National Source Water Collaborative

Bipartisan Infrastructure Law (BIL) Webinar Series

sourcewater COLLABORATIVE

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National Source Water Collaborative

- 30 national organizations uniting to protect America's drinking water at the source
- Combine strengths & tools of diverse member orgs to protect drinking water sources for generations
- Leverage resources, identify synergy, sharing tools and information, supporting local collaboratives

BIL Learning Exchange

Presented by:

sourcewater COLLABORATIVE

https://www.sourcewatercollaborative.org/learning-exchange/accessing-bipartisan-infrastructure-law-funds-for-swp/

Addressing Emerging Contaminants in Source Water Using BIL Grants and Forgivable Loans	**February 8, 2024** 3:00 PM–4:30 PM EST
BIL and Environmental Finance Centers (EFCs): Demystifying Access BIL funds using resources and expertise of EFCs	**March 5, 2024** 12:30 – 2:00 PM EST
BIL and U.S Forest Service	**Spring 2024**
BIL and Environmental Justice	**Spring 2024**
PFAS and BIL	**Spring 2024**

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Agenda

Daniela Rossi and April Byrne (EPA- Office of Water)
Welcome and Intro to Source Water Protection

Jennifer Harfmann (New Hampshire Department of Environmental Services)
PFAS in Drinking Water and Source Water Case Study

Lida Daly (EPA- Office of Water)
Emerging Contaminants Small or Disadvantaged Communities Grant and Source Water Protection

Bizzy Berg (EPA- Office of Water)
Drinking Water State Revolving Funds Emerging Contaminants Funding and Source Water Protection

Heather Strathearn (EPA- Office of Water)
Clean Water State Revolving Funds Emerging Contaminants Funding and Source Water Protection

Daniela Rossi and April Byrne (EPA- Office of Water)
Final Reflections; Question & Answer

Addressing Emerging Contaminants in Source Water Using BIL Grants and Forgivable Loans

What is Source Water Protection

- Part of a multi-barrier approach to clean drinking water
- Primarily voluntary
- Coordination across environmental programs
- Watershed investment program

Emerging Contaminants in Source Water

- Emerging Contaminants (ECs) include PFAS and a wide array of potential pollutants that may be detected in surface water or groundwater that serve as drinking water sources.
- Addressing emerging contaminants through source water protection can help protect public health and avoid or defer costly changes to treatment methods.
- Bipartisan Infrastructure Law (BIL) Funds provide an historic opportunity now through FY2026 to address emerging contaminants in drinking water and its sources.

Key Takeaways: BIL Emerging Contaminant Funding Opportunities

1. $10 Billion in new funding available FY2022-2026 to address emerging contaminants through the Bipartisan Infrastructure Law.
2. BIL Emerging Contaminant Funds are available through three funding programs, as forgivable loans or grants.
3. There is a wide variety of source water protection activities eligible under all three BIL Emerging Contaminant Funds.

Case Study: Leveraging EC-SDC Funding to Address PFAS in New Hampshire Source Waters

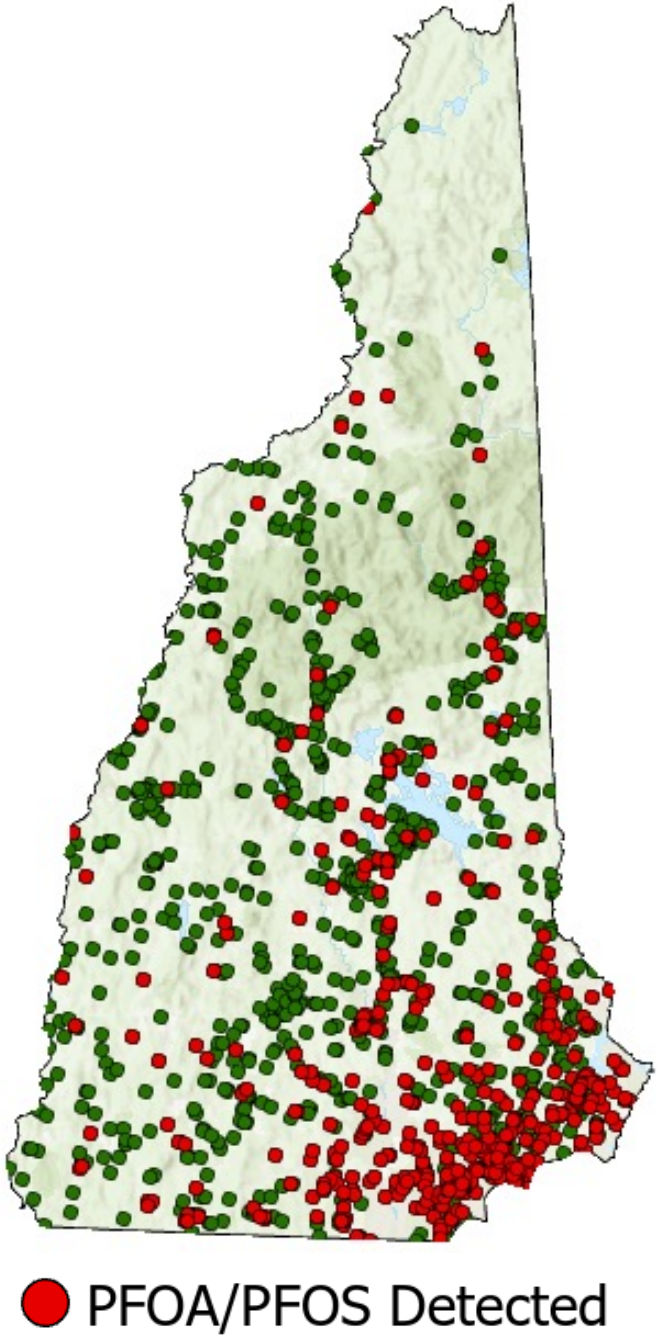
Jennifer Harfmann, Ph.D.

NHDES Drinking Water and Groundwater Bureau

Source Water Collaborative Webinar 2024, February 8th, 2024

PFAS in NH Source Waters

- Unprecedented challenge and response by water systems and NHDES
- **1 in 3** sources of water for public water systems **detect PFOA or PFOS**.
- **1 in 5** sources of water for public water systems **exceed USEPA's Proposed MCLs**



NEW HAMPSHIRE DEPARTMENT OF Environmental Services

PFAS Funding in NH Through 2022

PFAS Remediation Grant and Loan Fund (RLF)	Grants and low-interest loans for public water systems, municipalities, and wastewater facilities to address PFAS exceedances
PFAS Removal Rebate Program	One-time rebates for private well owners to install PFAS treatment or connect to a public water system
Drinking Water State Revolving Fund (SRF)	Low-interest financing for public water system infrastructure improvements
Drinking Water and Groundwater Trust Fund (DWGTF)	Grants and loans for drinking water construction and source water protection projects (est. 2017 following Exxon Mobil lawsuit) • **2019 HB 4 appropriation: $6M to study, investigate, and test for PFAS contamination, FY19-21 (extended to FY22)**

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

NHDES PFAS Investigations: 2019-2022

Private well testing

Image source: NHDES

Soils and biosolids testing

Image source: NHDES

Garden produce study

Image source: NHDES

Fish and shellfish testing

Image source: NHDES

Loon egg study

Image source: Loon Preservation Committee

Groundwater discharge studies

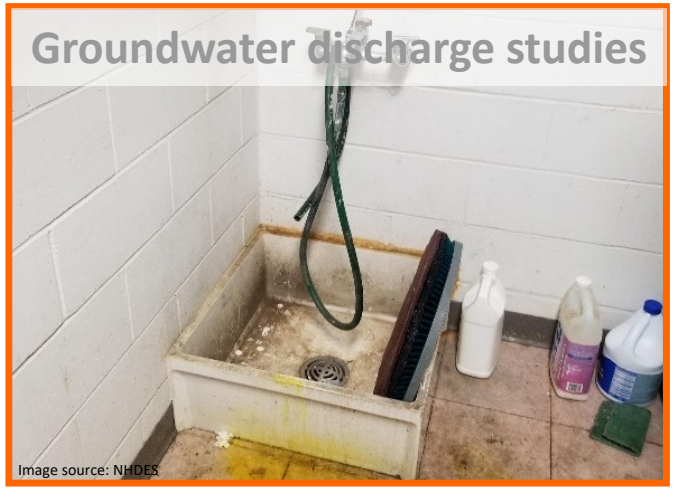


Image source: NHDES

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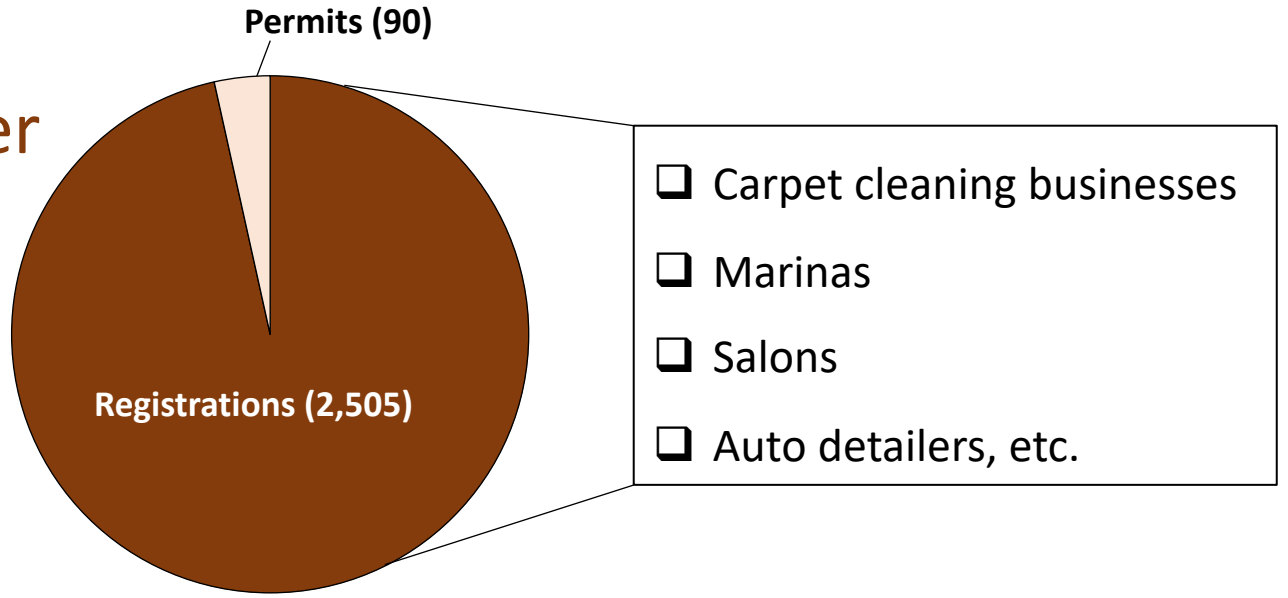
Groundwater in NH: Resource and Repository

