



# CLEAN WATER STATE REVOLVING FUND (CWSRF) EMERGING CONTAMINANTS

New England Regional Pretreatment Coordinators Association Annual Conference

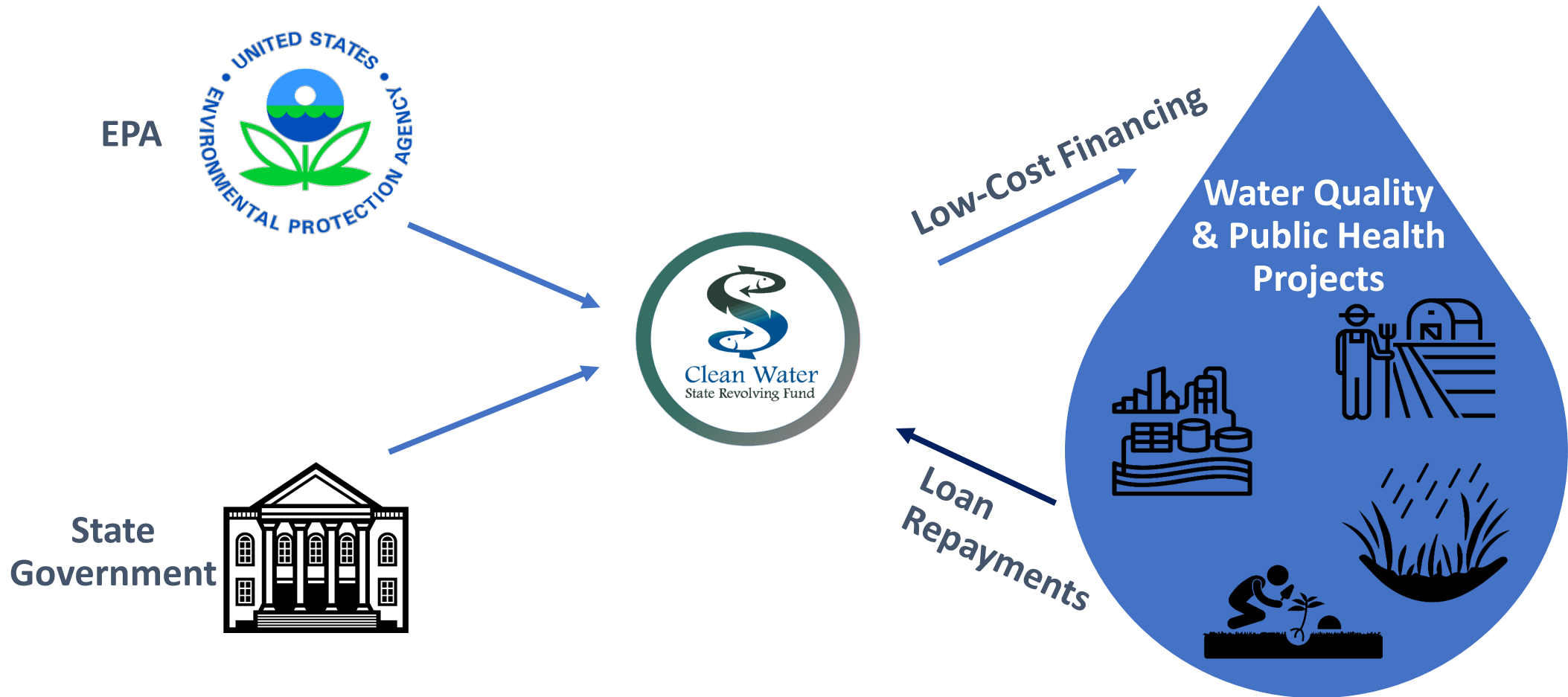
Heather Strathearn, U.S. EPA

# Agenda

- Clean Water State Revolving Fund (CWSRF)
- Emerging Contaminants eligibilities
- Project ideas
- Case Studies
  - EPA Region 1
- Resources



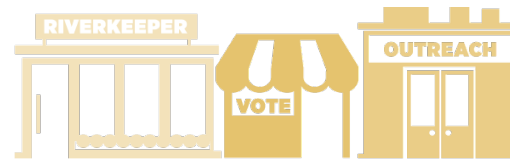
# Clean Water State Revolving Fund (CWSRF)



