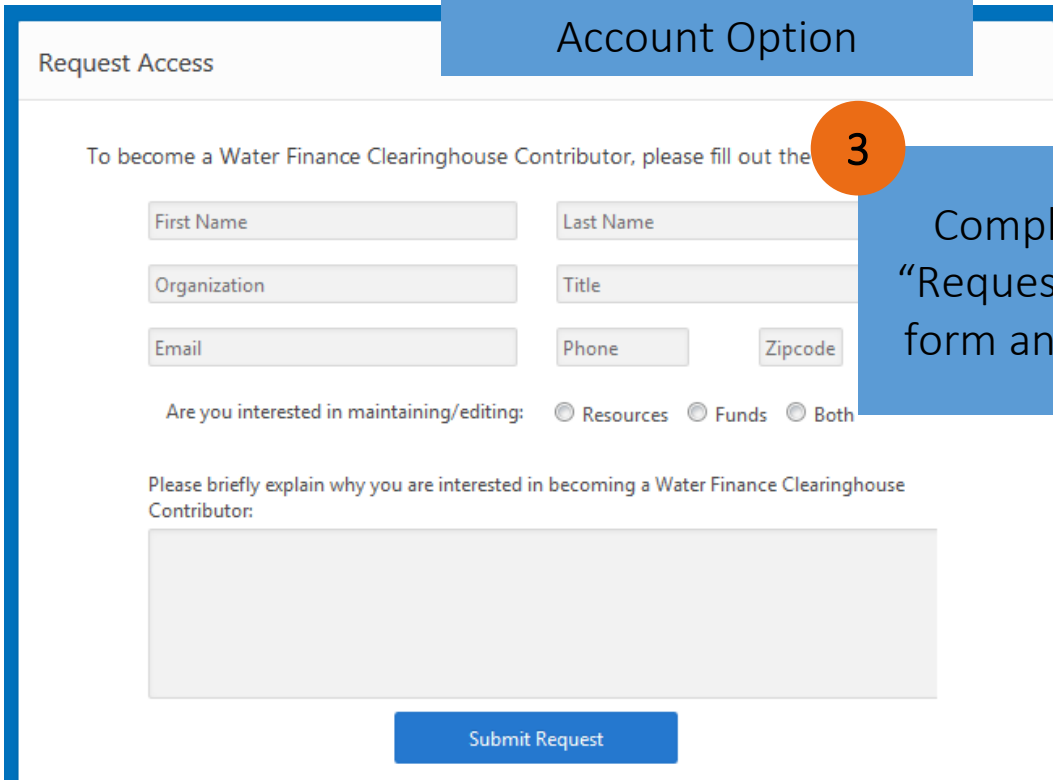


Account Option

General Contributor

3

Complete the “Request Access” form and submit



Request Access

To become a Water Finance Clearinghouse Contributor, please fill out the

First Name Last Name

Organization Title

Email Phone Zipcode

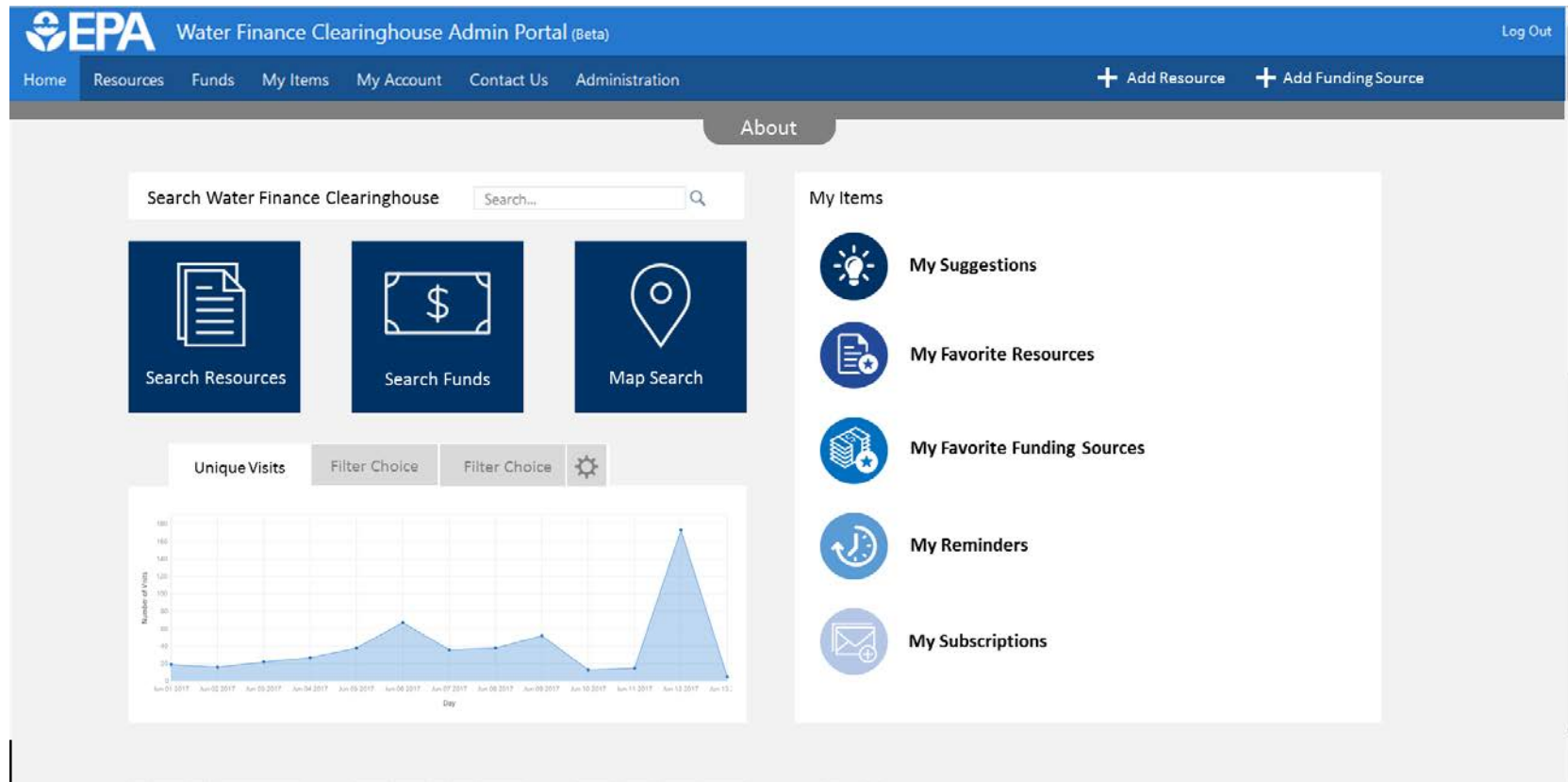
Are you interested in maintaining/editing: Resources Funds Both

Please briefly explain why you are interested in becoming a Water Finance Clearinghouse Contributor:

Submit Request

- Click on Create Account.
- Section “Contributor” under Account Option.
- Fill out Request Form.
- Once Approved – an email will provide a temporary password for access.
- Contributor Incentives:
 - Ownership of content
 - Access to analytics

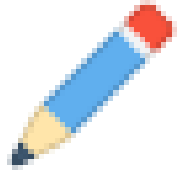
CONTRIBUTOR PORTAL



Within the Contributor Portal, users can:

- Search Clearinghouse databases.
- Edit/Add/Delete Content.
- Favorite resources and funding source for quick look-up later.
- Track suggestions.
- Manage notifications and subscription updates.

