Memorandum of Understanding (MOU)

Sample Delivery and Processing Agreement
Creating a Regional Standard for Efficiently Detecting Sewage Contamination from Municipal Infrastructure Project with UWM SFS McLellan Lab and Sweet Water

Between

Southeastern Wisconsin Watersheds Trust, Inc. (Sweet Water), the McLellan Lab at the University of Wisconsin - Milwaukee School of Freshwater Sciences
and
The City of West Allis

Effective Date: 5/20/25
Term of Agreement: Through 2025 IDDE field season

Purpose

This Memorandum of Understanding (MOU) establishes a collaborative agreement between Southeast Wisconsin Watershed Trust, Inc. (Sweet Water), the McLellan Lab, and the City of West Allis to participate in a regional bacteria sampling and analysis program. The objective is to support the development and use of standardized protocols for detecting and addressing sewage contamination from municipal infrastructure through collaboration.

The resulting standard will facilitate consistent in-field testing and upstream investigation protocols, reduce confusion among regulated entities, and promote shared understanding to support compliance with municipal stormwater permits (MS4).

This service is initially available to municipalities within the Milwaukee River Watershed, with limited exceptions. Please refer to the attached Bacteria Overview Sheet for additional context.

Program Overview

Water samples will be collected by participating municipalities during **dry weather storm sewer outfall inspections** in accordance with their MS4 Illicit Discharge Detection and Elimination (IDDE) program. Positive flow samples will be delivered to the UWM School of Freshwater Sciences. Testing will include ***E. coli*** **analysis** and, when appropriate, **qPCR testing for human-specific genetic markers.**

Note: This program includes testing for bacteria only. Additional pollutant parameters are the responsibility of the municipality.

Data generated under this program may be used in academic or published research. All data will contribute to a growing body of knowledge with the aim of developing more practical and efficient testing standards. Findings will be presented to participants, and opportunities to engage will occur via Bacteria Working Group discussions.

Roles and Responsibilities

- **MS4 participant duties:**

    1. Notify Sweet Water of anticipated field sampling dates at least one week in advance to ensure staff availability.
    2. Upon detecting positive flow during dry weather (defined as at least 72 hours with no precipitation), fill a sterile 500 mL bottle with the sample, chill immediately, and label with the date, outfall ID, and community name. *We can provide 500 mL sample bottles if needed.*
    3. Contact Dan Vrobel (Sweet Water) immediately to arrange same-day sample delivery to:

        - **UWM School of Freshwater Sciences**
          600 E Greenfield Ave, Milwaukee, WI 53204

    4. If needed, request pickup by Sweet Water staff at a location within the municipality.
    5. Email supplemental information to Dan Vrobel, including pollutant screening results, outfall description, and a photo (if available).
    6. If bottles need to be returned before the end of the season, notify Dan Vrobel to arrange drop-off.

- **Sweet Water & McLellan Lab duties:**

    1. Receive and log all samples delivered by municipalities.
    2. Plate and analyze *E. coli* levels within 12-24 hours of receiving the sample.
    3. Provide *E. coli* enumeration test results to the designated municipal contact.
    4. If *E. coli* levels exceed 999 CFU/100 mL, prepare and process samples for human fecal marker analysis via qPCR.
    5. Report qPCR results within 2–3 weeks of *E. coli* threshold exceedance.
    6. If desired, coordinate upstream sample processing through the McLellan Lab for an additional cost.

Processing Timeline

Sweet Water and the McLellan lab will receive samples **between the hours of 8AM to 4PM Monday through Thursday,** excluding the following holidays:

- Memorial Day
- Independence Day
- Labor Day

Processing Steps:

1. **Receive samples**: Plate for *E. coli* on modified mTEC media the same day (EPA Method 1603.1).
2. **Count and Report:** Count *E. coli* CFUs from plates 16-24 hours after plating, and report to MS4 via email within 48 hours.
3. **qPCR:** If parameters are met for further testing, qPCR testing will begin the same day as the report is given to MS4.
4. **Report qPCR:** Approximately 2-3 weeks after qPCR prep, report results to the MS4 via email.

Cost and Billing

Participants will be billed upon completion of the field season by Sweet Water at a rate of $150 per sample, regardless of if samples were processed for qPCR testing. Upstream sample processing triggered by human marker exceedances may be tested upon request, for an **additional cost.**

Sweet Water Contacts

Please reach out to the Sweet Water contact(s) below to coordinate sample collection (see MS4 duties above).

Primary Contact
Dan Vrobel
📧 vrobeldan@gmail.com
📞 (414) 550-6558

Secondary Contact
Erin Povak
📧 povak@swwtwater.org
📞 (608) 320-1875

Administrative Modifications and Hold Harmless Agreement

This agreement outlines the framework for administrative flexibility and legal protection among participating parties—**Sweet Water**, the **McLellan Lab at the UWM School of Freshwater Sciences**, and **the City of West Allis**—engaged in the regional sewage contamination detection project.

As part of this collaborative effort, the McLellan Lab, Sweet Water, and participating MS4 communities will pilot administrative and technical protocols for the receipt, processing, and analysis of water samples for *E. coli* and genetic markers. These activities will be carried out at the UWM School of Freshwater Sciences.

In recognition that the program may require procedural refinements, all parties agree that if any aspect of the current protocol proves burdensome or inefficient during the field season, administrative modifications may be made. Concerns should be communicated promptly to the designated Sweet Water project contact to allow timely and appropriate adjustments.

Each party to this agreement agrees to defend, indemnify, and hold harmless the other participants—including Sweet Water, the McLellan Lab, and participating MS4s—and their respective agents, employees, and subcontractors from and against any and all claims, actions, damages, liabilities, costs, and expenses of any nature, including reasonable attorney's fees, arising out of or resulting from:

- Any intentional or negligent acts or omissions in connection with the performance of this work; or
- Any violation of applicable laws or administrative regulations by any party or its representatives.

This provision shall survive the expiration or termination of the agreement.

Acknowledgment and Agreement

Name: Jacob Fincher

Title: Sweet Water Executive Director

Date:

Signature:

Name: Sandra McLellan

Title:

Date:

Signature:

Name:

Title:

Date:

Signature: