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REPORT

January 31, 2024

CITY OF
Stamford
CONNECTICUT

Reporting Period 7/1/2022 – 6/30/2023

CT DEEP National Pollutant Discharge Elimination System Permit for the Discharge of Stormwater from Municipal Separate Storm Sewer Systems (MS4)

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1.0 INTRODUCTION

1.1 Introduction & Overview

The City of Stamford (the City) was issued its current NPDES Permit (No. CT0030279) for discharge of stormwater from its municipal separate storm sewer system (MS4) on June 4, 2013. Renewal for this permit was submitted to Connecticut Department of Energy and Environmental Protection (CTDEEP) on August 6, 2021. This permit requires many actions to reduce pollution from stormwater runoff.

This Annual Report (Report) covers the period from July 1, 2022, through June 30, 2023 (Reporting Period). It summarizes the activities conducted and measures taken to comply with the previous and current NPDES Permit during this Reporting Period. This Annual Report was prepared in accordance with the terms and conditions of the NPDES Permit, as well as the Stormwater Management Plan, City of Stamford, Stamford, Connecticut, September 2, 2014 (the SMP).

The 2021-2022 MS4 final Annual Report was submitted to CTDEEP on January 16, 2024.

On January 2, 2016, the City submitted an application for modification of its NPDES Permit. The City, in conjunction with the CTDEEP, completed many efforts to work through the requested permit modification items during the 2016-17 fiscal year. Many meetings, phone calls, emails, and letters related to the process were conducted over a period of two (2) years to complete the permit modification process, which took a considerable amount effort. CTDEEP worked with the City and the Environmental Protection Agency (EPA) in efforts to complete the process. A NPDES Permit Modification for the City of Stamford was issued by the CTDEEP on August 14, 2017.

On February 6, 2018, the City submitted a permit renewal application for the newly modified NPDES Permit, which was set to expire on June 3, 2018. The City received minimal comments from the CTDEEP's review of the application and has since submitted all of the requested information. The new permit is pending renewal from CTDEEP.

Notice of Sufficiency from the CTDEEP was received on July 9, 2019. The letter indicates the application is in technical review and permit # CT 0030279, which expired on June 3, 2018 will continue to be effective until the commissioner disposes of the renewal application. The SMD operated under this direction for the entirety of the 2022-2023 reporting year.

1.2 Annual Report Development Team

Table 1.1 SWMP DEVELOPMENT TEAM		
Name	Organization & Title	Address & Phone
Thomas Turk	City of Stamford, Road Maintenance Division Manager	90 Magee Ave, Stamford, CT 06902 (203) 977-5919
Tyler Theder	City of Stamford, Stormwater Management Department Regulatory Compliance and Administrative Officer	90 Magee Ave, Stamford, CT 06902 (203) 977-5281
Matthew Quinones	City of Stamford, Office of Operations Director of Operations	888 Washington Blvd, Stamford, CT 06901 (203) 977-4141
Ralph Blessing	City of Stamford, Land Use Bureau Land Use Bureau Chief	888 Washington Blvd, Stamford, CT 06901 (203) 977-4714
James Lunney	City of Stamford, Land Use Bureau-Zoning Office 888 Zoning Enforcement Officer	888 Washington Blvd, Stamford, CT 06901 (203) 977-5944
Louis Casolo	City of Stamford, Engineering City Engineer	888 Washington Blvd, Stamford, CT 06901 (203) 977-5796
Robert Clausi	City of Stamford, Environmental Protection Board Executive Director	888 Washington Blvd 5th floor, Stamford, CT 06901 (203) 977-1541
Cindy Barber	City of Stamford, Land Use Bureau-Information Technology	888 Washington Blvd, Stamford, CT 06901 (203) 977-5360
Raju Vasamsetti	Weston & Sampson Project Manager	712 Brook Street, Suite 103, Rocky Hill, CT 06067 (860) 513-1473
Michael Estremera	City of Stamford, Stormwater Management Department Environmental Enforcement Officer	90 Magee Avenue Stamford, CT 06902 (203) 977-0826
Danielle Petretta	City of Stamford, Environmental Sustainability Coordinator	888 Washington Boulevard Stamford, CT 06902 (203) 977-2815

2.0 PROGRAM EVALUATION

2.1 Stormwater Management Plan (SMP) Objectives

The City of Stamford (the City) was issued a NPDES Permit for discharge of stormwater from its municipal separate storm sewer system (MS4) on June 4, 2013. This permit was renewed in February 2018. The new modified permit renewal is pending approval from CTDEEP. The City developed and is implementing a Stormwater Management Plan (SMP) based on the requirements of the NPDES Permit.

The SMP provides the framework for compliance with the terms and conditions of the NPDES Permit with the overall objective of improving the quality of stormwater runoff and protecting the surface waters of the State. The SMP seeks to achieve this objective through:

- Establishment of a Pollution Prevention Team
- Development of Stormwater Mapping
- Establishment and Implementation of Control Measures, including:
    - Public Education and Involvement
    - Source Controls for Pollution Prevention
    - Future Land Disturbance and Development Management
    - Infrastructure Operations and Maintenance
- Establishment and Implementation of an Illicit Discharge Detection and Elimination (IDDE) Program
- Establishment and Implementation of a Water Quality Monitoring Program
- Establishment and Implementation of Legal Authority to Control Discharges
- Establishment and Implementation of Procedures to Coordinate Stormwater Activities between various Departments and Agencies
- Maintaining Consistency with Other Plans and Permits

Additional details on each of these of these methods to achieve the objectives of the SMP are presented in the Summary Table of SMP Components (*Section 3.0*) and the Narrative Report (*Section 4.0*).

2.2 Major Findings

The objective of the SMP is to improve stormwater runoff quality and protect the surface waters of the State. This discussion of major findings should provide an overall evaluation as to whether stormwater and surface water quality in the City and from the City's MS4 is improving or degrading in the City.

The major findings during this Reporting Period of the modified NPDES Permit are the steps that the City has taken to implement the permit requirements, including but not limited to:

- Continued development of an understanding of the permit requirements and the resources necessary to achieve compliance.

- Continued allocation of additional resources (personnel, equipment, and budget) to/within the Road Maintenance Division to specifically address stormwater management and stormwater runoff quality improvement issues.
- Continued coordination of the Stormwater Pollution Prevention Team with City Departments for stormwater-related issues
- Implementation of the SMP and associated public outreach activities.
- Continuation of city-wide geographic information system (GIS) mapping related to stormwater infrastructure and management.
- Continued development of legal authority and zoning regulations to address stormwater discharges and quality.
- Continued coordination of public outreach with local environmental and business groups
- Continued coordination with consultants to assist in the implementation of the SMP and to perform surface water, stormwater, and outfall monitoring.

2.3 SMP Strengths and Weaknesses

2.3.1 EPA Review of the Status of the NPDES Permit

Representatives from the US Environmental Protection Agency (EPA) and the CTDEEP visited with members of the City's Stormwater Pollution Prevention Team on June 15 and 16, 2015 to conduct a compliance audit of the City's NPDES Permit. The compliance audit included a "five-year look-back" period. After the compliance audit, the EPA indicated that several areas of the permit needed improvement, which are outlined in *Section 2.3.1* of the 2014 & 2015 Annual Report.

The EPA issued an Administrative Order and Request for Information, regarding the compliance audit, to the City of Stamford on October 1, 2015. The City of Stamford has been working with the EPA of this Reporting Period to address items identified during the compliance audit.

Per the request of the CTDEEP, on September 17, 2018, the City of Stamford provided the CTDEEP with a 52-page document discussing the current status of the findings of the EPA's Violation and Order for Compliance – Docket No. CWA-01-AO-15-012, September 30, 2015.

2.4 Future Direction of the SMP

The SMP will continue to be evaluated in greater detail as part of the 2022-23 Reporting Period. A component of that evaluation will be a review of goals, schedules, and procedures referenced in the SMP as "to be established" and a detailed analysis of the status of these items.

The City considers the SMP to be a dynamic document and will continue to work towards updating and revising it as conditions and regulations change in an effort to maximize its ability to be utilized as a tool to manage and improve stormwater runoff quality.

The City will continue to focus more of its resources in the coming years to achieving compliance with the SMP, particularly in the areas of:

- Public education and involvement
- Stormwater mapping
- Illicit discharge detection and elimination
- Control measures
- Infrastructure operations and maintenance
- Legal authority and regulatory changes
- Water quality monitoring

Specific goals or requirements are discussed in the Narrative Report, *Section 4.0*, of this Annual Report.

The Team Coordinator and Regulatory Compliance and Administrative Officer will continue to be responsible for closely tracking individual activities and events in each of these areas.

2.5 NPDES Permit Modification SMP Updates

On August 14, 2017, a permit modification was issued for the City's NPDES Permit. During the 2017- 18 Reporting Period, the City reviewed the permit modification for any new requirements. During the 2019-20 Reporting Period, the City received a draft revised SMP from Fuss & O'Neill and will be reviewing and finalizing the SMP. The SMP is complete, and the document as updated as necessary.

3.0 SUMMARY TABLE OF SMP COMPONENTS

A summary table of SMP components was not completed for this reporting period. *Appendix B* is intentionally left blank.

4.0 NARRATIVE REPORT

4.1 Pollution Prevention Team

The Pollution Prevention Team (Team), *Section 1.0*, was established to implement the SMP, to keep it up to date as conditions and/or regulations change, to maintain the control measures to improve stormwater quality, and to take corrective actions, as necessary. With the issuance of the new NPDES Permit in 2013, the City decided to transfer the majority of the responsibility for compliance with the permit from the SWPCA to the Traffic and Road Maintenance Division. Responsibility for Traffic functions within this department has since been shifted to the newly created Traffic, Transportation, and Planning Department, as of approximately 2017.

The Team that has been established under the current SMP (see *Appendix B* of the SMP and *Section 1* of this report) consists of personnel from many City departments whose operations may affect the current and future stormwater quality. Team members supply the City with a wide range of experience and expertise in managing and controlling stormwater runoff quality.

Since 2013, the Team has continued improving their understanding of the new NPDES Permit requirements, communicating these requirements amongst themselves, establishing areas of responsibility and cooperation, brainstorming on public education and control measure ideas, and working with the appropriate legal counsel to establish legal authority and new regulations.

The Team's activities are coordinated by the Road Maintenance Division Manager. Many of the day-to-day stormwater permit compliance activities are managed by the Regulatory Compliance and Administrative Officer; this position was created in early 2014 specifically due to the issuance of the current NPDES Permit.

As of 2014, the City created and filled five positions under the direction of the Regulatory Compliance and Administrative Officer. During the 2022-2023 reporting year, staff in the stormwater management department consisted of nine (9) Heavy Equipment Operators (HEO's) and one (1) Environmental Enforcement Officer.

During the 2022-2023 reporting year, the stormwater management department requested three (3) new HEO positions to assist with MS4 compliance work. Two (2) of these positions were approved and fully funded. As of 7/1/2022, the total number of HEOs in stormwater management was nine (9). Additional information regarding this is available on the city's OPM budget page. See *Appendix N* for reference.

It is anticipated that the Team will continue these activities during the next year of the discharge permit as well as develop and coordinate additional specific goals with the objective of improving the overall quality of stormwater runoff in the City of Stamford.

4.2 Mapping

The City maintains a strong GIS department that can coordinate city-specific, as well as environmental data, available from the DEEP and other sources. Information that has been mapped includes city roadways, city properties, aerial photography, topography, zoning map, surface water bodies, watershed areas, surface water quality classifications, impaired waters, mapped inland wetlands, mapped tidal wetlands, and the coastal boundary.

The City continues to update and reuse mapping for sanitary sewer lines, stormwater lines, and stormwater outfalls. Mapping efforts continue city wide, and occur frequently as new structures are located or built. Initially, 154 stormwater outfalls were mapped. Several of the initially mapped outfall locations were determined to be inaccurate and 90 MS4 outfalls have been confirmed/identified/mapped. Two of the previous 92 MS4 outfalls were eliminated from the list, outfalls number SON-0021 and SON-0060. These outfalls were removed from the monitoring list because one was identified as the SWPCA's Facility discharge location and the other was a structure inlet.

The City continued to identify and map new MS4 outfalls in the City throughout the Reporting Period. As of June 30, 2023, the City has mapped 974 outfalls. Efforts were completed to canvas the entire City for identifying outfalls and approximately 95% of the City has been mapped. The City understands that there is continual maintenance being conducted on the stormwater system throughout the city and that the outfall mapping will require constant updating. Current updated outfall mapping is provided in *Appendix C*.

The City continues to confirm the accuracy of outfall locations and whether they are part of the City's MS4 stormwater system or another entity's responsibility. See *Section 4.5* and *Section 4.4.2* for additional details on the IDDE program and the wet weather monitoring program. A new Interconnected MS4 plan was prepared in June 2016 and is further discussed in *Section 4.3.5.10*.

This component of the SMP is to be expanded to include the following GIS mapping:

- Storm line material and size data
- Responsibility, if part of another MS4 stormwater system (such as DOT's)
- Completed and proposed cleaning and repair activities
- Outfall discharge monitoring data
- IDDE screening and investigation results
- Proposed IDDE investigations
- Completed and proposed capital projects.
- Connections to any other public or private storm drainage systems
- Drainage areas for each MS4 outfall
- Areas served by on-site subsurface disposal areas.
- Storm drains that do or may receive discharges form underdrain systems.

For an update on the impervious cover and directly impervious cover area (DCIA) see *Section 4.3.4.1*.

4.3 Control Measures

4.3.1 Public Education and Involvement

City residents can contribute to the pollution transported via stormwater by misapplying lawn pesticides, herbicides and fertilizers, littering, dumping pollutants into storm drains, failing to dispose of pet waste properly, and other actions, which can be detrimental to the quality of stormwater discharging into water bodies. Many people are unaware that they are polluting when engaged in these activities. Therefore, public education and outreach and public involvement and participation will help minimize the amount of pollution contributed to the City's water bodies by local residents. Also, public education and outreach coupled with public involvement and participation allows city residents to have a voice regarding stormwater.

During this Reporting Period, the following public education and involvement activities have been completed:

- The City has continued to maintain and update the stormwater section that was previously added to the City of Stamford's website at http://www.stamfordct.gov/stormwater-management. The website provides basic information about stormwater as well as key contacts within the City of Stamford. Additionally, it provides links to:
    - The NPDES Permit
    - The SMP
    - The MS4 Stormwater Ordinance
    - The Annual Reports
    - The household hazardous waste collection events schedule and information on the materials managed.
    - Best management plans for pesticides
    - Information on preventing stormwater pollution in English and Spanish
    - How to report a stormwater issue, violation, or complaint

The City maintains a Frequently Asked Questions section that includes 25 questions and answers that city residents may view.

- The Regulatory Compliance and Administrative Officer for the City of Stamford, in an effort to aid in the public participation of stormwater management added a link to Stormwater Management Website for the RiverSmart CT project at: https://www.riversmartct.org/resources.

- In 2014, the department adjusted internal operations to receive and respond to citizen questions and complaints regarding stormwater related issues. The City's stormwater management department responded to numerous citizen inquiries regarding snow storage, sweeping, catch basin cleaning, and IDDE program during the Reporting Period. Complete records of service requests, including completed and closed reports, can be obtained by the information technology department.

- Due to the ongoing nature of the COVID pandemic, there was no annual public meeting for the 2022-2023 reporting period. However, hundreds of phone calls and service requests were received by the Stormwater Management Division during this period.

- On 5/24/22 stormwater management department delivered 825 of the pet waste flyers to the Town Clerks office, to be passed out when people obtain their dog license. Flyers reference to ordinance 111-7, which requires pet owners to pick up after their pet, either on public property or private property. As of 12/2023, the Town Clerks Office had existing inventory of the pet waste flyers. Two additional boxes of 825 flyers each were delivered to the Town Clerk for pet owners.

- As of 6/30/23, the City maintains 67 dog waste dispensers and signs informing park patrons of the need to pick up after their dogs. Two (2) new dispensers were added during the 2022-2023 reporting period by the Parks Department int the most used parks. The Parks Department has also created a list of parks and dispensers and is requesting additional dispensers based on field assessments. These signs refer to the existing municipal dog waste ordinance in the City Charter (Section 111) and the City is installing new signs in hot spot locations, based on field observations. The City's Parks Department has taken over ordering responsibilities for pet waste bags with the exception of Mill River Park. The budget for pet waste bags was increased to $23,181 during the Reporting Period as these stations have been popular with park visitors. City staff have observed the used bags disposed of in the trash containers throughout the areas with dispensers. Nearly 500,000 bags were used during the 2022-2023 reporting period.

- The Mill River Collaborative performs annual clean ups, improvements, and provides educational programming within the City. Approximately 2893 volunteer hours were provided from over 906 individual volunteers/ 46 volunteer groups during this Reporting Period. These hours included everything from stuffing envelopes, to removing invasive plant species from the meadows, to creating erosion barriers in the river. A specific list of volunteer activities includes:
    - reinforcing riverbanks using organic biologs
    - invasive species removal by hand (mugwort, Queen Anne's lace, loosestrife, wild lettuce, white clover, ailanthus, burdock, bindweed)
    - planting nearly 1,000 native perennials
    - cleaning up litter in and near the river
    - building rock veins to funnel water away from banks to reduce undercutting.
    - mulching
    - harvesting native seeds
    - removing silt around drainage areas
    - cutting overgrown shrubs and trees
    - weeding paths, lawns, flower beds, gardens
    - spreading organic fertilizers (sparingly)

- SoundWaters is the leading environmental education organization on Long Island Sound. Over 25,000 students learn and explore with SoundWaters, through education and action, every year. The City and SoundWaters are in the process of coordinating a vacuum truck demonstration for

kids to strengthen the relationship with the community. During the reporting period, SoundWaters began construction of a 17.5-million-dollar new education center at Boccuzzi Park. The building opens 11/22/23.

- The Mianus Chapter of Trout Unlimited continued work to educate, rebuild, restore and protect the area of the Mianus River.

- The Nature Conservancy (TNC), a non-profit organization which promotes environmental conservation, gifted the City's first bioswale which was approved by the Board of Representatives on May 22, 2019. The bioswale removes contaminants from stormwater surface runoff and complies with the MS4 permit. Installation was completed in Rippowam Park on September 16, 2019. This bioswale was honored with a Changemakers Resiliency Award by the Business Council of Fairfield County in partnership with the Stamford 2030 District. The City has received a proposal for construct additional bioswales throughout the City. Based on the success of the Rippowam Place bioswale installation, the City looks to work in the future with the Downtown Special Services District (DSSD) and other City agencies to plan, install, and maintain additional bio-swale structures. In June of 2023, The SMD coordinated excavation and replanting of the bioswale. SMD will continue to monitor for additional maintenance efforts.

- Currently, the City estimates it has installed medallions on approximately 60-65% of the City-maintained catch basins. The City was unable to significantly add to the medallion program in 2022-2023. These medallions were installed both in English and Spanish to help public awareness for stormwater quality issues. These medallions are being installed by City staff members and are primarily installed on curb-back type catch basins. The City has recognized that the medallions are a useful and effective tool and has been great for assisting in educating the public and hopes to resume this work for the 2023-2024 period.

- The City has collaborated with a marketing and public relations firm to develop stormwater management outreach materials in English and Spanish. These are available online and at the government center.

- The City celebrated Earth Day on 4/24/2023. Many events were scheduled, including: a morning stroll through Cove Park with the Mayor, signing of a Climate Executive Order and tree and seed planting, and a park clean up at Chestnut Hill park. The Climate Executive Order Addressing Climate Change and Sustainability, makes specific reference to "require the prioritization of green infrastructure projects and resiliency initiatives, with a focus on critical infrastructure and underserved neighborhoods. Projects may include enhancing sea walls, building bioswales, planting trees, upgrading stormwater infrastructure, and other efforts to prepare for adverse impacts of climate change, including sea level rise and extreme weather events". During the reporting period, the City also hired Danielle Petretta, for the position of Environmental Sustainability Coordinator. The city also created the Mayors Climate Council, to advise and recommend actions for the City's First Climate Action Plan. This effort was initiated during the 22/23 reporting year, and it is anticipated that various coordination and information sharing efforts will be completed in future reporting years. The 2023-2024 Annual Report will elaborate on these actions.

- The City's Recycling and Sanitation Department conducted one Household Hazardous Waste Collection event where 210 households and 311 half-households participated on Saturday, July 16, 2022. The number of participants and the volume of materials collected on 7/16/22 was significantly smaller than the 2021-22 period. It appears that many residents had cleaned and disposed of these items due to the Covid pandemic.

- On April 22, 2023, the Stamford Police Department hosted a National Rx Drug Take-Back event. The event collected a record 699 pounds of unused and unwanted medicines from residents. As part of the event, the police department provided services for residents to drop off their unused or expired medications. The event was publicized through informative links for the event posted on the City's website, under Public Safety, Health and Welfare Administration. The event was staffed from 10am to 2pm at a drive through setup at police headquarters. Clearly some portion of this material could have been flushed by residents, and ultimately make its way to the WPCA treatment plant, which does not have the ability to remove certain chemicals from treated waste, prior to discharging to Long Island Sound.

- City staff continued to engage with Downtown Special Services District (DSSD) regarding the condition of their dumpster storage and grease areas. The area was professionally cleaned in July 2022. An emergency spill kit was purchased and provided to DSSD by the City on 4/21/2023. A meeting was held 7/7/2022 to review and discuss expectations and enforcement with the restaurants.

4.3.2 Industrial Dischargers

During the 2015 NDPES Permit compliance audit, the EPA indicated that the City is required to educate owners and operators of commercial, industrial, and institutional facilities as to their responsibility to control pollutants in stormwater discharges from their properties into the City's MS4.

The City's Stormwater Management Department has obtained a CTDEEP list of stormwater discharge General Permit sites for commercial or industrial activity and has prepare informational outreach materials to target these businesses. During the reporting period, the City continues to work directly with permittees on housekeeping and stormwater BMP measures, on their respective site.

4.3.3 Source Controls and Pollution Prevention

4.3.3.1 Motor Oil Collection

The City collects used motor oil and cooking oil at the Katrina Mygatt Recycling Center so that residents will have a place to properly dispose of these materials and to limit the potential for them to be improperly disposed and adversely affect stormwater quality. During the Reporting Period,

approximately 4,168-gallons of used motor oil and 2,810-gallons of used cooking oil were collected. The City intends to continue its used motor oil collection activities.

4.3.3.2 Household Hazardous Waste (HHW) and Electronic Waste Collection Programs

The City holds at least one HHW collection day within the City limits each year so that residents will have a place to properly dispose of these materials and to limit the potential for them to be improperly disposed of and potentially affecting stormwater quality. The City hosted an HHW collection day on July 16, 2022, at the Rippowan Middle School on High Ridge Road. During this Reporting Period 210 households and 311 half-households participated. In addition, Stamford residents can utilize HHW collection days in Darien, Greenwich, New Canaan, Norwalk, Westport, Weston, or Wilton approximately seven other days per year (throughout the spring and fall). The City intends to continue its involvement in these collection events.

The City collects used consumer electronics at the Katrina Mygatt Recycling Center during normal operating hours. Acceptable materials include computers, monitors, televisions, VCRs, DVDs, cell phones, copiers, fax machines, printers, radios, stereos, and small electronics. In addition, inks and toners, rechargeable batteries, lithium-ion batteries, vehicle batteries, compact fluorescent light bulbs, and linear lamps are also accepted at the Recycling Center. During the Reporting Period, approximately 4.97 tons of universal wastes and 113.7 tons of consumer electronics were collected. The City intends to continue its waste electronics collection activities.

4.3.3.3 Spills and Leak

In June 2016, a city-wide Spill Prevention and Response Plan (SPRP) was completed to prevent, contain, and abate spills of oils, petroleum products, and other potentially hazardous materials to minimize stormwater impacts and protect surface waters.

During the reporting period, SMD responded to numerous spills on the City's roadways and coordinated with first responders (Police, Fire, DEEP) to limit impacts to the City's MS4. A list of recent spills during the Reporting Period is presented in *Appendix D*. In September 2023, Stamford's fire chief retired. Requests for the fire department spill list have been sent too the interim chief, however, no information from SFD for the 2022-2023 period is available at this time.

For additional information on training for spill prevention and response see *Section 4.3.5.1*.

4.3.3.4 Pesticide, Herbicide and Fertilizer Use Limitations

The City is required to limit the use of pesticides, herbicides, and fertilizers (PHF) in City-owned or operated areas. The City has developed the Best Management Practices (BMPs), found in *Appendix G* of the SMP, for PHF application in city-owned or operated areas. Further development of standard

operating procedures (SOPs) for the use of PHFs is ongoing. It is anticipated that they will be modeled based on the CTDEEP Integrated Pest Management (IPM) Plans. The City intends to make progress on the PHF SOPs during the 2023–24 Reporting Period.

Fertilizers and herbicides are used on the municipal athletic fields, as described in the SMP. Every year, in April, Dimension (18-0-40) is applied to the fields and contains both fertilizer and herbicides. In May, ProPendi (13-0-4) is applied to the fields and contains both herbicides and fertilizer. In September, just fertilizer (25-0-5) is applied to the fields. The City applied a total of 1,530 pounds of nitrogen to the ball parks during the 2022-2023 Reporting Period. See *Appendix E* for a table of the total nitrogen used at the City-owned ball parks.

As required by the NPDES Permit, the City is in the process of establishing reduction goals, including consideration of alternatives, for PHFs being used at City-owned or operated areas, specifically at the municipal athletic fields.

No PHFs are used on city park green spaces.

The Mill River Park/Mill River Collaborative completely avoids the use of synthetic fertilizers. They employ a “feed the soil ecology” program where the soil is infused with sixteen or more species of bacteria and fed with a fish emulsion/kelp/yucca blend as a substitute for traditional fertilizers. Additionally, the Mill River Collaborative maintains its lawns at four inches to build deeper, more drought tolerant root systems. All grass clippings are returned to the lawns, and they use organic products, such as soybean meal, to add nitrogen to the soil. The Mill River Collaborative uses minimal herbicides on invasive plant species per DEEP guidelines. They have found that as they continue this program, they require less herbicide use each year.

With respect to the City-owned golf courses, the NPDES Permit requires that the City implement practices which achieve a ten percent (10%) reduction in total nitrogen by June 3, 2018. The reduction will be determined by the average annual usage, by weight, of the three years preceding the current NPDES Permit. The current SMP discusses these reductions, see Appendix E for nitrogen used at golf courses for the 2022-2023 periods.

During the Reporting Period, the Sterling Farms Golf Course used a total of 200 pounds of granular nitrogen and the E. Gaynor Brennan Municipal Golf Course used a total of 1,489 pounds of nitrogen. See *Appendix E* for a table of the total nitrogen used at the City-owned golf courses.

The Pollution Prevention Team will work with the golf course staff to help reduce the total amount of nitrogen used at these facilities. It is the City’s intention to establish goals for reducing the amount of PHFs used at all city-owned or operated areas.

4.3.3.5 Salt Storage and Usage

The City stockpiles road salt at the Highway Department (90 Magee Avenue), the Town Yard (106 Haig Avenue), and the Scofieldtown Transfer Station (612 Scofieldtown Road). At each facility, salt is stored on an impervious pad and is covered by a roof in accordance with the requirements of the DEEP's General Permit for the Discharge of Stormwater Associated with Industrial Activities.

The City used approximately 945 tons of salt during 5 weather events for a combined total of 11.5 inches of snow during the winter of 2022-23. Salt usage quantities will continue to be tracked and the City's goal is to reduce the amount of salt utilized on its roadways by increasing efficiencies and investigating alternate methods. However, salt usage will continue to vary based on storm frequency and intensity The winter of 2022-2023 was historically mild. Limited efforts related in special hazard ice control were necessary during the winter of 2022-23. In an effort to reduce salt usage, the stormwater management department has worked to correct the factor and field conditions, which contribute to water and ice on city roadways. Much progress has been made eliminating conditions where water flows onto the roadways.

Throughout the reporting year, the SMD worked with the Vehicle Maintenance Department to develop a pilot program to demo new zero-velocity salt spreaders for selected trucks; however, the V.M. Department was unable to procure the equipment due to supply shortages. The City intends to move forward with this as the equipment becomes available. Additional information to be provided in the future reporting years.

The City's brine system was operational during the 2022-2023 reporting period with the 5,000-gallon brine tank located at the Town Yard Facility (105 Haig Ave.). However, the brine system was not put into use due to the unseasonably warm winter. See *Section 4.3.5.6,* Snow Removal, for additional discussion on salt usage.

4.3.4 Land Disturbance and Development

Construction site runoff and post-construction site runoff should be reduced so that water bodies are not receiving additional pollutants or sediment. Sediment causes water bodies to become physically and biologically altered. Decreases in habitat quality can result from significant amounts of sediment covering these habitat areas.

Under the terms of the NPDES Permit, the City of Stamford is required to implement and enforce a program to address construction and post-construction stormwater discharges from land disturbing activities and after site stabilization has been achieved. This program is based on the Connecticut Guidelines for Soil Erosion and Sediment Control (latest edition) and the Connecticut Stormwater Quality Manual (as amended). The City currently is maintaining Class 7 standing in the Community Rating System of the National Flood Insurance Program.

The City has a well-developed process for ensuring that applicants for building permits have received all appropriate City approvals prior to issuance of a building permit. As part of this review and approval process, the Engineering Department reviews stormwater and drainage for proposed developments and site plan revisions.