EDIT or DELETE CONTENT



Program Name	Source	Description	How To Apply	Current Funding Level	Contact	Applied Filters	Modified Date
Community Development Block Grant Program (CDBG Annual Competition) (HUD Funds)	Alabama Department of Economic	To improve housing and economic & community development for low	Application procedure workshops begin in May. The program closes in April and the		Al Jones al.jones@adeca.alabama.gov	Alabama Department of Economic and Community Affairs, Drinking Water Systems, Wastewater Utilities, Capital	

Funds Search Results: Apply search filters above to narrow your resources

Funding Source Suggestion

How To Apply: Application procedure workshops begin in May. The program closes in April and the deadline for applications is July 1, 2016. Applications can be accessed through the website.

Current Funding Level: [Empty field]

Contact Full Name: Al Jones

Email: al.jones@adeca.alabama.gov

Agency: Alabama Department of Economic and Community Affairs

Print Save Draft Submit for Review

Locate Resource or Funding Source

- **EDIT**

- Click on the PENCIL icon next to title.
- Explain why edit is being made.
- All fields can be edited.
- Filter options can be applied or removed.

- **DELETE**

- Click on the TRASH CAN icon and explain why entry should be removed.

ADDING NEW CONTENT

EPA Water Finance Clearinghouse Admin Portal (Beta) Log Out

Home

Search

Reports, and information infrastr

My Fav

You Cur

Resource Suggestion

* indicates a required field for review.

Suggestion Type New Suggestion Update Request Delete Request

Status Draft Pending Approved Declined

Status Date 04/13/2017

* Reason for Suggestion

Resource Information

Resource ID

* Title

Save Draft Submit for Review

Click on + Resource or Funding Source

- Complete all blank fields.
- Apply appropriate filters.
- Can save draft for later.
- Print (save to PDF) to share with colleagues.
- When ready – click “Submit for Review.”
- Follow suggestion status in “My Items” tab.

CONTENT MANAGEMENT FEATURES

The screenshot shows a web form titled "Funding Source Suggestion" with several input fields and checkboxes. A date picker calendar is open over the "Expiration Date" field, showing January 2018 with the 17th selected. The "Reminder Date" field contains the text "01/17/2018".

Address Line 2

City: Montgomery

Expiration Date: [Date Picker]

Reminder Date: 01/17/2018

Set a date for when you would like to remove this resource from the site.

No removal date

When would you like to receive a reminder about this resource?

No, I do not want a reminder

Sectors (Check all that apply)

<input type="checkbox"/> Green Infrastructure	<input type="checkbox"/> Stormwater	<input checked="" type="checkbox"/> Drinking Water Systems
<input checked="" type="checkbox"/> Wastewater Utilities	<input type="checkbox"/> Groundwater	<input type="checkbox"/> Private Drinking Water Wells
<input type="checkbox"/> Greywater	<input type="checkbox"/> Combined Sewer System	<input type="checkbox"/> Agriculture

Print Save Draft Submit for Review

When adding or editing existing Clearinghouse content, Contributors can:

- Set a “sunset” or automatic take down date for when a resource or funding source is automatically removed from the site.
- Schedule a reminder date per entry – manage content on Contributor’s timeline, not EPA’s.

MY ITEMS

EPA Water Finance Clearinghouse Admin Portal (Beta) Log Out

Home Resources Funds **My Items** My Account Contact Us Administration Add Resource Add Funding Source

My Suggestions Favorite Resources Favorite Funding Sources My Reminders My Subscriptions

Home Resources Funds **My Items** My Account Contact Us Administration

My Suggestions Favorite Resources Favorite Funding Sources My Reminders My Subscriptions

			Southeast Rural Community Assistance Project (SERCAP) Loan Fund Program	Update Request	Fund	Approved	06/30/2017
			Working With the Market: Economic Instruments to Support Investment in Green Stormwater Infrastructure	New Suggestion	Resource	Approved	06/26/2017
			Overview of Clean Water State Revolving Fund (CWSRF) Eligibilities	Update Request	Resource	Approved	05/18/2017
			Clean Water State Revolving Fund (CWSRF) 2015 Annual Report	Update Request	Resource	Approved	05/18/2017
			Clean Water State Revolving Fund (CWSRF) 2016 Annual Report	Update Request	Resource	Approved	05/18/2017
			Introducing Water Loss Auditing to Oklahoma Water Systems	New Suggestion	Resource	Draft	05/16/2017
			Biological Nutrient Removal Cost-Share Grant Program (BNR)	Delete Request	Fund	Approved	05/15/2017
			Stormwater Utility Credit Manual	Update Request	Resource	Approved	05/12/2017
			How to Develop Sustainable Irrigation Projects with Private Sector Participation	New Suggestion	Resource	Approved	05/12/2017

In the “My Items” tab Contributors can:

- Track and manage suggestions.
- Favorite Resources.
- Favorite Funding Sources.
- Track and manage scheduled reminders.
- Manage Subscriptions.

MY REMINDERS

The screenshot shows the EPA Water Finance Clearinghouse Admin Portal (Beta) interface. The top navigation bar includes 'Home', 'Resources', 'Funds', 'My Items', 'My Account', 'Contact Us', and 'Administration'. The 'My Items' tab is active, and the 'My Reminders' sub-tab is selected. A table displays a list of reminders with columns for 'Source Type', 'Title', 'Reminder Date', and 'Days Remaining'. The first row is highlighted, and a modal window titled 'Set Reminder' is open over it. The modal contains a form to set a reminder for the selected fund, with fields for 'Program Name/Title' and 'Reminder Date'.

Source Type	Title	Reminder Date	Days Remaining
Fund	Community Development Block Grant Program (CDBG Annual Competition) (HUD Funds)	11/06/2017	126
Fund	Appalachian Region...		182
Fund	Appalachian Region...		320

Set Reminder

Set a reminder for the Fund below.

Program Name/Title
Community Development Block Grant Program (CDBG Annual Competition) (HUD Funds)


Reminder Date
11/06/2017

Delete Set Reminder

Under “My Reminders” in the “My Items” tab, Contributors can:

- Track and manage reminders.
- By clicking on the clock icon, Contributors can edit or delete reminder.

TRANSFER ACCOUNTS

 Water Finance Clearinghouse Admin Portal (Beta) Log Out

Home Resources Funds My Items My Account **Contact Us** Administration

Contact Us

Kristyn Abhold
202.566.2730
Abhold.Kristyn@epa.gov
Water Infrastructure and Resiliency Finance Center
U.S. Environmental Protection Agency

1200 Pennsylvania Ave NW
Washington DC, 20460

Provide Feedback

* indicates a required field.

This message or feedback is for:

Resources Funding
 Resources & Funding General
 Transfer My Account

* Message or Feedback:

- There is an option to transfer or merge accounts to help Contributor organizations manage Clearinghouse content over time.
- Record of suggestions is preserved.
- Favorited items maintained.
- Reminders and Subscriptions transferred.

CURRENT CLEARINGHOUSE STATS

SITE VISITS

The Water Finance Center tracks daily unique site visits and a diverse set of use data to better understand user needs and trends.

22,100

CONTRIBUTORS

Contributors are Federal agencies, State organizations, foundations, NGOs, and other groups that suggest edits / deletions / additions to the Clearinghouse.

102

GENERAL USERS

Anyone who visits the site can create a General User account – this allows visitors to favorite or bookmark resources/funding sources and subscribe to Clearinghouse Updates.

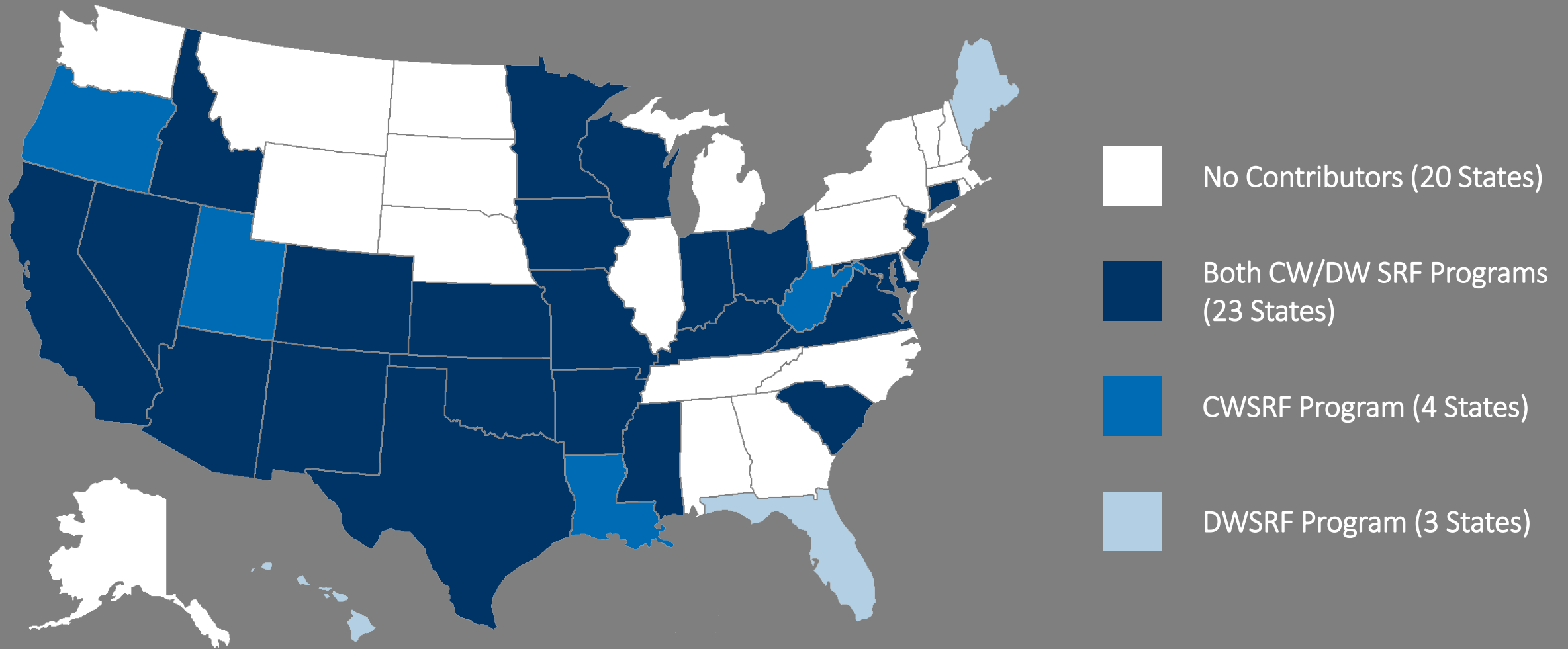
206

APPROVED SUGGESTIONS

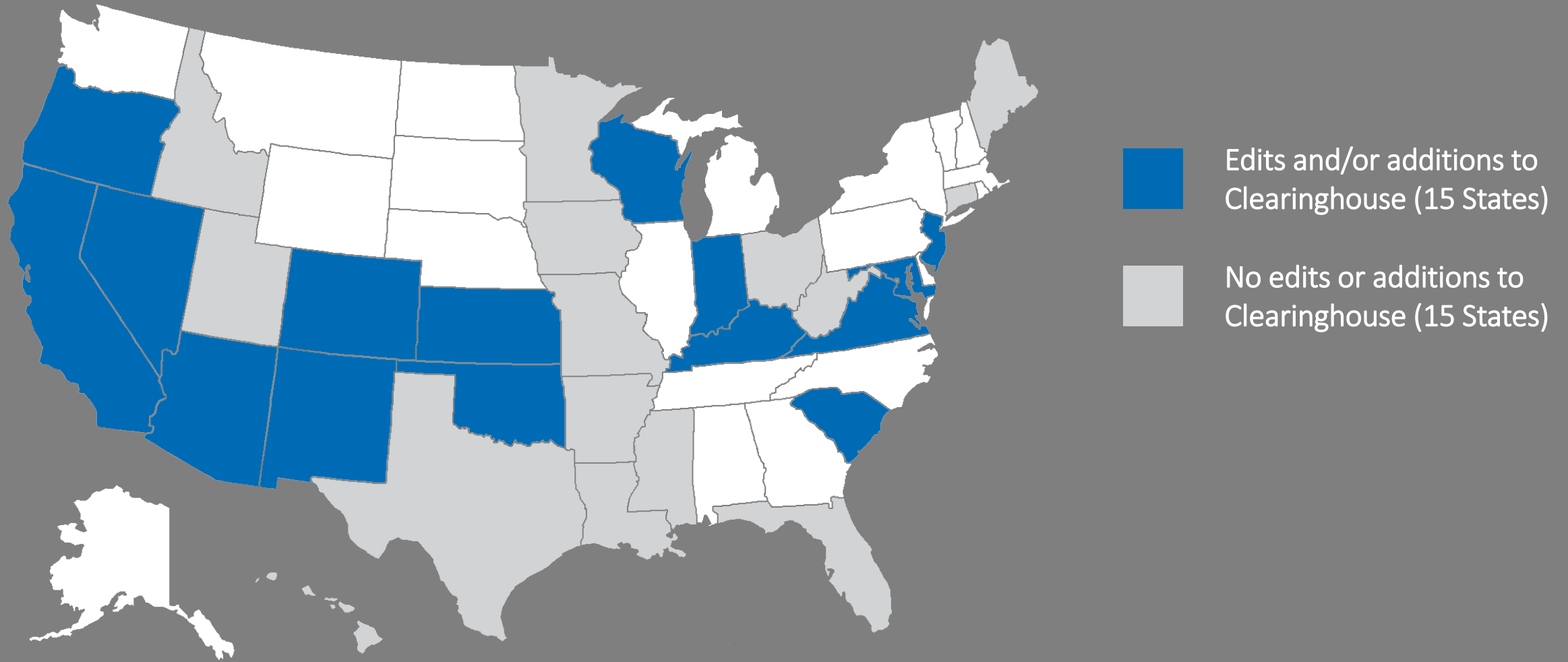
Suggestions for Clearinghouse Content made by Contributors, General Users are reviewed by and approved by EPA staff. EPA also adds new content.

338

CURRENT CLEARINGHOUSE SRF CONTRIBUTORS



CLEARINGHOUSE SRF CONTENT EDITS/ADDITIONS



LOOKING FORWARD

The Water Finance Clearinghouse will be maintained and content expanded over time.

LEARNING MODULES

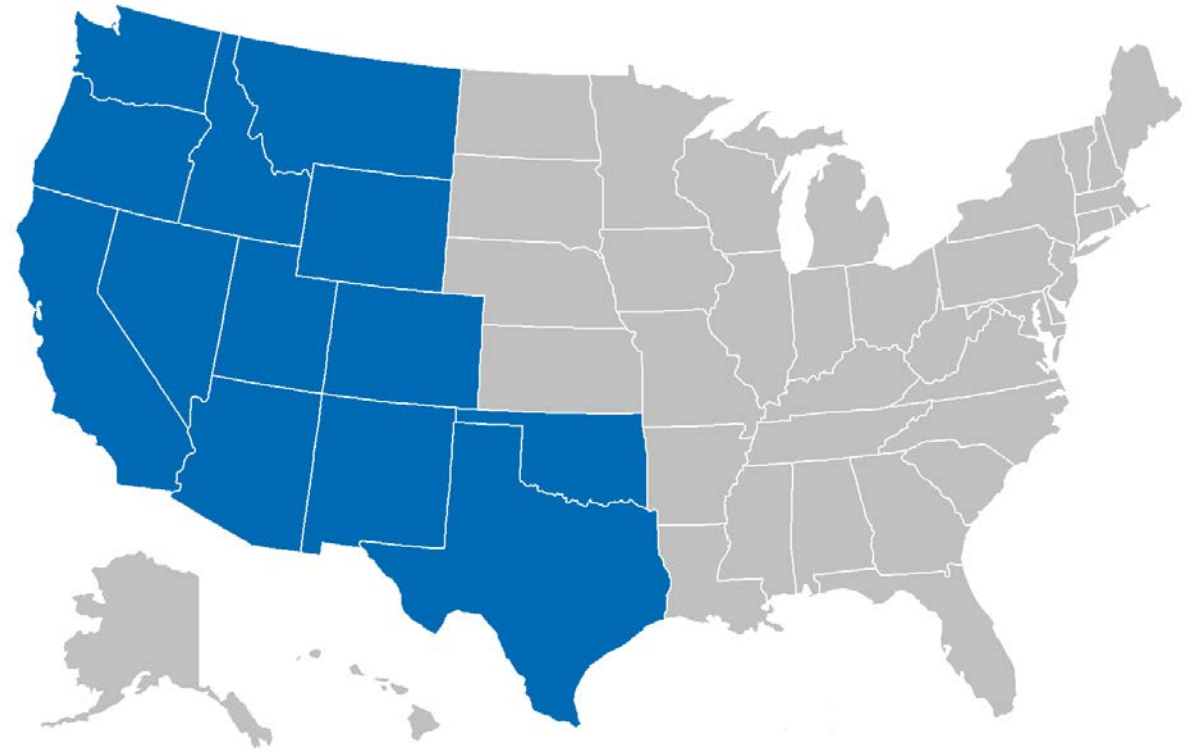
The Water Finance Center is developing step-by-step guides on specific water finance topics:

- SRF 101
- Water loss financing
- Disaster recovery and resiliency financing for water and wastewater utilities
- Stormwater financing
- Financing municipal watershed partnerships with agriculture
- Financing decentralized wastewater systems
- Public-Private-Partnerships

We are looking for volunteers for beta testing and content development – please contact us.

