Town of Watertown
Connecticut

# MS4 General Permit

## 2025 Annual Report

# MS4 General Permit
# Town of Watertown 2025 Annual Report
## Existing MS4 Permittee
## Permit Number GSM 000052
## [January 1, 2025 – December 31, 2025]

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This report documents Watertown's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2023 to December 31, 2023.

**Part I: Summary of Minimum Control Measure Activities**

## 1. Public Education and Outreach (Section 6 (a)(1) / page 19)

### 1.1 BMP Summary

| BMP | Status | Activities in current reporting period (if needed, more space available after this table) | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|---|---|---|---|---|---|---|---|
| 1-1 Implement public education and outreach | Ongoing | Annual Report printed and submitted to Town libraries and webbsite | Townspeople Information outreach | M. Zoller/GIS Tech/DPW | Ongoing | 2/13/2026 | |
| 1-2 Address education/ outreach for pollutants of concern* | *Ongoing* | *Northwest Conservation District* | " " " | *Annette Lott/Director* | Ongoing | | |
| | | • | | | | | |
| | | • | | | | | |

**Extra space for describing above BMP activities, if needed:**

| BMP | |
|---|---|
| | |

**1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.**

Newspaper Insert on Stormwater Pollution Prevention – TBD
Presentation for the General Public – by NWCD – TBD
Presentation for Business Owners – by PWD/Zoning – TBD
Distribute Stormwater Plan Brochures - PWD/Zoning

**1.3 Details of activities implemented to educate the community on stormwater**

| Program Element/Activity | Audience (and number of people reached) | Topic(s) covered | Pollutant of Concern addressed (if applicable) | Responsible dept. or partner org. |
|---|---|---|---|---|
| *Newspaper Insert on Stormwater* | *Unknown* | *Stormwater Pollution Prevention and Detection* | | *PWD* |
| *Presentation for Public on Stormwater* | *Unknown* | *" " "* | | *PWD/Zoning* |
| | | | | |
| | | | | |

## 2. Public Involvement/Participation (Section 6(a)(2) / page 21)

### 2.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|---|---|---|---|---|---|---|---|
| 2-1 Final Stormwater Management Plan publically available | In progress | Zoning Regulations updated with Section on 2024 Stormwater Quality Manual Req. | | P. Bunevich/PWD | | 12/29/2024 | In updated Zonng Regulaions |
| 2-2 Comply with public notice requirements for Annual Reports | *In progress* | | | *P. Bunevich/PWD* | Feb 15, 2026 | *2/15/2026* | |
| | | | | | | | |

**Extra space for describing above BMP activities, if needed:**

| BMP | |
|---|---|
| | |

### 2.2 Describe any Public Involvement/Participation activities planned for the next year, if applicable.

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| |

### 2.3 Public Involvement/Participation reporting metrics

| Metrics | Implemented | Date | Posted |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Availability of the Stormwater Management Plan to public | Yes | 2/13/2026 | PWD Office |
| Availability of Annual Report announced to public | Yes | 2/13/2026 | Two Town Libraries/Town Hall |

## 3. Illicit Discharge Detection and Elimination (Section 6(*a*)(3) and Appendix B / page 22)

### 3.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|---|---|---|---|---|---|---|---|
| 3-1 Develop written IDDE program | *Completed* | *Town has completed IDDE Program (see Appendix A)* | *Develop written plan of IDDE program* | *P. Bunevich/PWD* | Jul 1, 2018 | *February 13, 2026.* | |
| 3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas | *Completed* | | *Map all stormwater outfalls* | *M. Zoller/PWD* | Jul 1, 2019 | *July 1, 2019* | |
| 3-3 Implement citizen reporting program | *Completed* | | | | 12/31/25 | *12/31/25* | |
| 3-4 Establish legal authority to prohibit illicit discharges | *Completed* | | | | Jul 1, 2018 | *July 1, 2018* | |
| 3-5 Develop record keeping system for IDDE tracking | *Completed* | | | | Jul 1, 2017 | *July 1, 2017* | |
| 3-6 Address IDDE in areas with pollutants of concern | *In Progress* | | | | Not specified | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Example additional BMP:** *3-7 Consolidate IDDE tracking spreadsheets* | *Completed* | *Compile all the IDDE tracking requirements into one spreadsheet* | | *PWD/M Zoller* | - | *Jul 1, 2021* | *Reason for addition: Make it easier to track all IDDE activities* |

**Extra space for describing above BMP activities, if needed:**

| BMP | |
|---|---|
| 15 Private Detention Basins cleaned in 2025 with coordination by Land Use and Public Works Dept. | |

**3.2 Describe any IDDE activities planned for the next year, if applicable.**

*The written program will be posted to the Dept of Public works webpage; will update the written IDDE program as needed throughout the permit term.*

*Maintain master IDDE tracking spreadsheet and ensure all employees involved in IDDE program understand the logging process*

**3.3 List of citizen reports of suspected illicit discharges received during this reporting period.**

| Date of Report | Location / suspected source | Response taken |
|---|---|---|
| | | |
| | | |
| | | |