The NPDES Permit requires the City of Stamford to develop and enforce a program to control stormwater discharges from development and redevelopment activities with one-half acre (21,780 sf) or more of soil disturbance. The one-half acre threshold applies both individually and collectively as part of a larger common plan. Modifications to the Zoning Regulations include provisions to encourage low impact development (LID) practices to maximize infiltration and minimize stormwater runoff. The regulations also limit barriers to LID design and construction.

The Engineering Bureau is also tracking the DCIA on development projects to ensure that treatment/retention volume standards are met. DCIA trading worksheets and plan graphics are available upon request. Refer to the summary table in *Appendix L*.

The NPDES Permit requires the City to conduct site-plan review and pre-construction review meetings that incorporate consideration of stormwater control or management practices to prevent or minimize impacts to water quality. The City currently conducts such meetings internally as part of staff review of many projects. Meetings with developers occur when the project has significant potential for environmental impact.

As part of the application review process, the City is now providing applicants with information on the DEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. Applicants are being informed about stormwater management issues at the time Environmental Planning Board (EPB) and Planning & Zoning signoffs are being obtained. Applicants have been made aware of their responsibility to obtain DEEP Construction Stormwater General Permits.

The City's building permit process is facilitated electronically through a software package called "View Permit". The plan is to attach standard text to all applications notifying the applicants of their responsibility, if applicable, to obtain DEEP permits. During the 2022-2023 fiscal year about 1,700 building permits applications were reviewed by the EPB as well as 123 formal applications for compliance.

The NPDES Permit also requires site inspection and enforcement to assess the adequacy of the installation, maintenance, operation, and repair of construction and post-construction control measures. The City's staff performs site visits when the project is near a wetland or other water body. Current staffing levels limit the opportunities for site inspections to only those projects with the greatest potential for impact to stormwater quality. Site visits frequently occur prior to the issuance of a Certificate of Occupancy. The SMP makes referrals as necessary to EPB where ESC's and construction site stabilization issues are observed.

4.3.4.1 Impervious Cover

The NPDES Permit calls for completion of DCIA (directly connected impervious area) mapping associated with each MS4 outfall within four years. The City continued the process of estimating the DCIA throughout the City. Sub-meter aerial photogrammetry of the City is being used in determining the DCIA. The initial estimate will be based on the total area of impervious cover, including roadways, driveways, sidewalks, parking lots, and building footprints, that discharge to the MS4. Allocating the amount of the DCIA to each MS4 outfall and evaluating each drainage area to determine if the roof tops are connected to the DCIA will be performed in the next couple of years. The City has determined that the existing GIS Department does not have staffing resources to conduct this work. Therefore, the SMD has contracted various engineering firms to assist in conducting this work. Estimates will be revised in the future as development, re-development, or retrofit projects or new information effectively add or remove DCIA to or from the MS4.

In April 2022, the Citty of Stamford Stormwater Management Department coordinated the submission of a federal congressional earmark request for $1,000,000 to locate, design, and construct bioswales in the downtown area of the city. The request was successful, and the funding award was announced in February 2023. Additional details regarding the program will be detailed in future annual reports, as the City works toward meeting DCIA reduction goals.

4.3.5 Infrastructure Operations and Maintenance

Pollution prevention and good housekeeping are critical minimum control measures because they concentrate on municipal operations including the maintenance of other control measures. These activities can make an immediate difference with local water body pollutant levels. Street sweeping and other maintenance activities reduce the amount of sediment, salt and pollutants entering the drainage system thereby minimizing pollutant loads to local water bodies.

The Elsa and Ida events in 2021 caused a significant amount of flooding. As a result of this, the administration contacted the SMD, who suggested the City conduct a city-wide drainage assessment. The SMD suggested funding over $500,000 to cover engineering services by a third-party engineering firm. The City Engineering Bureau will manage this work and near the end of the 2021-2022 reporting period, a request for proposals was issued.

4.3.5.1 Employee Training

Employee training is essential for maintaining and increasing the awareness of water quality related issues in the management of any MS4. Training also enables facility staff to have an improved understanding of the stormwater system and how to minimize impacts to the MS4.

All employees working at City-owned facilities participate in annual training to meet the requirements of the DEEP's General Permit for the Discharge of Stormwater Associated with Industrial Activity. This annual training includes:

- Overview of the NPDES MS4 Permit
- Review of the goals and objectives of the SMP
- Review of facility Stormwater Pollution Prevention Plan
- Review of good housekeeping
- Identifying and reporting illicit discharges
- Review of spill prevention and response procedures

Training was conducted on June 9, 2023 for Universal Waste Management, Spill Prevention Control and Countermeasures Plan, and Stormwater Pollution Prevention Plan training.

The City is dedicated to ensuring that its employees continue to gain the necessary knowledge needed for understanding and implementing the SMP to increase the quality of the stormwater in the City's MS4. The City will continue to update and implement its training programs for all employees working at City-owned facilities. A copy of the sign-in sheets for each of the training events are provided in *Appendix G*.

4.3.5.2 Infrastructure Repair and Rehabilitation

It is important that the City make timely repairs to the infrastructure of its MS4 to help reduce the discharge of pollutants from the MS4 to the receiving waters. The City is dedicated to giving priority to those projects discharging pollutants to impaired waters or that have other concerns related to the mapping and IDDE process. A schedule for implementation of repairs is developed and updated once the need for the repairs is established.

The SWCPA performs routine maintenance and any necessary repairs on the four (4) stormwater pump stations on an annual basis. Funding for WPCA Maintenance is allocated to the Stormwater Management Operating Budget and back charged by the WPCA, annually.

During the Reporting Period, the City received a total of approximately 36.77-inches of liquid equivalent water (LEW). LEW is a measure of liquid precipitation, which has fallen to the ground in any precipitation type (rain, sleet, hail, snow, etc.). This data was retrieved from the National Climate Data Center (NCDC) for the Westchester County Airport weather station in New York located immediately west of the City. The precipitation amount received is 12.58-inches less than the 1981-2010 climatological average of 49.35-inches for the Westchester Airport. This information is important due to the impact heavy rainfall has on MS4 Permit compliance regarding maintaining City stormwater infrastructure and responding to emergencies that arise after heavy precipitation events.

As of January 1, 2016, the Road Maintenance Department/Stormwater Management Department is responsible for tracking the catch basins and stormwater manholes that require repairs. Previous lists

of required repairs were maintained by the Engineering Department. Drainage structures that require repair will be prioritized and assigned for repair by private contractors, accordingly.

The City hired Grasso Companies to conduct infrastructure maintenance and repairs on the MS4 system during this Reporting Period. This work was part of the city-wide street patch and resurfacing Capital Work. In total, 508 linear feet of piping was replaced, 164 bell traps were installed, 74 manhole covers and frames were reset, 849 catch basins rebuilt, and 64 manholes rebuilt/ reconstructed. See *Appendix H* for a detail of this work.

The City hired Arnow Construction to conduct drainage work on the MS4 system during a portion of this Reporting Period. The Arrow Construction bid/contract expired in October 2022. Subsequently Cavaliere industries was awarded the bid for this work. The Cavaliere bid continued through the end of the 2023 reporting period. In total, 5 pipes were repaired, 79 repairs completed from this list, 46 catch basins were repaired, and 28 manholes were repaired. See *Section 4.3.5.7.* for additional details on catch basin cleaning. A list of 2022-2023 catch basin/manhole repairs is presented in *Appendix H*.

The City also understands that the refinement of the standard operating procedures and good housekeeping practices for the management of the MS4 is essential to improving stormwater quality.

In 2014, the City purchased a camera truck, which is used for implementing the IDDE program and for inspecting catch basins, manholes and stormwater piping. The truck was deployed in 2015 after employees completed the necessary one-week training on the truck and equipment. Employees were re-certified in 2018. The City is working on arranging new training session for all SMD employees at this time. Initially, the camera truck is being used to inspect areas identified as needing maintenance within the MS4 and has proved to be an asset for mapping/GIS work required by the permit.

During the 2022-2023 reporting period, the City hired a private contractor, OneVac, LLC, to clean catch basins, high pressure jet storm piping, and conduct CCTV inspections on all stormwater infrastructure for roads to be paved during the upcoming paving season. It is the City's intent to ensure that stormwater infrastructure is in good condition, and repaired, if necessary, to protect the investment in paving. The total linear footage of piping videoed during the reporting period is estimated to be many thousands of feet, and the City maintains paper and electronic records of all piping inspected and televised, which can be made available upon request. A review of invoices for work performed by the contractor during the 2022-2023 period reveals an expenditure in excess of $40,000 from the Operating Budget to assist SMD. About $140,000 was spent for CCTV and clearing work related to the paving program. The total for this work is about $180,000 for the reporting year. The contractor also generates sketches of piping configurations, which are maintained with these records. The Stormwater Management Department communicates data generated from this important fieldwork to the GIS department in an effort to maintain the GIS data base with the latest and most current information. The contract for OneVac has been extended and will also cover the same types of work for a portion of the 2023-2024 reporting period.

The City has prioritized the areas that it inspects with the camera truck based on flooding issues, complaints about collapsing areas and complaints about illicit discharges. See *Section 4.5* for further discussion on the progress of identifying illegal connections in the IDDE program.

Catch basin inspections also include inspecting the condition of catch basin "bells." Some city catch basins have bells (metal 90-degree bends covering catch basin outlets) to control floatables. Bells are hung on pins set in the side of catch basins. The City continues to install bells on additional catch basins in parts of its MS4 where trash and floatables are a problem. During the reporting period, City staff installed bell traps in thirty-six (36) catch basins.

The city currently maintains a fleet of three (3) vacuum trucks, and during the reporting year, submitted a request to purchase a fourth (4) vacuum truck using American Rescue Plan (ARP) funding. The new vacuum truck was being built during the 2023-23 reporting year and delivered in July of 2023. The cost of the new truck was $575,000.

The Road Maintenance Division has acquired funding in an Environmental Compliance Capital account to make improvements to MS4 piping when property owners cannot, or will not, make repairs in the timeframe provided in the permit.

4.3.5.2a FEMA Disaster Declaration

The City of Stamford received wide-spread flooding and damage after Hurricane Ida made landfall on 9/1/2021. The amount of stormwater produced from this incident lead the Federal Emergency Management Agency (FEMA) to declare a state of emergency for the City. The agency sent out its Disaster Survivor Assistance (DSA) team for door-to-door outreach in the area.

The DSA visited over 1,100 homes and recorded the flooding impacts residents faced from the storm. This storm produced 8.5 inches of rain in the city of Stamford, causing damage to other MS4 infrastructure and roadways, which were repaired by other departments (i.e., culvert and MH damage at Cummings Park). This was coordinated and repaired by a private contractor as directed by Parks / Facilities Dept. Also, other MS4 infrastructure was assessed and repaired by the Engineering Bureau. Farms Road was under construction at time of the storm, and Engineering Bureau worked with the utility company to rebuild and restore the roadway.

A stormwater culvert at 1260 Hope St. was damaged and needs to be entirely rebuilt. Although the work is not yet complete, it is expected to be in excess of $1M to repair. This appears as a capital budget request by Engineering Bureau. The repair and restoration work coordinated by the SMD after the IDA event was significant was detailed in *Appendix K* as submitted in the 2021-2022 annual report. The majority of these repairs were completed by the end of the 2021-2022 reporting period, coordination with FEMA continues through the 2022-2023 period.

4.3.5.3 Roadway Maintenance

Roadway maintenance activities can directly affect water quality. An important task of roadway maintenance is keeping the highway drainage system functioning. The City is dedicated to ensuring that routine road maintenance is conducted frequently and that roadside ditches are cleaned and inspected periodically to verify that flow is not being restricted.

Beginning in 2016, the Road Maintenance Department is overseeing the City's paving program. The SMD reviews and directs repair and restoration efforts on these roads. See *Appendix M* for work during this reporting period. During the reporting period, 54 roads were paved, totaling about 13 miles.

4.3.5.4 Sweeping

Properly swept streets are a key element to limiting stormwater impacts as sediment and debris can transport other pollutants into the stormwater system and because copious quantities of these materials can inhibit the proper function of MS4 components. During the reporting period, the City of Stamford Road Maintenance sweeper crew collected, hauled, and disposed of 1,440 tons of street material. That is equal to 2,980,000 pounds of road debris (i.e., sand, gravel, dirt, leaves, trash, etc.)

The city is able to document total sweeper mileage for the period at 7,830 miles swept. However, the City believes this is an incomplete total as the odometer in sweeper #252 is not functioning and is awaiting repair. Only a small amount of the actual miles swept with this are reflected in the reported total. There are 315 centerline miles of city owned and maintained roads in the City. This data indicates that on average, each curb mile was swept over 12 times during the reporting period.

Sidewalk and curbside sweeping are performed weekly in the Downtown Special Services District (DSSD), along 9.5 miles of sidewalk and curbside during this Reporting Period. This work is coordinated and paid for by the DSSD.

The NPDES Permit requires the City to implement a street sweeping program to remove snow, sediment, and debris from all city owned streets and parking lots. One goal is to compress the spring sweeping schedule between March 1st and June 30th to maximize the quantity of material collected at the end of the winter season.

The City has been implementing a "Post & Tow" policy where they will be posting sweeping dates and times and subsequently towing away any cars that are parked in the areas posted for sweeping events. This system helps the City to effectively sweep in the areas posted instead of having to sweep around parked cars, missing large areas of the road. The City understands the importance of sweeping completely to the curb line or edge of pavement.

The City used ARPA funding to purchase three (3) new Global sweepers, which were delivered and put into service in December 2022, during the City's leaf pick up program. The three new sweepers are

unit #'s 251, 252, and 253. The City retained Elgin Pelican Sweeper #150, which was purchased with grant funding in 2015. Unit #'s 151, 152, and 153 were traded in as part of the new sweeper purchase. The city currently has a total of four (4) sweepers.

4.3.5.5 Leaf Collection

In 2022, the City's leaf pickup program was substantially completed on December 22, 2022. Every street in the City is swept as a part of this program. A total of 16,333 tons of leaves were collected and hauled for composting. That is equal to 32,666,000 lbs. of leaves and is 3,971 tons more than the 2021 to 2022 period.

According to the NPDES Permit, the City shall conduct city-wide leaf pickup program annually to be completed by December 15th. The City has established a procedure that breaks the City of Stamford down into three areas (see *Appendix L* of the SMP for a map of the leaf collection areas):

- Area #1 - north of the Merritt Parkway
- Area #2 - between Merritt Parkway and I-95
- Area #3 - south of I-95

Leaf pick-up typically begins the first business day after Veterans Day in November. The exact completion date depends on weather conditions and competing demands (snow removal and road salting for staff and equipment). The first snowfall occurred on December 11th, which resulted in the City converting trucks from leaf duty to snow duty. It is important to note that the City finishes leaf pick-up even after snow fall. This process takes approximately four weeks of full-time work for all available road maintenance crews. Approximately 20-30 additional seasonal workers are hired to assist with the leaf program.

The current leaf disposal policy is that the leaves will be piled at the curb prior to pick-up and off the streets. During the Reporting period, 500 doubled sided color flyers were printed and distributed to municipal buildings throughout the city. 22,388 postcard mailers were sent to single family homes, a half-page ad was placed in the Stamford Advocate and on the City's website, flyers were placed throughout the City to remind the citizens that leaves collected were not to be placed in the roadways. The initial program was to collect bagged leaves only which the outreach campaign advertised. Information was posted to the City's website at www.stamfordct.gov/leaves. Communications Director provided updates regarding progress of the city crews as they moved through the City using the Stamford Government Center Facebook page. Additionally, door hangers were used as an enforcement mechanism for any violators of the City's ordinances. Yellow door hangers were used as NOVs for properties with leaves in the street far in advance of the program. Red door hangers were used as NOVs for properties with leaves placed in the street after the city completed leaf pick in that area.

4.3.5.6 Snow Removal

Timely snow removal and the appropriate application of de-icing materials is another key element to a successful SMP. The City follows the DEEP's *Best Management Practices (BMPs) for Disposal of Snow Accumulation from Roadways and Parking Lot*. A copy of this BMP is presented in *Appendix L* of the SMP. The purpose of the BMPs are to prevent accumulation of sand, other solids, and pollutants in the MS4 and in sensitive areas, such as streams and wetlands.

The NPDES Permit requires that the City implement and refine its SOPs, regarding its snow and ice control operations, to minimize the discharge of pollutants. Goals must be established for the optimization of chemical application rates through the use of automated equipment including zero velocity spreaders, anti-icing and pre-wetting techniques, implementation of pavement management systems and alternate chemicals.

The City is already well on its way to meeting these goals. The Highway Crew continues to perform anti-icing using liquid calcium chloride (brine) to pre-treat city streets with the highest traffic volume. Once the storm begins, patrols are sent throughout the City to monitor road conditions. Hills and intersections are spot treated to minimize chemical usage. The City tracks chemical usage; however, given the variability in the amount of snow and ice that needs to be treated each year, it is difficult to set goals for chemical optimization. As noted in *Section 4.3.3.5*, the City intends to expand its use of brine trucks for pre-treatment in the future, which will help reduce the road salt usage.

The City continues to minimize its use of de-icing materials. This goal is being pursued in part to respond to shortages of de-icing materials in recent years. Salt is generally applied only twice for each storm – once at the beginning to prevent ice from binding and once at the end of prevent re-freezing. The regulatory compliance and administrative officer have been enforcing illegal discharges of private basement sump pumps into the right-of-way, rather than simply treating these areas with removal of additional de-icing materials.

During the reporting period, the Regulatory Compliance Administrative Officer continued to work with the Vehicle Maintenance Department regarding the establishment of a pilot program to introduce automated spreader control to minimize salt application and meet permit goals.

During this Reporting Period, the City compiled a list of Special Hazard Areas which were more prone to icing conditions due to a variety of factors including: high groundwater table, improper roadway design, blocked catch basins, sump pumps from residential properties, and other factors. These areas were checked and treated by City staff whenever temperatures dropped below freezing levels.

During this Reporting Period, the West Beach parking lot was prepared from November through April with haybales, catch basin filter fabric, etc. in the event that additional snow stockpiling was necessary. This space was not utilized during this Reporting Period.

4.3.5.7 Catch Basin Cleaning

Clogged or full catch basins can lead to negative stormwater quality outcomes. Catch basin sumps provide a first line of defense in improving stormwater quality. Maintenance and cleaning activities are important to the proper operation of each catch basin.

For the 2022-2023 Reporting Period, 3,552 catch basins throughout the city were inspected and cleaned (approximately 36% of the total number of catch basins, which is 9,905 as of 1/25/2024) . Approximately 4,089-tons of materials were removed from the basins during the Reporting Period. This equates to 8,178,000 pounds of waste that was captured and processed and did not enter the City's waterways, streams, rivers, or Long Island Sound. These numbers do not include drainage structures pumped and cleaned by the City's supplementary drainage contractor (One Vac., LLC), for roads to be paved.

The City continues to maintain a catch basin inspection, cleaning, and repair program. This program helps to identify and map each MS4 catch basin and determine flow direction, inspect its condition, determine the amount of sediment in each, clean catch basins with less than 50% of their sump capacity available, gather information over time on sediment accumulation rates, and develop a routine maintenance and cleaning schedule as prescribed by the NPDES Permit.

To support this program, the City has obtained or purchased the following equipment:

- (3) Vactor vacuum trucks purchased between 2014 and 2015. Requisition submitted to purchasing for new vacuum truck from ARP funds during the reporting period. New Vacuum truck delivered to SMD on 7/19/2023.
- (1) Elgin Pelican sweeper and three (3) new global M3 sweepers purchased with ARP funds and placed in service December 2023.
- Rapid View CCTV truck w/ Pipe Logix software – purchased in 2015. CCTV truck has three cameras and a manhole/ stick camera.
- (2) one-ton dump trucks with Stetco hydraulic cranes – purchased in 2016
- Caterpillar mini-excavator – purchased in 2014 and used for culvert cleaning work.
- Caterpillar loader / backhoe – purchased around 2010 and used for culvert cleaning work.
- (~10) One-ton dump trucks used for typical highway department work.
- (~25) Large dump trucks – used as necessary for haul away of sediment per culvert cleaning work.
- Utility truck with a crane and lift gate to assist with catch basin replacement, manhole replacement, stormwater drain medallion installation, curb back bolts, water barrier installation, and spill response.

As of 7/1/2022, the SMD had nine (9) heavy equipment operators to support the program for stormwater management and compliance activities. See *Appendix N* for reference.

Additionally, the City continues to use a software tracking program and iPads to track catch basin inspections, cleaning, and repair progress. The MS4 Front software was brought on-line in October 2014 and has proven to be a valuable assessment tool.

4.3.5.8 Culvert Cleaning

During the Reporting Period, the City performed maintenance activities at 33 culverts over approximately 28 days. Various maintenance activities were conducted at the culverts including, but not limited to: stabilizing inlet and outlet areas, cleaning out culvert, removing debris and vegetation from around the culvert, CCTV inspections, excavating culvert discharge area, and wetlands. During the Reporting Period, over 119 cubic yards of sediment, brush, and debris was removed from the culverts and drainage channels. A list of 2022-23 culverts cleaned is attached in *Appendix I*.

4.3.5.9 Detention and Retention Ponds

Detention and retention ponds that become overloaded with sediment deposition can negatively impact stormwater quality in the City's MS4. MS4 Ponds are required to be cleaned out when solids levels reach 50% of design capacity.

A list of detention and retention basins was developed, and the City is maintaining an inspection schedule. To date, 77 basins were identified, and the City continues its efforts to inspect the basins identified. The detention and retention basins were added to the GIS mapping. The City is considering utilizing outside contractors to assist with inspections and any follow-up work that may be needed.

4.3.5.10 Interconnected MS4s

Connections of other MS4s to the City's MS4 can affect the performance of the City's stormwater system and the quality of its discharges. There are no known interagency agreements between any other municipalities, institutions, or agencies and the City of Stamford. However, it appears that the following municipalities and agencies may be contributing stormwater to the City of Stamford's MS4:

- State of Connecticut (CTDOT)
- Town of New Canaan, CT
- Town of Darien, CT
- Town of Greenwich, CT
- Town of Pound Ridge, NY

The Connecticut Department of Transportation (CTDOT) operates several roadways within the City, including Interstate 95; the Merritt Parkway (Route 15); Long Ridge Road (Route 137); High Ridge Road (Route 104); and Route 1. The City's MS4 flows into CTDOT's MS4 in some locations and CTDOT's MS4 flows into the City's MS4 at other locations. The City communicates with CTDOT, as needed, primarily when the City receives complaints of clogged CTDOT storm drains.

The City has mapped out most of the interconnected MS4 areas during the development of the new SMP. A map of the interconnected MS4 areas is provided in *Appendix C* of the Spill Prevention Response Plan. Currently, there are no interagency agreements established. The City of Stamford will correspond with neighboring municipalities to refer maintenance items on an as-needed basis.

4.3.5.11 Referrals

During the Reporting Period, the Stormwater Management Department provided referrals to other City departments and organizations for maintenance and repairs. These referrals are outlined below:

<u>City of Stamford Highway Department</u>

- Over 30 referrals were provided to the City's Highway Department for items including potholes, utility work, contractor trenches, aprons to control stormwater flow, curbing to direct flow and limit erosion, sidewalk trip hazards and sinkholes in the roadway.

<u>City of Stamford Engineering Bureau</u>

- Approximately 10 referrals were provided and coordinated with the City's Engineering Bureau for items including: falling bridge with sink hole and road plate, management and oversight of utility contractors as related to street opening permits issued by the Engineering Bureau, poor trench compaction or failing subbase prior to pavement activities, compromised or failing corrugated metal culvert piping, water and icing over road with no piping installed with the need for easements and piping and drainage design, installation of new catch basins and curbing, sink holes related to storm pipe issues, roadway ponding after storms, requesting capital projects to design and install and control roadway damage, failing headwall and eroding roadway at storm culvert. Management of the Engineering Bureau work to maintain proper ESC's and site controls (roadway sweeping and tracking pads).
- The Engineering Bureau worked on design and construction of the following areas during the reporting period: Vicinity of 1260 Hope St., Bird Song lane, Briarwood lane, Leroy Place, and Judy Lane, 376 Westhill Road, 32 Mead Street, and 126 New England Drive.

<u>Sweeping Referrals Provided to Various Entities</u>

- During the reporting period, daily direction was provided to Road Maintenance/Highway Department regarding dirt/rock/gravel/debris spilled on roadway, sweeping targeted areas (e.g. roadside swale excavation), General Permit compliance purposes, as related to milling and road paving, leaves, tree debris, heavy trash areas.
- Conducted at least nineteen (19) post and tow operations.
- Conducted targeted sweeping on dozens of streets where Highway Department Supervisors observed trash, debris, sand, gravel, etc.

<u>Stormwater Referrals Provided to the Environmental Planning Board (EPB)</u>

- 2 referrals were provided from the EPB for items regarding: unpermitted construction work, placement of fill, missing or failing ESC's, and citizen's correspondence.

- 9 referrals were provided to the EPB for items regarding grading and filling with no erosion controls, placement of fill, unpermitted work in wetland areas, installation of drainage piping, tree removals proximate to wetlands, sweeping and good housekeeping, and installation of ESCs.

Referrals Provided to the CTDOT

- 8 referrals were provided to CTDOT for items regarding: performance of CTDOT MS4 drainage infrastructure where interconnected to the City's MS4, citizen requests to pump and clean catch basins, potholes or failing pavement at CTDOT storm manholes, water on road (State Highway Long Ridge Road), open or damaged CTDOT manhole covers, damaged CTDOT catch basins and CTDOT piping in need of maintenance and cleaning.

Curbing Referrals

The Road maintenance department handles curbing requests and estimates at least 200 were received during the 2020-21 Reporting Period. The average curbing request is about 40 linear feet based on the average repair length. The city estimates about 8,000 linear feet of asphalt curbing repair during the reporting period.

Other Referrals

- Referrals to Aquarion Water Co.: five (5) total referrals regarding leaking piping
- Referrals made to Eversource: six (6) referrals made regarding utility trenches which were failing, electrical manholes, vaults, sinkholes, and other structures in need of repair.
- Referrals made to WPCA: 26 referrals made regarding issues with sanitary infrastructure (damage or paved over manholes), sanitary lateral repair work, pavement sinking, plan review item, and sinkholes.
- Referrals from WPCA: 8 referrals were received regarding wastewater treatment plant permit exceedances (4 exceedances during monitoring period), reporting issues with stormwater infrastructure (damaged manholes and catch basins).
- Referrals made to Parks Department: 8 referrals made regarding requests to prune trees, shrubs, vegetation to gain access to catch basins, requests to cut or remove trees for culvert cleaning and swale construction, requests to remove logs and debris at bridges stuck on the upstream side, requests to prune or remove low hanging trees.

4.4 Monitoring Program

In addition to the screening and monitoring activities associated with the IDDE Program (see *Section 4.5*), the NPDES Permit calls for stormwater outfall monitoring throughout the life of the permit.

As prescribed in the modified NPDES Permit, the City is no longer required to conduct in-stream samples.

Fairfield County utilizes Harbor Watch to address pollution threats to Long Island Sound. In 2022 the monitoring team studied over 459 field sites and processed over 2,500 water samples for bacteria

concentration. Testing was conducted approximately twice per month (May – September) on each river for a total of 10 sampling days per watercourse. E. col (enterococci) and coliform contaminates are tested for and recorded by Harbor Watch. Harbor Watch also produced a Fairfield County River Report which provided valuable information about the water quality data for the Rippowam and Norton Rivers during both wet and dry sampling events which occurred during the Spring/Summer/Fall of 2022. Summary tables of the analytical data for these screening and sampling efforts are presented in *Appendix O*.

4.4.1 Dry Weather Outfall Screening for Illicit Discharges

Dry weather outfall screening was conducted during this period as part of the IDDE follow up. Summary tables of the analytical data for the dry weather outfall monitoring are presented in *Appendix J*.

4.4.2 Wet Weather Outfall Monitoring

To date, 108 of the 191 known wet weather outfalls were sampled.

See *Appendix P* for latest wet weather sampling results that was conducted on August 25, 2023 and August 18, 2023.

4.5 Illicit Discharge Detection and Elimination (IDDE) Program

IDDE will lessen the number of pollutants discharging to local water bodies. Some people unknowingly dump pollutants into the storm drain or have illegal connections to the drainage system. The permit requires inspection of outfalls during dry weather conditions to determine whether illicit discharges are suspected and then to conduct extensive evaluation and follow-up to eliminate the illicit discharges that are found.

Additionally, City personnel continue to follow-up on known or suspected illicit discharges as well as any complaints associated with potential illicit discharges through calls to Road Maintenance Division or reported via the City's stormwater management website.

4.5.1 Instream Sampling for Illicit Discharges

Sampling in the Norton and Rippowam Rivers is conducted. See *Appendix K* for sampling results.

4.5.2 Illicit Discharge Investigations

Additionally, during the Reporting Period, the City continued to utilize Harbor Watch / Earthplace to assist efforts related to illicit discharge detection and source identification. Harbor Watch was directed to go into the field to gather and analyze samples during wet and dry weather conditions, in an effort

to quickly ascertain and isolate suspected illicit discharges, in the interest of public health, safety, and welfare. When there is a discharge of suspected contamination or pollutants in stormwater, efforts to inspect and identify are very time sensitive. In the interest of promptness, these efforts are sometimes directed regardless of precipitation events. In some cases, multiple samples are collected at the same location over an extended time period in an effort to build a more comprehensive data set and gain a better understanding of how precipitation events can impact a discharge. A good example of this occurred in early 2019 when a failing septic field was found to be leaking onto the roadway and ultimately into down gradient catch basins.