SRFs & Drought Resiliency Whitepaper

- CWSRF and DWSRF in 13 western states
- Identify how states are using SRF to address and prepare for drought
- Financial assistance & activities for:
 - Water conservation & efficiency
 - Water reuse
 - Leak detection and repair
 - Irrigation modernization
 - Aquifer storage/recovery
 - Source water protection



Regional Finance Forums

- Bring together communities with water infrastructure financing needs in an interactive peer-to-peer networking format
- Region 7 Finance Forum September 12, 2017
St. Joseph, MO
- **Upcoming Forums – Early 2018**
 - Region 8 - April 16 & 17 Casper Wyoming
Effective Utility Management
 - Region 5



Organized in 8 EPA
Regions

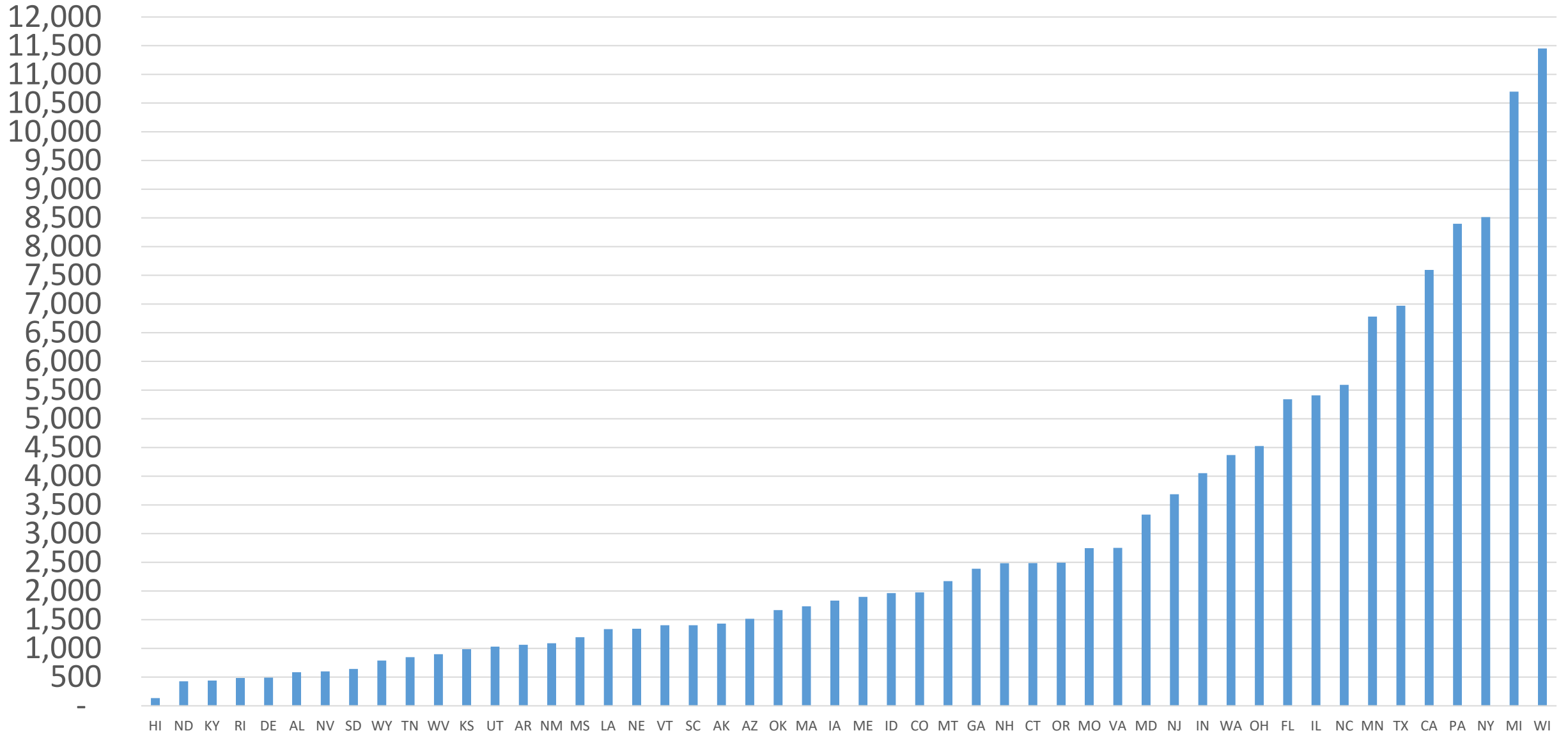


Funders, Technical
Assistance
Providers, Utilities

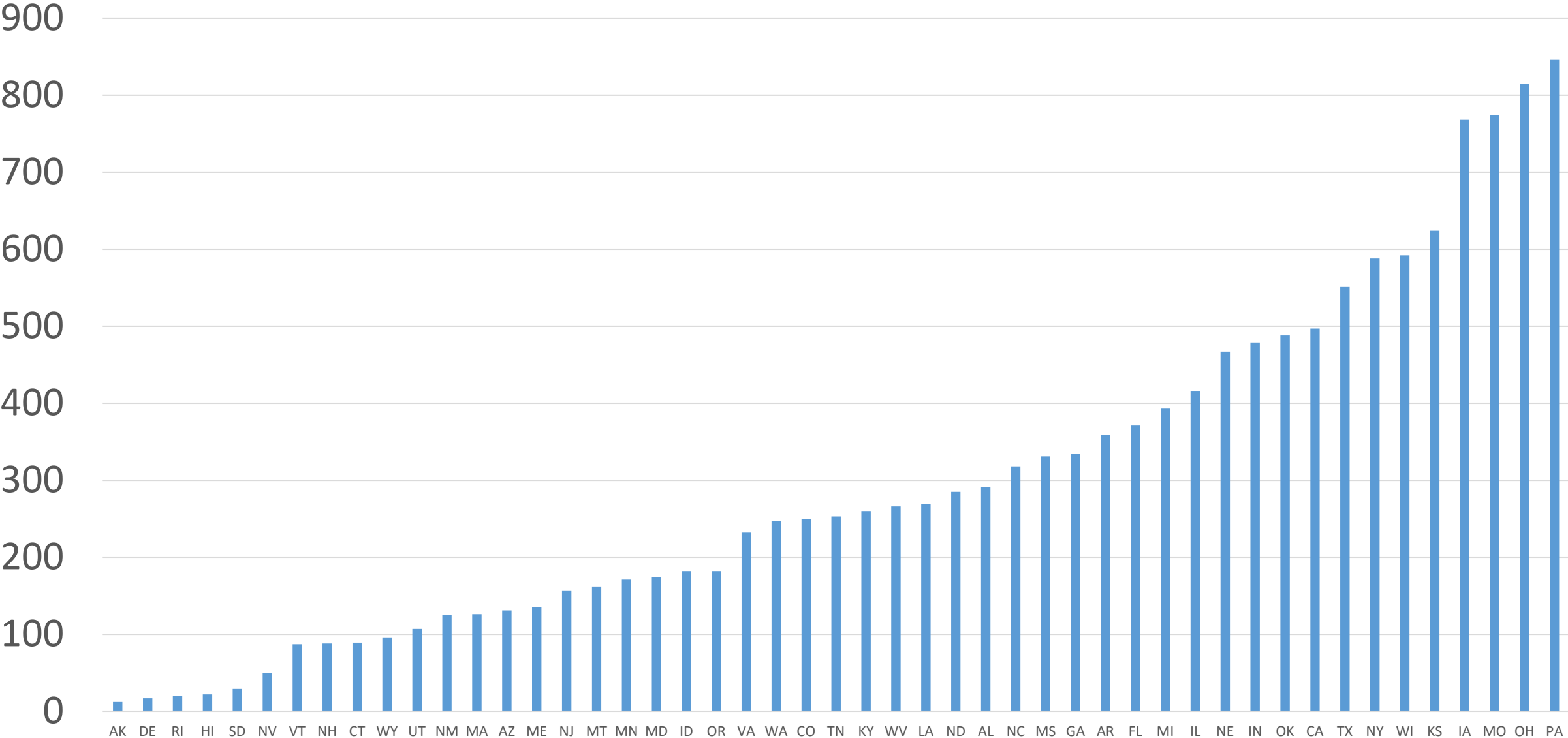


Diverse Topics:
Stormwater,
Resiliency, Small
Systems

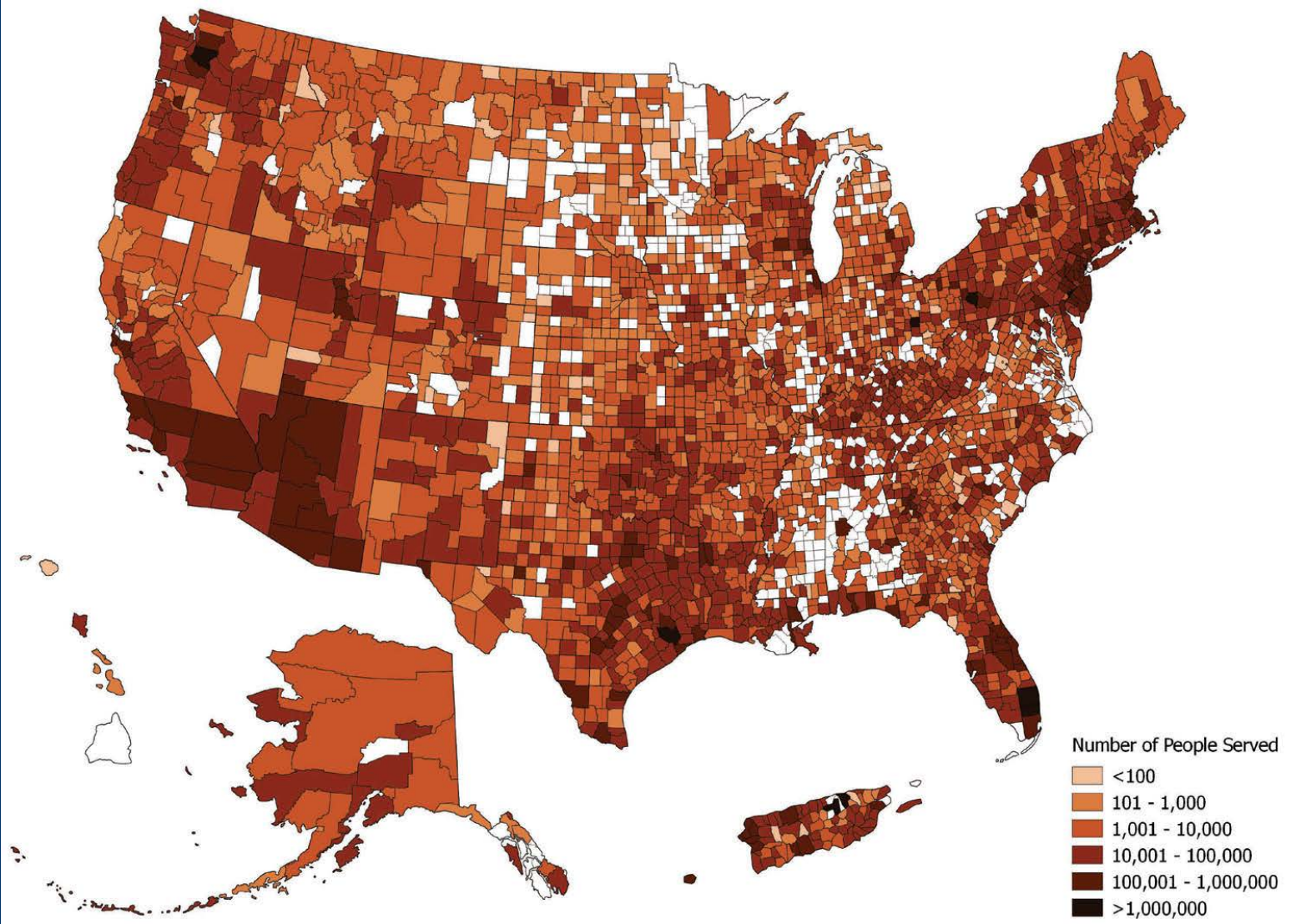
Number of Water Systems