# 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.*

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# Bipartisan Infrastructure Law (BIL) Funding - Emerging Contaminants

Appropriation	FY 2022 (\$)	FY 2023 (\$)	FY 2024 (\$)	FY 2025 (\$)	FY 2026 (\$)	5 Year Total (\$)
<b>Drinking Water SRF Emerging Contaminants (DWSRF EC)</b> <a href="#">DWSRF Allotments</a>	800 million	800 million	800 million	800 million	800 million	<b>4 billion</b>
<b>Clean Water SRF Emerging Contaminants (CWSRF EC)</b> <a href="#">CWSRF Allotments</a>	100 million	225 million	225 million	225 million	225 million	<b>1 billion</b>
<b>Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC)</b> <a href="#">EC-SDC Allotments</a>	1 billion	1 billion	1 billion	1 billion	1 billion	<b>5 billion</b>

# 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?

- 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.
  - Contaminants with water quality criteria recommendation published by EPA under CWA section 304(a), except for PFAS, are not considered emerging contaminants
  - 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](https://www.epa.gov/system/files/documents/2022-03/combined_srf-implementation-memo_final_03.2022.pdf)
- Examples: **PFAS, antimicrobial resistant bacteria, 6PPD-quinone (from tires), microplastics**
- Separate definition for Drinking Water SRF emerging contaminants



# 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 (including monitoring associated with NPDES permit or pretreatment requirements) at POTW

# CWSRF Emerging Contaminants Funding 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

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# CWSRF Emerging Contaminants Project Ideas

- **Monitoring for the specific purpose of project development:** planning, design, and construction
  - Water quality monitoring activities (including monitoring of PFAS associated with NPDES permit or pretreatment requirements) at POTWs are generally not eligible.
- **Wastewater treatment facilities:** technology installation to treat for PFAS and other emerging contaminants in discharge or biosolids
- **Water reuse:** advanced treatment (e.g., reverse osmosis, granulated activated carbon, or ion exchange) to remove PFAS or other emerging contaminants
- **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



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.

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

# CWSRF EC Project Ideas: Landfills

Consider projects that will reduce emerging contaminant runoff from landfills

Project examples:

- Landfill closure (e.g., capping)
- Landfill runoff and leachate collection and treatment that will reduce PFAS runoff
- Modification/expansion of existing or construction of new publicly owned landfills (local and regional) primarily designed and permitted (per state and federal regulations) to accept POTW biosolids with PFAS

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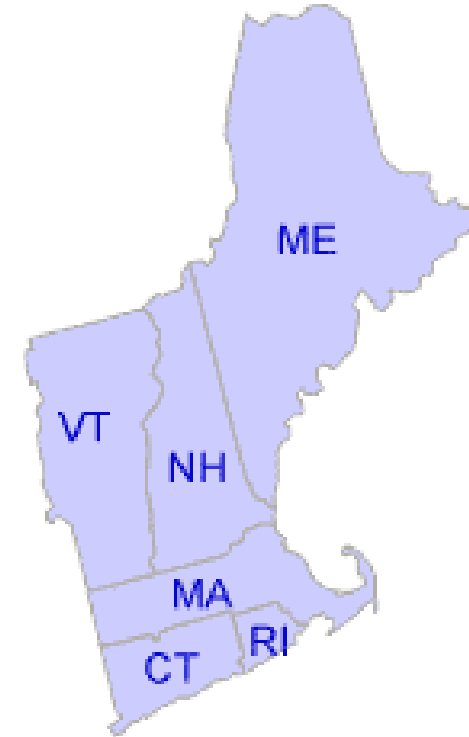
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# EPA Region 1 CWSRF EC Projects

- All Projects focused on PFAS
- Project Types
  - Lab equipment purchase
  - Wastewater and leachate characterization to develop engineering reports
  - Landfill leachate pilot study
  - Wastewater treatment plant construction & improvements



\*1 transfer of Clean Water SRF funds to Drinking Water SRF

# Town of Conway, NH

## Landfill Leachate Case Study



### Background

- Town of Conway (NH) landfill currently accepts sludge from the North Conway Water Precinct's (NCWP) wastewater treatment facility (WWTF) and in exchange, the NCWP accepts leachate from the Town landfill
- NCWP WWTF is a groundwater discharge facility that is subject to NH's ambient groundwater quality standards, including standards for PFAS
- At least one of the monitoring wells currently exceeds NH's regulatory limits for PFAS and preliminary testing indicates that the majority of PFAS loading at the WWTF comes from the Town landfill leachate



# Town of Conway, NH

## Landfill Leachate Case Study



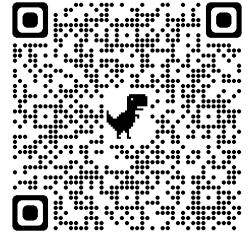
### Proposed Project

- Investigate treatment options for PFAS in landfill leachate
- Conduct pilot projects at WWTF to select best treatment option
- Prepare a project for full design and construction

### Eligibility

- Eligible under CWSRF? Yes, capital project at POTW to reduce leachate pollution from publicly owned landfill [603(C)(1) of CWA]
- Emerging contaminants present? Yes, detected in previous monitoring
- Capital project identified? Yes, pilot projects to result in capital project at POTW to treat landfill leachate

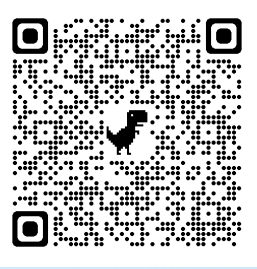
# City of Cedar Rapids, IA Water Pollution Control Facility Biosolids Case Study



## Background

- City of Cedar Rapids (IA) Water Pollution Control Facility (WPCF) provides wastewater treatment for 180,000 residents plus industrial and commercial customers
- A multiple hearth incinerator at the WPCF treats solids from the primary and biological treatment processes
- City is currently studying the fate of PFAS compounds in solids after incineration, specifically how effective the multiple hearth incinerator is at degrading and destroying PFAS compounds within the solids
- City also recognizes that PFAS treatment of liquid streams may be needed, such as the stream created during dewatering of solids

# City of Cedar Rapids, IA Water Pollution Control Facility Biosolids Case Study



## Proposed Project

- Conduct baseline monitoring of liquid and solid streams at WPCF
- Sampling of the collection system upstream of the WPCF to determine PFAS contributions from various users. This sampling is **not eligible** for CWSRF emerging contaminants funding but will help the City identify source reduction options.
- Evaluate treatment options and perform bench and/or pilot scale testing of the most viable treatment options
- Develop a final engineering report based on findings from pilot scale testing

## Eligibility

- Eligible under CWSRF? Yes, capital project at POTW [603(C)(1) of CWA]
- Emerging contaminants present? Yes, detected PFAS in biosolids
- Capital project identified? Yes, monitoring and pilot projects result in a capital project

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# Resources

- CWSRF eligibilities: [https://www.epa.gov/sites/default/files/2016-07/documents/overview\\_of\\_cwsrf\\_eligibilities\\_may\\_2016.pdf](https://www.epa.gov/sites/default/files/2016-07/documents/overview_of_cwsrf_eligibilities_may_2016.pdf)
- CWSRF emerging contaminants webinar recording, webinar Q&As and FAQs are posted on the EPA website: <https://www.epa.gov/dwsrf/bipartisan-infrastructure-law-srf-memorandum>
  - Case studies: <https://www.epa.gov/cwsrf/clean-water-state-revolving-fund-emerging-contaminants>
- For additional questions contact: EPA CWSRF – Emerging Contaminants:
  - [cwsrfEC@epa.gov](mailto:cwsrfEC@epa.gov)
  - [tucker.kelly@epa.gov](mailto:tucker.kelly@epa.gov)
  - [nepal.smiti@epa.gov](mailto:nepal.smiti@epa.gov)
  - [strathearn.heather@epa.gov](mailto:strathearn.heather@epa.gov)

# Additional Information

# Clean Water State Revolving Fund (CWSRF)

**Terms:** Up to 30 years  
or useful life of the project, whichever is less

**Below-market rates:** 1.2% average interest rate  
in 2020 (compared to market rate 2.7%)

**Additional subsidy:** May also include additional  
subsidies (e.g., loan forgiveness and grants)

**Repayment:** Starts one year after project completion