**3.4 Provide a record of illicit discharges occurring during the reporting period and SSOs occurring July 2012 through end of reporting period using the following table.**

| **Location** (Lat long/ street crossing /address and receiving water) | **Date and duration of occurrence** | **Discharge to MS4 or surface water** | **Estimated volume discharged** | **Known or suspected cause / Responsible party** | **Corrective measures planned and completed** (include dates) | **Sampling data** (if applicable) |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

**3.5 Briefly describe the method used to track illicit discharge reports, responses to those reports, and who was responsible for tracking this information.**

See MS4 IDDE Program for Town of Watertown (attached as Appendix A)

**3.6 Provide a summary of actions taken to address septic failures using the table below.**

| **Location and nature of structure with failing septic systems** | **Actions taken to respond to and address the failures** | **Impacted waterbody or watershed, if known** |
|---|---|---|
| *150 Northfield Road – Failed Single Family Dwelling System* | Soil Testing/Engineered Design Repair Plan – Installation Completed | Steele Brook |
| 5 Trolane Road – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Steele Brook |
| 135 Cayuga Drive – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Lake Winnemaug |
| 308 Sunnyside Avenue – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan - Installation Completed | Turkey Brook |
| 93 Brierwood Drive – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Steele Brook |
| 108 Butternut Lane – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Smith Pond Brook |
| 867 Linkfield Road – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Fenn Brook |
| 29 Chimney Road – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Purgatory Brook |
| 7 Caruso Drive – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Lake Winnemaug |
| 294 Sunnyside Avenue – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Turkey Brook |
| 42 Seminole Road – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Lake Winnemaug |
| 305 Killorin Road – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Steele Brook |
| 23 Wedgewood Drive – Failed Single Family Dwelling System | Soil Testing/Engineered Design Repair Plan – Installation Completed | Steele Brook |

### 3.7 IDDE reporting metrics

| Metrics | |
|---|---|
| Estimated or actual number of MS4 outfalls | 811 |
| Estimated or actual number of interconnections | 9,980 |
| Outfall mapping complete | 99% |
| Interconnection mapping complete | 90% |
| System-wide mapping complete (detailed MS4 infrastructure) | 99% |
| Outfall assessment and priority ranking | 95% |
| Dry weather screening of all High and Low priority outfalls complete | 6 |
| Catchment investigations complete | 140 |
| Estimated percentage of MS4 catchment area investigated | 50.0% |
| | |

**3.8 Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often is it given** (minimum once per year).

| |
|---|
| In-office class for IDDE training involves familiarization with the stormwater and outfall system and methods for logging in the locations on our new digital tablet system. |
| |

## 4. Construction Site Runoff Control (Section 6(a)(4) / page 25)

### 4.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|---|---|---|---|---|---|---|---|
| 4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit | Conpleted | | | | Jul 1, 2019 | July 1, 2019 | |
| 4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval | *Completed* | | | | Completed | | |
| 4-3 Review site plans for stormwater quality concerns | *Completed* | *All Site Plans reviewed for compliance* | *100% Review Coverage* | *M.Massoud/P&Z C. Natush/P&Z P. Bunevich/PWD* | Ongoing | | |
| 4-4 Conduct site inspections | *Completed* | *All Plans require periodic inspections* | *100% Inspection* | *Above* | Ongoing | | |
| 4-5 Implement procedure to allow public comment on site development | *Completed* | *None* | | | Completed | | |
| 4-6 Implement procedure to notify developers about DEEP construction stormwater permit | *Ongoing* | | | | | *2/01/2021* | |
| **Example additional BMP:** *4-7 Develop stormwater compliance checklist* | *Completed* | *Developing checklist to provide developers on stormwater mgmt compliance requirements* | *Standardize plan review* | | | *Jul 1, 2019* | |

**Extra space for describing above BMP activities, if needed:**

| BMP | |
|---|---|

| | |
|---|---|
| | |

**4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable.**

Retrofitting outlet structures on the Town owned dry detention ponds to provide for water quality volume retention and augment peak storm outlet flows. Possibly 5 to 8 basins involved

## 5. Post-construction Stormwater Management (Section 6(*a*)(5) / page 27)

**5.1 BMP Summary**

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|---|---|---|---|---|---|---|---|
| 5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning | Completed | Part of Zoning and Subdivision Update & revisions | Compliance with MS4 program | P&Z/PWD | Jul 1, 2021 | December 30, 2025 | New Zoning Regulations Adopted |
| 5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects | *Ongoing* | *Same as Above* | *Same as Above* | *P&Z/PWD* | Ongoing beginning Jul 1, 2019 | *July 1, 2020* | |
| 5-3 Identify retention and detention ponds in priority areas | *Completed* | *Inspection of Ponds to Ascertain Treatment Priorities* | *Same as Above* | *PWD/Highway Dept.* | Jul 1, 2019 | *December 30, 2019* | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5-4 Implement long-term maintenance plan for stormwater basins and treatment structures | *Ongoing* | *Discussion with Highway Superintendent on Priority Basins* | *Same as Above* | *R. Granpre Highway Superintendent* | Ongoing beginning Jul 1, 2019 | *Ongoing* | |
| 5-5 DCIA mapping | *Ongoing* | *Part of Townwide GIS mapping* | *Identify critical DCIA areas of concern* | *PWD/M. Zoller* | Jul 1, 2020 | *July 1, 2021* | |
| 5-6 Address post-construction issues in areas with pollutants of concern | *In Progress* | *Reviewed on Case by Case Basis* | *Decrease Pollutant Load in these Areas* | *Zoning/PWD* | Not specified | | |
| | | | | | - | | |