60% of NH residents depend on groundwater for their drinking water

NHDES regulates **> 2,500** wastewater discharges to groundwater



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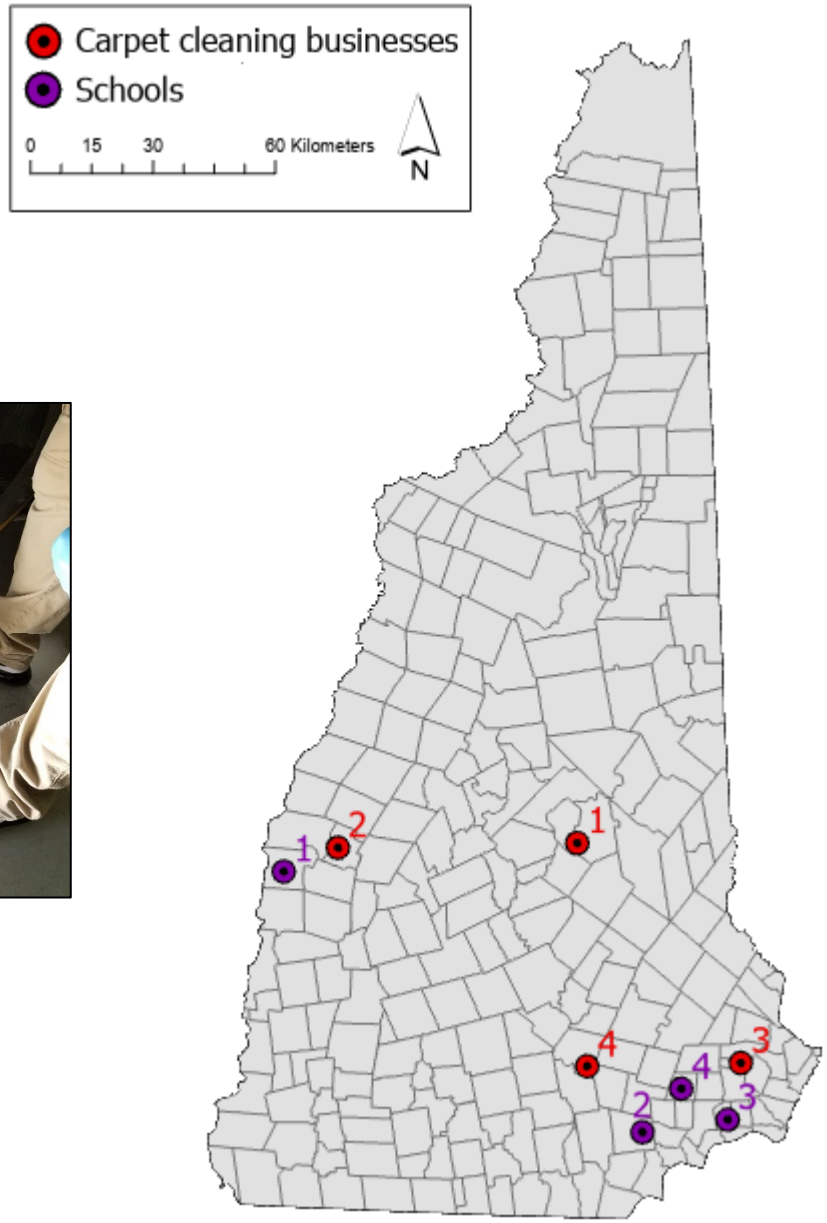
PFAS Sampling at Groundwater Discharge Sites

- ✓ Sites
  - Cleaning businesses (carpet cleaning)
  - Schools (floor stripping/refinishing)
- ✓ Samples
  - Wastewater from cleaning event
  - Cleaning products
  - Tap water
- ✓ Analyses
  - 70 PFAS compounds


Image source: NHDES

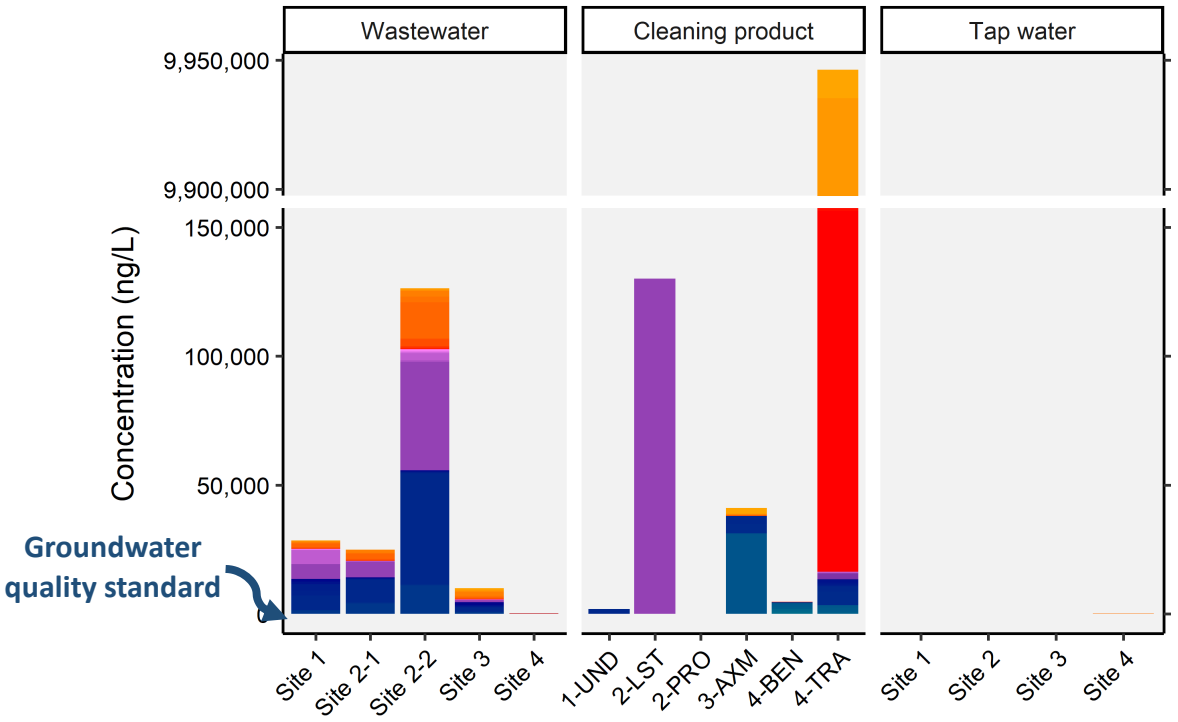

Image source: NHDES

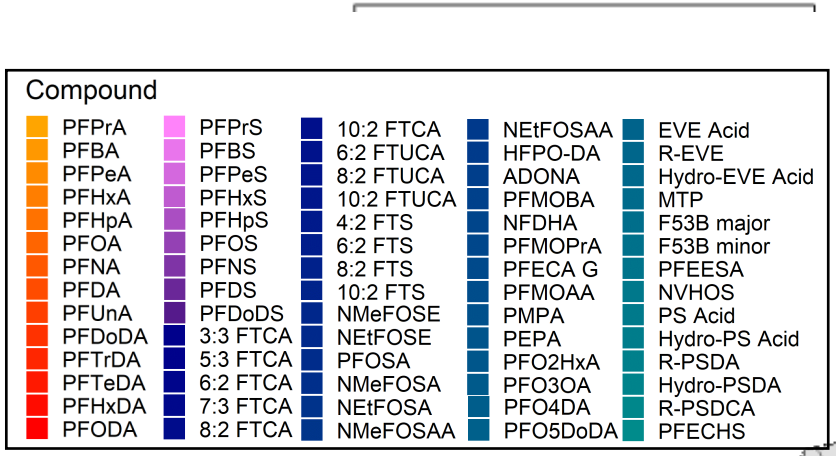


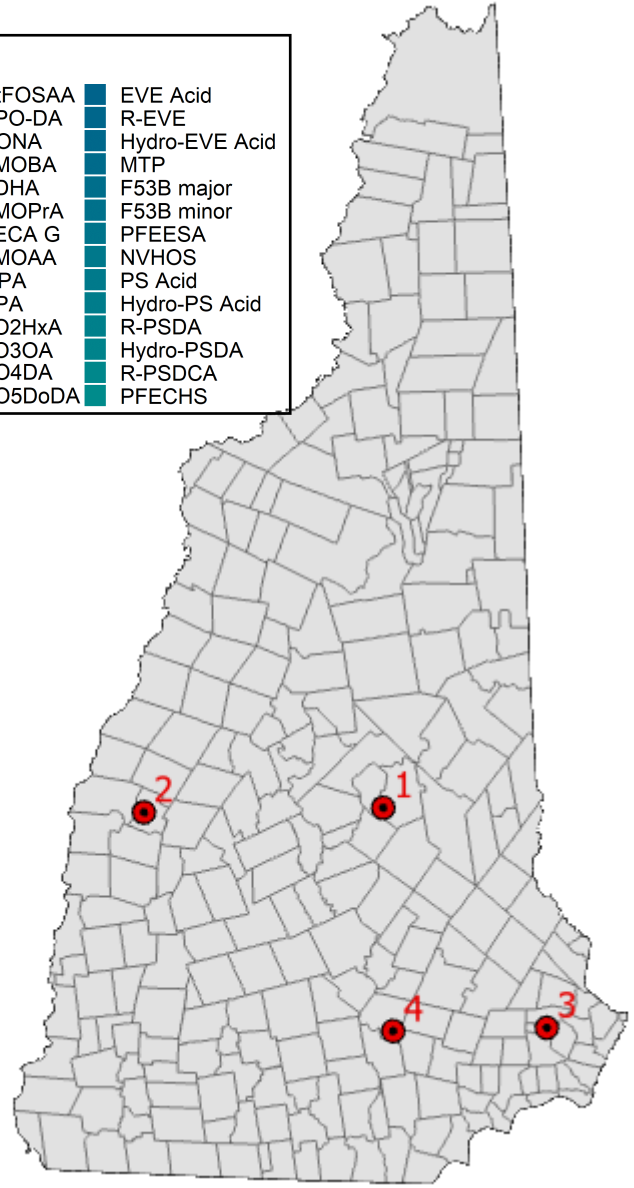
NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Funded with 2019 HB 4 $6M appropriation