Through the City's efforts using the camera truck completed during the Reporting Period, they have identified multiple areas of concern that will receive priority for further IDDE investigations. IDDE investigations will be focused in the same areas as previously identified during the 2019-20 Reporting Period. Results are listed below:

- Outfalls DIS-70 and DIS-71 confirmed to have evidence of sanitary contamination as per EPA Administrative Order from 2015. On 5/13/21, cast in place concrete stormwater culvert, vicinity of 1900 Summer St. was inspected by contractor as directed by SMD. Contractor indicated open hole at top of concrete culvert and flow coming into top of the chamber. Sample collected and confirmed sanitary discharge infiltrating into the chamber. Subsequent dye testing in existing 18"tile WPCA sanitary main, which is located above the cast in place concrete stormwater culvert, confirmed the leak from sanitary to storm occurring at this location. Estimated sanitary flow was 1-2 GPM. On 3/10/2022, contractor working on behalf of WPCA lined this leaking segment of 18" tile piping. Subsequent confined space entry confirmed no leaks into ceiling after sanitary pipe successfully lined. Significant funding and construction efforts were allocated to repairing this issue during the 2021-2022 reporting period. As a follow up to this item from previous annual reports, a contractor was assigned to enter the chamber 8/9/22 - 8/10/22. The contractor observed no evidence of leakage from the roof of the culvert. Contractor also used chain saw and manpower to remove vegetative obstruction in culvert.

- #77/#79 Cove Rd. - Grass Construction was mobilized to the area to conduct drainage work in advance of paving. Storm MH at #108 Cove Rd. was paved over for many years. Grasso Construction was directed by SMD to raise this MH to finish pavement grade. Upon inspection of MH by SMD during dry weather, a sanitary odor and small amount of flow was observed. Subsequent dye testing confirmed leaking sanitary lateral flowing into existing catch basin and also into existing RCP piping which connects the catch basins in the ROW at #69 and #77/79 Cove Rd. Harborwatch tested 5/18/23 and confirmed E.coli and Enterococcus both >241,960 MPN/100ml. Ammonia was at 6.0 and Surfactants at 3.0. Referred to WPCA, who replaced both sanitary laterals w/ new green PVC piping. SMD then instructed Grasso construction to replace existing CB's at #69 and #77 Cove Rd. with new, water tight, sealed, catch basins. Additionally the piping between CB's at #69 and #77 was replaced with new SDR-35 storm piping with gasketed joints. Post verification screening conducted 7/25/2023 and data suggested that sewage issue has been resolved. Additional samples collected at stormwater outfall DIS-917 and adjacent MH's 5715 and MH 5714. Samples collected in vicinity of discharge location (Cummings Pump Station) showed 0.0 Ammonia, but levels of E.coli and Enterococci which exceeded CT DEEP criteria for single

sample maximums. Additional IDDE efforts in vicinity of Cummings Park may be necessary into the 23-24 reporting year.

- As part of regular catch basin cleaning operations, on 7/6/2021, City of Stamford Stormwater Management Department pumped and cleaned a catch basin located at #63/#83 Wardwell St. This is part of the alternate side parking program, and is accessible for cleaning only one day per month. After cleaning, City staff reported a rush of flow coming into the bottom of the catch basin, and the flow had a strong sanitary odor. Reported that the catch basin did not appear to have a concrete bottom or base. This information was reported to the Regulatory Compliance and Administrative Officer and referred to WPCA. WPCA inspected 7/8/21 and reported all flows normal and no service requests related to backups in the area. On 8/3/2021, the process was repeated where vacuum truck pumped and removed contents from the catch basin, and this time Harborwatch/Earthplace was standing by to collect a grab sample of the inflow to the catch basin. Sample showed >241,960 MPN/100mL for total coliform and 104,624 MPN/100mL for E.coli. Ammonia was .5 ppm. Assumed the inflow to be in the range of 1-2 GPM, and likely could be greater during storm events which could push more flow into the catch basin. This data was referred to WPCA for assessment and field review on 12/13/21. WPCA indicated the sanitary sewer piping in this area was lined on 8/28/20. The Stormwater Management Department then assigned this catch basin to a contractor to be demolished and replaced with new precast, watertight sump. On 6/21/22 and 6/22/22 contractor completed repairs. On 10/4/2022, Harborwatch/Earthplace returned to the catch basin for post-verification screening work. The catch basin sump was vacuumed and cleaned. Harborwatch reported no inflow to the sump and no sample collected. This area is hydraulically connected and discharges to Outfall DIS-8, which is located at the east branch of Stamford Harbor. No additional work by SMD is required.

- Vicinity of Robin Hood Rd. - DIS-161. CCTV work revealed existence of a suspicious cast iron pipe tie in to existing RCP storm main pipe. Inspected during dry weather. All piping and MH's dry. No evidence of illicit discharge observed. No further action by SMD required.

- 70 Halliwell Dr. - WPCA investigated report of sewage odors in area. Inspection by WPCA revealed cracked and leaking clay sanitary lateral pipe, which was leaking into adjacent stream. Lateral piping connection to sanitary MH replaced by WPCA. No further action by SMD required.

- DIS-50 adjacent to East Ave. in Cummings Park North. Continued IDDE track down efforts. Samples collected 9/19/2022 and also on 3/29/2023. No actionable information provided from these efforts. Additional efforts into the 23-24 reporting year may be necessary. Suggest collecting information and samples further up the catchment area.

- Vicinity of Glen Terrace. In stream monitoring of Noroton River, this area, by Harborwatch indicted possible source. IDDE track down and sampling efforts conducted 1/18/23. CCTV inspection of storm piping this area on 3/16/23 did not reveal any direct piping which could have been a possible source. CCTV work revealed animal waste located on interior bench structures within manholes. No further action by SMD is required.

- Vicinity of Emery Drive East at Halliwell Ave. CCTV work revealed pipe not shown on available plans. Samples collected. Flow determined to be groundwater. No further action by SMD required.

4.5.3 Illegal Connections

As a result of the IDDE program the City has identified multiple areas of concern, which will receive further investigation. The City continues to track, identify, and eliminate illegal connections.

4.6 Legal Authority

In 2015, the Board of Representatives approved Section 201 (Regulation of MS4), to the City code of ordinances as related to the NPDES Permit. The legal authorities established the following:

- The authority to administer the stormwater management program and all elements of the SMP.
- The authority to control the contribution of pollutants to the MS4 by permittees registered under the DEEP's General Permit for the Discharge of Stormwater Associated with Industrial Activity; by other commercial, industrial, municipal, institutional, or other facilities; and from any site that may affect water quality to the MS4.
- The authority to establish ordinances, bylaws, regulations, or other mechanisms to require developers and construction site operators to maintain consistency with the Guidelines for Soil Erosion and Sedimentation Control, the Connecticut Stormwater Quality Manual, and all DEEP -stormwater discharge permits issued with the City of Stamford.
- The authority to identify existing regulations that may represent barriers to low impact development (LID) practices to minimize the quantity of impervious cover.
- The authority to perform inspections, surveillance, and monitoring related to the MS4.
- The authority to establish ordinances, bylaws, regulations, or other mechanisms to ensure a developer's or construction site operator's proposed use of LID practices by right or exception.
- The authority to revise regulations to eliminate or reduce potential barriers to LID.
- The authority to perform adequate inspection and maintenance activities to optimize the performance and pollutant removal efficiency of privately-owned retention or detention ponds that discharge to or receive discharge from the City's MS4.
- The authority to control through interagency or inter-jurisdictional agreement, the contribution of pollutants between the City's MS4 and MS4 owned or operated by others.
- The authority to prohibit by statute, ordinance, rules and regulations, permit, easement, contract, or any other means, illicit discharges to its MS4; to require the removal of these discharges; and to assess fines, penalties or cost recoupment for violations.
- The authority to control by statute, ordinance, rules and regulations, permit, easement, contract, or any other means, the discharge of spills into its MS4; to prohibit the dumping and disposal of materials into its MS4; and to assess fines, penalties or cost recoupment for violations.

The schedule for establishment of these legal authorities is documented in the NPDES Permit. On March 20, 2015, a final MS4 Ordinance, Ordinance 1153, adding Chapter 201 to the City Charter,

became effective. Section 15 of the Zoning Regulations became effective June 2, 2020, and the City's first ever Drainage Manual became effective 6/10/20. The SMP will be updated accordingly to reflect the newly established authorities.

Several written and verbal warnings were issued during this Reporting Period as part of the implementation of the City's new stormwater ordinance. The warnings issued are listed below:

4.6.1 Written Warnings

Written Warnings Issued: 8
Violation: Discharge of water to roadway, contributing pollutants to MS4 system, obstructing stormwater discharge pipe in Right of Way.

No doorhangers placed during the 2022-2023 reporting period.

4.6.2 Verbal Warnings

Verbal Warnings Issued: 1
Notes: Verbal warnings were issued for items including:

- Sprinkler flushing water to road.

4.6.2 Written Notifications

Written Notifications Issued: 3

Notes: Issued for anticipated work to occur in city park to abate EPB/wetland violation related to a stipulated judgement. Work was not performed during the reporting year due to scheduling, weather, and manpower conflicts.

5.0 SUMMARY OF PROPOSED SMP MODIFICATIONS

The SMP was updated and submitted to the DEEP on September 2, 2014. Revisions to the SMP are substantially complete and will be submitted to CTDEEP during the 2023-2024 Reporting Period.

On August 14, 2017, a permit modification was issued for the City's NPDES Permit. During the 2017-18 Reporting Period, the City reviewed the permit modification for any new requirements and is in the process of updating the SMP accordingly. The new modified permit renewal is pending approval from CTDEEP.

6.0 PROGRAM RESOURCES ANALYSIS

6.1 Fiscal Analysis

During this Reporting Period, the City continued to make efforts to secure budget, staffing, and resources necessary to develop and implement the SMP, to comply with the NPDES Permit requirements, and to improve the overall quality of stormwater discharging from its MS4. The City is committed to identifying these details and adequately funding them in an effort to achieve compliance with the NPDES Permit.

Some line items in the City's Capital and Operating Budgets are obviously related to MS4 stormwater compliance, such as the "Environmental Compliance" and "Stormwater Management". However, there are other line items for infrastructure and other public improvement projects (drainage, catch basin, storm lines, etc.), special projects, and operating expenses that will result in direct improvements to stormwater runoff quality and the quality of discharge from the City's MS4. For example, the closure of the old Scofieldtown Road Landfill is being performed for specific reasons but should have the added benefit of improving stormwater quality in these areas of the City.

There are also budget line items for vehicle, equipment, and information technology upgrades throughout the City which include Departments with responsibility for stormwater quality improvements and implementation of the SMP.

- Operating Budget

The Road Maintenance Division has an overall adopted operating budget of $7,107,397 for Fiscal Year 2022-2023 ($612,926 increase from the FY 2021-2022 Adopted Budget).

The FY 2022-23 operating budget for MS4 stormwater management is $1,481,381 (an increase of $244,475 from the FY 2021-2022 Actual Budget).

The operating budget for snow removal is $1,277,137 (an increase of $87,000 from FY 2021-2022 Actual Budget).

The operating budget for leaf collection is $424,764 (an decrease of $36,432 from FY 2021-2022 Actual Budget).

The operating budget for road maintenance, including street sweeping, pothole repairs, debris removal and infrastructure improvements is $3,924,115 Fiscal Year 2022-2023 (an increase of $298,844 from the FY 2021-2022 Actual Budget).

- Capital Budget

The capital budget covers long term projects to provide improvements to the City. These capital projects have the potential to impact the quality of stormwater discharged to waterbodies.

Capital project 001245, Citywide Drainage Study, managed by the Engineering Bureau; to conduct a comprehensive study to identify problem flood areas and assess costs related to remediation. This is APR funded work.

Capital project C56119, Citywide Roadway Correction managed by the Engineering Bureau, requested $200,000 in design and construction related costs for FY 2022-23 The requested funds and current balance will be used to fund road failure at June Road, June Road/ Guinea Road Intersection, and other various locations based on citizen reports. The Boards adopted $100,000 for this work 2022-2023.

Capital project C16012, Citywide Storm Drains managed by the Engineering Bureau, required $3,250,000 in construction related costs for FY 2022-2023. The requested funds are to fund drainage improvements in order of the project's severity and readiness. The projects are Leroy Place, Newfield Court, Pheasant Lane, Bird Song Lane, and Halliwell Drive. Drainage improvements to the following locations have also been funded under this project: Westhill Road/Drum Hill Lane, Tod Lane and Wire Mill Road. The current balance will be used to fund drainage improvement. The Boards adopted $1,000,000 for this work in 2021-2022. During the 2022-2023 reporting period, the Engineering Department requested $2,000,000 for this work. The Boards adopted $2,000,000 and it is ARP funded. A review of the projects listed reveals that many have been completed as of 1/29/24.

Capital project CP2703, Bouton Street Culvert Replacement, requested $200,000 for FY2021-22. The requested funds are to be used towards the replacement of the concrete box culvert under Bouton Street West, which is significantly deteriorated. No capital request for this work was made in 22-23.

Capital project CP0123, West Beach Boat Ramp Replacement, requested $820,000 for FY 2021-22. The requested funds are to replace the existing boat ramp, add another row of floating docks, parking lot improvements, timber jetty repairs and dredging. The Boards adopted $820,000 for this work. This work underway during 2023-2024, no capital request was made in 2022-2023.

Capital project CP1074, Pine Hill Drainage, requested $2,600,000 for 2022-2023. The requested funds are to upgrade the existing undersized drainage system. The current budget managed by Engineering Bureau will be used to perform the final design upon approval of the construction budget request. The drainage system design will increase water intake into the stormwater system and requires the acquisition of 2 property easements and street closure. The project will upgrade the system from a 2-year storm to a 25-year storm event.

Capital project, CP0093 Scofieldtown Park Design and Remediation, requested 210,000 for FY 2022-23. The current balance will be used to fund asphalt parking lot, entry way plaza & connect pathway, 2 compost toilets, picnic shelter and benches, and paving pathway/drainage to the tennis courts. The requested funds will be used towards completing the playground. In 2022-2023, a capital request for $200,000 was made. The Board adopted $100,000 for this work.

Capital project 000594, Pakenmer Road Reconstruction, requested $300,000 for FY 2022-23. The funds will be used to reconstruct Pakenmer Road to the City's standards. Pakenmer is approximately 350 linear feet of road.

Capital project CP6670, Animal Shelter, requested $4,400,000 for FY 2022-23. The funds will be used for the demolition and construction of a new animal shelter.

Capital project CP1074, Pine Hill Drainage, requested $2,600,000 for FY 2022-23. The requested funds are to upgrade the existing undersized drainage system. The current budget managed by Engineering Bureau will be used to perform the final design upon approval of the construction budget request. The drainage system design will increase water intake into the stormwater system and requires the acquisition of 2 property easements and street closure. The project will upgrade the system from a 2-year storm to a 25-year storm event.

Capital project, C56169 Paving & Drainage, requested $550,000 for FY 2022-23, managed by the Parks Department. The requested funds will be used for grading and filling of park property access/parking lot upgrades. Cove Island and K Park walking paths to be upgraded, Stamford Driveway and Parking Lot, Kosciuszko Park Driveway and Parking Lot. Remaining balance will towards the Barrett Park Playground area with installation of a curtain drain to prevent flooding. The Board adopted $550,000.

Capital project, CP0232 Athletic Fields Renovation, requested $2,550,000 for FY 2022-23, managed by the Parks Department. The requested fund will be used on the Cummings Field #1 Softball Turf Infield to create new drainage/ infield. The Board adopted $1,000,000.

Capital project, CP8701 John Bocuzzi Park at Southfield, requested $2,400,000 for FY 2022-23, managed by the Parks Department. The requested funds are for Phase 2 of the project. Phase 2 includes relocating the park lot out of the flood plain, Interim dun escape where current parking lot is located with interim walkways, and entrance relocation to Congress Street.

Capital project CP0211, Environmental Compliance, requested $50,000 for FY 2022-23, managed by Road Maintenance and Stormwater Departments. The requested fund is to ensure compliance with MS4 related issues. It is used to investigate and access and correct as necessary of drainage systems discharging into water body rivers, ponds, etc. and to evaluate Public Service facilities and modify practices in compliance with state and federal regulations. The Board adopted $0 for this work. Balance in account of $283,000 on 6/21/22.

Capital project C56182, Street Patch and Resurfacing, requested $5,000,000 for FY 2022-23, managed by the Road Maintenance and Stormwater Departments. The requested funds are to patch and resurface Stamford's roadway infrastructure using accepted engineering standards. Including milling, overlay, reconstruction, associated fixes to public streets and associated subsurface replacements for drainage systems. The Board adopted $3,0000,000 for this work.

Capital project C56129, Citywide Manhole and Basin, requested $500,000 for FY 2022-23, managed by Stormwater Department. The funds will be used to maintain and make repairs when needed to over 12,000 catch basins manholes, which are located in the City's road network. The Board adopted $0 for this work. Balance in account of $1,410,000 on 6/21/22.

In addition, other Departments, such as Engineering (catch basin and manhole improvements and replacement program), Land Use (environmental reviews), Solid Waste (motor oil recycling and HHW events), SWPCA (stormwater pump operation), and Administration provide services through their capital and operating budgets.

- Other Funding Sources

Connecticut Nip Bottle Recycling Program places a 5 cent surcharge on each 50 mL container of alcohol sold within each Connecticut Town. Checks are sent to each City and Town. On 1/31/2023 SMD used $9,999.99 for Superior Brooms and $4,710 for catch basin traps.

PCB Settlement - $32,414.03 received from class action lawsuit. Funding to be used for activites related to stormwater. Board approved on 6/5/2023.

The City's Annual Capital and Operating Budgets for 2023-23 are available on the City's website at http://www.stamfordct.gov/, under the Office of Policy and Management Link.

An increase in funding associated with additional staffing discussed in the next section of this Annual Report, will also be required in coming fiscal years.

6.2 Staff and Resources

The City transferred responsibility for many of the stormwater management tasks and MS4 permit compliance from the SWPCA to the Road Maintenance Department with the issuance of the NPDES Permit in June 2013. While evaluating the permit requirements, the Road Maintenance Supervisor and Pollution Prevention Team Coordinator began to assess the staff and resources necessary to achieve and maintain compliance.

In the 2022 -2023 Reporting Year, the SMD has nine (9) heavy equipment operators to complete field work including catch basin investigation, cleaning, and maintenance. These operators are also responsible for assisting with sweeping, snow removal, leaf pickup and other activities designed to

improve the quality of stormwater runoff. The SMD also hired an Environmental Enforcement Officer, who started in March 2022 to assist with enforcement and compliance work.

Over the course of the Reporting Period, the Stormwater Department assessed these new staffing levels as the SMP was being implemented and additional schedules and goals are continuously being generated to meet the demands of the City's MS4.

In addition to these individuals, the Road Maintenance Division maintains a work force of thirty (30) skilled operators, laborers, administrative, support, and management personnel that provide many of the direct services outlined in this report, such as: roadway sweeping, leaf pickup, snow removal, and infrastructure improvements and maintenance. They are also available to assist on other stormwater management projects, as directed.

Several other City Departments provide personnel to support compliance with the NPDES Permit and implementation of the SMP, including Engineering, Land Use, Planning, Zoning, Environmental Protection, Information Technology (GIS), SWPCA, Solid Waste, Recreation and Leisure Services, Parks, Parking & Transportation, Fleet Maintenance, Legal, and the Fire Department. The Environmental Protection Board has four (4) full-time technical staff (3 Environmental Analysts and an Executive Director.) See *Appendix F* for the Environmental Protection Board Report.

During the next year of implementation of the SMP and the new municipal stormwater ordinance and the changes to the Zoning Regulations, City Departments will be better able to assess the adequacies of their staffing levels with the added MS4 permit compliance requirements. As discussed during the compliance audit conducted by the EPA (see *Section 2.3.1*) and the City's own assessments, it is anticipated that additional staffing may be necessary in the following areas:

- Information Technology – There is a substantial amount of stormwater mapping and information management to be set up and managed, particularly during the first several years of the permit. The City needs to finalize the outfall identification mapping, and confirmation process and begin the DCIA analysis. In 2022, the GIS Department has grown and has staff of three (3); however, the SMD may still need outside consultants to work toward MS4 Permit goals.

- Engineering and Land Use Offices – Additional staff are required to perform technical review of land use permits due to volume and complexity of work. Performing site inspections before permit issuance, during construction, and prior to Certificate of Occupancy are a critical component for compliance.

As mentioned in *Section 4.3.5.7*, the City recently started implementing a software tracking program using field tablets for tracking catch basin inspection, cleaning and repair progress. The MS4 Front software was brought on-line in October 2014.

Additional software and equipment needs will be assessed during the coming year and requested in the City's next fiscal year budget as appropriate.

APPENDIX A

DEFINITIONS

DEFINITIONS

"*BMPs" or "Best Management Practices"* means either structural or engineered control devices and systems (e.g., retention ponds) to treat polluted stormwater, as well as operational or procedural practices (e.g., minimizing use of chemical fertilizers and pesticides).

"Commissioner" means the commissioner as defined by section 22a-2(b) of the Connecticut General Statutes.

"CTDEEP" or "DEEP" means the Connecticut Department of Energy and Environmental Protection, whose mission is to conserve, improve and protect the air, water and other natural resources and environment of the State of Connecticut while fostering sustainable development.

"DCIA" or "Directly Connected Impervious Area" means that part of the total impervious area that is hydraulically connected to the City of Stamford's MS4. DCIA typically includes streets, sidewalks, driveways, parking lots, and roof tops. DCIA typically does not include isolated impervious areas that are not hydraulically connected to the MS4 or otherwise drain to a pervious area.

"EPA" means the United State Environmental Protection Agency, whose mission is to protect human health and the environment.

"EPB" means the City of Stamford's Environmental Protection Board.

"GIS" or "Geographic Information System" is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographic data.

"HHW" or "Household Hazardous Waste" means post-consumer waste which qualifies as hazardous waste when discarded. It includes household chemicals and other substances for which the owner no longer has use, such as consumer products sold for home care, personal care, automotive care, pest control and other purposes.

"IDDE" or "Illicit Discharge Detection and Elimination" means a program to detect and eliminate existing illicit discharges and to prevent future illicit discharges.

"IDDP" or "Illicit Discharge Detection Protocol" means a protocol established to identify, prioritize, and investigate separate storm sewer catchments for suspected illicit discharges of pollutants.

"Illicit Discharge" means any discharge to the MS4 that is no composed entirely of stormwater, with the exception of discharges authorized by another NPDES Permit, or discharges described in the "Non-Stormwater Discharges" section (Section 4(A)(3)) of the permit.

"Impaired Waters" means those surface waters of the state designated by the Commissioner as impaired pursuant to Section 303(d) of the Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report.

"LID" or "Low Impact Development" means land planning and engineering design approach to manage stormwater runoff. LID emphasizes conservation and use of on-site natural features to protect water quality.

"MS4" or "Municipal Separate Storm Sewer System" means conveyance, or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains, which is or are (i) owned or operated by state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial waters, stormwater, or other wastes, including special districts under state law such as sewer districts, flood control districts or drainage districts, or similar districts, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the state; (ii) designed or used for collecting or conveying stormwater; (iii) which is not a combined sewer; an (iv) which is not part of a POTW.

"NOV" or "Notice of Violation" means a noticed provided by the CTDEEP informing the permittee that a violation of law has occurred.

"NPDES Permit" or "National Pollutant Discharge Elimination System Permit" means the program authorized by the Clean Water Act which controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

"Outfall" means the discharge point of a waste stream into a body of water.

"PHFs" means pesticides, herbicides, and fertilizers.

"Point Source" means any discernable, confined, and discrete conveyance (including, but not limited to any pipe, ditch, channel, tunnel, conduit, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft) from which pollutants are or may be discharged.

"POTW" or "Publicly Owned Treatment Works" means sewage treatment plants.

"Reporting Period" refers to the period of time that the Annual Report is based on. In this report it pertains to July 1, 2020, through June 30, 2021.

"SMP" or "Stormwater Management Plan" sets forth a program to provide for the implementation of specific control measures, stormwater monitoring, illicit discharge detection and elimination, and other appropriate means to control the quality of the authorized discharge.

"SPRP", "SP&R Plan" or "Spill Prevention and Response Plan" means a plan to prevent, contain, and respond to spills entering the MS4.

"Stormwater" means waters consisting of rainfall runoff, including snow or ice melt during a rain event, and drainage of such runoff.

"SWPCA" or "Stamford Water Pollution Control Authority" controls the City of Stamford Water Pollution Control Facility, which processes wastewater from the City and the neighboring Town of Darien, and discharges clean water into the East Branch of Stamford Harbor.

APPENDIX B

STORMWATER MANAGEMEN PLAN SUMMARY TABLE

Appendix B is intentionally left blank.

APPENDIX C

UPDATED CITY OUTFALL LOCATION MAPS

City of Stamford Outfalls as of June 30, 2023

Map Key

- Outfalls (974 points)
- Hydrology
- Parks
- I-95 & Merritt Pkwy
- Major Arterials
- All Other Roads
- Railroads

Notes: Map created by Ciy of Stamford, CT GIS staff for MS4 annual reporting. Questions regarding this map should be directed to the City of Stamford MS4 program.
map created 12/2023.

APPENDIX D

2022-2023 SPILLS

City of Stamford MS4 #CT0030279

Spills and Leaks 7/1/22 - 6/30/2023

Date	Address / Location	Material Spilled	Quantity Released	Receiving Stream	Notes
7/8/2022	I-95 Southbound - near exit 6	Diesel Fuel	Unknown	Long Island Sound	CT DEEP Incident ID No.: 202203095. Leak of diesel fuel to ground from jack knifed tractor trailer. SFD responded. Extents of impact unknown. Troop G State Patrol reported incident.
7/10/2022	56 Toms Rd. (on Rutz Rd.)	Paint	Unknown	Noroton River	CT DEEP Incident ID No.: 202203112. Paint dumped into catch basin. SMD contacted CT DEEP. SMD worked w/ property owner to removed and abated. No impact to downgradient MS4.
7/12/2022	89 Winding Brook Ln.	Heating Oil	0	Long Island Sound	CT DEEP Incident ID No.: 202203122. Inground tank failure - released to ground. SMD notified and inspected downgradient watercoures and confirmed no impact to MS4. Leaking tank removed.
7/13/2022	East Main St. at Lockwood Ave.	Coolant / Anti Freeze	1 Gal.	Long Island Sound	CT DEEP Incident ID No.: 202203152. Coolant leaked onto ground due to broken hose - CT Transit. Area treated w/ speedy dry and cleaned. No impact to MS4.
7/20/2022	185 Magee Ave.	Proxitane AHC	Unknown	Long Island Sound	Cleaning solvents stored at City of Stamford Facilities Dept. began to leak inside building. Staff relocated pallet of solvents outside. Containers discharged to ground surface and proximate to catch basins. SFD and CT DEEP Notified. Clean Harbors responded w/ vac truck to collect material on ground. Cost of abatement in excess of $30,000 to City of Stamford.
3/3/23 - 3/14/23	50 Hirsch Rd.	Fuel Oil	Unknown	Toilsome Brook / Rippowam River	330 Gal. exterior home heating oil tank leaking and discharging to nearby stream. Reported to SMD. SMD investigated and contacted CT DEEP for assistance. CT DEEP engaged ACV Environmental to assist with clean up and removal. SMD referred to City of Stamford Building Dept. regarding permits and approvals for tank replacment.
3/21/2023	Newfield Ave.	Hydraulic Oil	Unknown	Long Island Sound	Hydraulic line on City of Stamford loader failed. City of Stamford contacted SFD and sanded the extents of the spill area. City of Stamford sweepers swept and cleaned affected area. No materal entered CB's and no impact to MS4.
3/28/2023	482 West Main St. at West Ave.	Gasoline	40 gal.	Long Island Sound	SFD contacted Highway/Stormwater/CT DEEP when tractor trailer tank ruptured after contacting utility pole while negotiating a turn. Emergency spill plan and response mobilized. CT DEEP spill contractor mobilized and contained the spill. No impacts to MS4 and no evidence of pollutants observed at discharge location.
4/13/2023	Armon Hotel - 2701 Summer St.	Vehicle Fluids and Fire Fighting Foam	Unknown - vehicle fluids. Per SFD: 50 Gal. fire fighting foam	Rippowam River	Eight (8) cars burned in hotel parking garage. SFD applied fire fighting foam. Foam suds and odor observed in downgradient CB'. CT DEEP spill team on site and coordinated with Hotel management, who indicated they would clean affected CB's.

APPENDIX E

2022-2023 PESTICIDE, FERTILIZER, AND HERBICIDE USE

Nitrogen Totals up to Dec 20, 2023

	Greens (4 Acres)	Total	Tees (3.5 Acres)	Total
Granular	None	None	None	None
Liquid	2.65 LBS/N/m		2.25 LB/ N/m	

Fairways (23 Acres)	Total	Rough (10 Acres)	Total
None	None	.5 LB/N/m	200 LBS N
1.65 LBS N/m		n/a	

APPENDIX F

2022-2023 ENVIRONMENTAL PROTECTION BOARD SUMMARY TABLE

Environmental Protection Board – FY 2022-2023

The Land Use Bureau's Environmental Protection Board (EPB) has regulatory responsibilities, including issuing special permits for development activities on properties with inland wetlands, watercourses, flood hazard, and coastal areas. The EPB also reviews and provides technical assistance on the potential impact of subdivisions, coastal and other site plans, variances, special permits, drainage and erosion control plans, utility installations, open space areas, and public points of access to Stamford's waterfront and shoreline. In cooperation with other City departments, EPB staff inspect development projects to ensure conformance with issued permits, approvals, and City standards, and the office acts as the City's designated liaison with State and Federal officials on matters of wetland, floodplain, and coastal management. Four full-time technical employees staff the EPB – the Executive Director and three Environmental Analysts.