**Extra space for describing above BMP activities, if needed:**

| BMP | |
|---|---|
| | |

**5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.**

*Highway Department to maintain retention ponds on rotating basis with priority direction from P. Bunevich – Town Engineer. All Town Owned Basins inspected in 2021 – Status List developed for CCIWA review. Basin cleaning 100% completed as of 12/2025 (15 Basins in 2025 - 51 Basins total).*

**5.3 Post-Construction Stormwater Management reporting metrics**

| Metrics | |
|---|---|
| Baseline (2012) Directly Connected Impervious Area (DCIA) | 442.5 acres |
| DCIA disconnected (redevelopment plus retrofits) | 3.73 acres this year */15.61 acres total |
| Retrofits completed | 1 |
| DCIA disconnected | 0.8% this year / 3.53% total since 2012 |
| Estimated cost of retrofits | $1,800,000 |
| Detention or retention ponds identified | 69 |

**5.4 Briefly describe the method to be used to determine baseline DCIA.**

GIS mapping from DEEP for 2012 baseline.

*** Sites with DCIA Removal in 2025:**

1) Tractor Supply Complex – 28 Riverside Street - Oakville
   Old Sealy Mfg. Building concrete pad and ramps removed: 1.31 Acres.
2) Dayton Construction Co. – 10 DiNunzio Road – Watertown
   Retrofit Site for new Building and Parking: 2.05 Acres.
3) Westbury Room Dining Hall and Bar – 666 Thomaston Road – Watertown
   Building and Site Demolition: 0.37 Acres.

Total DCIA disconnected: 3.73 Acres.

## 6. Pollution Prevention/Good Housekeeping (Section 6(*a*)(6) / page 31)

### 6.1 BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|---|---|---|---|---|---|---|---|
| 6-1 Develop/implement formal employee training program | Ongoing | None | Employee fully in compliance | PWD/ P. Bunevich | Ongoing | | |
| 6-2 Implement MS4 property and operations maintenance | *Ongoing* | *Highway/Basin cleaning and sand/debris disposal* | *Compliance with MS4 program* | *Highway/R.Grandpre* | Ongoing beginning Jul 1, 2018 | *Ongoing* | |
| 6-3 Implement coordination with interconnected MS4s | *Ongoig* | *See above* | *Same as Above* | *Highway/R. Grandpre* | Not specified | *Ongoing* | |
| 6-4 Develop/implement program to control other sources of pollutants to the MS4 | *Ongoing* | *Seminar with Engineering and Planning/WL Staff* | *Same as Above* | *PWD/P Bunevich* | Not specified | *Ongoing* | |
| 6-5 Evaluate additional measures for discharges to impaired waters* | *Not Done* | *None* | *Same as Above* | *PWD/P. Bunevich* | Not specified | *Ongoing* | |
| 6-6 Track projects that disconnect DCIA | *Ongoing* | *Part of Site Plan/Building Dept. Review* | *Improve on 2% disconnection done to date* | *PWD/P. Bunevich* | Ongoing | *Completed for 2012 to 2025 period of Permit* | |
| 6-7 Implement infrastructure repair/rehab program | *Ongoing* | *Same as Above* | *Same as Above* | *PWD/P. Bunevich* | Jul 1, 2021 | *Same as Above* | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6-8 Develop/implement plan to identify/prioritize retrofit projects | *Ongoing* | *Same as Above* | *Same as Above* | *PWD/P. Bunevich* | Jul 1, 2020 | *Part of Review Process* | |
| 6-9 Implement retrofit projects to disconnect 2% of DCIA | *Completed* | *3 Projects Redeveloped* | *Same as Above* | *PWD/P. Bunevich* | Jul 1, 2022 | *Same As Above* | |
| 6-10 Develop/implement street sweeping program | *Completed* | *All Streets in Town Swept Plus Multiple Sweepings in Priority Areas* | *Same As Above* | *Highway/R. Grandpre* | Ongoing beginning Jul 1, 2017 | *November 1, 2020* | |
| 6-11 Develop/implement catch basin cleaning program | *Ongoing* | *Catch basins cleaned/repaired as time permits* | *Same as Above* | *Highway/R. Grandpre* | Ongoing beginning Jul 1, 2020 | *Ongoing* | |
| 6-12 Develop/implement snow management practices | *Ongoing* | *Use of approved deicing materials* | *Same as Above* | *Highway/R. Grandpre* | Ongoing beginning Jul 1, 2018 | *Ongoing* | |
| | | | | | | | |

