

Bacteria Project:

Creating a Regional Standard for Efficiently Detecting Sewage Contamination from Municipal Infrastructure

July 16, 2024

Overview

Sweet Water, Inc. and the McLellan Lab at the UWM School of Freshwater Sciences propose to develop a standardized process to assist municipalities in identifying and stopping bacterial contamination from leaking wastewater pipes. In general, this project aims to determine if additional sampling and testing methods can be used in conjunction with current practices to better identify bacteria sources within municipal storm sewer systems at a lower cost. The overarching goal is to ultimately develop a tiered approach to effectively identify and prioritize illicit discharges to stormwater, which will:

- 1) Reduce the cost of pinpointing bacterial pollution sources for communities
- 2) Standardize bacteria testing process to allow watershed-wide analysis
- 3) Identify and reduce illicit discharge inputs to rivers

Why Propose the Project?

- Lack of data on expected bacteria levels from major outfalls under dry conditions
- We want to have better informed action benchmarks, that work in practical applications
- Traditional testing methods are not always economically feasible and often include unnecessary, in-depth testing
- Result will offer a practical, science based and cost-effective approach for detecting human markers via IDDE monitoring programs

What Participants Can Expect

- During your IDDE season, outfall samples can be processed by SWWT, who will partner with the McLellan lab at SFS for *E. coli* testing.
- Any samples exceeding a threshold (1,000 cfu/100mL) will receive further analyzes using molecular markers for human fecal bacteria.
- Human marker testing will occur every 2 weeks.
- Pay a flat rate of \$150 per sample during project period.
- McLellan lab will perform “up the pipe” testing for an additional cost if wanted based on results.
- An evaluation of proxy indicators to develop performance metrics for rapid/economical screening, as well as analysis and reporting via a Bacteria Working Group and presentations from McLellan lab.
- Workshops and informational sessions each season with the McLellan lab.
- We anticipate this being a 3 year project

Contact Information

Please contact Erin Povak, Watershed Director, Southeastern Watersheds Trust, Inc. with any questions.

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Thank you!