In Fiscal Year 2022-23, EPB staff reviewed approximately 1,700 applications for building permits and evaluated 123 formal applications made to the EPB and the other Land Use boards for compliance with the EPB regulations. These applications included numerous projects of value and interest to the public, including park improvement projects, city bridge replacement projects, and large private developments. EPB application materials and procedures have been updated to facilitate the application process, and hyperlinks have been added to the EPB meeting agendas so interested parties have access to the plans and other materials submitted by applicants, as well as the EPB staff reports.

During the past fiscal year, EPB staff fielded thousands of phone calls and emails from citizens, professionals, and other individuals with questions about specific projects or general wetland, flood zone, or other environmental issues. Staff conducted hundreds of site inspections to assess compliance with issued approvals or investigate reports of unauthorized regulated activities. Several enforcement actions were formally brought before the Board during 2022-23 in an effort to restore adverse environmental impacts. The EPB has begun to send informational material to new homeowners to reduce the significant percentage of violations that are inadvertently committed by newcomers who are unaware of the restrictions on development activities in and adjacent to the wetlands and watercourses.

From last July to September, EPB staff completed compilation of the extensive set of materials the Federal Emergency Management Agency requires every five years for Stamford to maintain its Class 7 standing in the Community Rating System of the National Flood Insurance Program. A less comprehensive annual CRS review was also successfully conducted in early 2023. The reduction in flood risk that results from Stamford's consistent adherence to floodplain management standards is rewarded with a 15% premium discount given to flood insurance policy holders in the city.

APPENDIX G

CITY STAFF TRAINING EVENTS SIGN-IN SHEETS

FRIDAY JUNE 9, 2023

FUSS AND O'NEILL STORMWATER TRAINING MEET IN BREAK ROOM

SCHEDULE:

SESSION 1: 10AM - NOON

- STORMWATER STAFF
- SWEEPER CREW
- BRUSH CUTTER CREW

SESSION 2: 1PM-3PM

- HIGHWAYS
- ASPHALT CREW
- DEBRIS CREW
- YARD CREW

FUSS & O'NEILL

(1)

Employee Training
Spill Prevention Control and Countermeasure (SPCC) Plan
City of Stamford
Date of Training: June 9, 2023

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	Timothy Hinton	Timothy Hinton	Highways
2	Rob Loffredo		Highways
3	Chris Malanga		Highways
4	Demitrios Lopole		Highways
5	Kevin Cuevas		Highways
6	Robert Aslund		Highways
7	Philip Cornelio III		Highways
8	Aaron Moses	Aaron Moses	Highways
9	Arthur Springer Jr		Highways
10	Mike Domanick		"

Training Location: City of Stamford – Highway Department
100 Magee Avenue
Stamford, CT

Resources: US Environmental Protection Agency (EPA) regulations of 40 CFR 112:
Site's Spill Prevention Control and Countermeasures (SPCC) Plan
SPCC Training Power Point Presentation (by F&O)

Training Facilitator: Justin Penfield, P.E., Fuss & O'Neill

Justin Penfield, _____, Fuss & O'Neill, Inc
Printed Name Signature

FUSS & O'NEILL

Employee Training
Spill Prevention Control and Countermeasure (SPCC) Plan
City of Stamford
Date of Training: June 9, 2023

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	Ronald Caporale		Highways
2	T. Ugg		Road Maintenance
3	Dave K		Highway
4			
5			
6			
7			
8			
9			
10			

Training Location: City of Stamford – Highway Department
100 Magee Avenue
Stamford, CT

Resources: US Environmental Protection Agency (EPA) regulations of 40 CFR 112:
Site's Spill Prevention Control and Countermeasures (SPCC) Plan
SPCC Training Power Point Presentation (by F&O)

Training Facilitator: Justin Penfield, P.E., Fuss & O'Neill

Justin Penfield, _____, Fuss & O'Neill, Inc
Printed Name Signature

FUSS & O'NEILL

(2)

Employee Training
Stormwater Pollution Prevention Plan (SWPPP)
City of Stamford
Date of Training: June 9, 2023

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	Timothy Hinton	Timothy Hinton	Highway
2	Rob Loffredo		Highways
3	Chris Mohamed		Highway
4	Kevin Cuevas		Highways
5	Demetrios Lodolce		Highways
6	Robert Ahlund		Highways
7	Aaron Moses	Aaron Moses	Highways
8	Philip Cornelio III	Philip Cornelio III	Highways
9	Mike Domanick		"
10	Arthur Springer Jr	Arthur Springer	Highways

Training Location: City of Stamford – Highway Department
100 Magee Avenue
Stamford, CT

Resources: General Permit for the Discharge of Stormwater Associated with Industrial Activities
Connecticut General Statures (CGS) Section 22a-430-3b:
Site's Stormwater Pollution Prevention Plan (SWPPP)
SWPPP Training Power Point Presentation (by F&O)

Training Facilitator: Justin Penfield, P.E., Fuss & O'Neill

Justin Penfield, _____, Fuss & O'Neill, Inc
Printed Name Signature

FUSS & O'NEILL

Employee Training
Stormwater Pollution Prevention Plan (SWPPP)
City of Stamford
Date of Training: June 9, 2023

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	T. Hoyt		Road Maintenance
2	Derek Aimi		Highway
3			
4			
5			
6			
7			
8			
9			
10			

Training Location: City of Stamford – Highway Department
100 Magee Avenue
Stamford, CT

Resources: General Permit for the Discharge of Stormwater Associated with Industrial Activities
Connecticut General Statures (CGS) Section 22a-430-3b:
Site's Stormwater Pollution Prevention Plan (SWPPP)
SWPPP Training Power Point Presentation (by F&O)

Training Facilitator: Justin Penfield, P.E., Fuss & O'Neill

Justin Penfield, _____, Fuss & O'Neill, Inc
Printed Name Signature

FUSS & O'NEILL

(3)

Employee Training
Universal Waste
City of Stamford
Date of Training: June 9, 2023

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	Timothy Hinton	Timothy Hinton	Highway
2	Chris Mohuruz	[signature]	Highway
3	Rob Loffredo	[signature]	Highways
4	Kevin Cuevas	[signature]	Highways
5	Demitrios Loppolo	[signature]	Highways
6	Robert Ashland	[signature]	Highway
7	Philip Cornelio III	[signature] III	Highway
8	Aaron Moses	Aaron M[illegible]	Highways
9	Arthur Springer Jr	Arthur Sp[illegible]	Highways
10	mike Dominick	[signature]	"

Training Location: City of Stamford – Highway Department
100 Magee Avenue
Stamford, CT

Resources: US Environmental Protection Agency (EPA) Regulations of 40 CFR 262.34(a)(4) and 265.16
Regulations of Connecticut State Agencies (RCSA) Section 22a-449(c)-102(a)(1)
Universal Waste, Used Oil and CT Regulated Waste Training Power Point Presentation (by F&O)

Training Facilitator: Justin Penfield, P.E., Fuss & O'Neill

Justin Penfield, [signature], Fuss & O'Neill, Inc

Printed Name   Signature

FUSS & O'NEILL

Employee Training
Universal Waste
City of Stamford
Date of Training: June 9, 2023

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	T. Hoff		Road Maintenance
2	Derek Am		Highway
3			
4			
5			
6			
7			
8			
9			
10			

Training Location: City of Stamford – Highway Department
100 Magee Avenue
Stamford, CT

Resources: US Environmental Protection Agency (EPA) Regulations of 40 CFR 262.34(a)(4) and 265.16
Regulations of Connecticut State Agencies (RCSA) Section 22a-449(c)-102(a)(1)
Universal Waste, Used Oil and CT Regulated Waste Training Power Point Presentation (by F&O)

Training Facilitator: Justin Penfield, P.E., Fuss & O'Neill

Justin Penfield, _____, Fuss & O'Neill, Inc
Printed Name Signature

FUSS & O'NEILL

Employee Training
Stormwater Pollution Prevention Plan (SWPPP), SPCC, Universal Waste
City of Stamford
Date of Training: June 9, 2023

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	Aaron Turner		Highways
2	Dylan Pellini		Highways Stormwater
3	P. Mardi		Highways
4	John Cornelio		Highways Stormwater
5	John Antonucci		Highway Stormwater
6	Liam Kenny		Highway Stormwater
7	Jose Cruz		Highways
8	Markos Echeverria		Highways
9	Chris Rivera		Highways
10	Rob Buzzeo		Highways

Training Location: City of Stamford – Highway Department
100 Magee Avenue
Stamford, CT

Resources: General Permit for the Discharge of Stormwater Associated with Industrial Activities
Connecticut General Statures (CGS) Section 22a-430-3b:
Site's Stormwater Pollution Prevention Plan (SWPPP)
SWPPP Training Power Point Presentation (by F&O)
US Environmental Protection Agency (EPA) regulations of 40 CFR 112:
Site's Spill Prevention Control and Countermeasures (SPCC) Plan, SPCC Training Power Point Presentation (by F&O)
US Environmental Protection Agency (EPA) Regulations of 40 CFR 262.34(a)(4) and 265.16
Regulations of Connecticut State Agencies (RCSA) Section 22a-449(c)-102(a)(1)
Universal Waste, Used Oil and CT Regulated Waste Training Power Point Presentation (by F&O)

Training Facilitator: Justin Penfield, P.E., Fuss & O'Neill

Justin Penfield, _____, Fuss & O'Neill, Inc
Printed Name Signature

FUSS & O'NEILL

Employee Training
Stormwater Pollution Prevention Plan (SWPPP), SPCC, Universal Waste
City of Stamford
Date of Training: June 9, 2023

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	Wendell Christian		Highway / Stormwater
2	Daniel Gonzalez		Highway / Stormwater
3	John Moore		Highways
4			
5			
6			
7			
8			
9			
10			

Training Location: City of Stamford – Highway Department
100 Magee Avenue
Stamford, CT

Resources: General Permit for the Discharge of Stormwater Associated with Industrial Activities
Connecticut General Statures (CGS) Section 22a-430-3b:
Site's Stormwater Pollution Prevention Plan (SWPPP)
SWPPP Training Power Point Presentation (by F&O)

US Environmental Protection Agency (EPA) regulations of 40 CFR 112:
Site's Spill Prevention Control and Countermeasures (SPCC) Plan, SPCC Training Power Point Presentation (by F&O)
US Environmental Protection Agency (EPA) Regulations of 40 CFR 262.34(a)(4) and 265.16
Regulations of Connecticut State Agencies (RCSA) Section 22a-449(c)-102(a)(1)
Universal Waste, Used Oil and CT Regulated Waste Training Power Point Presentation (by F&O)

Training Facilitator: Justin Penfield, P.E., Fuss & O'Neill

Justin Penfield, _____, Fuss & O'Neill, Inc
Printed Name Signature

APPENDIX H

2022-2023 CATCH BASIN / MANHOLE REPAIRS LIST

Catch Basin & Manhole Repair Master List 2022-2023 Annual Report

Service Request # GovQA	Date	Location/Address	Reported or Observed Issue	Status	Date	Repair Date
	05/30/17	13 Fenway St.	Basin Repair (TT) needs new CB top & masonry failing.	Sent to Grasso	3/10/2022	7/6/2022
	06/21/17	502 Fairfield Ave	Basin Repair (TT) masonry work req'd - masonry collapsing - reported by J. Hoyt PLATED 10/2022	Sent to Cavaliere	12/2/2022	1/5/2023
	01/25/18	31 Sutton Place	MH Repair - buried storm MH. Danella contacted MH. Painted in field - needs to be raised	Sent to Cavaliere	4/11/2023	6/1/2023
	01/25/18	58 Sutton Drive West	MH Repair - buried storm MH. Danella contacted MH. Painted in field - needs to be raised	Sent to Cavaliere	4/11/2023	6/1/2023
	06/11/18	37 Clifford Ave. at Rome Place	CB Repair - hole next to cb - reported by A. Trichillo	Sent to Cavaliere	4/11/2023	6/8/2023
	03/14/19	24 Mathews St.	CB Repair - CB sinking. Conc sump is good. Needs leveling course and reset ex. Frame. Cleaned 2/21/23	Sent to Cavaliere	4/11/2023	6/15/2023
	11/03/20	60 West Broad Street	MH Repair - Legal claim.Cover off during rain.Cover replaced 6/3/22. Needs locking frame/cover. PRIORITY	Sent to Cavaliere	12/2/2022	2/1/2023
	11/18/20	139 West Haviland Ln.	MH Repair - MH paved over. Raise and CCTV storm main. Sinkhole @ #138 by mailbox. Cone 11/18/20	Sent to Grasso	4/11/2023	6/1/2023
	11/18/20	144 West Haviland Ln.	MH Repair - MH paved over. Raise and CCTV storm main. Sinkhole @ #138 by mailbox. Cone 11/18/20	Sent to Grasso	4/11/2023	6/1/2023
W537869-030121	03/01/21	59 Parry Court	Add CB at low point in road. New 60LF 12" SDR storm pipe to exist. MH	Sent to Arnow	6/2/2022	7/7/2022
	05/07/21	119 Ralsey Rd.	CB Repair - furnish and install reset new frame. Tall cone left 5/7/21	Sent to Grasso	1/25/2022	4/20/2023
	09/14/21	25 Donata Lane	CB Repair - Covert to flat top at driveway. Needs new sump.	Sent to Arnow	7/8/2022	7/29/2022
	10/04/21	225 Halliwell Dr. at Hycliff Terrace	MH Repair&Pipe Repair - Needs new frame. Cracked and broken. Sinkhole from sda - needs CCTV work	Sent to Engr.		7/14/2022
	01/27/22	141 Mountain Wood Rd.	MH Repair - Raise and level frame - set to grade. 3" low.	Sent to Arnow	7/8/2022	7/29/2022
	02/10/22	28 Bell St.	CB Repair - CB needs repairs. Replace Conc. apron. **PLATED**	Sent to Arnow	7/8/2022	8/22/2022
	03/17/22	111 Prospect St.	CB Repair - Reset top. Wide dim flat top. In driveway apron. Settled and tipped. No barrel.	Sent to Arnow	10/21/2022	10/31/2022
	03/21/22	On Lakeside Dr. at Interlaken Rd.	Pipe Repair - 12"RCP @ outlet transitions to 6" @ intersection. Open road, CCTV, locate inlet, rep.w/12"	Sent to Arnow	6/2/2022	7/15/2022
	05/19/22	22 Ralph St.	CB Repair - conc. top and frame broken. Total rebuild	Sent to Grasso	1/25/2022	5/1/2023
	05/26/22	2850 Long Ridge Rd. on Echo Hill Dr.	MH Repair - Hole next to MH. Needs to be rebuilt.	Sent to Arnow	6/2/2022	7/1/2022
	05/26/22	138 New England Drive	Stone Headwall Repair - headwall and inlet collapsed into stream. Need to rebuild. Barrels 5/25/22	Repaired Eng. Bur.		10/24/2022
	06/02/22	90 West Broad St. @ Stephen St.	Pipe Repair - sinkole in road. CCTV 5/31/22. Femco fitting failed. PLATED	Sent to Arnow	6/1/2022	7/1/2022
	06/06/22	23 Malvern Rd.	CB Repair - hole at CB. Total rebuild. Barrel 6/6/22	Sent to Arnow	7/8/2022	7/19/2022
	06/06/22	76 Givens Ave.	CB Repair - hole at CB. Total rebuild. Barrel 6/3/22	Sent to Arnow	7/8/2022	8/22/2022
	06/06/22	277 Skyview Drive	CB Repair - hole at CB. See also for repair of curtain dr.Also repl.12" lateral from #277 cb to mh. PRIORITY	Sent to Arnow	7/8/2022	8/24/2022
	06/06/22	Across from 147 West Broad St.	CB Repair - hole at CB. Needs top reset.	Sent to Arnow	7/8/2022	8/1/2022
	06/16/22	Across from 36 Pulaski St.	CB Repair - hole at CB. Left tall cone. PRIORITY	Sent to Arnow	8/2/2022	9/6/2022
	06/16/22	1527 Bedford St. at Third St.	CB Repair - hole at CB. Left Barrel.	Sent to Arnow	7/8/2022	8/22/2022
	06/20/22	91 Rachelle Ave.	CB Repair - hole at CB at driveway. Left Barrel. Reset exist. Wide dim. Flat top frame. Needs new sump.	Sent to Arnow	7/8/2022	7/29/2022
	07/08/22	45 Taylor St.	CB Repair - hole at CB. Tall cone 2/16/22. Replace w/ new precast sump	Sent to Cavaliere	1/18/2023	2/15/2023
	07/12/22	118 Idlewood Dr.	MH Repair - hole@MH.Interior is block.Repl.w/precast. Replace both 12" laterials. CB. Cone 7/12/22	Sent to Cavaliere	12/2/2022	4/28/2023
	07/13/22	566 Newfield Ave.	CB Repair - hole at CB. Barrel 7/12/22.	Sent to Arnow	8/2/2022	8/22/2022
	07/13/22	145 Wardwell St.	MH Repair - Install new 9" MH frame and cover.	Sent to Cavaliere	12/2/2022	1/11/2023
	07/13/22	81 Crane Rd. North	MH Repair - Install new 9" MH frame and cover. Barrel in place.	Sent to Arnow	10/21/2022	10/26/2022
	07/19/22	3001 Summer St. on Bedford St	CB Repair - hole at CB. Tall cone 7/19/22.Barrel 7/15/22. Needs new precast sump. Reset top.	Sent to Cavaliere	2/3/2023	3/15/2023
	07/26/22	146 Fairfield Ave.	CB Repair - Curb back broken. Needs new frame.Curb back cut off 7/26/22.	Sent to Cavaliere	12/2/2022	2/15/2023
	07/26/22	47 Hidden Brook Dr.	Pipe Repair -18"RCP JOL/sinkhole.PLATED.Femcos and replace 32'LF pipe. (2) 8' segments, each side of JOL PR	Sent to Arnow	8/2/2022	8/30/2022
	07/28/22	45 Frisbie St.	CB Repair - Holes at CB. Service Request. PLATED	Sent to Cavaliere	4/11/2023	6/26/2023
	07/29/22	On North State St. - 200' East of Atlantic middle lane	MH Repair - New frame and cover - set to grade.	Sent to Arnow	10/21/2022	10/31/2022
	08/01/22	21 Carlisle Place on Wells Ave.	CB Repair - Hole at CB. Service Request. Tall cone placed. Total rebuild.	Sent to Cavaliere	4/11/2023	6/6/2023
	08/01/22	95 Burwood Ave.	CB Repair - Hole at CB. Service Request. Cone placed. Total rebuild.	Sent to Cavaliere	12/2/2022	1/12/2023
	08/02/22	90 Weed Hill Ave.	MH Repair - MH Cover loose and unsafe. Removed existing frame and ring. Replaced w/ new frame.	Sent to Arnow	8/2/2022	8/20/2022
	08/02/22	82 Weed Hill Ave.	MH Repair - MH Cover loose and unsafe. Removed existing frame and ring. Replaced w/ new frame.	Sent to Arnow	8/2/2022	8/20/2022
	08/19/22	90 West Broad St. @ Stephen St.	CB Repair - CB paved over. Asphalt Removed. Needs new sump, top and frame. PLATED	Sent to Cavaliere	12/2/2022	1/5/2023
	08/23/22	69 Riverbank Drive	MH Repair - MH paved over. ME painted 8/23/22.	Sent to Cavaliere	4/11/2023	5/25/2023
	08/23/22	69 Riverbank Drive	CB Repair - Hole at CB. Service Request. Barrel placed ME	Sent to Cavaliere	4/11/2023	5/25/2023
	08/23/22	Opposite 295 / 281 Roxbury Rd.	CB Repair - Convert back to flat top type CB. Top reset. Service Request. Barricade placed.	Sent to Grasso	8/22/2022	10/4/2022
	08/23/22	323 Cove Road	Pipe Repaire - Sinkhole opened up between CB&MH. CCTV on 8/23/22. Repl. 15'LF pipe PLATED	Sent to Arnow	8/23/2022	8/30/2022
	07/28/22	142 Rock Spring Rd.	MH Repair - paved over. Located and painted ME 8/29/22	Sent to Grasso	10/10/2022	11/1/2022
	09/08/22	8 St. Charles Ave. at Knickerbocker Ave.	CB Repair - Frame collapse. Double CB.Hole at CB. PD call. Barrel in place.Block sump. Total rebuild.	Sent to Cavaliere	2/3/2023	2/22/2023
21349	09/27/22	49 George St.	CB repair - Hole @ double CB. Tall cone placed.	Sent to Cavaliere	2/3/2023	4/11/2023
15967	10/03/22	154 Cold Spring Rd.	CB repair - Hole @ CB. Tall cone placed. Total rebuilt.New sump &new curb back req'd	Sent to Cavaliere	1/18/2023	2/9/2023
15441	10/04/22	46 Kenilworth Drive West	CB Repair - Frame broken. Total Rebuild. 10/4/22 tried grate repl. Frame broke.	Sent to Arnow	10/21/2022	10/27/2022
	10/19/22	206 West Ave.	CB Repair - barrel in place	Sent to Cavaliere	1/18/2023	2/9/2023
	10/20/22	100 Magee Ave	CB Repair - northbound magee near fuel pumps, east curb line. Total rebuild.	Sent to Cavaliere	12/2/2022	1/31/2023
	11/03/22	Next to #60 Meadowpark Ave. E - in front of city prop.	MH Repair - Frame cracked/broken. BD left barrel.	Sent to Cavaliere	2/3/2023	3/10/2023
	11/03/22	35 Meadowpark Ave. E	MH Repair - Frame cracked/broken. Secure. Change at same time as #60MeadowPAveEast	Sent to Cavaliere	2/3/2023	3/10/2023
	11/07/22	300 Main St.	MH Repair - Frame cracked/broken - in travel lane. Unable to place barrel. Will be problem winter 22.	Sent ot Cavaliere	12/2/2022	1/20/2023
	11/15/22	91 Apple Tree Dr.	CB Repair - hole next to conc. Top. Total rebuild. Repl.w/ wide dim.Flat top cast iron gr.New precast sump.	Sent to Cavaliere	2/3/2023	2/21/2023
	11/16/22	37 Pinner Lane	CB Repair - hole next to frame.Total rebuild. Reset existing cast iron top&frame on new sump. **PRIORITY**	Sent to Cavaliere	4/11/2023	5/23/2023
	11/28/22	18 West Haviland Ln. at Haviland Rd.	CB Repair - Conc.top has sunk. Total rebuild.	Sent to Grasso	5/1/2023	6/1/2023
	12/02/22	87 Glenbrook Rd.	CB Repair - conc. Flat top frame cracked, broken. Needs repair - in condo driveway apron - no barrel	Sent to Cavaliere	12/2/2022	1/22/2023
	12/06/22	Dorlen Rd. at Oaklawn Ave.	CB Repair - hole at CB.Needs top reset. Left barrel and 2 tall cones. Frame/grate very unstable. TT observed.	Sent to Cavaliere	4/11/2023	6/1/2023
	12/07/22	27 Stanton Lane on Westwood Rd.	CB Repair - Hole at CB. Tall cone placed ME. Needs new sump. Reset existing CI top and frame.	Sent to Cavaliere	1/18/2023	2/1/2023
	12/19/22	85 Midland Ave.	CB Repair - Top reset. Check sump.	Sent to Cavaliere	1/18/2023	2/1/2023
	01/19/23	40 Clinton Ave.	MH Repair & CB repair - Reset (3) existing storm MH frames. Reset one exits. CB top/frame. PRIORITY	Sent to Cavaliere	2/3/2023	3/15/2023
	01/24/23	9 Pulaski St.	MH Repair - Needs new frame. Riser ring failed. Bad spot.	Sent to Cavaliere	2/3/2023	2/27/2023
	01/28/23	131 Jefferson St. @ Magee Ave.	MH Repair - Needs new frame. PLATED	Sent to Cavaliere	1/30/2023	2/1/2023
	01/31/23	33 Houston Terrace	CB repair - Total Rebuild. Hole at CB. Needs new C.I. curb back, new sump,etc.	Sent to Grasso	1/25/2023	3/24/2023
	02/03/23	Fairfield Ave. at Top Gallant Rd.	Pipe Repl.- 40'LF of 15"clay from1928 w/15" SDR. Between 2 exist. MH's. Also change MH frame&Cover	Sent to Cavaliere	2/3/2023	3/24/2023
	02/06/23	28 Ocean Drive East	MH Repair - paved over. TT painted 2/6/23	Sent to Cavaliere	6/15/2023	6/30/2023
	02/06/23	33 Catoona Ln	CB Repair - hole at CB. Needs new C.I. top/frame, sump is OK. TT barrel 2/6/23. Cleaned 6/5/23	Sent to Cavaliere	6/15/2023	6/30/2023
	02/06/23	1 Shore Rd. at Fairfield Ave.	CB Repair - hole at CB. Total rebuild. Needs new C.I. flat top/frame, new sump	Sent to Cavaliere	3/24/2023	4/15/2023
	02/06/23	Shore Rd. at Cummings Point Rd.	CB Repair - top/frame unsupported and dropping.Total rebuild. Needs new C.I. flat top/frame, new sump	Sent to Cavaliere	3/24/2023	4/15/2023
	02/13/23	180 Colonial Road	MH Repair - Frame damaged. Needs replacement. ME painted 2/13/23	Sent to Cavaliere	2/13/2023	2/20/2023
	02/23/23	24 Mill Spring Lane	CB Repair - Convert to flat top. Demo/remove ex. Damaged curb back. Sump OK. Barrel in place.PRIORITY	Sent to Cavaliere	6/15/2023	6/29/2023
	04/11/23	197 Seaside Ave.	MH Repair - Replace non-city-standard loud and rattling cover.	Sent to Cavaliere	4/11/2023	6/13/2023
	04/11/23	269 Seaside Ave.	MH Repair - Replace damaged frame. MH cover making noise.	Sent to Cavaliere	4/11/2023	6/13/2023
	04/24/23	116 Dean St. (West side of St.)	MH Repair - paved over. Located and painted TT 4/24/23. Raise to fin. Gr.	Sent to Cavaliere	6/15/2023	6/26/2023
	04/24/23	101 Dean St. (West side of St.)	MH Repair - paved over. Located and painted TT 4/24/23. Raise to fin. Gr.	Sent to Cavaliere	6/15/2023	6/26/2023
			Note: As of 12/16/2023, there were 79 repairs completed from this list.			
			Note: As of 12/15/2023, there are 98 Remaining / Outstanding Repair items which do not appear on this list			
			Note: Work on this list performed by various contractors as noted and efforts supplimented by City Staff.			
			Note: Additional detail available as per invoices from contractors and city documentatation.			
			Note: Additional repairs to MS4 Drainage completed by Grasso Construction as part of paving work do not appear on this list.			