Number of POTWs

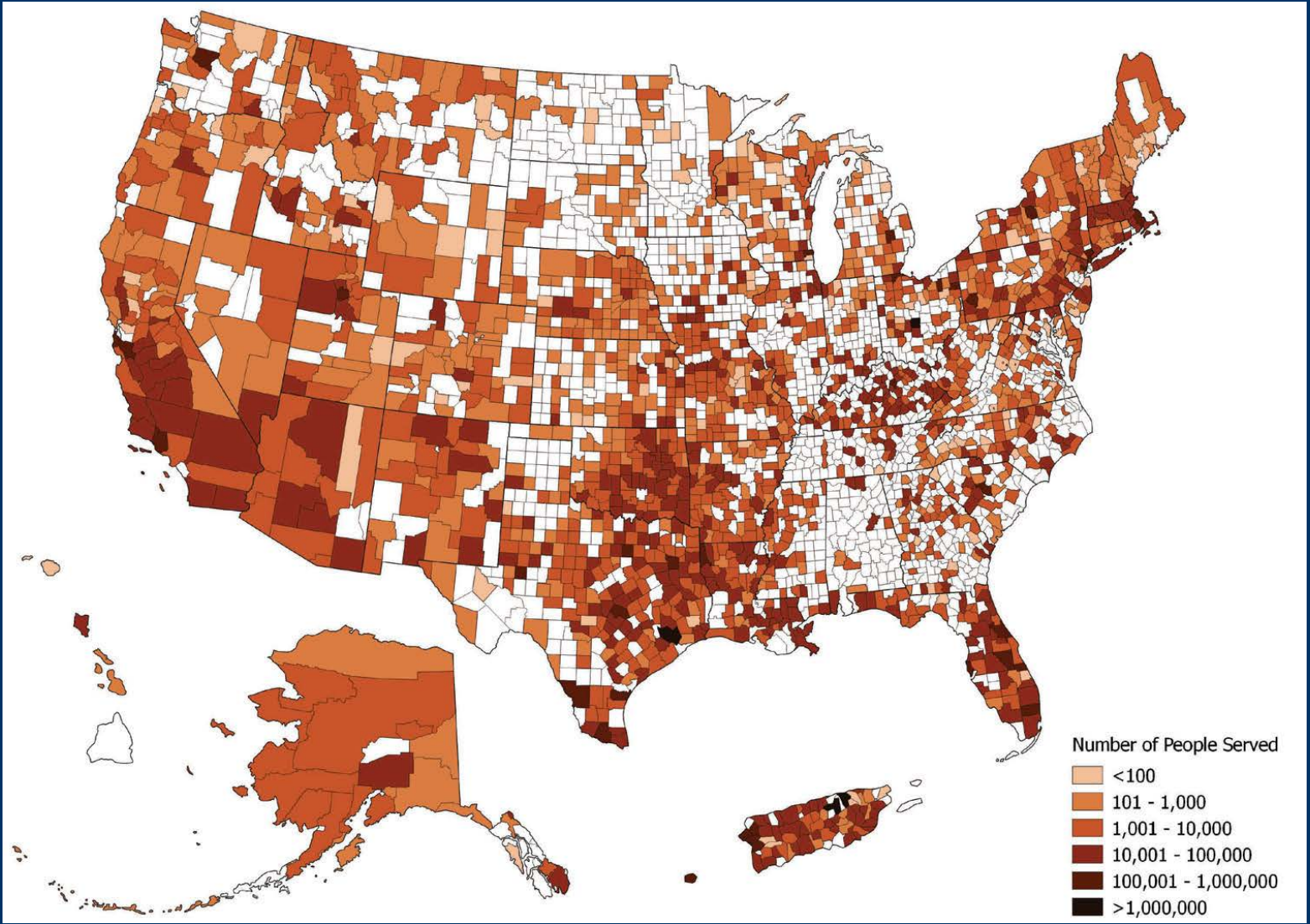


76.9 MILLION PEOPLE SERVED BY COMMUNITY WATER SYSTEMS WITH AT LEAST ONE REPORTED VIOLATION OF THE SAFE DRINKING WATER ACT (2015)



NRDC THREATS ON TAP:
WIDESPREAD VIOLATIONS HIGHLIGHT NEED FOR INVESTMENT IN WATER INFRASTRUCTURE AND PROTECTIONS

27.4 MILLION PEOPLE SERVED BY COMMUNITY WATER SYSTEMS WITH AT LEAST ONE REPORTED HEALTH-BASED VIOLATION OF THE SAFE DRINKING WATER ACT (2015)



NRDC THREATS ON TAP:
WIDESPREAD VIOLATIONS HIGHLIGHT NEED FOR INVESTMENT IN WATER INFRASTRUCTURE AND PROTECTIONS

Small Dying Communities



WIRFC's Areas of Focus

Rate setting for both wholesale providers and system consolidation

Co-funding for regional projects

Debt restructuring

Financial benefits of cooperative agreements and regionalization



Gaining Operational and Managerial Efficiencies
Through Water System Partnerships

CASE STUDIES



EPA Water System Partnership Resources

Webinars