**Extra space for describing above BMP activities, if needed:**

| **BMP** | |
|---|---|
| | |

**6.2 Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable.**

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|---|
| **Implement Annual Detention/Water Quality Basin cleaning (using private contractors as required)** |

**6.3 Pollution Prevention/ Good Housekeeping reporting metrics**

| **Metrics** | |
|---|---|
| Employee training provided for key staffL SnowPro Program inmplemented for 10 Highwa Department employees (2 in 2025). | |
| Street sweeping | |
| | |
| Curb miles swept | 137 miles |
| Sidewalks swept | 30 Miles +/- |
| Volume (or mass) of material collected | 1200 C.Y. |
| Catch basin cleaning | |
| Total catch basins in priority areas | 980 |
| Total catch basins in MS4 | 5400 +/- |
| Catch basins inspected | 154 |
| Catch Basins Repaired | 45 |
| Catch basins cleaned | 90 |
| Volume (or mass) of material removed from all catch basins | 45 C.Y. |
| Volume removed from catch basins to impaired waters (if known) | 0- |
| Snow management | |
| Type(s) of deicing material used (No sand used in mix since 2023) | Ice-Be-Gone<br>Treated Salt |
| Total amount of each deicing material applied | 1,200 tons +/- |
| Type(s) of deicing equipment used | Built to the Truck Body Spreaders |
| Lane-miles treated | 137 miles- |
| Snow disposal location | 10 Old Baird Road, Watertown |
| Staff training provided on application methods & equipment | (y/various |
| Municipal turf management program actions (for permittee properties in basins with N/P impairments) | |

| | |
|---|---|
| Reduction in application of fertilizers (since start of permit) | 95% |
| Reduction in turf area (since start of permit) | 0 acres |
| Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems) | |
| Cost of mitigation actions/retrofits | $0 |

**Provide any updates or modifications to your catch basin cleaning program**

**New Vac-All in service since 7/01/2021 to clean catch basins/structures. Destroyed in Garage fire in April 2024 – insurance to pay for replacement. Replacement delivered in 2025.**

### 6.5 Retrofit program

**Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project.**

**Economic Development Office informs Land Use and Public Works Department of potential sited to be redeveloped/retrofitted in commercial or industrial areas. Preapplication meeting with interested parties to inform/determine potential for disconnecting DCIAs in Town.**

**Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years.**

**Continuing review of the commercial/industrial areas in town which have the potential to be upgraded and/or retrofitted as they become available for development. EDC to advise Land Use and PWD.**

**Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years.**

## Part II: Impaired waters investigation and monitoring

# 1. Impaired waters investigation and monitoring program

**1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution.** This data is available on the MS4 map viewer: http://s.uconn.edu/ctms4map.

Nitrogen/ Phosphorus ☐ Bacteria ☐ Mercury ☐ Iron ☐

**1.2 Describe program status.**

| **Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results.** |
|---|
| Samples not taken in 2024 due to drought conditions. |

# 2. Screening data for outfalls to impaired waterbodies (Section 6(i)(1) / page 41)

**2.1 Screening data**

Complete the table below for any outfalls screened during the reporting period. Each Annual Report will add on to the previous year's screening data showing a cumulative list of outfall screening data.

| **Outfall ID** | **Sample date** | **Parameter** (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern) | **Results** | **Name of Laboratory (if used)** | **Follow-up required? *** |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

**2.2 Credit for screening data collected under 2004 permit**

If any outfalls to impaired waters were sampled under the 2004 MS4 permit, that data can count towards the monitoring requirements under the modified 2017 MS4 permit. Complete the table below to record sampling data for any outfalls to impaired waters under the 2004 MS4 permit.

| **Outfall** | **Sample date** | **Parameter** (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern) | **Results** | **Name of Laboratory (if used)** | **Follow-up required? *** |
|---|---|---|---|---|---|
| | | | | | |

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|---|---|---|---|---|---|
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*Follow-up investigation required (last column) if the following pollutant thresholds are exceeded:

| Pollutant of concern | Pollutant threshold |
|---|---|
| Nitrogen | Total N > 2.5 mg/l |
| Phosphorus | Total P > 0.3 mg/l |
| Bacteria (fresh waterbody) | • E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others<br>• Total Coliform > 500 col/100ml |
| Bacteria (salt waterbody) | • Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB<br>• Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others |
| Other pollutants of concern | Sample turbidity is 5 NTU > in-stream sample |

## 3. Follow-up investigations (Section 6(i)(1)(D) / page 43)

Provide the following information for outfalls exceeding the pollutant threshold.

| Outfall | Status of drainage area investigation | Control measure implementation to address impairment |
|---|---|---|
| | | |
| | | |
| | | |

## 4. Prioritized outfall monitoring (Section 6(i)(1)(D) / page 43)

Once outfall screening has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2020.

| Outfall | Sample Date | Parameter(s) | Results | Name of Laboratory (if used) |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
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**Part III: Additional IDDE Program Data**

## 1. Assessment and Priority Ranking of Catchments data (Appendix B (A)(7)(c) / page 5)

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations).