APPENDIX I

2022-2023 CULVERT CLEANING LIST

City of Stamford - CT0030279

Open Drainage Channel (Culvert Cleaning and Backhoe Work) 7/1/22 - 6/30/2023

Date	Address / Location	Duration	Manpower	Quan. Of Material Removed	Receiving Stream	Notes
7/14/2022	Chestnut Hill Rd. at W. Haviland Ln.	1 Day	6 men, mini excavator, small dump truck(s).	appx. 6 cubic yards - sediment, brush, and debris	Rippowam River	Cleaned and cleared pipe inlets/ outlets w/ mini excavator.
8/1/2022	Lakeside Drive @ Bridge over reservior	1/2 Day	2 men, bobcat, small dump truck.	appx. 2 cubic yards - sediment, brush, and debris	Rippowam River	Cleaned and cleared vegatation and debris under guard rail, both sides, to ensure water able to drain off roadway and into reservoir.
8/9/22 & 8/10/22	1864 / 1900 Summer St.	2 Days	2 men, stetco and small dump truck	appx. 1 cubic yard - sticks, logs, brush, and debris. Contractor left material on roadway and material collected and hauled by Highways / Stormwater.	Rippowam River	Work performed by private contractor to enter (confined space required) concrete box culvert and use chainsaw and other equipment to dislodge and remove partial culvert blockage by hand.
8/19/2022	155 Woodchuck Rd.	1 Day	4 men, mini excavator, small dump trucks	appx. 12 cubic yards - sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared area around stormwater outlet pipe, north side of #155 Woodchuck Rd. Excavated and removed accumulated debris.
8/22/2022	Opposite #295 Woodbine Rd.	1 Day	4 men, mini excavator, small dump trucks	appx. 8 cubic yards - sediment, brush, leaves and debris removed.	Noroton River	Cleaned and cleared area around stormwater inlet pipe. Excavated and removed accumulated debris to facilitate CCTV work within storm pipe at later date. Seed and hay.
8/25/2022	249 Wildwood Rd.	1 Day	3 men, mini excavator, small dump truck	appx. 4 cubic yards - sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared area around stormwater outlet pipe, north side of Wildwood Rd. Excavated and removed accumulated debris.
8/30/2022	132 Skyline Ln. on Northwind Dr.	1 Day	4 men, mini excavator, small dump trucks	n/a	Rippowam River	Filled sinkhole, added surge stone/rip rap to stabalize bank, topsoil, seed and hay to stabalize all exposed soils.
8/30/2022	1038 Rock Rimmon Rd.	1 Day	4 men, mini excavator, small dump trucks	appx. 2 cubic yards - sediment, brush, leaves and debris	Rippowam River	Cleaned and excavated low point along elevated roadway shoulder in order to allow positive draiange from road. Topsoil, seed and hay.
9/2/2022	44 East Cross Rd.	1 Day	4 men, mini excavator, small dump trucks	appx. 4 cubic yards - sediment, brush, leaves and debris	Noroton River	Cleaned and cleared inlet. Excavated and opened up area obstructed by movement of rocks and debris in streambed.
9/19/2022	Opposite #58/#68 Cherry Hill Rd.	2 Days	4 men, mini excavator, small dump trucks	appx. 20 cubic yards - sediment, brush, leaves and debris	Mianus River	Cleaned and cleared inlet and regraded roadway shoulder to ensure positive drainage. Seed and hay all exposed soils.
9/21/2022	#35/#68 Tall Oaks Rd.	1 Day	4 men, mini excavator, small dump trucks	appx. 4 cubic yards - sediment, brush, leaves and debris	Noroton River	Cleaned and cleared culvert inlet/outlets. Seed and hay added to stabalize soils.
9/21/2022	Opposite #60 Round Hill Dr.	1 Day	4 men, mini excavator, small dump trucks	n/a	Rippowam River	Added 1 cubic yard rip rap to stabalize roadway leak off.
9/26/2022	440 Eden Rd.	1 Day	4 men, mini excavator, small dump trucks	appx. 4 cubic yards - sediment, brush, leaves and debris	Noroton River	Cleaned and cleared culvert inlet and regraded roadway shoulder. Seed and hay to stabalize all exposed soils.
9/30/2022	62 Woodbrook Dr.	1/2 Day	2 men, small dump trucks	appx. 2 cubic yards - sediment, brush, leaves and debris	Noroton River	Cleaned and cleared culvert inlet through headwall, and opened up leak off to allow water to drain from roadway.
10/27/2022	Opposite #10 Howard Rd. at June Rd.	1 Day	4 men, mini excavator, small dump trucks	appx. 6 cubic yards - sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared storm pipe outlet. Added rip rap, seed and hay to stabalize exposed soils.
10/28/2022	216 Sundance Rd.	1/2 Day	2 men, mini excavator, loader, small dump truck	appx. 1 cubic yard - logs	Rippowam River	Removed log/timber blocking culvert inlet pipe
10/31/2022	284 Vine Rd.	1/2 Day	4 men, mini excavator, small dump trucks	appx. 6 cubic yards - sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared culvert inlets. Removed logs, sticks, brush and debris.
1/4/2023	161 Janes Lane	1 Day	2 men, bobcat, small dump truck.	sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared leak off area from roadway
1/25/2023	16 Don Bob Rd.	1/2 Day	2 men, Stetco hydraulic crane truck	sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared stormwater culvert inlet piping in ROW. Inlet blocked. Causing road to ice.
2/3/2023	53 Arrowhead Dr.	1/3 Day	1 man, pickup truck	sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared stormwater culvert inlet piping in ROW. Inlet blocked. Causing road to ice.
2/9/2023	486 Roxbury Rd.	1/2 Day	2 men, Stetco hydraulic crane truck	appx. 1 cubic yard - sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared stormwater culvert inlet piping.
2/15/2023	Opposite #602 Stillwater Rd.	1 Day	2 men, small dump truck	appx. 2 cubic yards - sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared stormwater outfall and inlet piping in wooded area adjacent to golf course.
3/31/2023	On Chestnut Hill Rd. at Webbs Hill Rd.	1 Day	4 men, Mini excavator and small dump truck	appx. 2 cubic yards - sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared stormwater outfall piping in wooded area.
4/20/2023	Behind #51 Friar Tuck Ln.	1 Day	4 men, small dump trucks	Removed trees / logs blocking stormwater outfall piping and swale	Noroton River	Cut and cleared logs from swale. Located in City park property.
4/22/2023	125 Turn of River Rd.	1/2 Day	2 men, Stetco hydraulic crane truck	appx. 2 cubic yards - sediment, brush, leaves and debris	Rippowam River	Used Stetco to clean and clear inlet.
5/5/2023	Opposite #622 Wire Mill Rd.	2 Days	6 men, loader, roll off and small dump trucks	Removed tree which fell into river	Rippowam River	Service request to EPB - reported flooding due to tree in river. Tree removed. Seed and hay all disturbed areas.
5/9/2023	96 Four Brooks Rd.	2 Days	5 men, mini excavator, small dump trucks	appx. 6 cubic yards - sediment, brush, leaves and debris	Rippowam River	Cleaned and cleared culvert inlet. Removed logs, sticks, brush and debris. Created new leak off. Seed and hay.
6/21/2023	8 Pheasant Ln.	1 Day	3 men, mini excavator, small dump truck	appx. 4 cubic yards - dirt, rocks, leaves and debris.	Rippowam River	Cleaned and cleared inlet to 12" RCP. Added surge stone/rip rap to stabalize road edge.
6/8/2023	23 Brighton Pl.	1 Day	3 men, mini excavator, small dump truck	appx. 2 cubic yards - dirt, rocks, leaves, sticks, and debris.	Rippowam River	Cleaned and cleared inlet to 12" RCP. Seed and hay for all disturbed areas.
6/27/2023	79 Wake Robin Ln.	1 Day	5 men, mini excavator, small dump trucks, vac truck, camera CCTV truck	appx. 6 cubic yards - dirt, rocks, concrete	Rippowam River	Property owner buried stormwater outfall pipe DIS-1640 in ROW. SMD sent letter. Met w/ property owner. Excavated discharge pipe in response to adjacent flooding related service requests.
6/28/2023	171 Dogwood Ln.	1/2 Day	3 men, mini excavator, small dump trucks	appx. 4 cubic yards - logs, dirt, rocks, debris	Rippowam River	Cleaned and cleared logs and debris from leak off area.

APPENDIX J

2022-2023 DRY WEATHER SAMPLING

FacilityID	LocationDescription	Diameter	ServiceStatus	LocationSource	Comments	LastUpdate	LastEditor	Invert Elevation	Ownership	InvertElevation_NAVD88	SHAPE *	Dry Weather Visit Date	Flow Observed	Smell	Color	Erosion	Scour Protection	Blockage	Notes
DIS-3	Cross Country	36	Active	GPS	<Null>	3/8/2017 11:56	CDM_INC\desantima	<Null>	Yes	Yes	Yes	12/29/2022	NO						
DIS-4	Cross Country	42	Active	GPS	<Null>	3/8/2017 11:57	CDM_INC\desantima	<Null>	Yes	Yes	Yes	12/29/2022	NO						
DIS-27	Cross Country	12	Active	Aerials	<Null>	3/8/2017 15:49	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-47	Cross Country	30	Active	GPS	<Null>	3/8/2017 11:51	CDM_INC\desantima	City	Yes	<Null>	Yes	12/29/2022	NO						
DIS-48	Cove Rd	24	Active	Aerials	<Null>	3/8/2017 15:46	CDM_INC\desantima	7.45	<Null>	12.2	Point	12/29/2022	NO						
DIS-58	Maple Tree Ave	36	Active	GPS	<Null>	2/1/2013 10:14	CDM_INC\AbokiBA	<Null>	Yes	Yes	Yes	12/29/2022	NO						
DIS-62	Courtland Hill St	15	Active	Scaled from plan	<Null>	3/8/2017 15:48	CDM_INC\desantima	<Null>	Yes	Yes	Yes	12/29/2022	NO						
DIS-84	Fahey St	60	Active	Scaled from plan	<Null>	8/7/2015 11:22	CDM_INC\DeSantiMA	<Null>	Yes	Yes	Yes	12/29/2022	NO						
DIS-94	Columbus Pl	18	Active	GPS	<Null>	3/20/2013 11:05	CDM_INC\AbokiBA	<Null>	Yes	Yes	Yes	12/29/2022	NO						
DIS-97	Regent Ct	18	Active	Scaled from plan	<Null>	3/8/2017 15:48	CDM_INC\desantima	<Null>	Yes	Yes	Yes	12/29/2022	NO						
DIS-98	Regent Ct	18	Active	Scaled from plan	<Null>	3/8/2017 15:48	CDM_INC\desantima	<Null>	Yes	Yes	Yes	12/30/2022	NO						
DIS-113	Rome Pl	<Null>	Active	Scaled from plan	<Null>	3/8/2017 15:48	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-127	Westover Ln	18	Active	GPS	<Null>	9/14/2013 13:33	CDM_INC\AbokiBA	111.5	<Null>	116.25	Point	12/28/2022	NO						
DIS-145	Kenilworth Dr E	15	Active	Scaled from plan	<Null>	3/8/2017 15:48	CDM_INC\desantima	5.05	<Null>	9.8	Point	12/29/2022	NO						
DIS-158	West Ave, 600	30	Active	GPS	<Null>	8/25/2015 14:01	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-215	Hastings Ln	24	Active	Aerials	<Null>	9/17/2014 14:29	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-216	Hastings Ln	12	Active	Aerials	<Null>	9/17/2014 14:29	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-218	Hastings Ln	21	Active	Aerials	<Null>	9/17/2014 14:49	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-222	Loveland Rd	18	Active	Aerials	<Null>	9/17/2014 15:30	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-256	West Ln	24	Active	Aerials	<Null>	9/24/2014 10:18	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/30/2022	NO						
DIS-346	E Middle Patent Rd	15	Active	Aerials	<Null>	12/15/2014 15:19	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-406	Cross Country	12	Active	Aerials	<Null>	3/8/2017 14:38	CDM_INC\desantima	29.47	<Null>	29.47	Point	12/29/2022	NO						
DIS-557	Riverbank Rd	24	Active	Scaled from plan	This HW dra	3/8/2017 15:34	CDM_INC\desantima	306.6	<Null>	311.35	Point	12/28/2022	NO						
DIS-573	Calass Ln	24	Active	Aerials	<Null>	3/8/2017 14:32	CDM_INC\desantima	418.5	<Null>	423.25	Point	12/30/2022	NO						
DIS-574	Cross Country	18	Active	Aerials	Endwall	3/8/2017 14:41	CDM_INC\desantima	407.9	<Null>	412.65	Point	12/30/2022	NO						
DIS-576	Canfield Dr	36	Active	Aerials	Endwall	3/8/2017 14:33	CDM_INC\desantima	155.6	<Null>	160.35	Point	12/22/2022	YES	NO	CLEAR				
DIS-577	Canfield Dr	<Null>	Active	Aerials	<Null>	3/8/2017 14:33	CDM_INC\desantima	220	<Null>	224.75	Point	12/22/2022	NO						Connected to culvert
DIS-580	Canfield Rd	30	Active	Aerials	<Null>	3/8/2017 14:33	CDM_INC\desantima	218.45	<Null>	223.2	Point	12/22/2022	NO						Connected to culvert
DIS-581	Cross Country	12	Active	Scaled from plan	<Null>	3/8/2017 14:41	CDM_INC\desantima	240.49	<Null>	245.24	Point	12/28/2022	NO						NEEDS CLEAN UP, MEASURED 24 IN.
DIS-677	Brown House Rd, 37	15	Active	Scaled from plan	<Null>	3/8/2017 14:44	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	YES	NO	CLEAR				WHITE FOAM AT EXIT AND BROWN RESIDUE ACROSS BED
DIS-685	Westover Rd	12	Active	Aerials	<Null>	3/8/2017 15:43	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	YES	NO	CLEAR				
DIS-693	Millbrook Rd	48	Active	Scaled from plan	<Null>	3/8/2017 15:29	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	YES	NO	CLEAR				TWO PIPES, NOT 48 IN.
DIS-698	Mill Spring Ln	18	Active	Scaled from plan	<Null>	5/5/2017 12:55	STAMFORDADMIN\cbarber	150.2	<Null>	<Null>	Point	12/22/2022	YES	NO	CLEAR				
DIS-700	Old Mill Rd	12	Active	Aerials	<Null>	3/8/2017 15:28	CDM_INC\desantima	177.7	<Null>	<Null>	Point	12/22/2022	NO						
DIS-738	E Middle Patnet Rd	24	Active	Scaled from plan	<Null>	3/8/2017 14:57	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-758	Cross Country	18	Active	Scaled from plan	<Null>	3/8/2017 14:48	CDM_INC\desantima	120.2	<Null>	124.95	Point	12/22/2022	YES	NO	CLEAR				
DIS-759	Buckingham Dr, parcel	18	Active	Scaled from plan	<Null>	3/8/2017 14:31	CDM_INC\desantima	<Null>	Yes	Yes	<Null>	12/30/2022	NO						
DIS-760	Buckingham Dr, parcel	15	Active	Aerials	<Null>	3/8/2017 14:32	CDM_INC\desantima	<Null>	Yes	Yes	<Null>	12/30/2022	NO						
DIS-765	Farms Rd	36	Active	Scaled from plan	<Null>	3/8/2017 14:59	CDM_INC\desantima	184.69	<Null>	185.79	Point	12/22/2022	NO						
DIS-797	Cross Country	24	Active	Scaled from plan	<Null>	3/8/2017 14:49	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-798	Cross Country	18	Active	Scaled from plan	<Null>	3/8/2017 14:49	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	NO						
DIS-822	Deep Valley Rd	18	Active	Scaled from plan	<Null>	3/8/2017 14:55	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-881	Shellter Rock Rd	18	Active	Aerials	<Null>	5/17/2015 17:14	CDM_INC\DeSantiMA	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-883	Shellter Rock Rd	<Null>	Active	Aerials	<Null>	5/17/2015 17:14	CDM_INC\DeSantiMA	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-968	West Ave, 650	42	Active	Aerials	<Null>	8/25/2015 14:02	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-969	Cross Country	48	Active	Aerials	<Null>	3/22/2017 16:26	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-976	Cross Country	12	Active	Scaled from plan	<Null>	3/8/2017 15:48	CDM_INC\desantima	81.5	<Null>	86.25	Point	12/28/2022	NO						
DIS-979	Black Rock Rd	18	Active	Aerials	Endwall	10/5/2015 14:10	CDM_INC\desantima	346.5	<Null>	351.25	Point	12/30/2022	NO						
DIS-980	Black Rock Rd	15	Active	Aerials	Endwall, inv	10/5/2015 14:10	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/30/2022	NO						

FacilityID	LocationDescription	Diameter	ServiceStatus	LocationSource	Comments	LastUpdate	LastEditor	Invert Elevation	Ownership	InvertElevation_NAVD88	SHAPE *	Dry Weather Visit Date	Flow Observed	Smell	Color	Erosion	Scour Protection	Blockage	Notes
DIS-981	Trinity Pass	18	Active	Aerials	Endwall	10/5/2015 14:28	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-984	Brookhollow Ln	18	Active	Aerials	<Null>	10/5/2015 15:55	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	NO						
DIS-985	Brookhollow Ln	24	Active	Scaled from plan	Inv N/A	10/5/2015 15:55	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	NO						PIPE SEPARATED AT JOINT
DIS-986	Brookhollow Ln	18	Active	Scaled from plan	inv N/A	10/5/2015 15:55	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	YES	NO	CLEAR				
DIS-1008	Ridge Brook Dr	12	Active	Scaled from plan	endwall	10/19/2015 14:42	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-1009	Ridge Brook Dr	12	Active	Scaled from plan	endwall	10/19/2015 14:42	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-1010	Ridge Brook Dr	12	Active	Scaled from plan	endwall	10/20/2015 14:42	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-1011	Cross Country	12	Active	Scaled from plan	<Null>	3/8/2017 14:53	CDM_INC\desantima	373.9	<Null>	375.	Point	12/30/2022	NO						
DIS-1012	Riverbank Rd	12	Active	Scaled from plan	<Null>	10/19/2015 15:16	CDM_INC\desantima	166.53	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1043	Laurel Ledge Rd	12	Active	Aerials	Field Inspect	3/8/2017 15:03	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1044	Laurel Ledge Rd	18	Active	Aerials	Field Inspect	3/8/2017 15:03	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1045	Laurel Ledge Ct	18	Active	Aerials	Field Inspect	3/8/2017 15:04	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1051	Cross Country	18	Active	Aerials	<Null>	3/8/2017 11:50	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-1091	Riverbank Rd	24	Active	Aerials	<Null>	3/8/2017 15:53	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1106	Westover Ln	12	Active	Aerials	<Null>	3/8/2017 15:53	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1109	Westover Ln	18	Active	Aerials	<Null>	3/8/2017 15:53	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1145	Laurel Rd	18	Active	Scaled from plan	<Null>	3/8/2017 15:53	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	YES	NO	CLEAR				YES, PIPE EXPOSE COULD BE CULVERT
DIS-1146	Laurel Rd	12	Active	Field Edit	<Null>	3/8/2017 15:53	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	YES	NO	CLEAR				
DIS-1150	Cross Country	18	Active	Scaled from plan	<Null>	4/6/2016 9:37	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/22/2022	YES	NO	CLEAR				
DIS-1257	Hope St	6	Active	GPS	<Null>	5/15/2016 20:43	CDM_INC\DeSantiMA	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1277	Cross Country	0	Active	Aerials	<Null>	5/28/2016 21:47	CDM_INC\DeSantiMA	<Null>	<Null>	<Null>	Point	12/29/2022	NO						
DIS-1278	Cross Country	10	Active	Aerials	<Null>	5/28/2016 21:50	CDM_INC\DeSantiMA	<Null>	<Null>	<Null>	Point	12/29/2022	NO						NOT 10 IN.
DIS-1284	Weed Ave	12	Active	Aerials	<Null>	5/28/2016 22:19	CDM_INC\DeSantiMA	<Null>	<Null>	<Null>	Point	12/29/2022	NO						
DIS-1288	Weed Ave	12	Active	Field Edit	<Null>	6/5/2016 20:12	CDM_INC\DeSantiMA	<Null>	<Null>	<Null>	Point	12/29/2022	NO						
DIS-1289	Weed Ave	12	Active	Field Edit	Dye appeare	6/5/2016 20:17	CDM_INC\DeSantiMA	<Null>	<Null>	<Null>	Point	12/29/2022	NO						NOT 12 IN.
DIS-1317	Cross Country	18	Active	Aerials	<Null>	8/30/2016 9:43	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1326	Riverbank Rd	12	Active	Aerials	<Null>	8/30/2016 11:05	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1353	Westover Rd	15	Active	GPS	<Null>	9/26/2016 14:04	CDM_INC\DeSantiMA	<Null>	<Null>	<Null>	Point	12/22/2022	NO						
DIS-1362	Westover Rd	12	Active	Aerials	<Null>	9/30/2016 16:17	CDM_INC\desantima	<Null>	<Null>	<Null>	Point	12/22/2022	NO						
DIS-1430	E Middle Patent Rd	18	Active	Aerials	<Null>	3/23/2017 14:40	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-1452	Patricia Ln	24	Active	Scaled from plan	<Null>	4/19/2017 15:30	CDM_INC\Koziellbj	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-1484	Riverbank Rd	<Null>	Active	<Null>	<Null>	8/31/2017 11:42	STAMFORDADMIN\cbarber	<Null>	<Null>	<Null>	Point	12/28/2022	NO						
DIS-1591	West side of Riverbank	<Null>	Active	Field Edit	Added per T	4/8/2021 9:13	STAMFORDADMIN\apatterson	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						
DIS-1602	Shellter Rock Rd	30	Active	Aerials	<Null>	7/2/2021 10:03	STAMFORDADMIN\mdesanti	<Null>	Yes	<Null>	<Null>	12/30/2022	NO						
DIS-223	Loveland Rd	21	Active	Aerials	<Null>	9/17/2014 15:32	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						
DIS-576	Canfield Dr	36	Active	Aerials	Endwall	3/8/2017 14:33	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						30"
DIS-577	Canfield Dr	<Null>	Active	Aerials	<Null>	3/9/2017 14:33	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						
DIS-580	Canfield Rd	30	Active	Aerials	<Null>	3/8/2017 14:33	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						24"
DIS-85	Hope St	60	Active	GPS	<Null>	3/13/2013 19:54	CDM_INC\AbokiBA	<Null>	Yes	Yes	Yes	12/28/2022	YES						
DIS-752	Merriebrook Ln	24	Active	Aerials	<Null>	3/8/2017 15:05	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						
DIS-753	Cross Country	30	Active	Aerials	<Null>	3/8/2017 14:48	CDM_INC\desantima	<Null>	Yes	Yes	<Null>	12/28/2022	NO						30"
DIS-798	Cross Country	18	Active	Scaled from plan	<Null>	3/8/2017 14:49	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						18"
DIS-765	Farms Rd	36	Active	Scaled from plan	<Null>	3/8/2017 14:59	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						30"
DIS-574	Cross Country	18	Active	Aerials	Endwall	3/8/2017 14:41	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	12/28/2022	NO						
DIS-77	Research Dr	30	Active	GPS	<Null>	3/8/2017 11:55	CDM_INC\desantima	<Null>	Yes	<Null>	Yes	12/29/2022	YES	NO	BROWN				OIL
DIS-761	Buckingham Ct, 15	18	Active	Scaled from plan	<Null>	3/8/2017 14:32	CDM_INC\desantima	<Null>	Yes	Yes	<Null>	12/30/2022	NO						
DIS-315	Wire Mill Rd	12	Active	Aerials	<Null>	10/2/2014 12:29	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	1/11/2023	NO						
DIS-183	Wire Mill Rd, 119	<Null>	Active	Scaled from plan	<Null>	3/8/2017 15:50	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	1/11/2023	NO						
DIS-1470	Long Ridge Rd	18	Active	GPS	<Null>	4/28/2017 19:16	STAMFORDADMIN\cbarber	<Null>	Yes	<Null>	<Null>	1/11/2023	YES	NO	CLEAR	NO	YES	NO	
DIS-914	Wood Ridge Dr South,	12	Active	Scaled from plan	<Null>	3/8/2017 11:49	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	1/11/2023	NO						
DIS-1041	Laurel Ledge Rd	18	Active	Field	Field Inspect	3/8/2017 15:49	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	1/11/2023	YES	NO	CLEAR	NO	YES	NO	
Dis-1040	Laurel Ledge Rd	12	Active	Field	Field Inspect	3/8/2017 15:49	CDM_INC\desantima	<Null>	Yes	<Null>	<Null>	1/11/2023	NO						

APPENDIX K

2022 – 2023 IDDE Sampling

Site Name	Date	Time	Ammonia	Surfactants	pH	Chlorine	Total Coliform Reported MPN	E. coli Reported MPN	Enterococccus Reported MPN	Notes
DIS-right	9/9/2022	1018	0.00	0.50		0.03				When looking at outfalls, there were two pipes. This was the one on the right (downstream)
DIS-left	9/9/2022	1018	0.00	0.25		0.09				When looking at outfalls, there were two pipes. This was the one on the left (upstream). Standing water in the pipe,flow was observed to be coming from the rocks.
Stream 1	9/9/2022	1020	0.00	0.25		0.04				Downstream of bridge in driveway of #80
Stream 2	9/9/2022	1022	0.00	0.50		0.03				Downstream of broken (but repaied) pipe behind #70
DIS-50	9/19/2022	954	0.00			0.03	> 9678	> 9678	5475	Partially submerged. Sample taken approx 3m downstream of outfall. 1.8ppt, 3361uS; DO 8.87mg/L; Temp 21.1
MH-696	9/19/2022	1010								Some water, but not enough to sample. No flow observed. CB pipe dry (and pipe in CB that had flow on previous sampling day was also dry)
MH-7577	9/19/2022	1020	0.00	0.25		0.02	> 9678	2595	1296	Conductivity/Salinity 1111uS/0.6ppt; Temp 22.9; Large amount of standing water. Flow into basin was visible from side pipe on East Ave
MH-7576	9/19/2022	1025					6212	236	63	Low flow, slightly discolored brown/orange water.
MH-695	9/19/2022	1050								Dry
MH-7596	9/19/2022	1057	0.00			0.00	> 9678	5654	1483	Hard to observe flow through grated manhole. Sampled anyway.
MH-7561	9/19/2022	1117	0.00	0.25		0.02	> 9678	3466	882	Tons of flow. Did not match flow obserserved downstream. Both side pipes flowing. West pipe had orange slime
MH-7561 West Pipe	9/19/2022	1140								Unable to sample flow, flow was too flat against the wall. MH-5876 which flow should be originating could not be found.
MH-7561 East Pipe	9/19/2022	1138	0.00	0.50		0.06	> 9678	6932	5475	MH-7560 which flow should be originating could not be found.
63 Wardwell CB (before)	10/4/2022	1002	0.50	0.25		0.00	> 4839	2240		Sample taken before basin was vacuumed out. After vac, no ifluent was observed.
DIS-161	10/12/2022	930								Dry
MH-2663	10/12/2022	933								Dry
MH-2662	10/12/2022	940								Dry
MH-2661	10/12/2022	943								Dry
MH 2309	12/5/2022	1022								Connects to DIS 131, litte pool - looks like it could be bubbling up from ground
MH 3204	12/5/2022	1033								Unable to locate
IN 4796	12/5/2022	1033								Dry
IN 4795	12/5/2022	1033								Dry
DIS 69N	12/5/2022	1050								Dry
DIS 69S	12/5/2022	1048								Partially submerged
MH 7074	12/5/2022									Unable to open - shut tight
MH 7075	12/5/2022	1052								Flow too low to collect
MH 7076	12/5/2022	1058					> 4839	> 4839		Large settling pool - could be from river?
MH 7076	12/5/2022	1058					> 24196	17329		Large settling pool - could be from river?
MH 3208	12/5/2022	1114	0.25	0.25			> 4839	870		Lots of flow
MH 3208	12/5/2022	1114					11199	450		Lots of flow
DIS 983	12/5/2022	1116								Not flowing? Very confused
MH 1615	12/5/2022	1121								Too much traffic to open
MH 3242	12/5/2022	1130								Dry
MH 3241	12/5/2022	1137								Pooled water, no water in or out
MH 1407	12/5/2022	1156	0.00	0.25			4839	247		
MH 1407	12/5/2022	1156					4106	243		
Oakdale Rd Inlet	12/5/2022	1215	0.00				> 4839	2407		
Oakdale Rd Inlet	12/5/2022	1215					17329	2909		
MH 4018 Emery SP Bottom	12/8/2022	1020	0.00	0.25			708	10		Chlorine: 0/pH: 7
MH 4018 Emery SP Bottom	12/8/2022	1020					690	6		Very difficult to collect, may have some mixing with Halliwell SP
MH 4018 Halliwell SP Top	12/8/2022	1030	0.00	0.25			> 24196	2359		Chlorine: 0/pH: 7.7
MH 4018 Halliwell SP Top	12/8/2022	1030					> 4839	2407		Strong pulsing observed a few times during collection
DIS 69S	1/18/2023	941					305	85		
MH 7076	1/18/2023	947					591	203		Stagnant water, debris in bag
MH 7075	1/18/2023	950								Flow still too low to collect
MH 7077	1/18/2023	1000								Covered by car
IN 11316	1/18/2023	955								Stagnant water
MH 3238	1/18/2023	1018					145	< 10		
MH 3237	1/18/2023	1031					85	< 10		
MH 3235	1/18/2023	1034					262	< 10		
MH 3236	1/18/2023	1042					959	20		Piles of what is likely dead animals? Animal poop? Not end of line
MH 842	1/18/2023	1055					246	31		Dead animals again. Animal poop?
MH 844	1/18/2023	1100					279	20		ANIMAL POOP - lots and lots, poop in water
DIS 21	1/18/2023	1128					1515	933		
DIS 21	1/18/2023	1128					2599	977		
Oakdale Inlet	1/18/2023	1159					3266	996		
MH 7723	1/18/2023	1203					6932	5654		Oil smell and sheen on surface and bag. Stagnant
MH 7721	1/18/2023	1210								Small pool in center. No flow in or out
IN 1386	1/18/2023	1211								Dry
DIS 1419	1/18/2023	1219					9678	5654		Flow did not match MH 7723. Knocked up debris during collection
DIS 50	3/29/2023	1341	0.25	0.75	7.00	0.01	> 4839	> 4839	2827	pH: 7.0, Chlorine: 0.01, salinity (taken from whirl pak): 0.6, Cond: 1250, partially submerged, greenish color to water in pond, brackish water - likely false positive for surfactants
MH 696 SP	3/29/2023	1417					2240	2	2	Bacteria only, SP believe attached to sump pump
MH 696	3/29/2023	1413	0.25	0.50	7.00	0.00	> 9678	767	39	pH: 7.0, Chlorine 0.0, first sample for ancillary test 1413 before sump pump came on, second sample for bacteria after sump discharge
MH 7577	3/29/2023	1443								car on top of MH
MH 7576	3/29/2023	1446	0.25	0.50	6.90	0.00	> 4839	870	118	pH: 6.9, Chlorine 0.0, iron slime on bottom
MH 7596	3/29/2023	1508	0.00	0.50	7.00	0.00	> 4839	229	24	pH: 7.0, Chlorine: 0.0, salinity (taken from whirl pak): 0.5, Cond: 1071
MH 7561	3/29/2023	1529	0.00	0.25	7.00	0.02	2092	168	4	pH: 7.0, Chlorine: 0.02, salinity (taken from whirl pak): 0.6, Cond: 1187, west had flow but could not get - low flow

Site Name	Date	Time	Ammonia	Surfactants	pH	Chlorine	Total Coliform Reported MPN	E. coli Reported MPN	Enterococccus Reported MPN	Notes
MH 7561 E	3/29/2023	1531	0.00	0.25	7.30	0.02	> 4839	1226	95	pH: 7.3, Chlorine 0.02
108 Cove Rd MH	5/18/2023	1038	6.0	3.00	7.40	0.00	> 241960	> 241960	> 241960	Lower pipe trickle flow creating suds below pipe
79 Cove Rd	5/18/2023	1120	6.0	3.00			> 241960	> 241960	> 241960	sewage smell, grease discoloration on side wall, CB stag
CB @ MH	5/18/2023									stag, not high enough to leave pipe
CB 1	5/18/2023									stag, not high enough to leave pipe
Southside CBs across from MH	5/18/2023									stag
CB @ 79 Cove Rd	5/18/2023									stag, sweage smell, discoloration

Site Name	Date	Time	Water Temp ° C	Dissolved Oxygen mg/L	Conductivity µmho/cm	Salinity ppt	Total Coliform Reported Outside range?	Total Coliform Reported MPN	E. coli Reported Outside range?	E. coli Reported MPN	Enterococcus Reported Outside range?	Enterococcus Reported MPN	Notes	305B Segment	Latitude	Longitude	le Location Type
Noroton 8	5/1/2023	947	12.2	9.52	215.3		>	4839		870				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	5/1/2023	958	11.8	10.17	182		>	4839		626				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	5/1/2023	1010	12.3	10.66	185.1		>	4839		690				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	5/1/2023	1021	12.4	10.31	200.5		>	4839		545			Construction u	CT7403-00	41.1029	-73.5098	Instream
Noroton 3	5/1/2023	1029	12.4	10.43	223.4		>	4839		870				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	5/1/2023	1039	12.4	10.29	240.2		>	4839		1633				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	5/1/2023	1047	12.4	10.36	241.2		>	4839		1540				CT7403-00	41.07218	-73.511	Instream
Noroton 1	5/1/2023	1058	12.5	10.41	249.9	0.1						1850		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	5/16/2023	1045	18	8.22	321			2420		96				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	5/16/2023	1104	15.8	8.9	282.1		>	2420		24				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	5/16/2023	1119	17.4	8.79	336.5		>	2420		20				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	5/16/2023	1136	18.4	9.48	330.8		>	2420		56				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	5/16/2023	1147	17.1	9.31	340.9		>	2420		228				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	5/16/2023	1159	18.3	8.02	465		>	2420		196				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	5/16/2023	1209	16.5	8.11	477		>	2420		285				CT7403-00	41.07218	-73.511	Instream
Noroton 1	5/16/2023	1221	17.6	6.77	6299	3.9						52		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	6/5/2023	1203	17.7	6.78	333.1		>	2420		131				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	6/5/2023	1211	17.3	11.05	209.3		>	2420		9				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	6/5/2023	1223	18.9	7.8	341.8			1986		8				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	6/5/2023	1235	19.3	8.62	317.9		>	2420		23				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	6/5/2023	1245	17	9.59	335.7			2420		219				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	6/5/2023	1258	18.6	8.05	502		>	2420		126				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	6/5/2023	1306	16.6	7.76	507		>	2420		328				CT7403-00	41.07218	-73.511	Instream
Noroton 1	6/5/2023	1316	18	12.06	9804	5.5						364		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	6/20/2023	1120	20.4	3.13	369.7		>	2420		308				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	6/20/2023	1106	19.9	6.92	292.3		>	2420		16				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	6/20/2023	1053	22.1	7.37	347.4		>	2420		15				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	6/20/2023	1043	20.7	6.92	337.4		>	2420		214				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	6/20/2023	1035	19.6	7.82	345.2			1986		1300				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	6/20/2023	1021	20.5	5.99	473		>	2420		126				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	6/20/2023	1013	19.8	5.88	473		>	2420		687				CT7403-00	41.07218	-73.511	Instream
Noroton 1	6/20/2023	1002	21.9	3.64	38478	24.5						201		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	7/12/2023	1153	26.3	7.97	288			1011		110				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	7/12/2023	1202	24.3	7.09	258		>	2420		199				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	7/12/2023	1214	27.8	7.06	269.9			1011		63				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	7/12/2023	1234	26.6	7.06	273.7		>	2420		120				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	7/12/2023	1243	24.7	7.69	293.1		>	2420		613				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	7/12/2023	1252	25.7	6.98	356.9		>	2420		162				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	7/12/2023	1311	24.2	6.51	366.7		>	2420		517				CT7403-00	41.07218	-73.511	Instream
Noroton 1	7/12/2023	1321	25.4	3.73	33486	21						388		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	7/17/2023	948	24.8	4.6	274.3		>	4839		476				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	7/17/2023	1003	23.4	6.65	232.8		>	4839		545				CT7403-00	41.14108	-73.5117	Instream

Site Name	Date	Time	Water Temp ° C	Dissolved Oxygen mg/L	Conductivity µmho/cm	Salinity ppt	Total Coliform Reported Outside range?	Total Coliform Reported MPN	E. coli Reported Outside range?	E. coli Reported MPN	Enterococcus Reported Outside range?	Enterococcus Reported MPN	Notes	305B Segment	Latitude	Longitude	Sample Location Type
Noroton 5	7/17/2023	1017	24.8	7.66	241.5		>	4839		394				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	7/17/2023	1030	25.2	6.64	266.5		>	4839		182				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	7/17/2023	1040	24.7	6.69	269.8		>	4839		731				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	7/17/2023	1052	24.6	5.69	306.1		>	4839		821				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	7/17/2023	1110	24.1	5.04	311.1			2022		872				CT7403-00	41.07218	-73.511	Instream
Noroton 1	7/17/2023	1121	24	6.83	325.1	0.2						1112		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	8/10/2023	949	22.9	3.82	316		>	2420		50				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	8/10/2023	1014	21.3	6.92	276.8		>	2420		99				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	8/10/2023	1028	23.8	7.14	323.2		>	2420		26				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	8/10/2023	1040	22.3	6.2	326.5		>	2420		105				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	8/10/2023	1048	21.5	7.11	338.5		>	2420		308				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	8/10/2023	1104	22.4	6.36	410.6		>	2420		48				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	8/10/2023	1110	21.8	6.22	430.9		>	2420		291				CT7403-00	41.07218	-73.511	Instream
Noroton 1	8/10/2023	1122	22.6	1.87	36299	23	>	2420		613		384		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	8/15/2023	1056	22.7	5.09	267.6		>	4839		1633				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	8/15/2023	1044	20.7	7.65	206.6		>	4839	>	4839				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	8/15/2023	1032	21.7	8.49	253.6		>	4839		3106				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	8/15/2023	1022	24.4	7.54	292.4		>	4839		279				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	8/15/2023	1015	23.7	7.34	302.8		>	4839		626				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	8/15/2023	1001	22	6.95	187.3		>	4839	>	4839				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	8/15/2023	954	22	6.91	176.8		>	4839		4839				CT7403-00	41.07218	-73.511	Instream
Noroton 1	8/15/2023	945	22.1	7.48	221.3	0.1						19863		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	9/7/2023	1011	24.5	1.55	321.3		>	2420		155				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	9/7/2023	1022	22.3	6.8	295.7			2420		20				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	9/7/2023	1031	26.2	8.13	329		>	2420		9				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	9/7/2023	1040	25	7.19	316.4		>	2420		142				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	9/7/2023	1100	23.4	6.1	329.2		>	2420		866				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	9/7/2023	1120	23.7	6.9	504		>	2420		77				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	9/7/2023	1129	23.4	6.27	512		>	2420		548				CT7403-00	41.07218	-73.511	Instream
Noroton 1	9/7/2023	1139	25	1.14	33460	21.3						253		CT7403-00	41.06186	-73.5081	Instream
Noroton 8	9/18/2023	1215	18.5	7.71	143.9		>	4839	>	4839				CT7403-00	41.15925	-73.5142	Instream
Noroton 7	9/18/2023	1159	17.6	8.43	182.5		>	4839		922				CT7403-00	41.14108	-73.5117	Instream
Noroton 5	9/18/2023	1150	18.5	8.78	236.8		>	4839		73				CT7403-00	41.11868	-73.5013	Instream
Noroton 4	9/18/2023	1140	19.5	6.42	215.8		>	4839		731				CT7403-00	41.1029	-73.5098	Instream
Noroton 3	9/18/2023	1132	19.1	7.34	185.7		>	4839	>	4839				CT7403-00	41.0954	-73.5143	Instream
Noroton 2	9/18/2023	1105	18.2	7.27	321.1		>	4839	>	4839				CT7403-00	41.0753	-73.5155	Instream
Noroton 1.75	45187	1057	18.3	7.12	312.4		>	4839		3466				CT7403-00	41.07218	-73.511	Instream
Noroton 1	45187	1047	18.7	7.67	328.2	0.2						9804		CT7403-00	41.06186	-73.5081	Instream

Site Name	Date	Time	Water Temp ° C	Dissolved Oxygen mg/L	Conductivity µmho/cm	Salinity ppt	Total Coliform Reported Outside range?	Total Coliform Reported MPN	E. coli Reported Outside range?	E. coli Reported MPN	Enterococcus Reported Outside range?	Enterococcus Reported MPN	Notes	305B Segment	Latitude	Longitude	Sample Location Type
Rippowam 7	5/24/2023	1003	15.8	10.07	101.3		>	2420		66				CT7405-00	41.10559	-73.5586	Instream
Rippowam 5	5/24/2023	1016	15.7	10.17	359.7		>	2420		108				CT7405-00	41.08559	-73.5566	Instream
Rippowam 4	5/24/2023	1027	15.5	9.71	384.2		>	2420		225				CT7405-00	41.06617	-73.5576	Instream
Rippowam 3	5/24/2023	1044	15.6	10.09	390.4			4839		259				CT7405-00	41.06593	-73.5491	Instream
Rippowam 2	5/24/2023	1056	15.7	10.35	412.8		>	4839		358				CT7405-00	41.05904	-73.5466	Instream
Rippowam 0.5	5/24/2023	1108	16.3	11.08	343.1	0.2						153		CT-W1_018	41.04813	-73.5454	Instream
Rippowam 7	6/8/2023	1132	15.1	9.35	407.2									CT7405-00	41.10559	-73.5586	Instream
Rippowam 5	6/8/2023	1117	15.2	10.45	461									CT7405-00	41.08559	-73.5566	Instream
Rippowam 4	6/8/2023	1103	14.5	10.28	510									CT7405-00	41.06617	-73.5576	Instream
Rippowam 3	6/8/2023	1024	14.3	10.3	507									CT7405-00	41.06593	-73.5491	Instream
Rippowam 2	6/8/2023	1049	14.9	10.54	539									CT7405-00	41.05904	-73.5466	Instream
Rippowam 0.5	6/8/2023	948	15.1	10.34	4103	2.2								CT-W1_018	41.04813	-73.5454	Instream
Rippowam 7	6/21/2023	1150	18.8	8.16	395.4		>	2420		124				CT7405-00	41.10559	-73.5586	Instream
Rippowam 5	6/21/2023	1204	18.4	9.6	504		>	2420		435				CT7405-00	41.08559	-73.5566	Instream
Rippowam 4	6/21/2023	1217	18.4	8.8	502			2420		193				CT7405-00	41.06617	-73.5576	Instream
Rippowam 3	6/21/2023	1235	19.1	9.61	489		>	4839		545				CT7405-00	41.06593	-73.5491	Instream
Rippowam 2	6/21/2023	1250	19.7	8.71	538		>	4839		922				CT7405-00	41.05904	-73.5466	Instream
Rippowam 0.5	6/21/2023	1303	20.2	8.51	37037	23.5						158		CT-W1_018	41.04813	-73.5454	Instream
Rippowam 7	6/28/2023	950	20.4	8.51	367.5		>	2420		152				CT7405-00	41.10559	-73.5586	Instream
Rippowam 5	6/28/2023	1003	20.5	8.57	425.2		>	2420		345				CT7405-00	41.08559	-73.5566	Instream
Rippowam 4	6/28/2023	1018	20.5	5.8	460		>	2420		435				CT7405-00	41.06617	-73.5576	Instream
Rippowam 3	6/28/2023	1035	20.6	8.58	463		>	4839		794				CT7405-00	41.06593	-73.5491	Instream
Rippowam 2	6/28/2023	1054	20.9	8.76	482		>	4839		821				CT7405-00	41.05904	-73.5466	Instream
Rippowam 0.5	6/28/2023	1116	22.5	8.2	13249	7.6						1187		CT-W1_018	41.04813	-73.5454	Instream
Rippowam 7	7/19/2023	1419	24.1	7.9	279.7		>	2420		124				CT7405-00	41.10559	-73.5586	Instream
Rippowam 5	7/19/2023	1359	23.9	8.15	292.9		>	2420		196				CT7405-00	41.08559	-73.5566	Instream
Rippowam 4	7/19/2023	1346	23.5	8.01	321.5			1011		119				CT7405-00	41.06617	-73.5576	Instream
Rippowam 3	7/19/2023	1332	23.5	8.09	319.6		>	4839		177				CT7405-00	41.06593	-73.5491	Instream
Rippowam 2	7/19/2023	1317	23.4	8.34	333.6		>	4839		870				CT7405-00	41.05904	-73.5466	Instream
Rippowam 0.5	7/19/2023	1305	24.7	4.24	4582	2.4						266		CT-W1_018	41.04813	-73.5454	Instream
Rippowam 7	8/1/2023												could not a	CT7405-00	41.10559	-73.5586	Instream
Rippowam 5	8/1/2023	1200	20.4	8.8	469		>	2420		816				CT7405-00	41.08559	-73.5566	Instream
Rippowam 4	8/1/2023	1147	20.9	7.37	485		>	2420		138				CT7405-00	41.06617	-73.5576	Instream
Rippowam 3	8/1/2023	1135	21	9.26	486		>	4839		267				CT7405-00	41.06593	-73.5491	Instream
Rippowam 2	8/1/2023	1124	21.1	8.95	520		>	4839		221				CT7405-00	41.05904	-73.5466	Instream
Rippowam 0.5	8/1/2023	1112	22.7	4.38	40690	26.1						743		CT-W1_018	41.04813	-73.5454	Instream
Rippowam 7	8/21/2023												could not a	CT7405-00	41.10559	-73.5586	Instream
Rippowam 5	8/21/2023	1231	21.1	8.78	364.8		>	2420		579				CT7405-00	41.08559	-73.5566	Instream
Rippowam 4	8/21/2023	1218	20.7	6.68	362.5			2420		206				CT7405-00	41.06617	-73.5576	Instream
Rippowam 3	8/21/2023	1206	21	9.09	345.6			4839		129				CT7405-00	41.06593	-73.5491	Instream
Rippowam 2	8/21/2023	1152	21	9.87	384.1		>	4839		320				CT7405-00	41.05904	-73.5466	Instream

Site Name	Date	Time	Water Temp ° C	Dissolved Oxygen mg/L	Conductivity µmho/cm	Salinity ppt	Total Coliform Reported Outside range?	Total Coliform Reported MPN	E. coli Reported Outside range?	E. coli Reported MPN	Enterococcus Reported Outside range?	Enterococcus Reported MPN	Notes	305B Segment	Latitude	Longitude	Sample Location Type
Rippowam 0.5	8/21/2023	1137	22.3	10.88	864	0.4						309		CT-W1_018	41.04813	-73.5454	Instream
Rippowam 7	9/6/2023												could not a	CT7405-00_	41.10559	-73.5586	Instream
Rippowam 5	9/6/2023	1059	22.9	8.34	485		>	2420		770				CT7405-00_	41.08559	-73.5566	Instream
Rippowam 4	9/6/2023	1044	22.8	6.87	497		>	2420		153				CT7405-00_	41.06617	-73.5576	Instream
Rippowam 3	9/6/2023	1028	23	8.44	501		>	2420		1120				CT7405-00_	41.06593	-73.5491	Instream
Rippowam 2	9/6/2023	1013	23.2	8.13	541	0.3	>	4839		176				CT7405-00_	41.05904	-73.5466	Instream
Rippowam 0.5	9/6/2023	1001	24.4	7.19	13586	7.8						161		CT-W1_018	41.04813	-73.5454	Instream
Rippowam 7	9/21/2023												could not a	CT7405-00_	41.10559	-73.5586	Instream
Rippowam 5	9/21/2023	1100	16.1	9.61	384.8			2420		122				CT7405-00_	41.08559	-73.5566	Instream
Rippowam 4	9/21/2023	1044	15.7	10.17	427.6		>	2420		236				CT7405-00_	41.06617	-73.5576	Instream
Rippowam 3	9/21/2023	1033	15.7	9.65	443.3		>	2420		435				CT7405-00_	41.06593	-73.5491	Instream
Rippowam 2	9/21/2023	1017	15.7	9.46	458		>	2420		1414				CT7405-00_	41.05904	-73.5466	Instream
Rippowam 0.5	9/21/2023	1004	16.2	9.77	1147							275		CT-W1_018	41.04813	-73.5454	Instream

APPENDIX L

2022-2023 DCIA Tracking Sheet

CITY OF STAMFORD

DIRECTLY CONNECTED IMPERVOUIS AREA TRACKING WORKSHEET

SQUARE FEET OF NEWLY CONNECTED OR REDUCED AREAS

	7/1/22-6/30/23
1	0
2	-3157
3	n/a
4	0
5	0
6	-37700
7	3867
8	0
9	-2333
10	120
11	n/a
12	-53
13	0
14	293
15	-495
16	-1470
17	n/a
18	0
19	n/a
20	0
21	-3688
22	-58
23	n/a
24	0
25	0
26	-2237
27	941
28	n/a
29	2033
30	n/a
31	0
32	3166
33	-7377
34	-484
35	0
36	-591
37	n/a
38	0
39	850
40	n/a
41	0
42	n/a
44	0

45	0
46	977
TOTAL	-47396

APPENDIX M

2022-2023 Road Paving Program

CITY OF STAMFORD PAVING for 2022

 # = on paving list

ESTIMATED TIME OF COMPLETION

	SPRING 2022 PAVING				Miles
1	Brookdale Rd (part of neighborhood)	Entire Rd -some curbing left	Spring 2022	City	0.68
2	Plymouth Rd	repair storm damaged area in middle of road	Spring 2022	City	0.02
3	Westover Lane	repair storm damaged area, about 60 feet	Spring 2022	City	0.01
4	Wesgate Dr	part of West Hill Rd drainage work, entire rd	Spring 2022	City	0.13
5	West View Lane #91	part of West Hill Rd scope, entire rd	Spring 2022	City	0.21
6	Ingleside Dr #49	High Ridge Rd - Laurel - apron and curbs left	Spring 2022	City	0.85
7	Briar Bae Rd #95 - milled	Ingleside to Rock Rimmon Rd - drainage in progress	Spring 2022	City	0.81
8	Wynnewood Lane (off of Ingleside)	entire road	Spring 2022	City	0.12
9	Scofieldtown Rd	Gary Rd to Rock Rimmon Rd	Spring 2022	City	1.18
10	Campbell Drive (part of neighborhood)	Entire Rd - curbing finishing this week		City	0.25
11	Rock Rimmon Rd (unfinished)	Scoffieldtown Rd to Mayapple Rd	Spring 2022	City	2.08
12	Echo Hill Dr #90	Entire Rd	Spring 2022	City	0.52
13	Progress Drive	Entire Rd	Summer 2022	City	0.16
14	Dale St (utility coordination)	Entire Rd - Utility contributions	Summer 2022	City/Utility	0.37
15	St. Benedict Cir #87 (utility coordination)	Entire Rd	Summer 2022	City/Utility	0.12
16	Warren St (utility coordination)	Entire Rd - Utility contributions	Summer 2022	City/Utility	0.27
17	William St (utility coordination)	Entire Rd - Utility contributions	Summer 2022	City/Utility	0.31
18	Myrtle Ave @ William (utility coordination)	small section at William St	Summer 2022	City/Utility	0.11
19	Lockwood Ave (utility coordination)	intersections	Summer 2022	City/Utility	0.47
20	Woodrow St (utility coordination)	Entire Rd - Utility contributions	Summer 2022	City/Utility	0.12
21	Windward Lane	off of Riverbank Rd - entire road	Summer 2022	City	0.17
22	Hillandale Ave #16	Entire Rd	Fall 2022	City	0.65
23	Underhill St (utility coordination)	Entire Rd	Fall 2022	City	0.13
24	Arlington Rd (utility coordination)	Entire Rd -drainage in progress	Fall 2022	City	0.15
25	Valley Rd (utility coordination)	Entire Rd	Fall 2022	City	0.19
26	Fenway St (utility coordination)	Entire Rd + entry way - drainage in progress	Fall 2022	City	0.19
27	Wenzel Terrace # 85 (utility coordination)	Entire Rd	Fall 2022	City	0.08
28	Treat Ave (utility coordination)	Entire Rd	Fall 2022	City	0.2
29	Cowan Ave (utility coordination)	Entire Rd	Fall 2022	City	0.13
30	Abel Ave (utility coordination)	Entire Rd	Fall 2022	City	0.02
31	Coolidge Ave (utility coordination)	Entire Rd	Fall 2022	City	0.31
32	Glenbrook Rd (utility coordination)	Hope to Arlington - sidewalk in progress	Fall 2022	City	0.17
33	Daskam Pl # 69 (utility coordination)	Entire Rd - sidewalk in progress	Fall 2022	City	0.05
34	Friar Tuck Ln	entire road	Fall 2022	City	0.25
35	Robin Hood Rd	entire road	Fall 2022	City	0.19
36	Little John Ln	entire road	Fall 2022	City	0.15
37	Nottingham Dr	entire road	Fall 2022	City	0.2
38	Cove Rd (utility coordination)	from Cove Park to Avery	Fall 2022	City	0.33
39	Dora St (off of Cove)	Cove to Middlebury St (turns into Webb Ave)	Fall 2022	City	0.34
40	Euclid Ave (utility coordination)	entire road	Fall 2023	City	0.27

Miles to be Paved 12.96

Paved so far 5.32

Excel

Bank unaccepted roads easy to find

Mill Brook Rd
Mill Brook

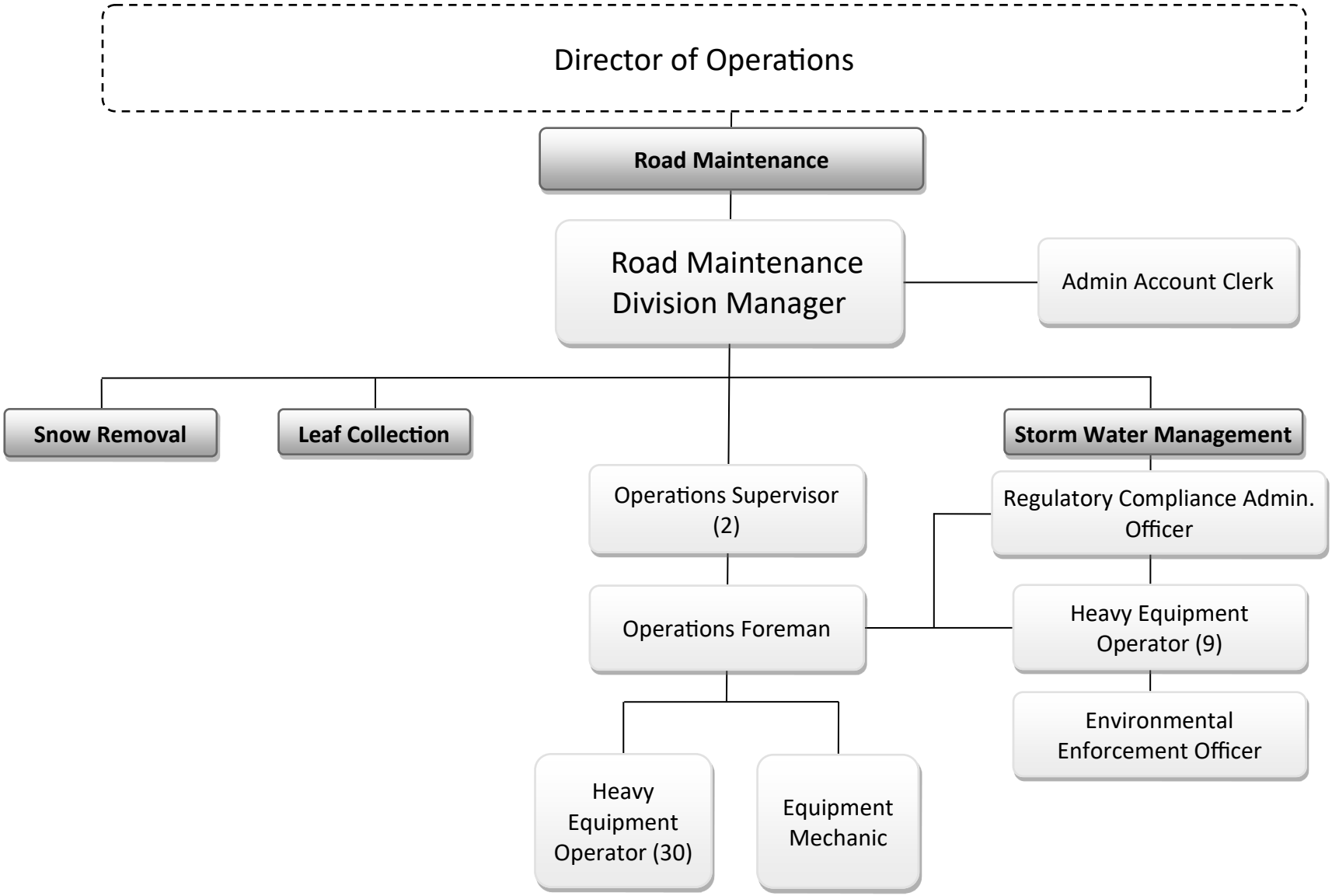
June Rd
Tod Ln
Guinea Rd) 4
Howard

16

APPENDIX N

2022-2023 SMD Organizational Chart

City of Stamford
Office of Operations
Road Maintenance



APPENDIX O

2022-2023 Harbor Watch Rivers Report

2022
Fairfield County River Report

Nicole C. Spiller
Kasey T. Burns
Mary K. Donato
Marisa Olavarria

Harbor Watch, Earthplace, Inc., Westport, CT 06880

This report includes data on:
Ash Creek Watershed (Ash Creek, Rooster River, Londons Brook, Horse Tavern Brook), Bruce Brook, Deadman's Brook, Farmill River, Fivemile River, Indian River, Island Brook, Keelers Brook, Muddy Brook, Noroton River, Norwalk River, Pequonnock River, Pumpkin Ground Brook Watershed (Pumpkin Ground Brook, Cemetery Pond Brook), Rippowam River, Sasco Brook, Saugatuck River, Stony Brook, and Success Lake Watershed.

This report should be cited as:
N.C. Spiller, K.T. Burns, M.K. Donato, and M.Olavarria. 2022. Fairfield County River Report 2022. Harbor Watch, Earthplace, Inc. 1-87pp.

About Harbor Watch

HARBOR WATCH
at Earthplace

The mission of Harbor Watch is to improve water quality and ecosystem health in Connecticut.

Each day we strive to reach this goal through research in the lab and field, collaboration with our partners, and education of students and the public. Harbor Watch addresses pollution threats to Long Island Sound and educates the next generation of scientists through hands-on research and experiential learning. As part of the larger organization of Earthplace, the work performed by Harbor Watch also supports the mission of Earthplace to build a passion in our community for nature and the environment through education, experience, and action.

Since its inception, Harbor Watch has trained over 1,000 high school students, college interns, and adult volunteers in the work of protecting and improving the biological integrity of Long Island Sound and has monitored hundreds of sites for a variety of physical and biological parameters.

In 2022, Harbor Watch:

- Studied 495 field sites in Fairfield County, CT
- Conducted biweekly, May-September monitoring of 22 rivers in 13 towns
- Trained 165 high school and college students in a combination of in-person and virtual education experiences
- Processed over 2500 water samples for bacteria concentration analysis in our laboratory

Visit www.harborwatch.org for more information!

Methods Summary

Each river was visited approximately twice per month from May through September for a total of 10 sampling days per river. Sites were selected based on access and representativeness of the river, with effort made to space sites evenly throughout the length of the river being studied. Monitoring was carried out under a Quality Assurance Project Plan approved by the CT DEEP in April 2022 (RFA #22043).

Monitoring teams left Earthplace in Westport, CT in the morning to begin sampling and would return within 2-4 hours. Each team was comprised of fully trained Harbor Watch staff or student interns, sometimes accompanied by volunteers. At each site, a water sample was collected and kept on ice. Water temperature, dissolved oxygen, and conductivity were measured at each site using a YSI Pro2030 meter.

Upon return to the Harbor Watch laboratory, the water samples were analyzed for total coliform and *E. coli* or enterococci using enzyme substrate methods set forth in Standard Methods (SM9223B). Indicator bacteria concentrations were evaluated using the criteria published in the CT DEEP Surface Water Quality Standards on 10/10/13 (Table 1). Because the rivers we tested do not contain designated swim areas, the "all other recreational uses" criteria will apply for analyses in this report. For additional information on methodology, please refer to the approved QAPP. A summary of deviations from the QAPP can be found on page 86 of this report.

Table 1. CT DEEP criteria for *E. coli* and enterococci levels as applied to recreational use, effective 10/10/13. Highlighted cells represent criteria used by Harbor Watch in this report.