PFAS Sampling at Carpet Cleaning Businesses







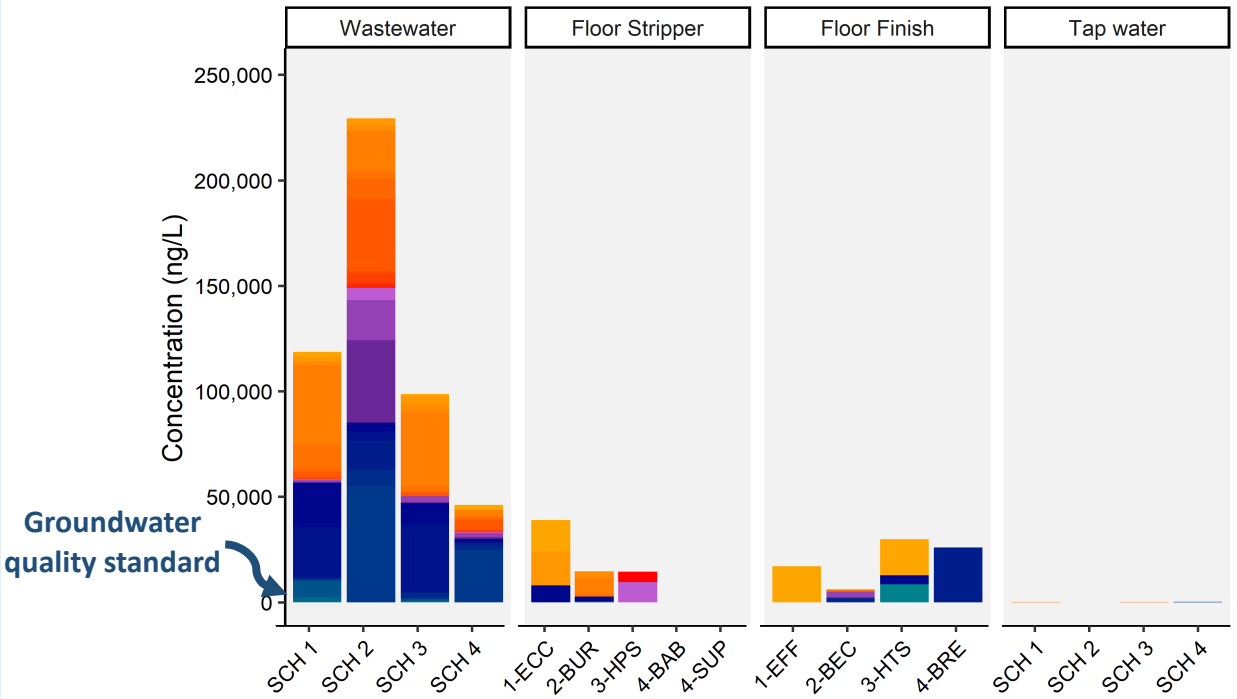
Carpet cleaning activities can generate high levels of PFAS

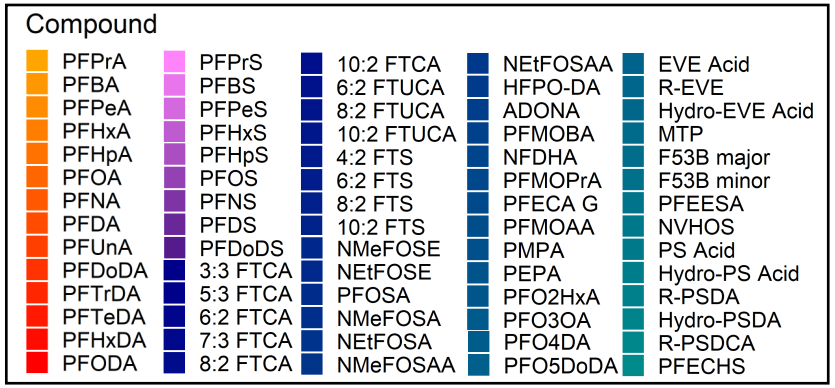
- Up to 130,000 ng/L PFAS (∑70) in wastewater
- Up to nearly 10 **mg**/L PFAS (∑70) in cleaning products

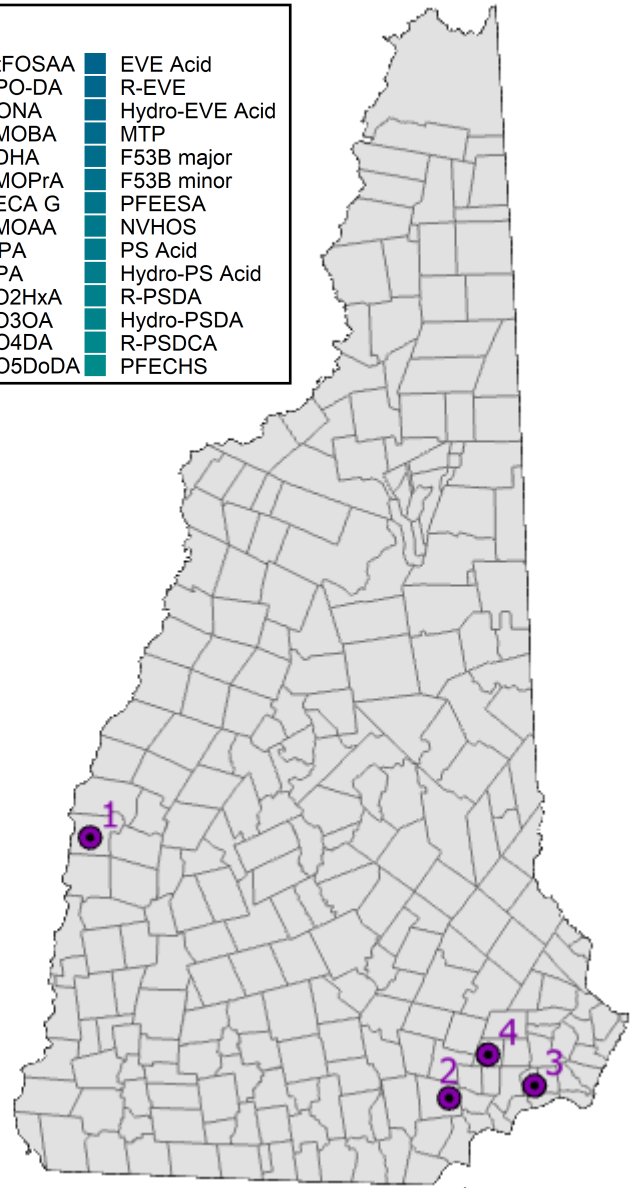
NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Funded with 2019 HB 4 $6M appropriation

PFAS Sampling During School Floor Stripping and Refinishing







Floor stripping/refinishing can generate very high levels of PFAS

- Up to 229,000 ng/L PFAS (∑70) in wastewater
- Up to nearly 39,000 ng/L PFAS (∑70) in cleaning products

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Funded with 2019 HB 4 $6M appropriation

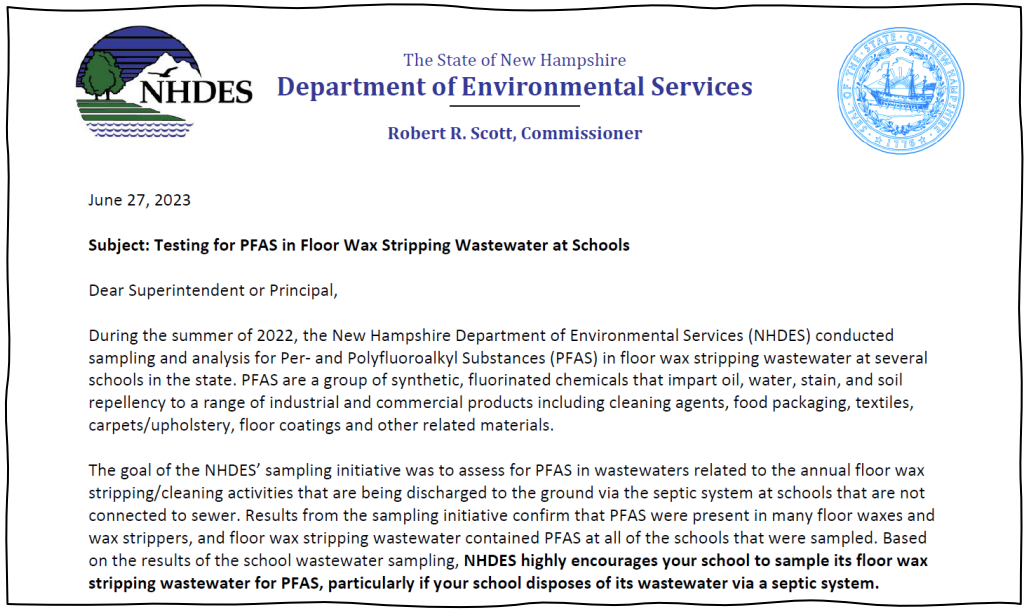
NHDES Response and Follow-On Initiatives

❖ Site-specific response

- Letters to businesses to cease discharges
- Neighboring private well sampling

❖ Outreach and best management practices

- Letters, fact sheets, reports
- Presentations to trade groups, stakeholders, and state/federal partners



NHDES

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

June 27, 2023

Subject: Testing for PFAS in Floor Wax Stripping Wastewater at Schools

Dear Superintendent or Principal,

During the summer of 2022, the New Hampshire Department of Environmental Services (NHDES) conducted sampling and analysis for Per- and Polyfluoroalkyl Substances (PFAS) in floor wax stripping wastewater at several schools in the state. PFAS are a group of synthetic, fluorinated chemicals that impart oil, water, stain, and soil repellency to a range of industrial and commercial products including cleaning agents, food packaging, textiles, carpets/upholstery, floor coatings and other related materials.