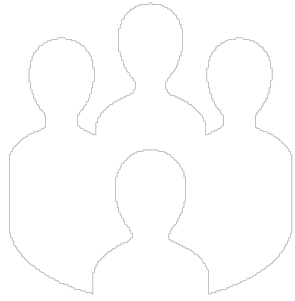
Case Studies

<https://www.epa.gov/sustainable-water-infrastructure/water-system-partnerships>

Looking for your help!

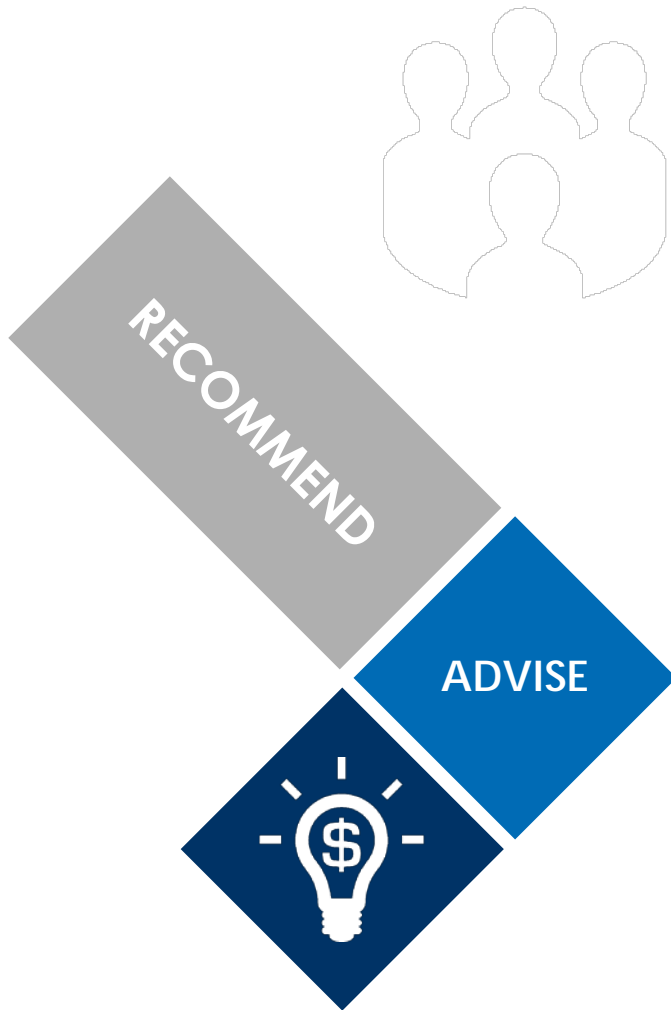
Covington.john@epa.gov

ENVIRONMENTAL FINANCIAL ADVISORY BOARD (EFAB)



EFAB provides ideas and advice to EPA's Administrator and program offices on ways to lower the costs of and increase investments in environmental and public health protection.

EFAB'S WORK FOCUS



- Lowering the cost of environmental protection;
- Removing financial and programmatic barriers that raise costs;
- Increasing public and private contribution in environmental facilities and services; and
- Building state and local financial ability to meet environmental laws.

EFAB MEMBERS

- Officials from state and local governments;
- Leaders from the finance community and other business industries;
- Selected federal employees; and
- Members of environmental, tribal and non-governmental organizations.