Designated Use	Class	Indicator	Criteria
Designated Swimming	AA, A, B	*Escherichia coli*	Geomean less than 126/100 mL; Single Sample Maximum 235/100 mL
Non-designated Swimming	AA, A, B	*Escherichia coli*	Geomean less than 126/100 mL; Single Sample Maximum 410/100 mL
All Other Recreational Uses	AA, A, B	*Escherichia coli*	Geomean less than 126/100 mL; Single Sample Maximum 576/100 mL
Designated Swimming	SA, SB	*Enterococci*	Geomean less than 35/100 mL; Single Sample Maximum 104/100 mL
All Other Recreational Uses	SA, SB	*Enterococci*	Geomean less than 35/100 mL; Single Sample Maximum 500/100 mL

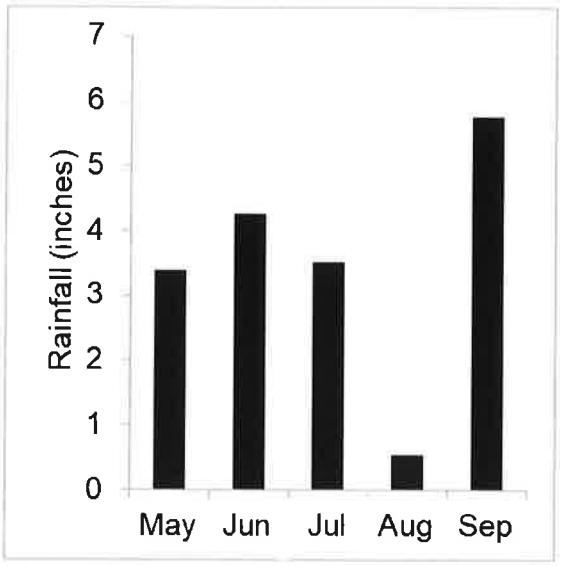


Figure 4. Monthly rainfall totals for 2022 (Norwalk Health Department Rain Gauge).

In the following sections, we present a data summary of each of the 18 watersheds monitored by Harbor Watch during 2022.

10. Noroton River

The Noroton River Watershed encompasses portions of Stamford, Darien, and New Canaan, CT. The watershed is approximately 7,000 acres or 11 square miles (CT DEEP, 2022). The river begins in New Canaan and flows south, forming the border of Stamford and Darien. The river discharges into Long Island Sound through Holly Pond. The land use along the river is a mixture of residential and light commercial. Harbor Watch has monitored the Noroton River for seven consecutive years, starting in 2016.

Indicator bacteria: In 2022, observed mean freshwater concentrations were slightly elevated above historic levels, but mean saltwater concentrations were slightly decreased (Figure 10.1). Bacteria concentrations at 6 of the 8 sites on the Noroton River exceeded the CT DEEP geomean criteria (Figure 10.2). Additionally, 32% of all samples processed exceeded the CT DEEP single sample maximum criteria (Table 10.1). Harbor Watch has historically worked with both the City of Stamford and Town of Darien to pinpoint sources of pollution to the River. At this time, no sources have been identified, but we continue to partner with both municipalities to investigate the reason for these elevated concentrations.

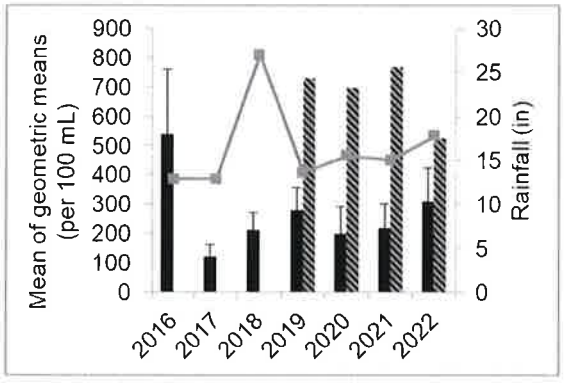


Figure 10.1. (Top) Mean of freshwater site geomeans (black bars) and saltwater site geomeans (striped bars) from 2016-2022 and total rainfall from May through September each year (grey squares and line).

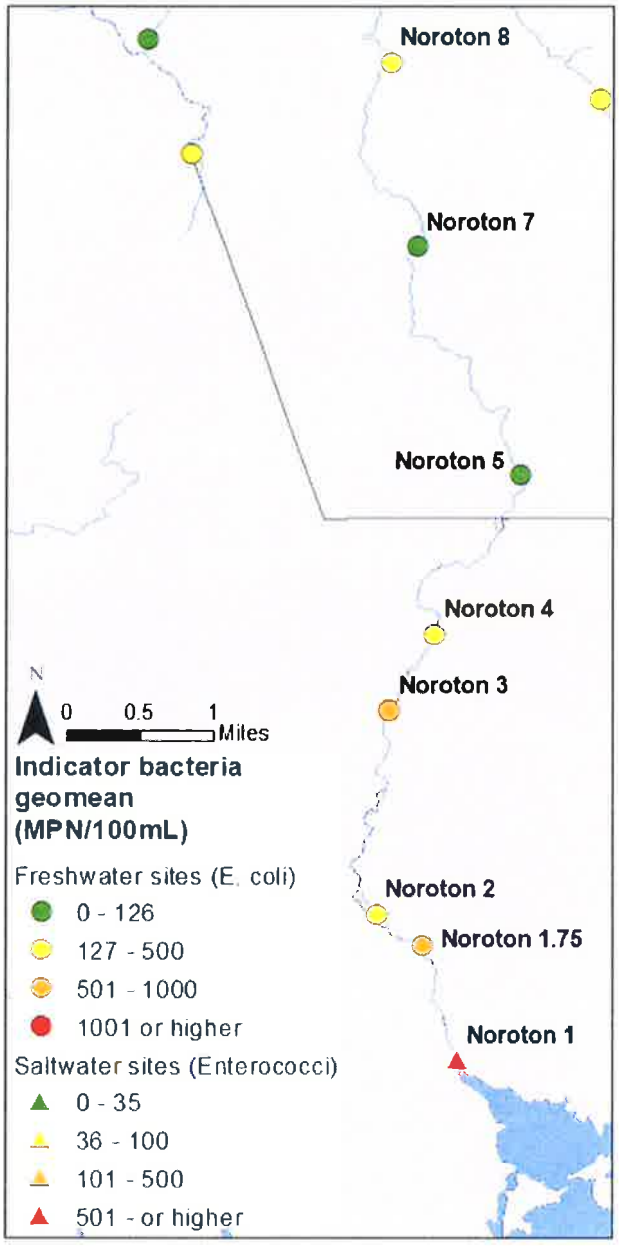


Figure 10.2. (Right) Geomean of bacteria concentrations at each site in 2022.

Table 10.1. Noroton River *E. coli* and *Enterococci* concentrations (MPN/100mL), geomeans, and percentage of samples exceeding the CT DEEP single sample maximum. Rainfall data gather from personal communication with the Town of Greenwich (M. Long, personal communication, October 12, 2022).

	Indicator bacteria	5/4/2022	5/25/2022	5/31/2022	6/15/2022	7/6/2022	7/21/2022	8/11/2022	8/18/2022	9/7/2022	9/15/2022	Geomean	% exceeding SSM
Noroton 8	*E. coli*	69	687	344	126	260	236	248	70	3683	613	295	30%
Noroton 7	*E. coli*	25	30	49	13	12	141	6	2	6932	345	44	10%
Noroton 5	*E. coli*	18	5	6	72	13	31	<1	11	1379	54	29	11%
Noroton 4	*E. coli*	5	1454	89	80	291	93	206	113	689	228	149	20%
Noroton 3	*E. coli*	50	276	517	345	1733	1373	1986	1540	899	321	591	50%
Noroton 2	*E. coli*	161	261	N/A	579	185	276	44	35	2069	365	224	22%
Noroton 1.75	*E. coli*	261	488	1300	582	1159	775	1986	626	3466	480	842	70%
Noroton 1	Enterococci	414	120	N/A	N/A	259	857	1019	794	4884	135	526	50%
Weather													

Table 10.2. GPS coordinates and site locations for the Noroton River.

Site Name	Latitude	Longitude	Site location notes	River Name
Noroton 8	41.15925	-73.51421	West Road and Greenley Road intersection	Noroton River
Noroton 7	41.14108	-73.51167	209 Frogtown Road	Noroton River
Noroton 5	41.11868	-73.50130	47 Jelliff Mill Road	Noroton River
Noroton 4	41.10290	-73.50982	137 Woodway Road	Noroton River
Noroton 3	41.09540	-73.51430	Camp Avenue	Noroton River
Noroton 2	41.07530	-73.51550	668 Connecticut 106	Noroton River
Noroton 1.75	41.072178	-73.51099	West Avenue	Noroton River
Noroton 1	41.06093	-73.50735	1308 E. Main Street	Noroton River

Dissolved oxygen and water temperature: Dissolved oxygen readings varied at each site throughout the watershed (Figure 10.3). While the majority of individual dissolved oxygen readings met the CT DEEP minimum criteria, 16 readings were observed below 5 mg/L at every freshwater site at least once, except Noroton 3, and three readings were observed below 3 mg/L at saltwater site Noroton 1. The highest frequency of low readings was observed at site Noroton 8 (80% of the time). High water temperatures in the summer months were a contributing factor to the observed low dissolved oxygen readings during this time (Figure 10.4).

Figure 10.3. Box plot of dissolved oxygen concentrations at each sampling site along Noroton River. The dashed red line represents the CT DEEP minimum criteria for dissolved oxygen in freshwater, which is 5mg/L. The dotted red line represents the CT DEEP minimum criteria for dissolved oxygen in saltwater, which is 3mg/L. The only saltwater sampling site in this river is Noroton 1. The numbers above each site name is the number of samples taken at each site. For more information on what each part of the boxplot represents, please review the informational graphic in the "Key Terms and Information" section on page 4.

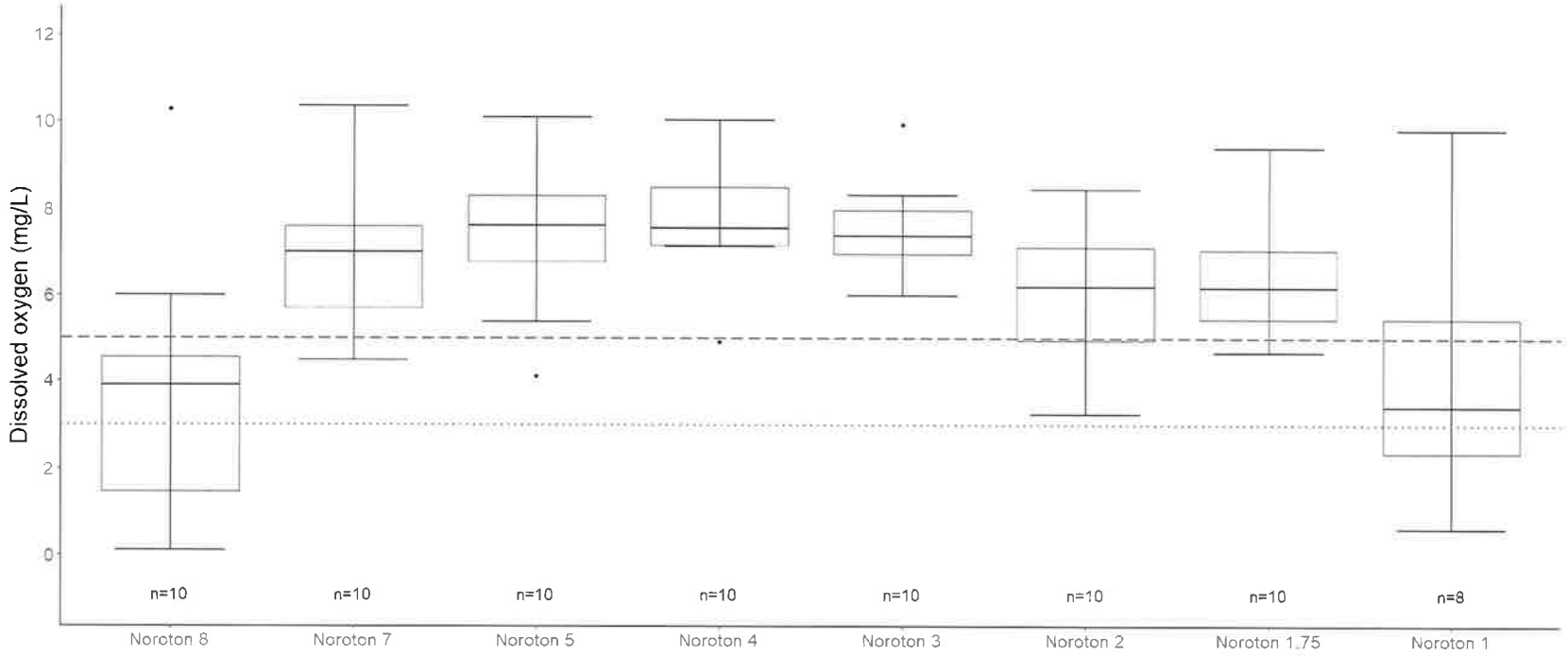
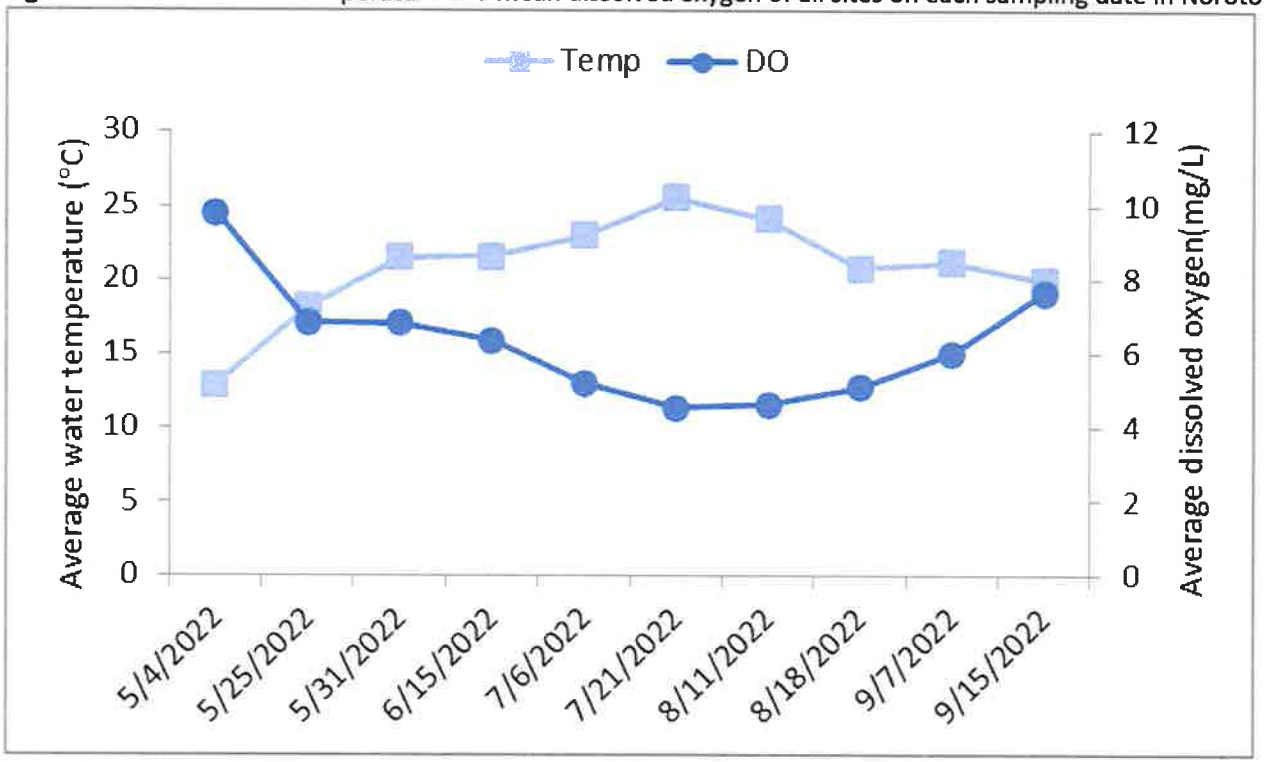
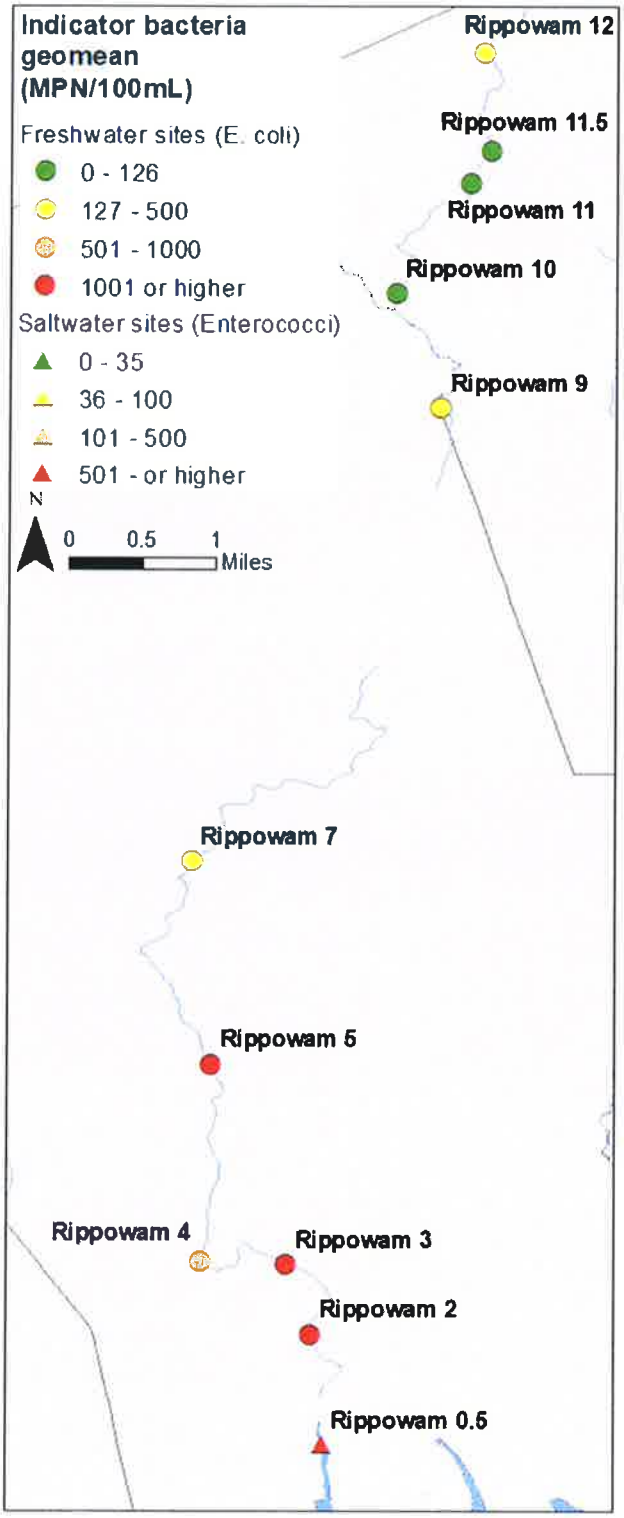


Figure 10.4. Mean water temperature and mean dissolved oxygen of all sites on each sampling date in Noroton River.



14. Rippowam River

The Rippowam River Watershed covers 37.5 square miles from the NY State border, through parts of New Canaan, Ridgefield, and Stamford, CT, where it discharges into Stamford Harbor. The southern portion of the basin is commercial, industrial, and urban and the northern portion is largely suburban, and forested (CT DEEP, 2011). This river is also known locally as the Mill River. Due to a long-term construction project, site Rippowam 8 (located at the intersection of Wire Mill Road and High Ridge Road) was not monitored during 2022.



Indicator bacteria: Harbor Watch has been monitoring the Rippowam River since 2017, and concentrations within the watershed have been observed to increase slightly each of the last three years (Figure 14.1). Eight sites exceeded the CT DEEP geomean criteria for indicator bacteria (Figure 14.2). Additionally, 38% of all samples processed in the Ripopowam River exceeded the CT DEEP single sample maximum criteria (Table 14.1).

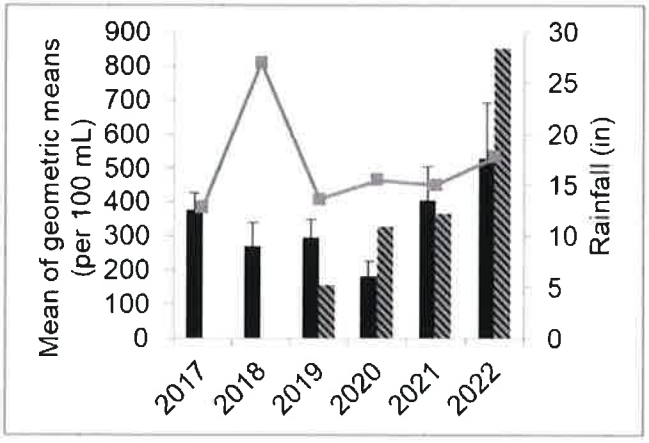


Figure 14.1. (Above) Mean of freshwater site geomeans (black bars) and saltwater site means (striped bars) from 2017-2022 and total rainfall from May through September each year (grey squares and line).

Figure 14.2. (Left) Geomean of bacteria concentrations at each site in 2022.

Table 14.2. Rippowam River *E. coli* and enterococci concentrations (MPN/100mL), geomeans, and percentage of samples exceeding the CT DEEP single sample maximum. Rainfall data gather from personal communication with the Town of Greenwich (M. Long, personal communication, October 12, 2022).

	Indicator bacteria	5/2/2022	5/26/2022	5/31/2022	6/14/2022	7/12/2022	7/18/2022	8/8/2022	8/25/2022	9/1/2022	9/22/2022	Geomean	% exceeding SSM
Rippowam 12	*E. coli*	39	48	23	156	210	7945	276	193	548	>4839	263	20%
Rippowam 11.5	*E. coli*	20	33	41	70	53	3683	20	11	27	980	68	20%
Rippowam 11	*E. coli*	36	11	21	36	43	1045	579	26	70	24	57	20%
Rippowam 10	*E. coli*	20	40	49	147	690	87	109	Dry	96	102	89	11%
Rippowam 9	*E. coli*	73	56	80	145	99	1844	86	488	115	579	173	20%
Rippowam 7	*E. coli*	113	104	228	172	921	6932	104	Construction	Construction	>4839	443	38%
Rippowam 5	*E. coli*	73	365	548	649	816	9678	1733	3106	1642	4045	1104	70%
Rippowam 4	*E. coli*	365	365	261	488	365	1302	456	345	336	3466	521	20%
Rippowam 3	*E. coli*	1553	551	651	977	775	>9678	550	498	504	9678	1185	60%
Rippowam 2	*E. coli*	1733	582	690	2092	321	>9678	N/A	857	525	>9678	1393	78%
Rippowam 0.5	Enterococci	1789	359	203	576	520	>24196	N/A	269	554	1722	854	67%
Weather		Wet	Dry	Dry	Wet	Dry	Wet	Wet	Dry	Dry	Wet		

Table 14.1. GPS coordinates and site locations for the Rippowam River.

Site Name	Latitude	Longitude	Site location notes	River Name
Rippowam 12	41.18524	-73.52999	Oenoke Ridge	Rippowam River
Rippowam 11.5	41.17561	-73.52919	West Road	Rippowam River
Rippowam 11	41.17234	-73.53126	Dans Highway	Rippowam River
Rippowam 10	41.16153	-73.53843	Ponus Ridge Road	Rippowam River
Rippowam 9	41.15023	-73.53412	Cascade Road	Rippowam River
Rippowam 7	41.10559	-73.5586	Cedar Heights Road	Rippowam River
Rippowam 5	41.08559	-73.55664	Long Ridge Road	Rippowam River
Rippowam 4	41.06617	-73.55763	Cold Spring Road	Rippowam River
Rippowam 3	41.06593	-73.54912	Bridge Street	Rippowam River
Rippowam 2	41.05904	-73.54664	W North Street	Rippowam River
Rippowam 0.5	41.04813	-73.54542	Richmond Hill Avenue	Rippowam River

Dissolved oxygen and water temperature: Dissolved oxygen readings varied at each site throughout the river. While the majority of individual dissolved oxygen readings met the CT DEEP minimum criteria, 11 readings were observed below 5 mg/L at freshwater sites Rippowam 12, Rippowam 11, Rippowam 10, and Rippowam 4, and one reading was observed below 3 mg/L at saltwater site Rippowam 0.5 from mid-July through early-September. Mean water temperatures were higher during these months (Figure 14.4).

Figure 14.3. Box plot of dissolved oxygen concentrations at each sampling site along Rippowam River. The dashed red line represents the CT DEEP minimum criteria for dissolved oxygen in freshwater, which is 5mg/L. The dotted red line represents the CT DEEP minimum criteria for dissolved oxygen in saltwater, which is 3mg/L. The only saltwater site along this river is Rippowam 0.5. The numbers above each site name is the number of samples taken at each site. For more information on what each part of the boxplot represents, please review the informational graphic in the "Key Terms and Information" section on page 4.

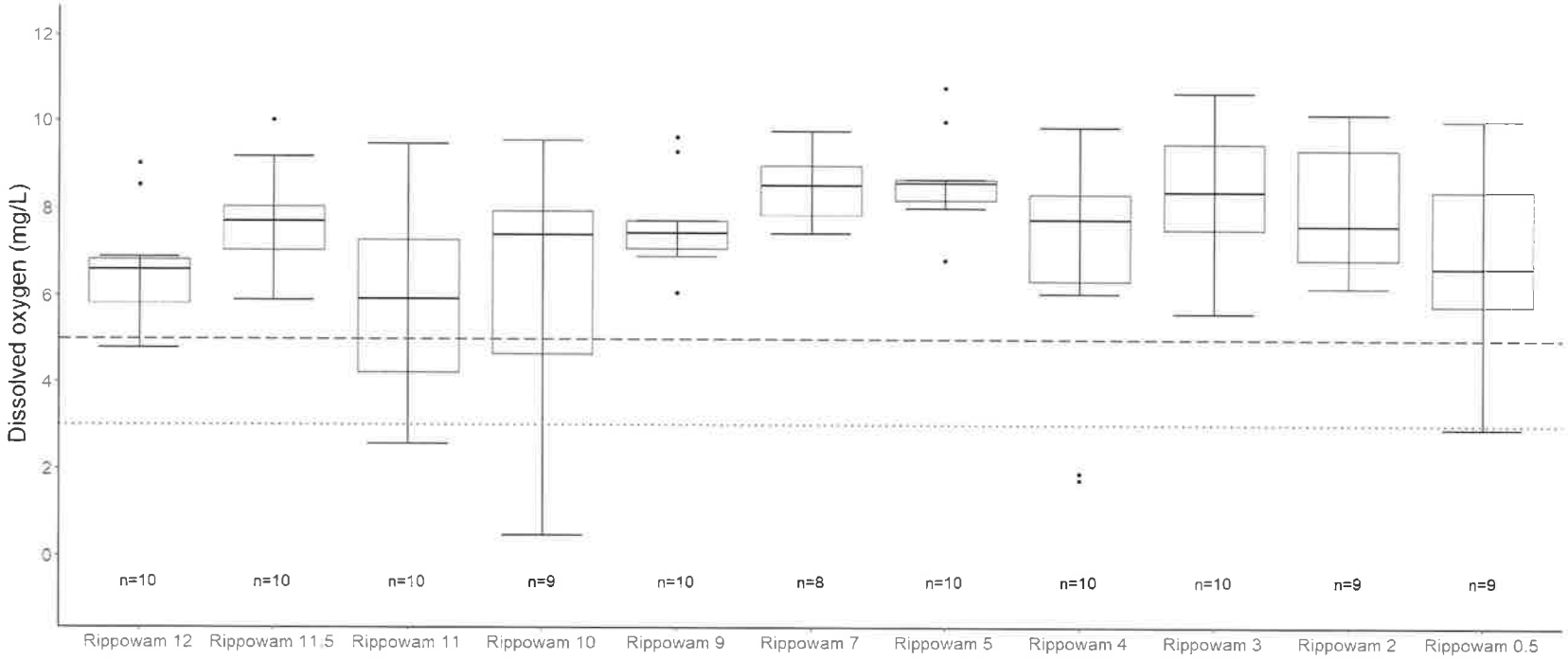
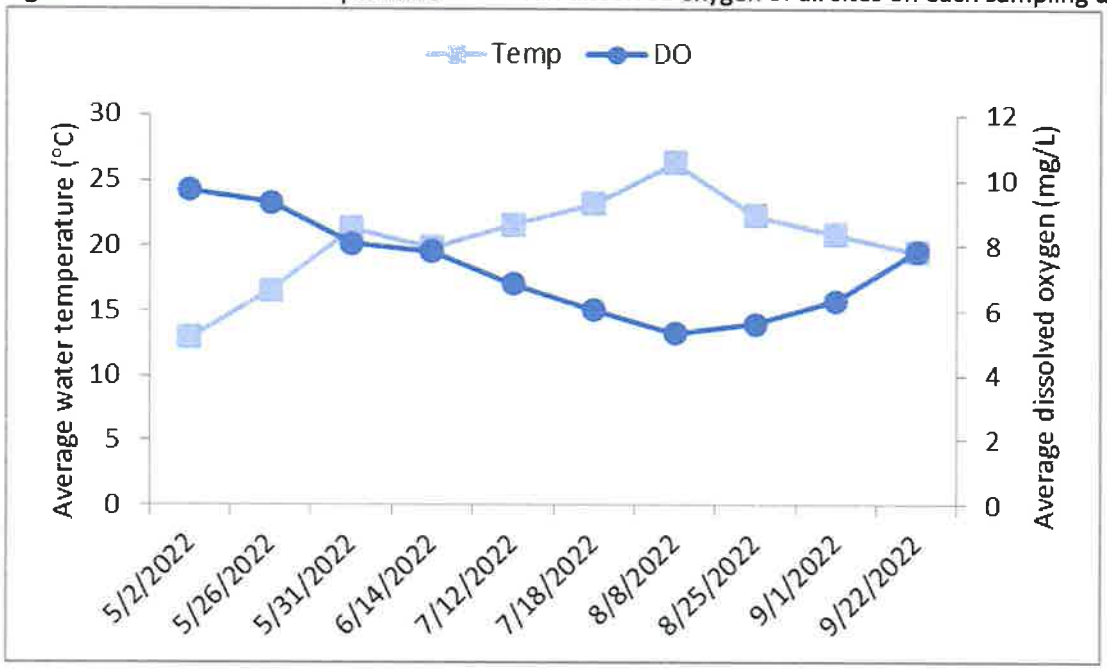


Figure 14.4. Mean water temperature and mean dissolved oxygen of all sites on each sampling date for Rippowam River.



APPENDIX P

2022-2023 Wet Weather Sampling

PHOENIX
Environmental Laboratories, Inc.

Monday, September 11, 2023

Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Project ID: **STAMFORD MS4**
SDG ID: **GCO83823**
Sample ID#s: **CO83823 - CO83830**

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

September 11, 2023

SDG I.D.: GCO83823

Project ID: STAMFORD MS4

Client Id	Lab Id	Matrix
DIS-665	CO83823	STORM WATER
DIS-1466	CO83824	STORM WATER
DIS-1467	CO83825	STORM WATER
DIS-926	CO83826	STORM WATER
DIS-965	CO83827	STORM WATER
DIS-962	CO83828	STORM WATER
DIS-927	CO83829	STORM WATER
DIS-918	CO83830	STORM WATER

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 11, 2023

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	WS	08/25/23	12:40
Location Code:	WESTSAMP	Received by:	B	08/25/23	18:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO83823
Phoenix ID: CO83823

Project ID: STAMFORD MS4
Client ID: DIS-665

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	08/26/23 00:38	CL	E353.2
Nitrate-N	0.03	0.02	mg/L	1	08/26/23 00:38	CL	E353.2
Nitrogen Tot Kjeldahl	0.53	0.20	mg/L	2	09/08/23	KDB	E351.1
Total Nitrogen	0.56	0.10	mg/L	1	09/08/23	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.069	0.010	mg/L	1	08/29/23	JR	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 11, 2023
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 11, 2023

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	WS	08/25/23	10:29
Location Code:	WESTSAMP	Received by:	B	08/25/23	18:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO83823
Phoenix ID: CO83824

Project ID: STAMFORD MS4
Client ID: DIS-1466

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	0.015	0.010	mg/L	1	08/26/23 00:39	CL	E353.2
Nitrate-N	0.21	0.02	mg/L	1	08/26/23 00:39	CL	E353.2
Nitrogen Tot Kjeldahl	1.87	0.20	mg/L	2	09/08/23	KDB	E351.1
Total Nitrogen	2.10	0.10	mg/L	1	09/08/23	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.772	0.010	mg/L	1	08/30/23	JR	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 11, 2023
Reviewed and Released by: Anil Makol, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 11, 2023

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	WS	08/25/23	10:20
Location Code:	WESTSAMP	Received by:	B	08/25/23	18:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO83823
Phoenix ID: CO83825

Project ID: STAMFORD MS4
Client ID: DIS-1467

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	0.014	0.010	mg/L	1	08/26/23 00:35	CL	E353.2
Nitrate-N	0.24	0.02	mg/L	1	08/26/23 00:35	CL	E353.2
Nitrogen Tot Kjeldahl	0.96	0.20	mg/L	2	09/08/23	KDB	E351.1
Total Nitrogen	1.21	0.10	mg/L	1	09/08/23	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.282	0.010	mg/L	1	08/30/23	JR	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 11, 2023
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 11, 2023

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	WS	08/25/23	12:10
Location Code:	WESTSAMP	Received by:	B	08/25/23	18:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO83823
Phoenix ID: CO83826

Project ID: STAMFORD MS4
Client ID: DIS-926

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Enterococci Bacteria	13000	20	MPN/100 mls	20	08/25/23 19:30	DT/DT	9230DEnterolert-13
Fecal Coliforms MPN	14400	20	MPN/100 mls	20	08/25/23 19:30	DT/DT	Colilert-18

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 11, 2023
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 11, 2023

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	WS	08/25/23	11:18
Location Code:	WESTSAMP	Received by:	B	08/25/23	18:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO83823
Phoenix ID: CO83827

Project ID: STAMFORD MS4
Client ID: DIS-965

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	08/26/23 00:53	CL	E353.2
Nitrate-N	0.60	0.02	mg/L	1	08/26/23 00:53	CL	E353.2
Nitrogen Tot Kjeldahl	0.76	0.20	mg/L	2	09/08/23	KDB	E351.1
Total Nitrogen	1.36	0.10	mg/L	1	09/08/23	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.883	0.010	mg/L	1	08/30/23	JR	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 11, 2023
Reviewed and Released by: Anil Makol, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 11, 2023

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	WS	08/25/23	12:42
Location Code:	WESTSAMP	Received by:	B	08/25/23	18:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO83823
Phoenix ID: CO83828

Project ID: STAMFORD MS4
Client ID: DIS-962

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	08/26/23 00:40	CL	E353.2
Nitrate-N	0.65	0.02	mg/L	1	08/26/23 00:40	CL	E353.2
Nitrogen Tot Kjeldahl	12.5	0.20	mg/L	2	09/08/23	KDB	E351.1
Total Nitrogen	13.2	0.10	mg/L	1	09/08/23	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.170	0.010	mg/L	1	08/30/23	JR	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 11, 2023
Reviewed and Released by: Anil Makol, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 11, 2023

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	WS	08/25/23	12:15
Location Code:	WESTSAMP	Received by:	B	08/25/23	18:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO83823
Phoenix ID: CO83829

Project ID: STAMFORD MS4
Client ID: DIS-927

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Enterococci Bacteria	34700	20	MPN/100 mls	20	08/25/23 19:30	DT/DT	9230DEnterolert-13
Fecal Coliforms MPN	48400	20	MPN/100 mls	20	08/25/23 19:30	DT/DT	Colilert-18

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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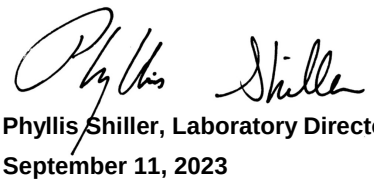

Phyllis Shiller, Laboratory Director
September 11, 2023
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

September 11, 2023

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	STORM WATER	Collected by:	WS	08/25/23	12:41
Location Code:	WESTSAMP	Received by:	B	08/25/23	18:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCO83823
Phoenix ID: CO83830

Project ID: STAMFORD MS4
Client ID: DIS-918

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Enterococci Bacteria	>48400	20	MPN/100 mls	20	08/25/23 19:30	DT/DT	9230DEnterolert-13
Fecal Coliforms MPN	>48400	20	MPN/100 mls	20	08/25/23 19:30	DT/DT	Colilert-18

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
September 11, 2023
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

September 11, 2023

QA/QC Data

SDG I.D.: GCO83823

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 694609 (mg/L), QC Sample No: CO83247 (CO83823)													
Phosphorus, as P	BRL	0.01	5.71	5.73	0.30	99.8			104			85 - 115	20
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 694800 (mg/L), QC Sample No: CO84396 (CO83824, CO83825, CO83827, CO83828)													
Phosphorus, as P	BRL	0.01	0.131	0.131	0	102			89.5			85 - 115	20
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 694287 (mg/L), QC Sample No: CO83751 (CO83823, CO83824, CO83825, CO83827, CO83828)													
Nitrate-N	BRL	0.02	0.03	0.02	NC	101			97.4			90 - 110	20
Nitrite-N	BRL	0.01	0.011	<0.01	NC	106			99.4			90 - 110	20
QA/QC Batch 695955 (mg/L), QC Sample No: CO83253 (CO83823, CO83824, CO83825, CO83827, CO83828)													
Nitrogen Tot Kjeldahl	BRL	0.10	1.73	1.63	6.00	108			114			85 - 115	20
Comment:													
TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.													
Additional criteria: LCS acceptance range for waters is 85-115% and for soils is 75-125%. MS acceptance range is 75-125%.													

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
September 11, 2023

Monday, September 11, 2023

Criteria: CT: SWP

State: CT

Sample Criteria Exceedances Report

GCO83823 - WESTSAMP

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

September 11, 2023 SDG I.D.: GCO83823

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

Cooler: Yes ☑ No ☐
Coolant: IPK ☒ ICE ☑ No ☐

CHAIN OF CUSTODY RECORD

Temp 4.0 °C Pg of

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email Makrina Nolan: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery/Contact Options:
☐ Fax: _____
☐ Phone: _____
☑ Email: vasamsetti@liesenr.com

Customer: Nesbon & Sampson
Address: 712 Brook Street
Suite D3
Rocky Hill, CT

Project: Stamford MS4
Report to:
Invoice to: Ravi Vasamsetti
QUOTE # WE051023BA

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: Worlbee Samson Date:

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid **X** = _____(Other)

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	E.Coli	Total Coliform	Enterococci (Bacteria)	Fecal Coliform	Nitrogen	Phosphorus	MS/MSD *	GL Amber 8 oz. [ ] H3PO4 [ ] NAHSO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCL	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
83823	DIS- 665	SW	8/25/23	12:40				✓	✓									2	1				
83824	DIS- 1466	SW	"	10:29				✓	✓									1	1				
83825	DIS- 1467	SW	"	10:20				✓	✓									1	1				
83826	DIS- 926	SW	"	12:10		✓	✓															1	
83827	DIS- 965	SW	"	11:18				✓	✓									1	1				
83828	DIS- 968	SW	"	12:48				✓	✓									1	1				
83829	DIS- 927	SW	"	12:15		✓	✓															1	
83830	DIS- 918	SW	"	12:41		✓	✓															1	

Relinquished by:	Accepted by:	Date:	Time:
Worlbee Samson	H. Coleman	8/25/23	4:45
H. Coleman	Emily A	8/25/23	1800

Comments, Special Requirements or Regulations:
(*) Extra bacteria sample received not listed on COC (ES)

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

Turnaround Time:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☑ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ (Residential) Direct Exposure
☐ (Comm/Industrial) Direct Exposure
☐ GA Leachability
☐ GB Leachability
☐ GA-GW Objectives
☐ GB-GW Objectives

CT
☐ RCP Cert
☐ GW Protection
☑ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1 ☐ MWRA eSMART
☐ GW-2 ☐ S-1 10% CALC
☐ GW-3
☐ S-1 GW-1 ☐ S-1 GW-2 ☐ S-1 GW-3
☐ S-2 GW-1 ☐ S-2 GW-2 ☐ S-2 GW-3
☐ S-3 GW-1 ☐ S-3 GW-2 ☐ S-3 GW-3
☐ SW Protection

State where samples were collected: CT

Data Format
☑ Excel
☑ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

GC083823

Emily Stokes

From: Emily Stokes
Sent: Friday, August 25, 2023 7:35 PM
To: vasamsettir@wseinc.com
Cc: Tara Banning; Rashmi Makol; Raisa Petraitis
Subject: Extra Bacteria Received Not Listed on COC
Attachments: SKM_458e23082520040.pdf; 20230825_191150.jpg; 20230825_191155.jpg

Importance: High

Good evening,

We received your samples tonight and we received an extra bacteria and it had illegible writing on it. Everything else on the COC matched the bottles we received.

Since you have listed Fecal and Enterrocci for analysis, we will run this sample as that so it does not go past hold.

Please confirm that you would like this sample run for these analyses at the earliest possible convenience. Thank you!

I've attached a photo of the sample and a copy of the COC.

Emily Stokes

Sample Receiving
Phoenix Environmental Laboratories
587 East Middle Tpke.
Manchester, CT 06040
emilys@phoenixlabs.com
PH: 860-645-1102 ext:369
FX: 860-645-0823

CLIENT NOTIFICATION
Positive Coliform Report

8/26/2023 4:50:26 PM

Sample Delivery Group: GCO83823

Location Code: WESTSAMP

Project: STAMFORD MS4

				T-COLI			E-COLI			F-COLI			ENTERO		
Phoenix ID	**Client Id**	**Matrix**	**Rush**	**Result**	**Units**	**Date**	**Result**	**Units**	**Date**	**Result**	**Units**	**Date**	**Result**	**Units**	**Date**
CO83826	DIS-926	SW		n.a.			n.a.			14400	mpn/100mls	08/25/23	Pending	mpn/100mls	
CO83829	DIS-927	SW		n.a.			n.a.			48400	mpn/100mls	08/25/23	Pending	mpn/100mls	
CO83830	DIS-918	SW		n.a.			n.a.			>48400	mpn/100mls	08/25/23	Pending	mpn/100mls	

Contact: AutoNotify

Date: 8/26/2023 4:50:26 PM

Comments: Client Auto Notified vai email: vasamsettir@wseinc.com

CLIENT NOTIFICATION
Positive Coliform Report

8/26/2023 8:25:02 PM

Sample Delivery Group: GCO83823

Location Code: WESTSAMP

Project: STAMFORD MS4

				T-COLI			E-COLI			F-COLI			ENTERO		
Phoenix ID	**Client Id**	**Matrix**	**Rush**	**Result**	**Units**	**Date**	**Result**	**Units**	**Date**	**Result**	**Units**	**Date**	**Result**	**Units**	**Date**
CO83826	DIS-926	SW		n.a.			n.a.			14400	mpn/100mls	08/25/23	13000	mpn/100mls	08/25/23
CO83829	DIS-927	SW		n.a.			n.a.			48400	mpn/100mls	08/25/23	34700	mpn/100mls	08/25/23
CO83830	DIS-918	SW		n.a.			n.a.			>48400	mpn/100mls	08/25/23	>48400	mpn/100mls	08/25/23

Contact: AutoNotify

Date: 8/26/2023 8:25:01 PM

Comments: Client Auto Notified vai email: vasamsettir@wseinc.com

PHOENIX
Environmental Laboratories, Inc.

Thursday, January 04, 2024

Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Project ID: **STAMFORD MS4**
SDG ID: **GCP70113**
Sample ID#s: **CP70113 - CP70123**

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

January 04, 2024

SDG I.D.: GCP70113

Project ID: STAMFORD MS4

Client Id	Lab Id	Matrix
DIS-1441	CP70113	SURFACE WATER
DIS-1445	CP70114	SURFACE WATER
DIS-168	CP70115	SURFACE WATER
DIS-194	CP70116	SURFACE WATER
DIS-236	CP70117	SURFACE WATER
DIS-248	CP70118	SURFACE WATER
DIS-298	CP70119	SURFACE WATER
DIS-36S	CP70120	SURFACE WATER
DIS-36N	CP70121	SURFACE WATER
DIS-1478	CP70122	SURFACE WATER
DIS-535	CP70123	SURFACE WATER

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	9:52
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70113

Project ID: STAMFORD MS4
Client ID: DIS-1441

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:30	ER	E353.2
Nitrate-N	0.58	0.02	mg/L	1	12/18/23 23:30	ER	E353.2
Nitrogen Tot Kjeldahl	1.29	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	1.87	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.198	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	10:30
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70114

Project ID: STAMFORD MS4
Client ID: DIS-1445

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:36	ER	E353.2
Nitrate-N	1.84	0.10	mg/L	5	12/18/23 23:44	ER	E353.2
Nitrogen Tot Kjeldahl	0.29	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	2.13	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.067	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

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Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	10:13
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70115

Project ID: STAMFORD MS4
Client ID: DIS-168

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:39	ER	E353.2
Nitrate-N	4.49	0.10	mg/L	5	12/18/23 23:41	ER	E353.2
Nitrogen Tot Kjeldahl	1.00	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	5.49	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.088	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

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Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	10:56
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70116

Project ID: STAMFORD MS4
Client ID: DIS-194

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:45	ER	E353.2
Nitrate-N	1.93	0.02	mg/L	1	12/18/23 23:45	ER	E353.2
Nitrogen Tot Kjeldahl	0.79	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	2.72	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.054	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

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Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	13:15
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70117

Project ID: STAMFORD MS4
Client ID: DIS-236

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrate-Nitrite (N)	0.03	0.02	mg/L	1	12/18/23	ER	E353.2
Nitrogen Tot Kjeldahl	0.32	0.10	mg/L	1	01/03/24	KDB	E351.1
Total Nitrogen	0.35	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.067	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

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Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	12:23
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70118

Project ID: STAMFORD MS4
Client ID: DIS-248

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:48	ER	E353.2
Nitrate-N	0.05	0.02	mg/L	1	12/18/23 23:48	ER	E353.2
Nitrogen Tot Kjeldahl	1.16	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	1.21	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.422	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

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The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	11:33
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70119

Project ID: STAMFORD MS4
Client ID: DIS-298

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrate-Nitrite (N)	< 0.02	0.02	mg/L	1	12/18/23	ER	E353.2
Nitrogen Tot Kjeldahl	0.42	0.10	mg/L	1	01/03/24	KDB	E351.1
Total Nitrogen	0.42	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.086	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	11:29
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70120

Project ID: STAMFORD MS4
Client ID: DIS-36S

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:51	ER	E353.2
Nitrate-N	0.06	0.02	mg/L	1	12/18/23 23:51	ER	E353.2
Nitrogen Tot Kjeldahl	0.76	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	0.82	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.157	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	11:33
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70121

Project ID: STAMFORD MS4
Client ID: DIS-36N

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:52	ER	E353.2
Nitrate-N	0.06	0.02	mg/L	1	12/18/23 23:52	ER	E353.2
Nitrogen Tot Kjeldahl	0.38	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	0.44	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.066	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	12:18
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70122

Project ID: STAMFORD MS4
Client ID: DIS-1478

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:54	ER	E353.2
Nitrate-N	0.06	0.02	mg/L	1	12/18/23 23:54	ER	E353.2
Nitrogen Tot Kjeldahl	0.64	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	0.70	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.078	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

January 04, 2024

FOR: Attn: Raju Vasamsetti
Weston & Sampson
712 Brook Street Suite 103
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SURFACE WATER	Collected by:		12/18/23	10:58
Location Code:	WESTSAMP	Received by:	SR1	12/18/23	15:55
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP70113
Phoenix ID: CP70123

Project ID: STAMFORD MS4
Client ID: DIS-535

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Nitrite-N	< 0.010	0.010	mg/L	1	12/18/23 23:55	ER	E353.2
Nitrate-N	0.04	0.02	mg/L	1	12/18/23 23:55	ER	E353.2
Nitrogen Tot Kjeldahl	2.70	0.20	mg/L	2	01/03/24	KDB	E351.1
Total Nitrogen	2.74	0.10	mg/L	1	01/03/24	KDB	SM4500NH3/E300.0-11
Phosphorus, as P	0.279	0.010	mg/L	1	12/19/23	LG	SM4500PE-11

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Total Phosphorus:
This sample was received with a pH>2. The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

Ammonia TKN:
This sample was received with a pH>2 The EPA requires preservation at time of sampling to a pH of <2. A sample bias can not be ruled out.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
January 04, 2024
Reviewed and Released by: Anil Makol, Project Manager

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

January 04, 2024

QA/QC Data

SDG I.D.: GCP70113

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 711050 (mg/L), QC Sample No: CP70242 (CP70113, CP70114, CP70115, CP70116, CP70117, CP70118, CP70119, CP70120, CP70121, CP70122, CP70123)													
Phosphorus, as P	BRL	0.01	2.58	2.65	2.70	97.5			101			85 - 115	20
Comment: Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 710989 (mg/L), QC Sample No: CP70113 (CP70113, CP70114, CP70115, CP70116, CP70117, CP70118, CP70119, CP70120, CP70121, CP70122, CP70123)													
Nitrate-N	BRL	0.02	0.58	0.58	0	101			100			90 - 110	20
Nitrite-N	BRL	0.01	<0.010	<0.01	NC	97.6			101			90 - 110	20
QA/QC Batch 712559 (mg/L), QC Sample No: CP69772 (CP70113, CP70114, CP70115, CP70116, CP70117, CP70118, CP70119, CP70120, CP70121, CP70122, CP70123)													
Nitrogen Tot Kjeldahl	BRL	0.10	0.89	0.83	7.00	96.7			102			85 - 115	20
Comment: TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS. Additional criteria: LCS acceptance range for waters is 85-115% and for soils is 75-125%. MS acceptance range is 75-125%.													

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
January 04, 2024

Thursday, January 04, 2024

Criteria: CT: SWP

State: CT

Sample Criteria Exceedances Report

GCP70113 - WESTSAMP

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

January 04, 2024 SDG I.D.: GCP70113

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

GLP 70113

Sam Runyon

From: Sam Runyon
Sent: Monday, December 18, 2023 4:57 PM
To: Vasamsetti, Raju
Subject: Stamford MS4 Proj.
Attachments: 20231218164258.pdf

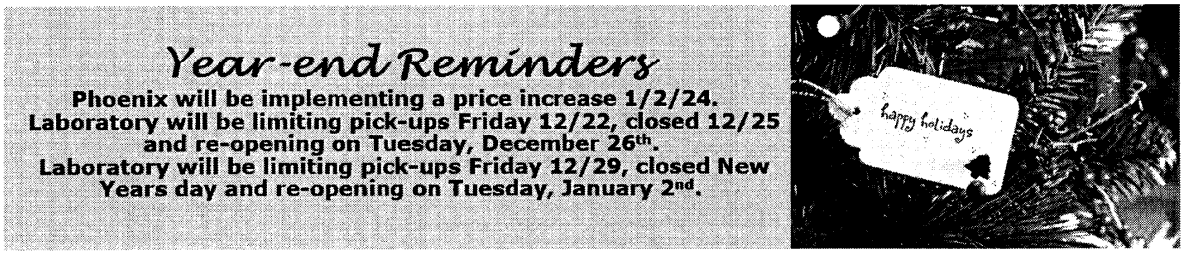
Importance: High

Good afternoon,

For the attached chain, we received 2 extra samples that were not listed on the COC with the ID "DIS-1237" & "DIS-1236". Did you want these samples run for Total Nitrogen and Total Phosphorus as well? If so, would you also be able to provide the times the samples were collected?

Thank you,

Samantha Runyon
Client Services
Phoenix Environmental Laboratories
587 East Middle Tpke.
Manchester, CT 06040
samr@phoenixlabs.com
PH: 860-645-1102 ext:358
FX: 860-645-0823



Cooler: Yes [x] No [ ]
Coolant: IPK [x] ICE [ ] No [ ]

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email Makrina Nolan: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Temp 4.9 °C Pg of

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[x] Email: vasamsettir@wseinc.com

Customer: Weston & Sampson
Address: 712 Brook Street
Suite 103
Rocky Hill, CT

Project: Stamford MS4
Report to:
Invoice to: Raju Vasamsetti
QUOTE # WE051023BA

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature _____ Date: _____

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid **X** = _____(Other)

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	E. Coli (Bacteria)	Total Coliform	Enterococci (Bacterial)	Fecal Coliform	Nitrogen	Phosphorus	MS/MSD*	GL Amber 8 oz. [ ] H3PO4 [ ] NAHSO4	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCL	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [x] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [x] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
70113	DIS-1441	SW	12/18/23	9:52					✓	✓									1					
70114	DIS-1445	"	"	10:30					✓	✓														
70115	DIS-168	"	"	10:13					✓	✓														
70116	DIS-194	"	"	10:56					✓	✓														
70117	DIS-236	"	"	1:15					✓	✓										1				
70118	DIS-248	"	"	12:23					✓	✓									1					
70119	DIS-298	"	"	~~11~~ 12:33					✓	✓										1				
	~~DIS-1238-535~~			10:58																				
70120	DIS365	"	"	11:29					✓	✓									1					
70121	DIS-36N	"	"	~~11~~ 12:33					✓	✓									1					
70122	DIS-1448	"	"	12:18					✓	✓									1					
70123	DIS-535	"	"	10:58					✓	✓									1					

Relinquished by:	Accepted by:	Date:	Time:
Winfield Samson		12/18/23	3:55

Comments, Special Requirements or Regulations:
70124 DIS-1237* rec'd - not listed on COC. SR
70125 DIS-1236*

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

Turnaround Time:
[ ] 1 Day*
[ ] 2 Days*
[x] 3 Days*
[x] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] (Residential) Direct Exposure
[ ] (Comm/Industrial) Direct Exposure
[ ] GA Leachability
[ ] GB Leachability
[ ] GA-GW Objectives
[ ] GB-GW Objectives

CT
[ ] RCP Cert
[ ] GW Protection
[x] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1 [ ] MWRA eSMART
[ ] GW-2 [ ] S-1 10% CALC
[ ] GW-3
[ ] S-1 GW-1 [ ] S-1 GW-2 [ ] S-1 GW-3
[ ] S-2 GW-1 [ ] S-2 GW-2 [ ] S-2 GW-3
[ ] S-3 GW-1 [ ] S-3 GW-2 [ ] S-3 GW-3
[ ] SW Protection

State where samples were collected: CT

Data Format
[ ] Excel
[ ] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

PEL-126 REV. 03/22

GCP70113

Sam Runyon

From: Vasamsetti, Raju <vasamsettir@wseinc.com>
Sent: Tuesday, December 19, 2023 12:40 PM
To: Sam Runyon
Subject: RE: Stamford MS4 Proj.

Sam,

Please discard those two samples.

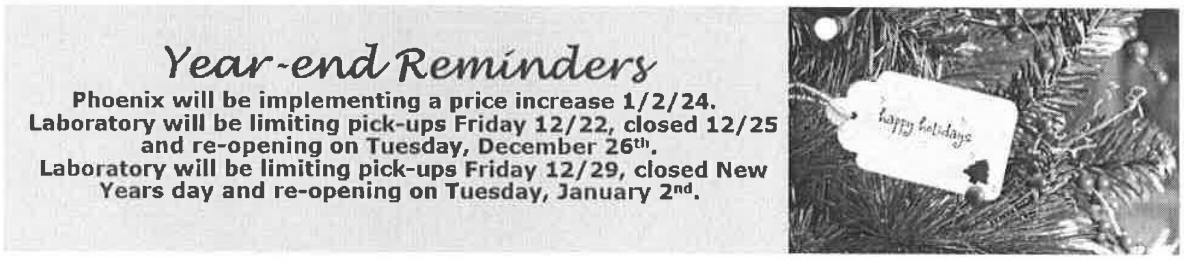
Raju

From: Sam Runyon <samr@phoenixlabs.com>
Sent: Tuesday, December 19, 2023 10:04 AM
To: Vasamsetti, Raju <vasamsettir@wseinc.com>
Subject: RE: Stamford MS4 Proj.

Raju,

The bacteria analysis would be past its hold time, but neither DIS-1237 nor DIS-1236 came in the sterile bacteria containers. DIS-1237 came in a 250mL plastic unpreserved and DIS-1236 came in a 500mL plastic preserved with sulfuric acid. Please let me know how you would like to proceed.

Samantha Runyon
Client Services
Phoenix Environmental Laboratories
587 East Middle Tpke.
Manchester, CT 06040
samr@phoenixlabs.com
PH: 860-645-1102 ext:358
FX: 860-645-0823



From: Vasamsetti, Raju <vasamsettir@wseinc.com>
Sent: Tuesday, December 19, 2023 9:50 AM
To: Sam Runyon <samr@phoenixlabs.com>
Subject: RE: Stamford MS4 Proj.

Samantha,

GCP 70113

Those were collected at 11:26 am. They should be tested for Bacteria. I am not sure if you have already tested or if it's past the holding time.

Raju

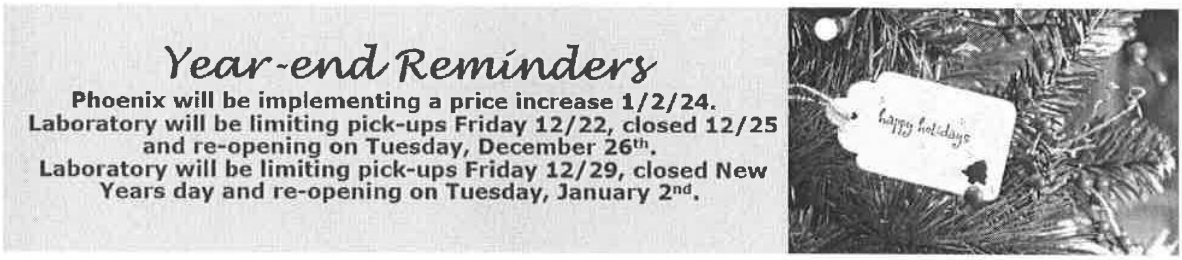
From: Sam Runyon <samr@phoenixlabs.com>
Sent: Monday, December 18, 2023 4:57 PM
To: Vasamsetti, Raju <vasamsettir@wseinc.com>
Subject: Stamford MS4 Proj.
Importance: High

Good afternoon,

For the attached chain, we received 2 extra samples that were not listed on the COC with the ID "DIS-1237" & "DIS-1236". Did you want these samples run for Total Nitrogen and Total Phosphorus as well? If so, would you also be able to provide the times the samples were collected?

Thank you,

Samantha Runyon
Client Services
Phoenix Environmental Laboratories
587 East Middle Tpke.
Manchester, CT 06040
samr@phoenixlabs.com
PH: 860-645-1102 ext:358
FX: 860-645-0823



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