Updates for the Trust

SFY2024 SRF budget
Lead Service Line Inventory and Planning Technical Assistance
Small System Technical Assistance and Cybersecurity

Lead Service Line Inventory and Planning Technical Assistance

Allocation: $1,055,060

- This project will assist small community PWS (<10,000) with their required Service Line Inventory and Lead Service Line Replacement Plan (if necessary)
- As part of USEPA's LCRR, by October 2024, all PWS must submit a Service Line Inventory that identifies every service line material. If any lead service lines (LSLs) are identified or suspected, the PWS must submit an LSL Replacement Plan.
- We are using these funds to contract with two pre-qualified environmental consulting firms identified through a Statewide Contract for Environmental Consultants – PRF 77.
  - We issued an RFQ in April and are currently finalizing the contracts for these two firms
- We developed an online survey which was sent 6/12 to all small PWS (community and non-community non-transient) to collect initial service line information and interest in receiving assistance. For those who request technical assistance:
  - Community PWS – consulting firms will provide assistance
  - Non-community Non-transient PWS – Technical Assistance Providers will provide assistance under a separate contract in the amount of $260,000.

Small Systems Technical Assistance (including Cybersecurity)

<u>Allocation: $340,000</u>

- The purpose of this project is to assist small systems with addressing various technical issues. These issues were chosen based on several factors, including:
  - MassDEP Statewide Capacity Development Strategy (revised 2022)
  - MassDEP Compliance and Enforcement information
  - Staff input
  - Sanitary survey results
  - MassDEP and USEPA priorities
- We are utilizing our long-standing relationship with UMass Amherst to implement this project. Funds will be used for:
  - Technical assistance providers
  - Assistance from organizations such as RCAP Solutions

Small Systems Technical Assistance (including Cybersecurity)

Project Components

1. Capacity Assessment and Support
   - Using water quality, compliance and enforcement information and sanitary survey results, PWS will be identified and offered assistance including technical and financial (ex: ID available grants)
2. Small, Underserved, and Disadvantaged Community Grant Program Assistance
   - Provide assistance to current grantees and potential future ones around project management, invoicing, and reporting
3. Workforce Development
   - Develop and implement recommendations for increasing operator availability for small PWS, which may include marketing tools and workforce surveys
   - Manage training and internship program for small PWS
4. Emergency Response
   - In response to USEPA mandate, assist PWS conduct initial cybersecurity assessments
   - In addition, assist PWS with other types of emergency planning, including supply chain

MassDEP
Bureau of Water Resources

Clean Water SRF Project Funding Requests

Clean Water Trust

June 14, 2023

PFAS in Wastewater Treatment Plants

Analysis of PFAS Concentrations at Wastewater Treatment Plants

Summary: Collect and analyze up to four rounds of influent, effluent and sludge PFAS samples from wastewater treatment plants discharging to surface water and groundwater (or collect at a portion of these WWTPs in FY24); collect samples of wastewater in sewersheds representing various types of waste.

Purpose: Develop understanding of PFAS concentrations in wastewater to plan for:
- Assistance in removal at the sources (decrease influent concs)
- Anticipated federal surface water quality standards (decrease effluent concs and develop standards)
- Evaluation of potential updates to the residuals land application program (address residuals)

Background:
- Up to 211 WWTPs discharging to surface water and 271 discharging to groundwater
- MassDEP/USGS have conducted 2 rounds of sampling at 9 WWTPs discharging to surface water
- Some WWTPs with renewed NPDES permits have begun to monitor
- No PFAS sampling has been done at groundwater discharge plants

Funding Request: $3.75 M (could be split over up to 3 years, at $1.25M/year)

	FY24	FY25	FY26	Total
Request	$3,750,000			$3,750,000
Alternative Request	$1,250,000	$1,250,000	$1,250,000	$3,750,000

Analysis of PFAS Concentrations at Wastewater Treatment Plants

Problem and Need:

- Needs of wastewater sector not well understood
- Limited understanding of PFAS concentrations in influent, effluent and sludge;
- Needs to understand differences within WWTPs, between WWTPs, and other factors such as seasonality, flow, different types of wastewater
- Funding will help establish baseline information before permit-driven data are collected by the permit holders over the next several years
- Anticipated surface water quality standards and effluent guidelines that limit PFAS discharged to environment through wastewater effluent; EPA has already published draft aquatic life criteria
- EPA Drinking Water Standard will affect land application of residuals and discharge limits for groundwater WWTPs
- The CWSRF needs to develop a PFAS remediation project pipeline; information collected could be used to develop projects benefiting from federal Clean Water SRF Emerging Contaminants funds

Analysis of PFAS Concentrations at Wastewater Treatment Plants

Procurement:

- MassDEP could establish contracts with:
  - Engineering consultant firm(s) to be selected from statewide master service agreement to collect samples, conduct QA/QC, assess results, prepare report
  - Laboratories to conduct analyses of PFAS
  - Partner (such as NEIWPCC or UMass) to assist in project coordination including outreach with WWTPs

Project Management/Administration:

- MassDEP staff will oversee the project and contracts with consultant, lab and partner
- Partner will provide project management support and coordination with WWTPs, labs, and consultants

Grants:
Innovative Treatment and Destruction Technologies for PFAS

Residuals and PFAS Innovation Grants Program

Summary: Grant program to promote pilot testing of PFAS treatment and destruction technology in wastewater and residuals/sludge that can be a source of groundwater or surface water contamination

Purpose:

- Promote pilot testing of PFAS treatment and destruction technology in wastewater and sludge
- Grant recipients would conduct studies of technologies that potentially could be scaled up or applied more broadly in the wastewater and residuals sectors
- Results would benefit grant recipients and others struggling with increasing costs and limited options for management and disposal

Background:

- 38% of all wastewater residuals generated in Massachusetts are land applied ("beneficially reused") as fertilizer or soil amendment.
- In-state alternatives to land application (landfilling and incineration) limited; other alternatives costly
- MA groundwater must be protected as drinking water; land application of residuals and wastewater discharges to groundwater need to meet EPA's final PFAS drinking water standards
- EPA expected to release PFAS surface water quality standards and effluent guidelines

Funding Request:

	FY24	Total
Request	$5,000,000	$5,000,000

Residuals and PFAS Innovation Grants Program

Problem and Need:

- PFAS ("forever chemicals") are extremely difficult to destroy and persist in the environment if released; they are generally transferred from a medium presenting a health risk (i.e. drinking water) to one where is it more contained (i.e. landfill)
- Need to promote new cost-effective treatment and destruction technologies and determine which are feasible for application to wastewater, residuals and other media
- Aggressive development of new and innovative options for treatment is warranted as industry faces:
    - Limited alternative residual disposal capacity via landfills and incinerators
    - Potential elimination or reduction of land application
    - Rising disposal costs
    - Evolving regulatory environment warrant, destruction, and management of PFAS
- Pilot projects could lead to develop of full-scale projects, which would be eligible for Clean Water SRF funding

Residuals and PFAS Innovation Grants Program

Procurement:

- MassDEP State Revolving Fund Program would announce availability of the grant program through the IUP process
- Eligibility: same as for CWSRF loans
- Grant solicitation in Spring 2024; awards in summer 2024

Project Management/Administration:

- Proposed partnership with MA Clean Water Trust
  - MassDEP would develop Request for Responses, review applications, select projects, perform project oversight
  - CWT would administer contracts and make payments

Grants:
Reducing Nitrogen in Coastal Embayments

Reducing Nitrogen Pollution in Coastal Embayments Grant Program

Summary: Grant program to promote reduction of nitrogen loading in coastal embayments

Purpose:
- Support compliance with the updated Title 5 or new Watershed Permitting regulations
- Enable other coastal areas to participate in updated Title 5/new Watershed Permitting regulations

Background:
- MassDEP is finalizing regulations revising Title 5 and introducing Watershed Permitting to reduce nitrogen impairment in coastal embayments; regulations would:
  - Allow MassDEP to designate Nitrogen Sensitive Areas
  - Require upgrades of septic systems to incorporate Best Available Nitrogen Reducing Technology OR
  - Optional Watershed Permit application to comprehensively address nitrogen pollution
- 85% of the Cape Cod's nitrogen pollution is from septic systems.
- There are 30 EPA approved Nitrogen TMDLs on Cape Cod

Funding Request:

	FY24	Total
Request	$ 600,000	$600,000

Reducing Nitrogen Pollution in Coastal Embayments Grant Program

Problem and Need:

- Areas designated as Nitrogen Sensitive need to respond in a timely manner, either with IA systems or Watershed Permit application
- Municipalities applying for a Watershed Permit and will need technical studies to support their applications
  - Update nitrogen load information
  - Conduct model runs to evaluate the efficacy of different nitrogen controls
- Other municipalities may want to apply for a Watershed Permit
  - Develop nitrogen reduction 208 or equivalent watershed plan to identify N sources
- Support Innovative Alternative septic system alternatives
  - Data system improvements to fund analysis of IA system performance

Reducing Nitrogen Pollution in Coastal Embayments Grant Program

Procurement:

- MassDEP would develop Request for Responses and solicit applications
- Eligible applicants would include:
  - Municipalities
  - Regional Planning Agencies
  - Not-for-profit organizations

Project Management/Administration:

- MassDEP as manager would develop Request for Responses, review applications, select projects, administer contracts, perform project oversight, and make payments

Thank you!

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