LEADERSHIP

Michael Shapiro

Deputy Assistant Administrator, Office of Water

EFAB's Designated Federal Officer (DFO):

responsible for the operation and management of the committee.

Thomas Liu

Managing Director, Merrill Lynch, Pierce, Fenner and Smith, Inc., Bank of America, as Interim

Chair of EFAB: provides leadership to the committee and works with the DFO and EFAB Staff to develop agendas, activities/projects, and obtain consensus from committee members.



Cross – Media
Finance Focus



EFAB Reports Since
1989



Water – Sector
EFAB Reports

CURRENT CHARGES

The recommendations and work products are the most important aspect of the Board's work

Project Workgroups:

- Financial Strategies for Decentralized Wastewater Systems
- Public-Private Partnerships (P3s) for water Infrastructure
- Financing Strategies for Domestic Recycling Programs
- Financing Lead Risk Reduction
- Financial Metrics of Success for the Chesapeake Bay Program
- To be Determined – Resiliency Project

CONTACT

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Alecia Crichlow (202) 564-5188

crichlow.alecia@epa.gov

EFAB Interim Chair

Tom Liu

thomas.liu@baml.com

EFAB Projects Coordinator

Timothy McProuty (202) 564-4996

mcprouty.timothy@epa.gov

Travel Coordinator

Pamela Scott (202) 564-6368

scott.pamela@epa.gov

Visit the EFAB Web Site at:

www.epa.gov/waterfinancecenter

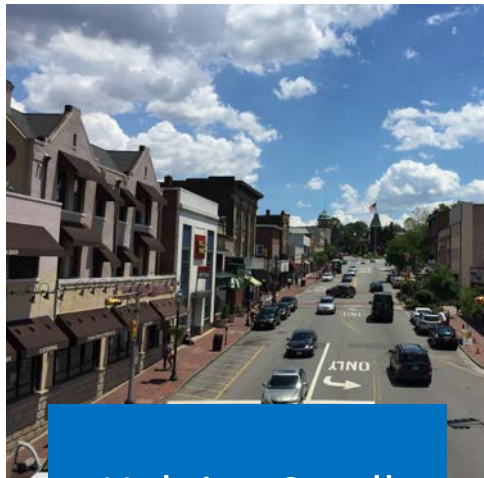
10

REGIONAL ENVIRONMENTAL FINANCE CENTERS (EFCs)

Providing On the Ground Assistance

Since 1992, the EFCs have been **advising** and **training** public and private officials on traditional and innovative financing for environmental infrastructure. They provide **technical assistance** to assist officials in finding ways to finance environmental compliance and sustainability.

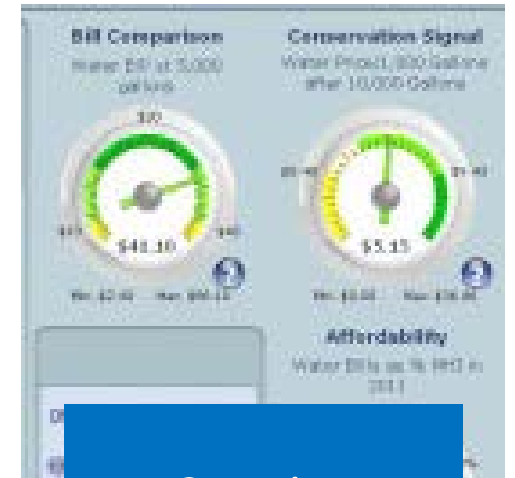
<https://www.epa.gov/envirofinance/efcn>



Helping Small
Communities



Building
Financial
Capacity



Creating
Financial Tools

Region 10: Rural Community Assistance Corporation 2016



Region 5: Michigan Technological Institute 2016



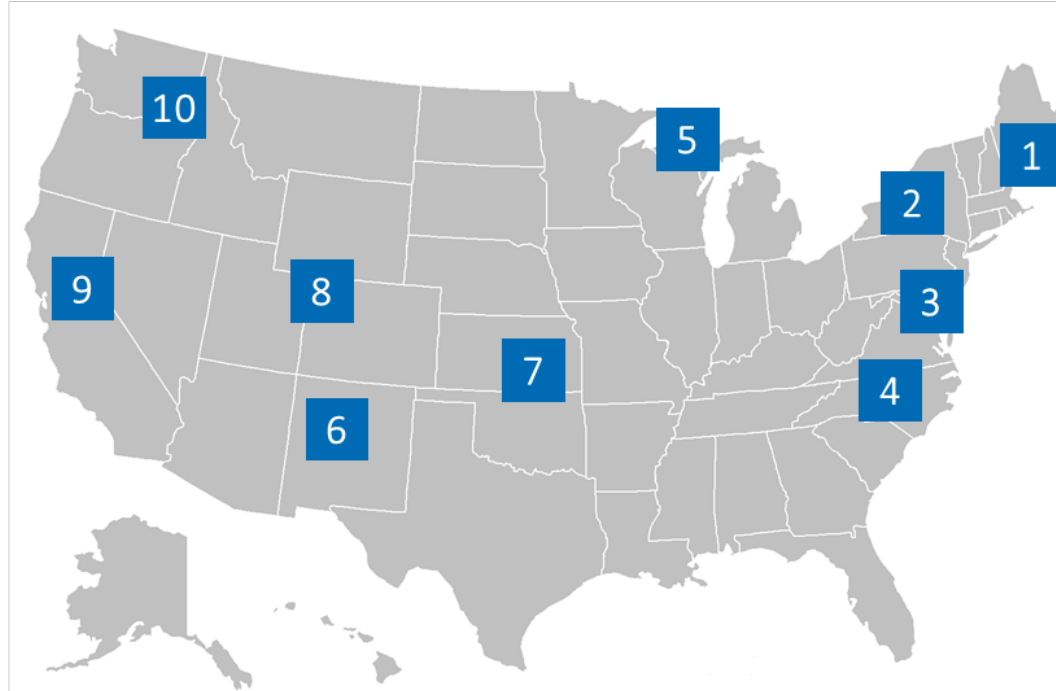
Region 1: University of Southern Maine 2000



Region 8: National Rural Water Association 2017



Region 9: University of California at Sacramento 2016



Region 2: Syracuse University 1993



Region 3: University of Maryland 1992



Region 6: University of New Mexico 1992



Region 7: Wichita State University 2009



Region 4: University of North Carolina, Chapel Hill 1998



ENVIRONMENTAL FINANCE CENTER NETWORK



EFCs partner with each other to share expertise and develop resources for communities across the country.

Resources:

- Map of Water and Wastewater Rates Dashboards
- Smart Management for Small Water Systems
- www.efcnetwork.org