The goal of the NHDES' sampling initiative was to assess for PFAS in wastewaters related to the annual floor wax stripping/cleaning activities that are being discharged to the ground via the septic system at schools that are not connected to sewer. Results from the sampling initiative confirm that PFAS were present in many floor waxes and wax strippers, and floor wax stripping wastewater contained PFAS at all of the schools that were sampled. Based on the results of the school wastewater sampling, **NHDES highly encourages your school to sample its floor wax stripping wastewater for PFAS, particularly if your school disposes of its wastewater via a septic system.**

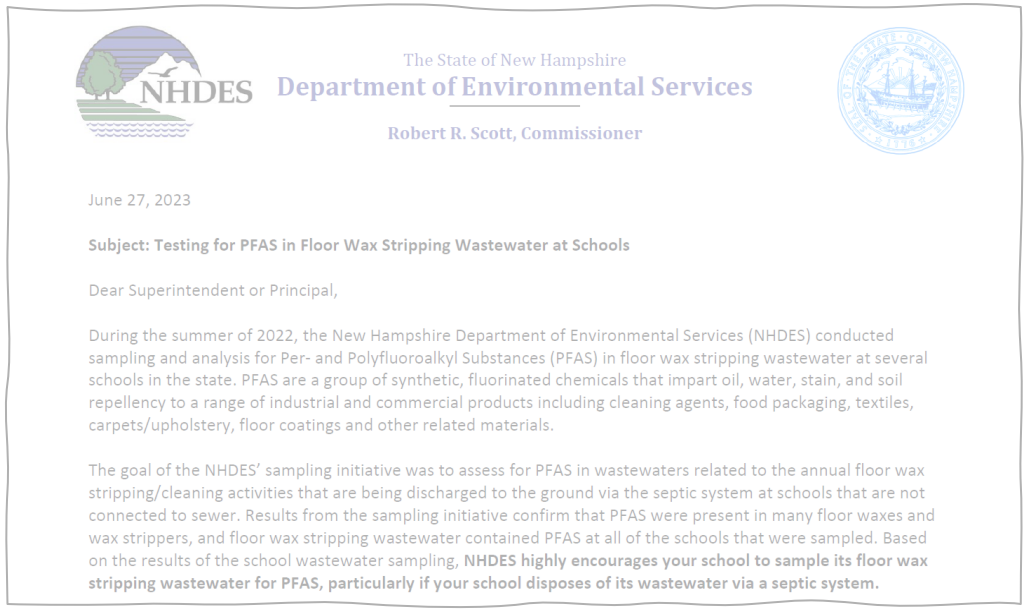
NEW HAMPSHIRE DEPARTMENT OF Environmental Services

NHDES Response and Follow-On Initiatives

- **Site-specific response**
  - Letters to businesses to cease discharges
  - Neighboring private well sampling

…And there is still much more to be done…

- **Outreach and best management practices**
  - Letters, fact sheets, reports
  - Presentations to trade groups, stakeholders, and state/federal partners



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NEW HAMPSHIRE DEPARTMENT OF Environmental Services

PFAS Funding in NH: FY23 and Beyond

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Drinking Water and Groundwater Trust Fund (DWGTF)	Grants and loans for drinking water construction and source water protection projects (est. 2017 following Exxon Mobil lawsuit)
WIIN Small and Underserved Communities Emerging Contaminants Grant Program (SUDC)	Federal grants issued by USEPA to states to assist in SDWA compliance
BIL Emerging Contaminants in Small or Disadvantaged Communities Grant Program (EC-SDC)	Federal loans issued by USEPA to states to address emerging contaminants

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EC-SDC Funding in NH Timeline

February 2023	• EC-SDC funding is announced
March April 2023	• NHDES develops and submits Draft Workplan
April May 2023	• USEPA reviews Draft Workplan
Beginning June 2023	• NHDES works with USEPA to finalize Workplan
February 2024	• EC-SDC projects begin

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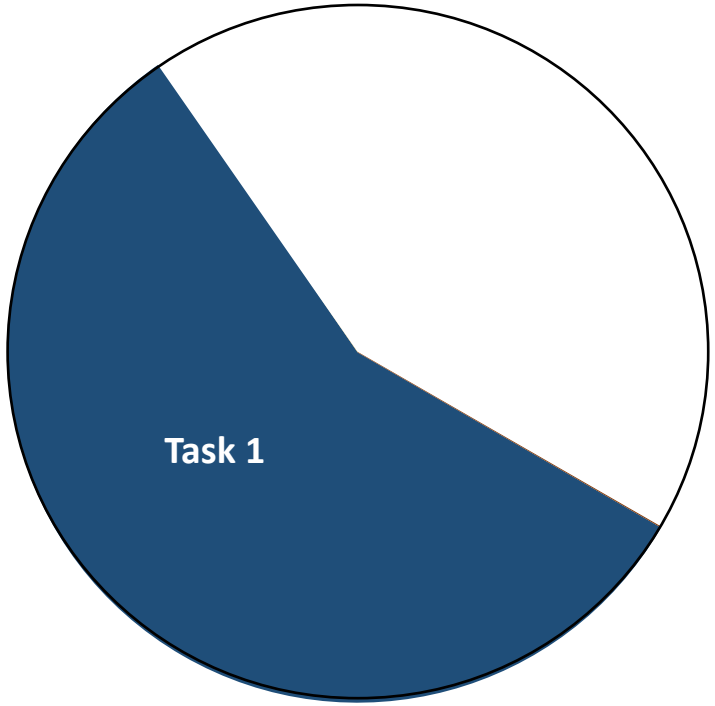
EC-SDC Funding in NH

$18.9 million/year for 5 years* to address PFAS and other emerging contaminant challenges

Task 1	Establish and administer a **grant program to fund infrastructure improvements** to eliminate exposure to emerging contaminants (primarily manganese and PFAS) in drinking water.	$10.8M

FY2022 & 2023 Allotment
($18.9M, 6-year workplan)



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*Funding for years 1 & 2 are merged. Each year of funding can support a 6-year workplan.

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Task 2	Establish a **PFAS drinking water testing laboratory** in the New Hampshire Public Health Laboratory.	$3.3M

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Task 3	Hire a **NHDES Environmental Health Program (EHP) literature review coordinator** to increase the capacity of NHDES' EHP to assess the latest scientific information on emerging contaminants.	$1.6M

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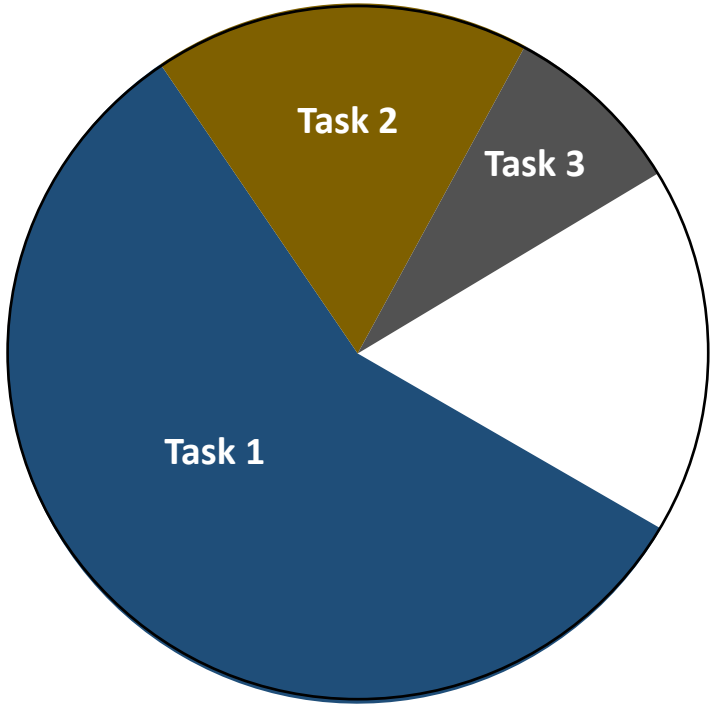

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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Task 3	Hire a **NHDES Environmental Health Program (EHP) literature review coordinator** to increase the capacity of NHDES' EHP to assess the latest scientific information on emerging contaminants.	$1.6M
Task 4	Conduct a **source water protection sampling program** in source water protection areas of small and/or disadvantaged public water systems to determine if class V underground injection control wells are sources for emerging contaminants in drinking water.	$3.2M

FY2022 & 2023 Allotment
($18.9M, 6-year workplan)

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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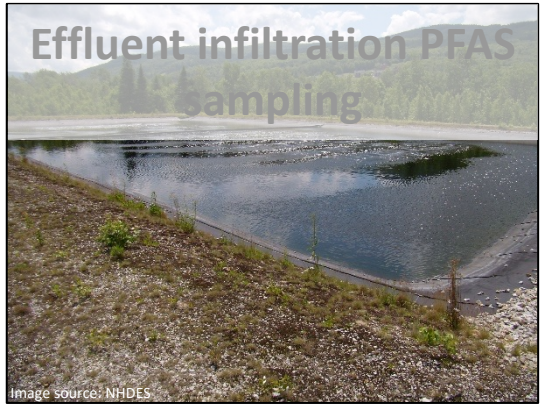
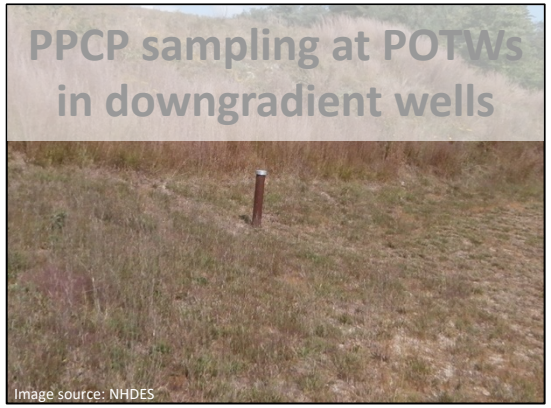
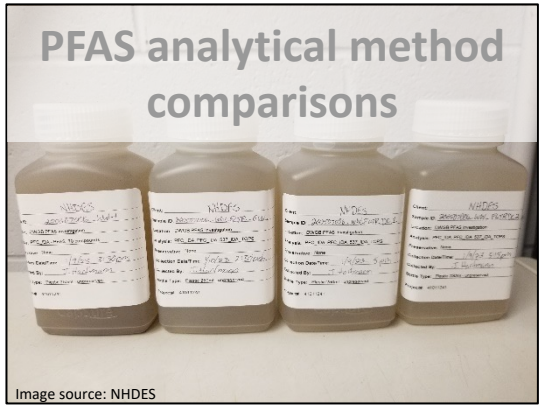
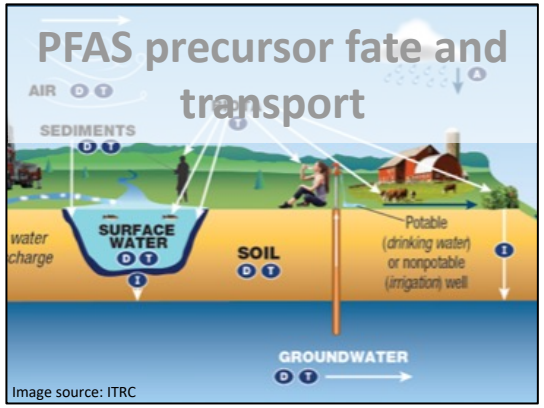
NH EC-SDC Source Water Protection Proposed Projects









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PFAS -------- PPCPs -------- 1,4-dioxane -------- VOCs -------- SVOCs -------- Perchlorate -------- Metals

Thank you

Jennifer Harfmann, Ph.D.

PFAS Discharge Analyst

NHDES Drinking Water and Groundwater Bureau

Jennifer.L.Harfmann@des.nh.gov

(603) 271-8647

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) Grant Program

National Source Water Collaborative
February 8, 2024

EPA United States Environmental Protection Agency

Office of Water

EC-SDC Program Background

- The Bipartisan Infrastructure Law (2021) established and appropriated funds for the Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) grant program.
- The EC-SDC program provides grants to states and territories to fund projects and activities that assist public water systems (PWS) in small or disadvantaged communities to address emerging contaminants, including PFAS, in drinking water.
- 2% of EC-SDC appropriations are set aside for the EC-SDC Tribal Grant Program, which provides assistance to PWSs serving Tribes.

EC-SDC Program Priorities

- Reduce public health risks associated with emerging contaminants (including PFAS) in drinking water
- Target resources to communities most in need of assistance
- Advance equity
- A complete list of EC-SDC Program Strategic Priorities can be found on page 6 of the Implementation Manual

Emerging Contaminants Definition

- For the purposes of this grant program, EPA defines “Emerging Contaminants” as any contaminant listed on any of EPA’s Contaminant Candidate Lists (i.e., CCL1 – CCL5).
  - Contaminant(s) with a National Primary Drinking Water Regulation would not be considered emerging contaminants, and projects that address these contaminants would be ineligible for EC-SDC funding (**Exception:** PFAS-focused projects will be eligible for funding regardless of whether EPA has established a NPDWR for that PFAS or group of PFAS)
- **Examples:** PFAS, Perchlorate, Strontium, Manganese, 1,4-Dioxane, Tungsten, Cyanotoxins, Lithium, Legionella pneumophila, Unregulated Disinfection byproducts (DBPs)

Eligible Applicants and Beneficiaries

- Funds are non-competitively awarded to states (the “eligible entity”) based on an established allocation formula.
- States will use funding to provide assistance to public water systems that serve **small** or **disadvantaged** communities (defined below)
  - **Disadvantaged Communities**: Communities that are determined by the state to be disadvantaged under the affordability criteria established by the state under section 1452(d)(3) of the Safe Drinking Water Act.
  - **Small Communities:** Communities with a population of less than 10,000 individuals that the Administrator determines does not have the capacity to incur debt sufficient to finance a project or activity under the grant program.
- Eligible **Public Water Systems** include privately-owned and publicly-owned community water systems and non-profit non-community water systems, including systems utilizing point of entry or residential central treatment

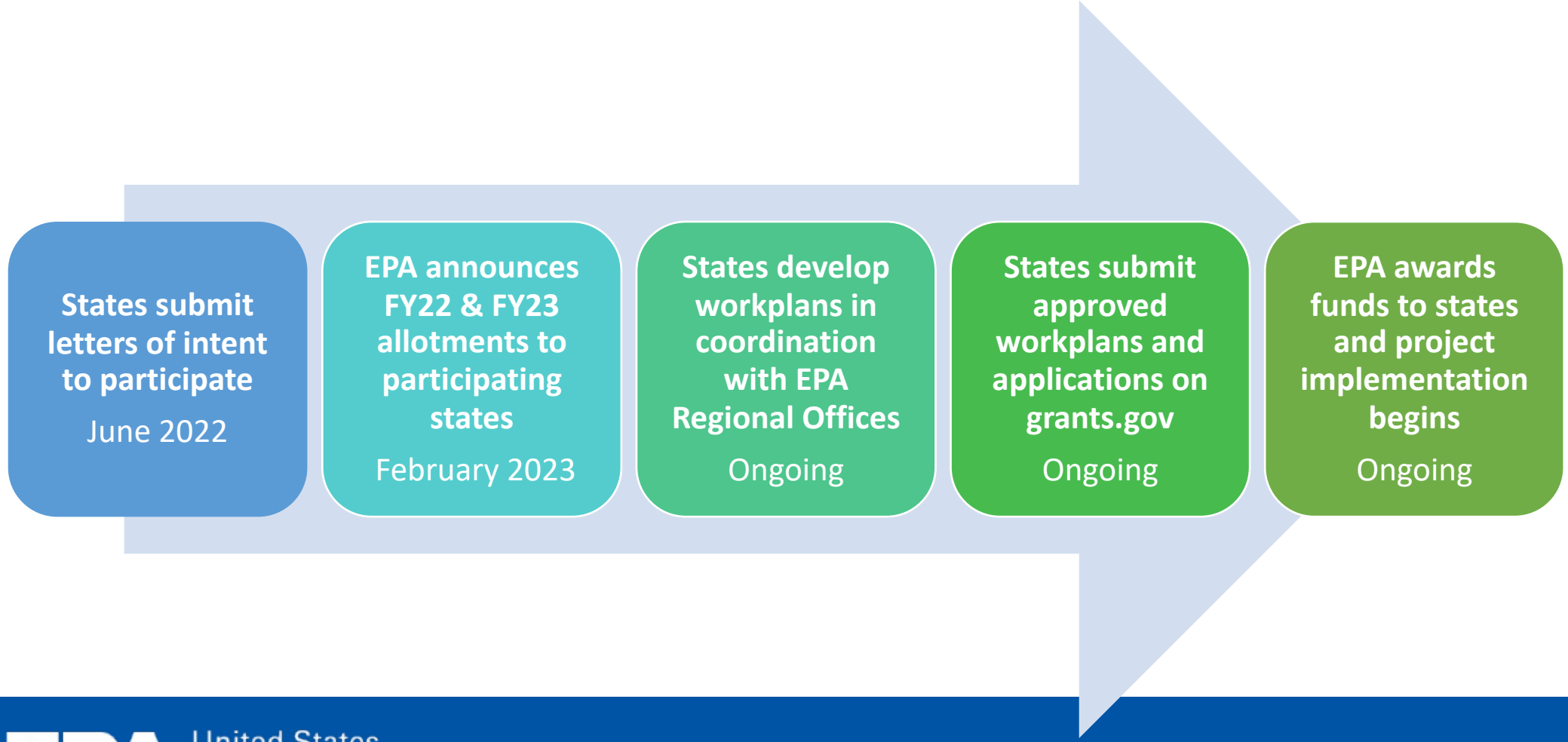
Eligible EC-SDC Projects and Activities

- Projects/activities funded through the EC-SDC program must have the **primary purpose of addressing one or more emerging contaminants in drinking water in small or disadvantaged communities**
- EC-SDC grants can fund the following types of activities:
  - Testing or sampling for baseline assessment
  - Research and testing
  - Project scoping, planning, and design
  - Treatment of emerging contaminant(s) (e.g. construction or upgrading of treatment facilities etc.)
  - Source water protection activities related to emerging contaminant(s)
  - Storage (e.g. Construction or rehabilitation of water storage structures)
  - Water system restructuring, consolidation, or creation
  - Providing households access to drinking water services
  - Technical assistance
  - Public communication, engagement, and education

Example Activities

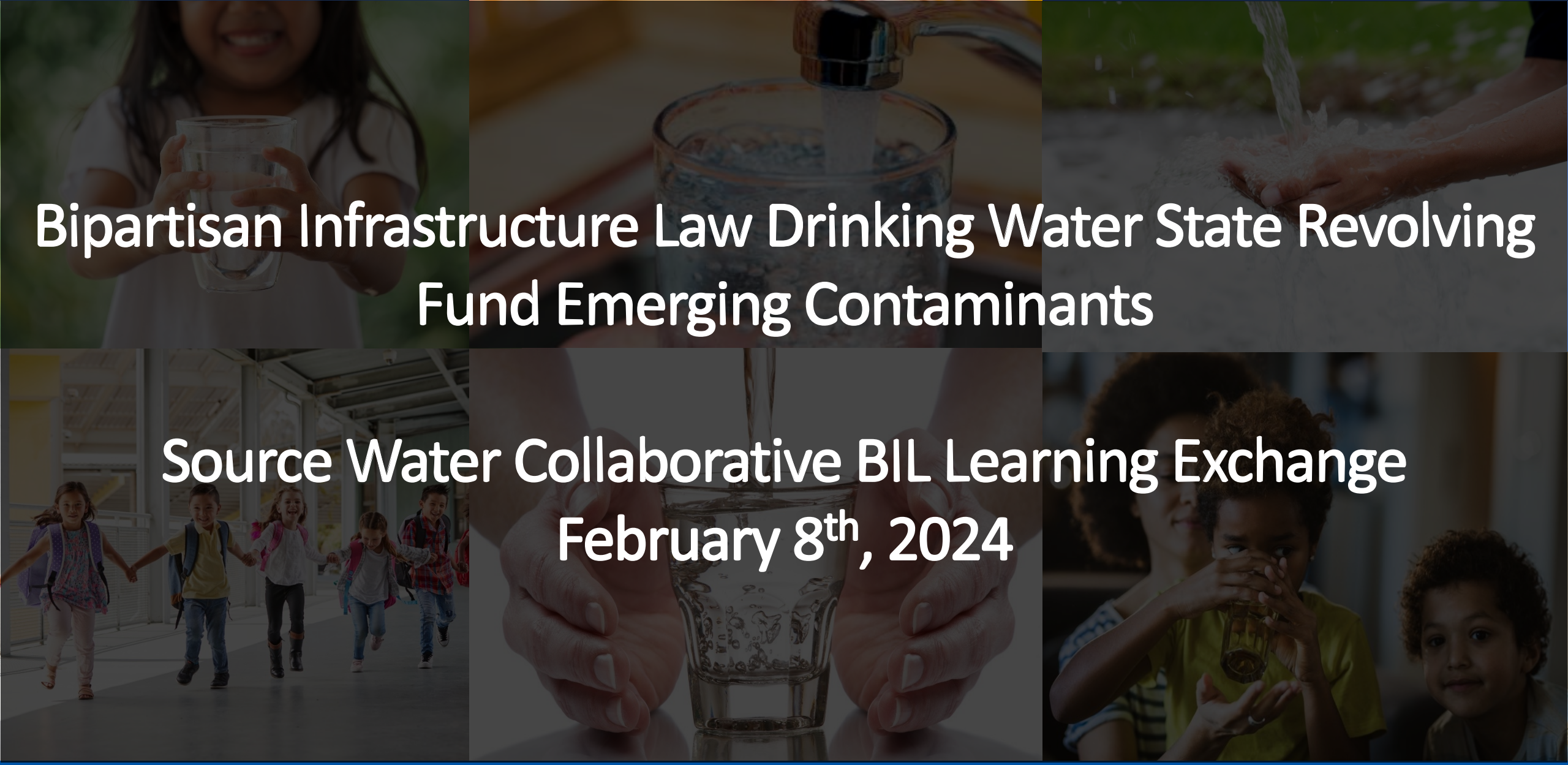
1. Research and investigations to identify the presence, source, or extent of emerging contaminant contamination in water systems or source water, including initial non-routine monitoring and testing;
2. **Source water protection activities (e.g., developing/updating source water protection plans, implementing watershed protection measures to mitigate EC contamination, capping abandoned wells, Green Infrastructure, PFAS "take-back" programs, public outreach, etc.);**
3. Upgrading existing treatment facilities to add new treatment processes such as activated carbon, ion exchange, and reverse osmosis;
4. Technical assistance to help public water systems plan, develop, administer, or perform any other eligible activity or use.