| 1. Catchment ID (DEEP Basin ID) | 2. Category | 3. Rank |
|---|---|---|
| Steele Brook 6912 - 00 | *Impaired* | *1* |
| | | |
| | | |

## 2. Outfall and Interconnection Screening and Sampling data (Appendix B (A)(7)(d) / page 7)

### 2.1 Dry weather screening and sampling data from outfalls and interconnections.

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. (2023 sample results retained as last known pollutant levels).

| Outfall / Interconnection ID | Screening / sample date | Ammonia | T.S.S. | Conductivity | Metals, Total | E. coli or enterococcus | Oil & Grease | Water Temp | Pollutant of concern | If required, follow-up actions taken |
|---|---|---|---|---|---|---|---|---|---|---|
| *Callender & Park Roads 6912-08* | *10/08/2025* | *0.92* | *1100* | *188* | *26.9* | *235.9* | *<4.8* | *17.8C* | *E. Coli* | *Additional Samples to be taken in 2026* |
| *Knight Street 6912-00* | *10/08/2025* | *<0.50* | *38.7* | *70* | *38.0* | *>2,419.6* | *<4.9* | *19.4C* | *E. Coli* | *Additional Samples to be taken in 2026* |
| *Echo Lake Road & Buckingham Street 6912-04* | *10/08/2025* | *1.50* | *71.9* | *59* | *<16.5* | *>2,419.6* | *<4.8* | *18.2C* | *E. Coli* | *Additional Samples to be taken in 2026* |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Circuit Avenue 6912-00* | *10/08/2025* | *<0.50* | *17.6* | *36* | *<16.5* | *>2419.6* | *<4.8* | *16.7C* | *E. Coli* | *Additional Samples to be taken in 2026* |
| *Beach Avenue & Nova Scotia Hill Road 6912-00* | *10/08/2025* | *0.57* | *96.0* | *83* | *<16.5* | *547.5* | *<4.9* | *17.9C* | *E. Coli* | *Additional Samples to be taken in 2026* |
| *New Wood Road 6916-06* | *10089/2025* | *<0.50* | *514* | *386* | *40.1* | *866.4* | *<4.8* | *17.2C* | *E. Coli* | *Additional Samples to be taken in 2026* |

### 2.2 Wet weather sample and inspection data

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor.

| Outfall / Interconnection ID | Sample date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or Enterococcus | Surfactants | Water Temp | Pollutant of concern |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |

## 3. Catchment Investigation data (Appendix B (A)(7)(e) / page 9)

### 3.1 System Vulnerability Factor Summary

For those catchments being investigated for illicit discharges (i.e. categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. An example is provided below.

| Outfall ID | Receiving Water | System Vulnerability Factors |
|---|---|---|
| | | |
| | | |
| | | |

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.

4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.
7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).

### 3.2 Key junction manhole dry weather screening and sampling data

| Key Junction Manhole ID | Screening / Sample date | Visual/ olfactory evidence of illicit discharge | Ammonia | Chlorine | Surfactants |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

### 3.3 Wet weather investigation outfall sampling data

| Outfall ID | Sample date | Ammonia | Chlorine | Surfactants |
|---|---|---|---|---|
| | | | | |
| | | | | |

### 3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure

| Discharge location | Source location | Discharge description | Method of discovery | Date of discovery | Date of elimination | Mitigation or enforcement action | Estimated volume of flow removed |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |

## Part IV: Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

| Chief Elected Official or Principal Executive Officer | Document Prepared by |
|---|---|
| Mark A. Raimo – Town Manager | Paul Bunevich – Town Engineer |
| Signature / Date: 2/13/26 | Signature / Date: 2/13/26 |

Appendix A – Laboratory Stormwater Outfall Results (Attached)

Appendix B – Illicit Discharge Detection and Elimination Program (Attached)

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

October 23, 2025

Jerry Lukowski
Town of Watertown
61 Echo Lake Rd
Watertown, CT 06795

RE: Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

Dear Jerry Lukowski:

Enclosed are the analytical results for sample(s) received by the laboratory on October 08, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Newburgh

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stephanie Monat
stephanie.monat@pacelabs.com
(203) 757-3960
Project Manager

Enclosures

cc: Robert Danielson, LEP, Fuss & O'Neill
Almira Donorfio, Town of Watertown-Public Works
Cariss Plourde, Town of Watertown-Public Works
Sarah Rochelt, Fuss & O'Neill

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## CERTIFICATIONS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Pace Analytical Services, LLC- Newburgh, NY**
315 Fullerton Avenue, Newburgh, NY 12550
New York Certification #: 10142 Primary Accrediting Body
New Jersey Certification #: NY015
Connecticut Certification #: PH-0823