Program Implementation and Timeline



For More Information

- **EPA Headquarters Contacts**
  - State EC-SDC Program: Lida Daly (Daly.Lida@epa.gov)
  - Tribal EC-SDC Program: Gabriella Neusner (Neusner.Gabriella@epa.gov)
- **EPA Regional and State Contacts**: https://www.epa.gov/dwcapacity/contacts-emerging-contaminants-ec-small-or-disadvantaged-communities-grant-sdc
- **EC – SDC Program Website**: https://www.epa.gov/dwcapacity/emerging-contaminants-ec-small-or-disadvantaged-communities-grant-sdc



Bipartisan Infrastructure Law Drinking Water State Revolving Fund Emerging Contaminants

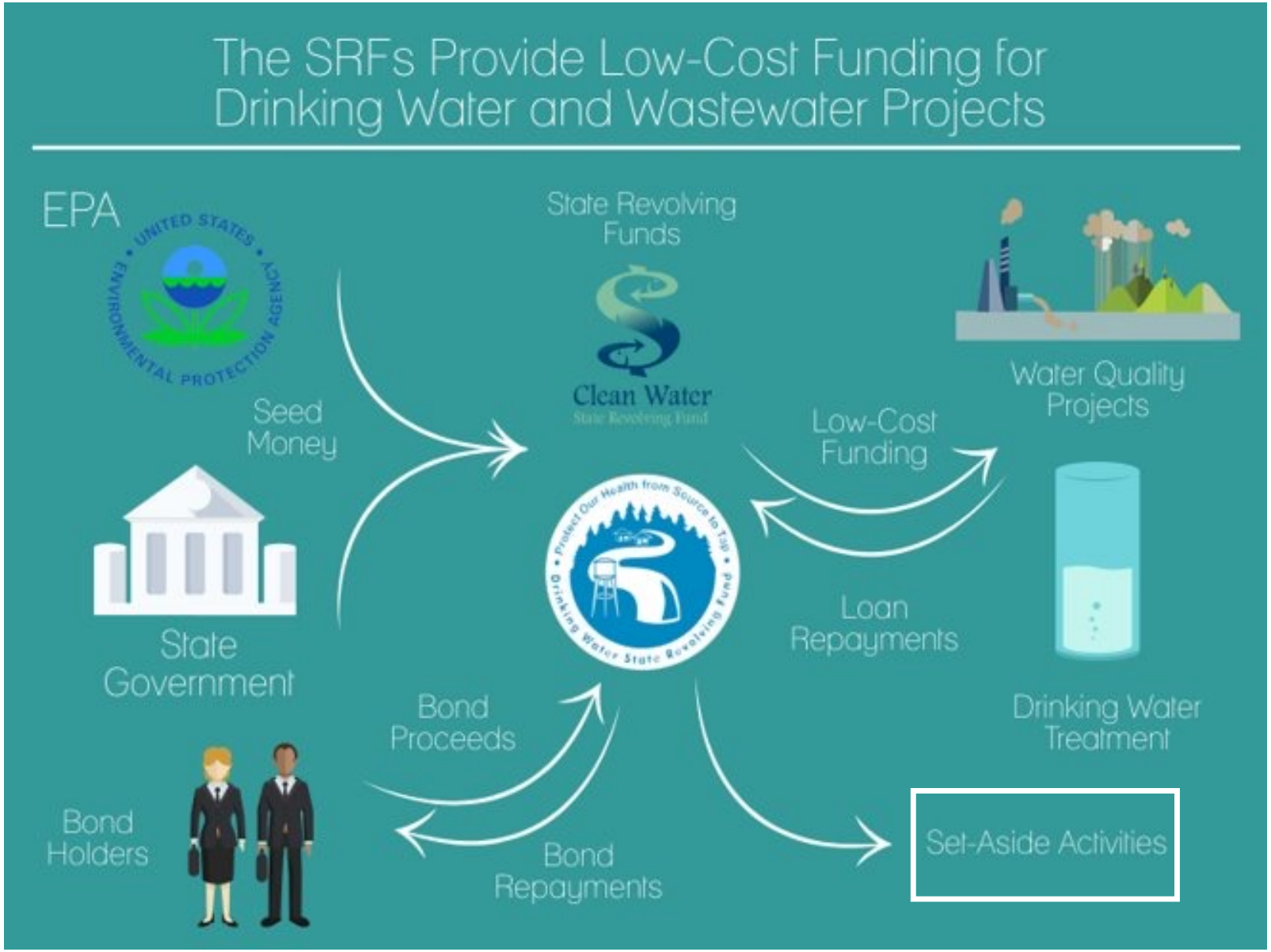
Source Water Collaborative BIL Learning Exchange
February 8th, 2024

United States Environmental Protection Agency

April Byrne & Daniela Rossi, Office of Water

Drinking Water State Revolving Fund

- 51 state-level “infrastructure banks” provide loans and grants to communities for water infrastructure and water improvement projects
- States craft their SRF programs to meet the needs of their state



Drinking Water State Revolving Fund Set-Asides and Source Water Protection (SWP)

State Program Management (10% Set-Aside)

- SWP technical assistance
- Support staff in the state's SWP program
- Support other SWP technical assistance providers (e.g., circuit riders or hydrogeologists)

Local Assistance and Other State Programs (15% Set-Aside)

- Loans to PWSs for purchasing land or conservation easements for the purpose of SWP
- Delineating, assessing, or updating SWP areas
- Wellhead protection programs
- Developing and implementing SWP plans
- Cover crops and other best management practices

Bipartisan Infrastructure Law (BIL)

- Also known as the Infrastructure Investments and Jobs Act (IIJA).
- Signed by President Biden on November 15, 2021.
- Historic investment in key programs and initiatives implemented by the U.S. Environmental Protection Agency to build safer, healthier, cleaner communities.
- Includes $50 billion to EPA to strengthen the nation's drinking water and wastewater systems – the single largest investment in water that the federal government has ever made.
- Approximately $30 billion of this funding through the existing DWSRF programs.

BIL Implementation Key Priorities

- Increase investment in disadvantaged communities
- Make rapid progress on lead service line replacement
- **Address PFAS and emerging contaminants**
- Resilience, climate, One Water innovation
- Support American workers and renew the water workforce
- Cultivate domestic manufacturing

Available State Revolving Fund (SRF) Funding in the BIL

Appropriation	FY 2022 ($)	FY 2023 ($)	FY 2024 ($)	FY 2025 ($)	FY 2026 ($)	Five Year Total ($)
CWSRF General Supplemental	1,902,000,000	2,202,000,000	2,403,000,000	2,603,000,000	2,603,000,000	**11,713,000,000**
CWSRF Emerging Contaminants	100,000,000	225,000,000	225,000,000	225,000,000	225,000,000	**1,000,000,000**
DWSRF General Supplemental	1,902,000,000	2,202,000,000	2,403,000,000	2,603,000,000	2,603,000,000	**11,713,000,000**
DWSRF Emerging Contaminants	800,000,000	800,000,000	800,000,000	800,000,000	800,000,000	**4,000,000,000**
DWSRF Lead Service Line Replacement	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000	**15,000,000,000**

DWSRF BIL Fund Eligibilities

Emerging Contaminants/PFAS Funds

For a project or activity to be eligible for funding under this appropriation,

1. it must be otherwise DWSRF eligible, and
2. the primary purpose must be to address emerging contaminants in drinking water, with a focus on perfluoroalkyl and polyfluoroalkyl substances (PFAS).

Projects that address any contaminant listed on any of EPA's Contaminant Candidate Lists are eligible (i.e., CCL1 – CCL5).

Not Eligible: Projects for which the primary purpose is to address contaminant(s) with a National Primary Drinking Water Regulation (with PFAS exception).

DWSRF Emerging Contaminants Examples

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

- 11Cl-PF3OUdS
- 8:2FTS
- 4:2FTS
- 6:2FTS
- ADONA
- 9Cl-PF3ONS
- HFPO-DA (GenX)
- NFDHA
- PFEESA
- PFMPA
- PFMBA
- PFBS
- PFBA
- PFDA
- PFDoA
- PFHpS
- PFHpA
- PFHxS
- PFHxA
- PFNA
- PFOS
- PFOA
- PFPeS
- PFPeA
- PFUnA
- NEtFOSAA
- NMeFOSAA
- PFTA
- PFTrDA

DWSRF Emerging Contaminants Examples

- Perchlorate
- Strontium
- Manganese
- 1,4-Dioxane
- Tungsten
- *Naegleria fowleri* (brain-eating amoeba)
- Cyanotoxins
  - Microcystin(s)
  - Cylindrospermopsin
  - Anatoxin(s)
  - Saxitoxin(s)
- Lithium
- *Legionella pneumophila*
- Disinfection byproducts (DBPs)
  - Chlorate
  - Formaldehyde

DWSRF BIL Fund Flexibilities and Requirements

Emerging Contaminants/PFAS Funds

- States do not have to provide a match for these funds.
- States have the flexibility to take set-asides from this appropriation to support activities related to emerging contaminants.
- States must provide 100% of the capitalization grant amount, net of set-asides taken, as additional subsidization in the form of principal forgiveness and/or grants.
- At least 25% of these funds must go to disadvantaged communities (as defined by the state) or public water systems serving fewer than 25,000 people.

Funds Spent on Source Water Protection

- As of 2023,
  - Over $100 million of DWSRF set-asides have been spent on SWP technical assistance.
  - Over $12 million of DWSRF set-asides have been loaned for land acquisition or conservation easements, with over 4,000 acres of land acquired for SWP.
  - Over $140 million of DWSRF set-asides have been dedicated to SWP area delineation and assessment.

DWSRF Emerging Contaminants and Source Water Protection Examples

- PFAS take-back program
- Purchase of laboratory equipment to enable testing of PFAS and/or other emerging contaminants
- Development of maps of PFAS levels detected in source water or drinking water
- Investigation of drinking water emerging contaminant sources, including groundwater modeling
- Construction of catchment basins, erosion control, or rain gardens that prevent emerging contaminants from reaching source water

DWSRF and BIL Information

- **DWSRF**: https://www.epa.gov/dwsrf
  - State DWSRF contacts
- **EPA BIL general site**: https://www.epa.gov/infrastructure
- **DWSRF specific BIL site**: https://www.epa.gov/dwsrf/bipartisan-infrastructure-law-srf-memorandum
- **DWSRF FAQs:** https://www.epa.gov/dwsrf/frequent-questions-about-bil-state-revolving-funds

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CLEAN WATER STATE REVOLVING FUND (CWSRF) & EMERGING CONTAMINANTS

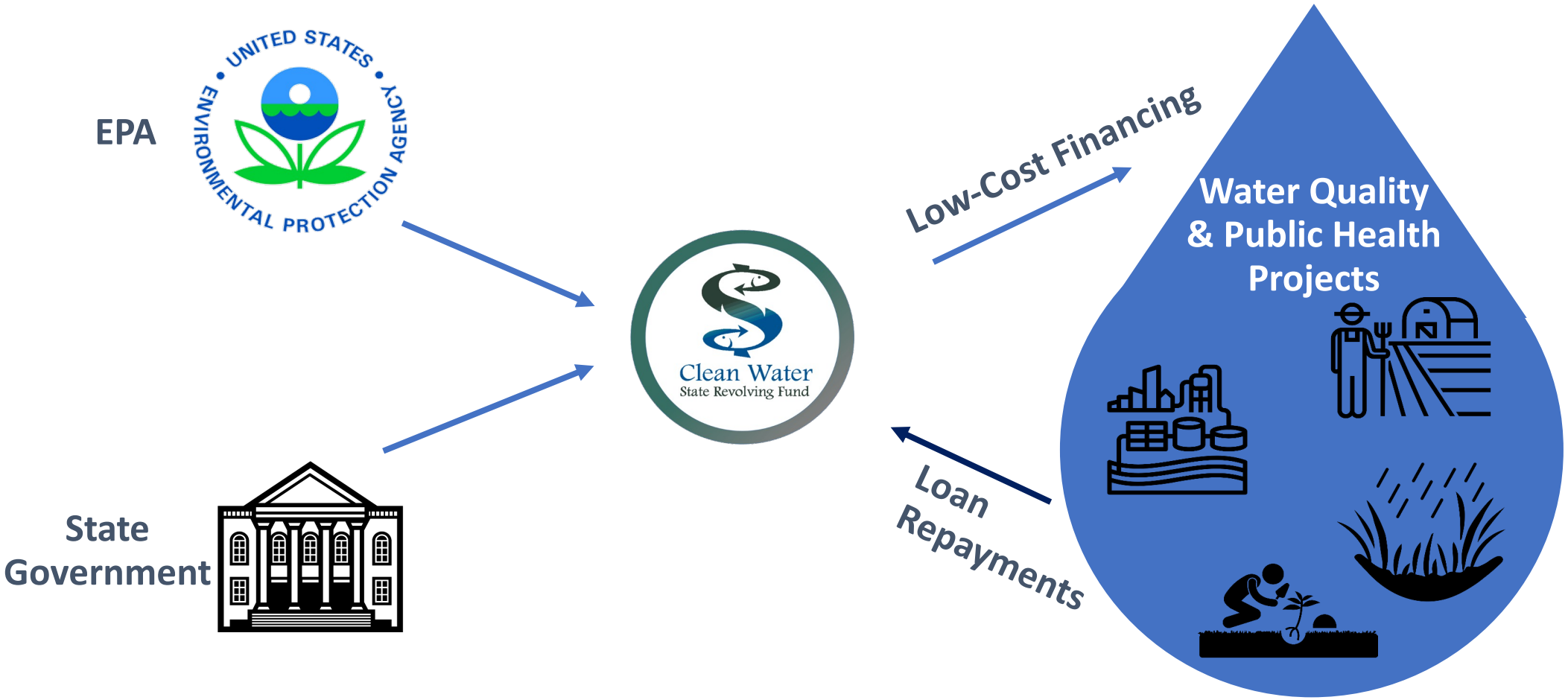
Source Water Collaborative

February 8, 2024

Agenda

- Clean Water State Revolving Fund (CWSRF)
- Clean Water State Revolving Fund (CWSRF) emerging contaminants
- Source water protection project ideas and examples
- Resources

Clean Water State Revolving Fund (CWSRF)

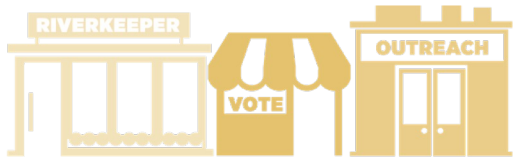


 https://www.epa.gov/cwsrf/state-cwsrf-program-contacts

Who is Eligible to Use the CWSRF?

Eligible entities are dependent on the project type, but may include:

- Municipalities, intermunicipal, interstate, or state agencies.
- Nonprofit entities*
- Private, for-profit entities*
- Watershed groups*
- Community groups*
- Homeowner's associations*
- Individuals*



**Some states do not fund private systems/private entities.*

CWSRF Project Eligibilities

- 603(c)(1) Construction of publicly owned treatment works (POTW)
- 603(c)(2) Implementation of a nonpoint source management program
- 603(c)(3) Implementation of a national estuary program Comprehensive Conservation and Management Plan
- 603(c)(4) Decentralized systems
- 603(c)(5) Stormwater management
- 603(c)(6) Projects that reduce the demand for POTW capacity through water conservation, efficiency, and reuse
- 603(c)(7) Watershed pilot projects
- 603(c)(8) Projects that reduce the energy consumption needs for POTWs
- 603(c)(9) Reuse of wastewater, stormwater, or subsurface drainage water
- 603(c)(10) Security measures at POTWs
- 603(c)(11) Technical assistance to small and medium POTWs
- 603(3)(12) Assistance to a qualified nonprofit entity to provide assistance to an eligible individual for the repair or replacement of household decentralized treatment systems

EPA

CWSRF Emerging Contaminants Fund Overview

- New appropriation under the Bipartisan Infrastructure Law, enacted on November 15, 2021
- Appropriates $1 billion over the next five years to address emerging contaminants
  - FY2022: $100 M
  - FY2023 to FY2026: $225 M each year
- All funds are to be awarded to funding applicants as 100% forgivable loans or grants

What is a CWSRF Emerging Contaminant?

- Contaminants with water quality criteria recommendation published by EPA under CWA section 304(a), except for PFAS, are not considered emerging contaminants
- Examples: **per- and polyfluoroalkyl substances (PFAS), antimicrobial resistant bacteria, 6PPD-quinone (from tires), microplastics, pharmaceuticals and personal care products**
- Separate definition for Drinking Water SRF emerging contaminants

Definition: Substance or microorganism, including manufactured or naturally occurring physical, chemical, biological, radiological, or nuclear material, which is known or anticipated in the environment, which may pose newly identified or re-emerging risks to human health, aquatic life, or the environment.

See Appendix B of EPA's March 2022 memo for more detail, https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf

CWSRF Emerging Contaminants Funding Eligibilities

For a project or activity to be eligible under this appropriation, it must:

1. Be otherwise eligible under section 603(c) of the CWA
2. Address identified emerging contaminants

Considerations

- Can only fund portion of the project specific to emerging contaminants
- Only capital costs are eligible
- Ineligible activities:
  - Operation and maintenance
  - Water quality monitoring activities that are not integral to the planning and design of a capital project

Source Water Protection CWSRF Project Ideas

- Land conservation
  - Easements, leasing, and fee simple purchase of land
- Agricultural best management practices
  - Cropland and livestock
- Decentralized wastewater treatment
  - Septic tank repair or replacement
- Remediation or prevention of contamination from resource extraction sites
- Habitat restoration
- Shoreline/riparian buffers
- Stormwater management
- Contaminated site clean-up
- Wildfire risk management
- Development and updates of source water protection plans
- Development and initial delivery of public outreach and education materials

A full listing of CWSRF eligibilities including examples of eligible projects can be found in the "Overview of Clean Water State Revolving Fund Eligibilities," which can be downloaded from our website at: https://www.epa.gov/cwsrf/overview-clean-water-state-revolving-fund-eligibilities

Source Water Protection CWSRF Emerging Contaminants Project Ideas

- **Nonpoint Source:** publicly or privately owned provided they are capital projects that support the implementation of a current EPA approved state nonpoint source (NPS) management program or nine-element watershed-based plan established under Section 319 of the Clean Water Act
- **Contaminated sites:** address PFAS through capping, in-situ treatment, or removal of contaminated material as part the implementation of a state nonpoint source management plan
- **Stormwater**: trap and/or treat emerging contaminants in runoff prior to reaching waterbodies or instream treatment or removal
- **Surface Water Protection and Restoration**: equipment for the physical or chemical removal of Harmful Algal Blooms or projects that skim surface water to remove microplastics

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

Washington State Department of Ecology. 2015. Stormwater Sampling Manual: A guide for the Industrial Stormwater General Permit. Washington State Department of Ecology, Olympia, WA. 41 p. Publication No. 15-03-044.

Source Water Protection
CWSRF Emerging Contaminants FFY22 Projects

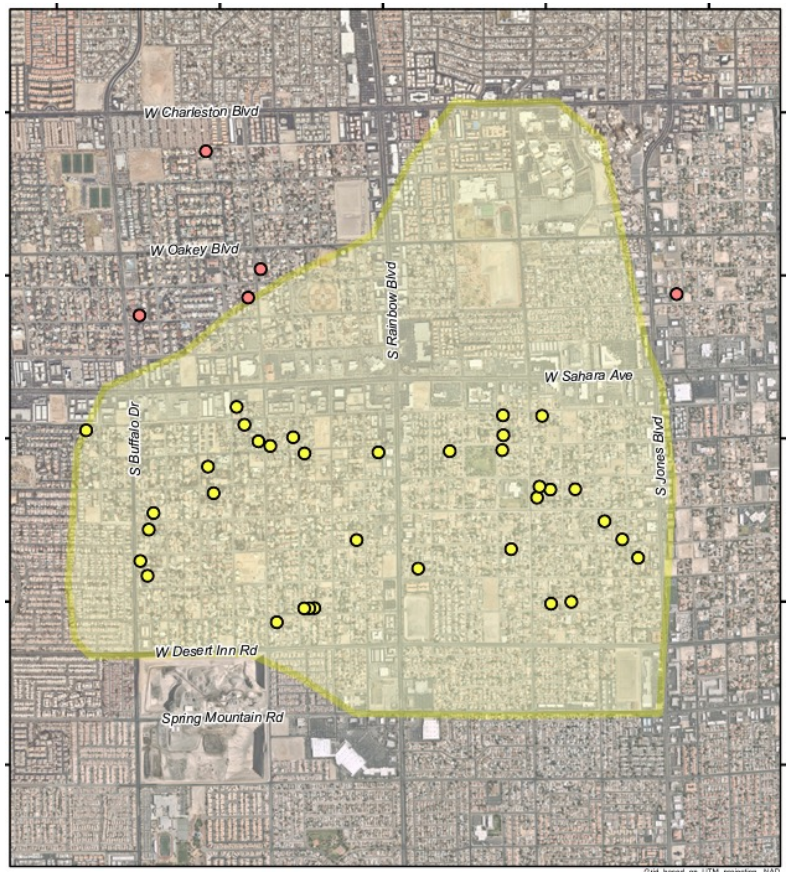
- 15% of projects relate to source water protection (8 of 52)
  - ECs to address: PFAS and 1,4-Dioxane
- Additional project types that could have a source water protection benefit:
  - 15 project planning projects
  - 3 septic-to-sewer projects
  - 5 stormwater projects
    - Implementing and investigating technologies that could also be used for source water protection

Case Study:
Septic-to-Sewer Conversion (Las Vegas, Nevada)

- PPCPs identified in areas of high septic system density during routine groundwater monitoring
  - Presence of PPCPs could be linked to failing decentralized systems
- Connect houses currently on septic to the nearby Flamingo Water Resource Center
  - A portion of which is treated using membrane filtration and ozone disinfection

Eligibility

- EC identified? Yes
- Capital project identified? Yes
- CWSRF eligible? Yes, 603(c)(2) for collecting and treating effluent from properties with failing decentralized systems



Case Study: Treatment of Source Water (Oklahoma)

- Lake Thunderbird provides drinking water for three cities in central Oklahoma
- Seasonal monitoring identified PFAS and PPCPs
- Research and development of potential treatment designs and locations to treat EC in Lake Thunderbird
  - Constructed wetlands

Eligibility

- EC identified? Yes
- Capital project identified? Planning either pilot project or full-scale treatment wetlands
- CWSRF eligible? Yes, 603(c)(2) and 603(c)(5) to implement nonpoint source management and measures to treat stormwater

Case Study:
Investigation of PFAS in Source Water (New York)

- Target 11 sites where presence of PFAS and/or 1,4-dioxane have been confirmed in source water
  - Landfills
  - Airports
  - Fire training centers
- Conduct additional monitoring to inform project development to remove emerging contaminants from the source water

Eligibility

- EC identified? Yes
- Capital project identified? Planning future treatment based on findings
- CWSRF eligible? Yes, 603(c)(2) and 603(c)(5) to implement nonpoint source management and measures to treat stormwater

Resources

- CWSRF eligibilities:
  - https://www.epa.gov/sites/default/files/2016-07/documents/overview_of_cwsrf_eligibilities_may_2016.pdf
- CWSRF emerging contaminants FAQs:
  - https://www.epa.gov/dwsrf/bipartisan-infrastructure-law-srf-memorandum
- CWSRF emerging contaminants case studies:
  - https://www.epa.gov/cwsrf/clean-water-state-revolving-fund-emerging-contaminants

Contact Information

- For additional questions contact:
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  - Smiti Nepal, EPA Sustainable Communities Infrastructure Branch: nepal.smiti@epa.gov
  - Heather Stratheam, EPA Sustainable Communities Infrastructure Branch: stratheam.heather@epa.gov

Thank you for attending!

Summary of Bipartisan Infrastructure Law (BIL) Emerging Contaminant Funds that Can Support Source Water Protection

Emerging Contaminants Definition

- The definition of “emerging contaminants” is different for EPA’s clean water funding programs and its drinking water funding programs.
- PFAS are covered under both the drinking water and clean water funding programs.

Drinking Water State Revolving Fund and EC-SDC	Clean Water State Revolving Fund
Emerging Contaminants are any contaminant listed on any of EPA’s Contaminant Candidate Lists (i.e., CCL1 – CCL5) that is not regulated by a National Primary Drinking Water Regulation – PFAS is the exception and is considered an emerging contaminant.	Emerging contaminants refer to substances and microorganisms which are known or anticipated in the environment that may pose newly identified or re-emerging risks to human health, aquatic life, or the environment. Contaminants with water quality criteria established by EPA under CWA section 304(a), except for PFAS, are not considered emerging contaminants

http://www.epa.gov/dwsrf/bipartisan-infrastructure-law-srf-memorandum

BIL Emerging Contaminant (EC) Funding for Source Water Protection

Examples of source water protection activities that address ECs through the EC-SDC grant program, DWSRF EC Set-Asides, or CWSRF EC funds include:

Primary purpose of EC-SDC or DWSRF EC Set-Asides must be to address ECs

- Updates of source water protection plans
- Initial, non-routine source water monitoring
- Capping abandoned wells
- PFAS "take-back" programs*
- Public outreach

CWSRF EC projects must address an emerging contaminant(s) that is known or anticipated to be present

- Construction of structures at industrial facilities to cover PFAS-containing materials that would otherwise be exposed to and transported in stormwater
- Equipment for the physical or chemical removal of harmful algal blooms (HABs)
- Capping, in-situ treatment, or removal of contaminated material at contaminated sites
- Green infrastructure
- Removal/replacement of septic systems

* A take-back program allows not-for-profit or local government-run organizations (e.g., fire stations) to bring in PFAS-containing products. Buy back programs are not allowed. Please talk with your DWSRF state contact for more information.

Emerging Contaminant Funds are Forgivable Loans or Grants

Funding Program	Total Funding	State Match	Additional Subsidy	Requirements for Additional Subsidy
CWSRF Emerging Contaminants (BIL)	$1,000,000,000	0%	100%	No restriction
DWSRF Emerging Contaminants (BIL)	$4,000,000,000	0%	100%	25% of fund must go to disadvantaged communities or public water systems serving fewer than 25,000 persons
Emerging Contaminants in Small or Disadvantaged Communities (BIL)	$5,000,000,000	0%	Grant	All funds must go to Disadvantaged communities or small communities with a population less than 10,000 individuals that the Administrator determines does not have the capacity to incur debt sufficient to finance a project or activity under the grant program.
CWSRF General Supplemental (BIL)	$11,713,000,000	10% in 2022-2023 20% in 2024-2026	49%	49% of fund must go to assistance recipients that meet the state's affordability criteria or project types as described in section 603(i) of the CWA.
DWSRF General Supplemental (BIL)	$11,713,000,000	10% in 2022-2023 20% in 2024-2026	49%	49% of fund must go to disadvantaged communities

Getting Started

- Contact your state funding program staff:
  - State CWSRF Program Contacts | US EPA
  - State DWSRF Program Contacts | US EPA
  - State EC-SDC Program Contacts | US EPA
- EPA's **free** Water Technical Assistance (WaterTA) supports communities to identify water challenges, develop plans, build technical, managerial, and financial capacity, and develop application materials to access water infrastructure and water improvement funding. Learn more about who can receive WaterTA services and the challenges WaterTA can help your community address, then complete and submit a **webform request**.

Helpful Resources

- **EPA BIL Memo and Supplemental Materials-** https://www.epa.gov/dwsrf/bipartisan-infrastructure-law-srf-memorandum
- **EPA's Contaminant Candidate List-** https://www.epa.gov/ccl
- **Fact Sheet: Addressing PFAS in Drinking Water with the DWSRF:** https://www.epa.gov/sites/default/files/2019-03/documents/pfas_fact_sheet_and_case_studies_final.pdf
- **EPA's free Water Technical Assistance (WaterTA)-** https://www.epa.gov/water-infrastructure/water-technical-assistance-waterta
- **Protecting Source Water with the Clean Water and Drinking Water State Revolving Funds Factsheet-** https://www.epa.gov/system/files/documents/2022-04/protecting-source-water-cwsrf_dwsrf.pdf
- **Protecting Source Water with the Drinking Water State Revolving Fund Set-Asides Factsheet-** https://www.epa.gov/sites/default/files/2019-10/documents/protecting_source_water_with_the_dwsrf_-_final.pdf
- **Funding Agricultural Best Management Practices with the Clean Water State Revolving Fund Factsheet-** https://www.epa.gov/sites/default/files/2018-01/documents/cwsrf_ag_bmp_fact_sheet_-_10.26.17.pdf
- **CWSRF Best Practices Guide for Financing Nonpoint Source Solutions -**https://www.epa.gov/system/files/documents/2021-12/cwsrf-nps-best-practices-guide.pdf
- **Financing Options for Nontraditional Eligibilities in the Clean Water State Revolving Fund Programs -** https://www.epa.gov/sites/default/files/2017-05/documents/financing_options_for_nontraditional_eligibilities_final.pdf
- **Funding Integration Tool for Source Water (FITS)-** https://www.epa.gov/sourcewaterprotection/fits

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