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

# ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Echo Lake Rd** **Lab ID: 70384357001** Collected: 10/08/25 07:35 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB Storm Field Data** | Analytical Method: Pace Analytical Services - Newburgh | | | | | | | |
| Collected By | **M.Acri** | | | 1 | | 10/17/25 09:25 | | |
| Collected Date | **10/08/2025** | | | 1 | | 10/17/25 09:25 | | |
| Collected Time | **07:35** | | | 1 | | 10/17/25 09:25 | | |
| Start time of storm | **06:30** | | | 1 | | 10/17/25 09:25 | | N3 |
| Storm Duration | **5 hrs.** | | | 1 | | 10/17/25 09:25 | | N3 |
| Storm Magnitude | **0.25 in** | | | 1 | | 10/17/25 09:25 | | N3 |
| Field pH | **8.24** | Std. Units | | 1 | | 10/17/25 09:25 | | N3 |
| Field Temperature | **18.20** | deg C | | 1 | | 10/17/25 09:25 | | N3 |
| Field Specific Conductance | **59** | umhos/cm | | 1 | | 10/17/25 09:25 | | N3 |
| Field Turbidity | **12** | NTU | | 1 | | 10/17/25 09:25 | | N3 |
| Rainfall pH | **6.47** | Std. Units | | 1 | | 10/17/25 09:25 | | N3 |
| **NB 200.7 Metals, Total** | Analytical Method: EPA 200.7, Rev. 4.4 Preparation Method: EPA 200.7, Rev. 4.4 Pace Analytical Services - Newburgh | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **<16.5** | mg/L | 16.5 | 1 | 10/13/25 17:30 | 10/15/25 16:42 | | N3 |
| **NB HEM, Oil and Grease** | Analytical Method: EPA 1664A Pace Analytical Services - Newburgh | | | | | | | |
| Oil and Grease | **<4.8** | mg/L | 4.8 | 1 | | 10/20/25 08:15 | | |
| **NB 2540D Total Suspen. Solids** | Analytical Method: SM23 2540D Pace Analytical Services - Newburgh | | | | | | | |
| Total Suspended Solids | **71.9** | mg/L | 15.6 | 1 | | 10/09/25 16:34 | | |
| **NB 300.0 IC Anions 48H** | Analytical Method: EPA 300.0 Rev. 2.1 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrate as N | **<0.25** | mg/L | 0.25 | 1 | | 10/08/25 19:23 | 14797-55-8 | |
| **NB 351.2 Total Kjeldahl Nitr.** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Kjeldahl, Total | **1.2** | mg/L | 1.0 | 1 | 10/16/25 12:00 | 10/20/25 14:15 | 7727-37-9 | M1 |
| **NB 365.3 Total Phosphorus** | Analytical Method: EPA 365.3 Preparation Method: EPA 365.3 Pace Analytical Services - Newburgh | | | | | | | |
| Phosphorus , Total (as P) | **0.53** | mg/L | 0.10 | 1 | 10/13/25 11:00 | 10/13/25 13:11 | 7723-14-0 | |
| **NB 410.4 COD Low** | Analytical Method: EPA 410.4 Rev. 2.0 Preparation Method: EPA 410.4 Rev. 2.0 Pace Analytical Services - Newburgh | | | | | | | |
| Chemical Oxygen Demand | **120** | mg/L | 10.0 | 1 | 10/14/25 10:35 | 10/15/25 12:44 | | |
| **NB 4500 Ammonia Water** | Analytical Method: SM23 4500-NH3 G Preparation Method: SM23 4500-NH3 G Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Ammonia | **1.5** | mg/L | 0.50 | 1 | 10/16/25 14:15 | 10/17/25 17:34 | 7664-41-7 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Echo Lake Rd** **Lab ID: 70384357001** Collected: 10/08/25 07:35 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB ECOLI Quantitray 18HR** | Analytical Method: SM23 9223B Preparation Method: SM23 9223B<br>Pace Analytical Services - Newburgh | | | | | | | |
| E.coli | **>2419.6** | MPN/100mL | 1.0 | 1 | 10/08/25 16:45 | 10/09/25 11:00 | | H3 |
| **NB SM4500NO2-B, Nitrite unpres** | Analytical Method: SM23 4500-NO2 B<br>Pace Analytical Services - Newburgh | | | | | | | |
| Nitrite as N | **0.054** | mg/L | 0.010 | 1 | | 10/09/25 13:51 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Callender Rd** **Lab ID: 70384357002** Collected: 10/08/25 07:50 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB Storm Field Data** | Analytical Method: Pace Analytical Services - Newburgh | | | | | | | |
| Collected By | **M.Acri** | | | 1 | | 10/17/25 09:27 | | |
| Collected Date | **10/08/2025** | | | 1 | | 10/17/25 09:27 | | |
| Collected Time | **07:50** | | | 1 | | 10/17/25 09:27 | | |
| Start time of storm | **06:30** | | | 1 | | 10/17/25 09:27 | | N3 |
| Storm Duration | **5 hrs** | | | 1 | | 10/17/25 09:27 | | N3 |
| Storm Magnitude | **0.25 in** | | | 1 | | 10/17/25 09:27 | | N3 |
| Field pH | **7.87** | Std. Units | | 1 | | 10/17/25 09:27 | | N3 |
| Field Temperature | **17.80** | deg C | | 1 | | 10/17/25 09:27 | | N3 |
| Field Specific Conductance | **188** | umhos/cm | | 1 | | 10/17/25 09:27 | | N3 |
| Field Turbidity | **256** | NTU | | 1 | | 10/17/25 09:27 | | N3 |
| Rainfall pH | **6.43** | Std. Units | | 1 | | 10/17/25 09:27 | | N3 |
| **NB 200.7 Metals, Total** | Analytical Method: EPA 200.7, Rev. 4.4 Preparation Method: EPA 200.7, Rev. 4.4 Pace Analytical Services - Newburgh | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **26.9** | mg/L | 16.5 | 1 | 10/13/25 17:30 | 10/15/25 16:47 | | N3 |
| **NB HEM, Oil and Grease** | Analytical Method: EPA 1664A Pace Analytical Services - Newburgh | | | | | | | |
| Oil and Grease | **<4.8** | mg/L | 4.8 | 1 | | 10/20/25 08:15 | | |
| **NB 2540D Total Suspen. Solids** | Analytical Method: SM23 2540D Pace Analytical Services - Newburgh | | | | | | | |
| Total Suspended Solids | **1100** | mg/L | 50.0 | 1 | | 10/09/25 16:34 | | |
| **NB 300.0 IC Anions 48H** | Analytical Method: EPA 300.0 Rev. 2.1 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrate as N | **<0.25** | mg/L | 0.25 | 1 | | 10/08/25 19:38 | 14797-55-8 | |
| **NB 351.2 Total Kjeldahl Nitr.** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Kjeldahl, Total | **7.3** | mg/L | 1.0 | 1 | 10/16/25 12:00 | 10/20/25 14:22 | 7727-37-9 | |
| **NB 365.3 Total Phosphorus** | Analytical Method: EPA 365.3 Preparation Method: EPA 365.3 Pace Analytical Services - Newburgh | | | | | | | |
| Phosphorus , Total (as P) | **1.3** | mg/L | 1.0 | 10 | 10/13/25 11:00 | 10/13/25 13:11 | 7723-14-0 | |
| **NB 410.4 COD** | Analytical Method: EPA 410.4 Rev. 2.0 Preparation Method: EPA 410.4 Rev. 2.0 Pace Analytical Services - Newburgh | | | | | | | |
| Chemical Oxygen Demand | **319** | mg/L | 100 | 1 | 10/14/25 10:30 | 10/15/25 12:28 | | |
| **NB 4500 Ammonia Water** | Analytical Method: SM23 4500-NH3 G Preparation Method: SM23 4500-NH3 G Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Ammonia | **0.92** | mg/L | 0.50 | 1 | 10/16/25 14:15 | 10/17/25 17:35 | 7664-41-7 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Callender Rd** **Lab ID: 70384357002** Collected: 10/08/25 07:50 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB ECOLI Quantitray 18HR** | Analytical Method: SM23 9223B Preparation Method: SM23 9223B<br>Pace Analytical Services - Newburgh | | | | | | | |
| E.coli | **235.9** | MPN/100mL | 1.0 | 1 | 10/08/25 16:45 | 10/09/25 11:00 | | H3 |
| **NB SM4500NO2-B, Nitrite unpres** | Analytical Method: SM23 4500-NO2 B<br>Pace Analytical Services - Newburgh | | | | | | | |
| Nitrite as N | **0.027** | mg/L | 0.010 | 1 | | 10/09/25 13:52 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Beach Ave** **Lab ID: 70384357003** Collected: 10/08/25 08:15 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB Storm Field Data** | Analytical Method: Pace Analytical Services - Newburgh | | | | | | | |
| Collected By | **M.Acri** | | | 1 | | 10/17/25 09:29 | | |
| Collected Date | **10/08/2025** | | | 1 | | 10/17/25 09:29 | | |
| Collected Time | **08:15** | | | 1 | | 10/17/25 09:29 | | |
| Start time of storm | **06:30** | | | 1 | | 10/17/25 09:29 | | N3 |
| Storm Duration | **5 hrs** | | | 1 | | 10/17/25 09:29 | | N3 |
| Storm Magnitude | **0.25 in** | | | 1 | | 10/17/25 09:29 | | N3 |
| Field pH | **8.22** | Std. Units | | 1 | | 10/17/25 09:29 | | N3 |
| Field Temperature | **17.90** | deg C | | 1 | | 10/17/25 09:29 | | N3 |
| Field Specific Conductance | **83** | umhos/cm | | 1 | | 10/17/25 09:29 | | N3 |
| Field Turbidity | **76** | NTU | | 1 | | 10/17/25 09:29 | | N3 |
| Rainfall pH | **6.42** | Std. Units | | 1 | | 10/17/25 09:29 | | N3 |
| **NB 200.7 Metals, Total** | Analytical Method: EPA 200.7, Rev. 4.4 Preparation Method: EPA 200.7, Rev. 4.4 Pace Analytical Services - Newburgh | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **<16.5** | mg/L | 16.5 | 1 | 10/13/25 17:30 | 10/15/25 16:51 | | N3 |
| **NB HEM, Oil and Grease** | Analytical Method: EPA 1664A Pace Analytical Services - Newburgh | | | | | | | |
| Oil and Grease | **<4.8** | mg/L | 4.8 | 1 | | 10/20/25 08:15 | | |
| **NB 2540D Total Suspen. Solids** | Analytical Method: SM23 2540D Pace Analytical Services - Newburgh | | | | | | | |
| Total Suspended Solids | **96.0** | mg/L | 25.0 | 1 | | 10/09/25 16:34 | | |
| **NB 300.0 IC Anions 48H** | Analytical Method: EPA 300.0 Rev. 2.1 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrate as N | **0.33** | mg/L | 0.25 | 1 | | 10/08/25 19:52 | 14797-55-8 | |
| **NB 351.2 Total Kjeldahl Nitr.** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Kjeldahl, Total | **2.3** | mg/L | 1.0 | 1 | 10/16/25 12:00 | 10/20/25 14:23 | 7727-37-9 | |
| **NB 365.3 Total Phosphorus** | Analytical Method: EPA 365.3 Preparation Method: EPA 365.3 Pace Analytical Services - Newburgh | | | | | | | |
| Phosphorus , Total (as P) | **1.7** | mg/L | 1.0 | 10 | 10/13/25 11:00 | 10/13/25 13:11 | 7723-14-0 | |
| **NB 410.4 COD** | Analytical Method: EPA 410.4 Rev. 2.0 Preparation Method: EPA 410.4 Rev. 2.0 Pace Analytical Services - Newburgh | | | | | | | |
| Chemical Oxygen Demand | **144** | mg/L | 100 | 1 | 10/14/25 10:30 | 10/15/25 12:29 | | |
| **NB 4500 Ammonia Water** | Analytical Method: SM23 4500-NH3 G Preparation Method: SM23 4500-NH3 G Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Ammonia | **0.57** | mg/L | 0.50 | 1 | 10/16/25 14:15 | 10/17/25 17:36 | 7664-41-7 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Beach Ave** **Lab ID: 70384357003** Collected: 10/08/25 08:15 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB ECOLI Quantitray 18HR** | Analytical Method: SM23 9223B Preparation Method: SM23 9223B<br>Pace Analytical Services - Newburgh | | | | | | | |
| E.coli | **547.5** | MPN/100mL | 1.0 | 1 | 10/08/25 16:45 | 10/09/25 11:00 | | H3 |
| **NB SM4500NO2-B, Nitrite unpres** | Analytical Method: SM23 4500-NO2 B<br>Pace Analytical Services - Newburgh | | | | | | | |
| Nitrite as N | **0.039** | mg/L | 0.010 | 1 | | 10/09/25 13:52 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Circuit Ave** **Lab ID: 70384357004** Collected: 10/08/25 08:35 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB Storm Field Data** | Analytical Method: Pace Analytical Services - Newburgh | | | | | | | |
| Collected By | **M.Acri** | | | 1 | | 10/17/25 09:30 | | |
| Collected Date | **10/08/2025** | | | 1 | | 10/17/25 09:30 | | |
| Collected Time | **08:35** | | | 1 | | 10/17/25 09:30 | | |
| Start time of storm | **06:30** | | | 1 | | 10/17/25 09:30 | | N3 |
| Storm Duration | **5 hrs** | | | 1 | | 10/17/25 09:30 | | N3 |
| Storm Magnitude | **0.25 in** | | | 1 | | 10/17/25 09:30 | | N3 |
| Field pH | **8.62** | Std. Units | | 1 | | 10/17/25 09:30 | | N3 |
| Field Temperature | **16.70** | deg C | | 1 | | 10/17/25 09:30 | | N3 |
| Field Specific Conductance | **36** | umhos/cm | | 1 | | 10/17/25 09:30 | | N3 |
| Field Turbidity | **58** | NTU | | 1 | | 10/17/25 09:30 | | N3 |
| Rainfall pH | **6.56** | Std. Units | | 1 | | 10/17/25 09:30 | | N3 |
| **NB 200.7 Metals, Total** | Analytical Method: EPA 200.7, Rev. 4.4 Preparation Method: EPA 200.7, Rev. 4.4 Pace Analytical Services - Newburgh | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **<16.5** | mg/L | 16.5 | 1 | 10/13/25 17:30 | 10/15/25 17:27 | | N3 |
| **NB HEM, Oil and Grease** | Analytical Method: EPA 1664A Pace Analytical Services - Newburgh | | | | | | | |
| Oil and Grease | **<4.8** | mg/L | 4.8 | 1 | | 10/20/25 08:15 | | |
| **NB 2540D Total Suspen. Solids** | Analytical Method: SM23 2540D Pace Analytical Services - Newburgh | | | | | | | |
| Total Suspended Solids | **17.6** | mg/L | 10.0 | 1 | | 10/09/25 16:41 | | |
| **NB 300.0 IC Anions 48H** | Analytical Method: EPA 300.0 Rev. 2.1 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrate as N | **0.39** | mg/L | 0.25 | 1 | | 10/08/25 20:07 | 14797-55-8 | |
| **NB 351.2 Total Kjeldahl Nitr.** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Kjeldahl, Total | **<1.0** | mg/L | 1.0 | 1 | 10/16/25 12:00 | 10/20/25 14:24 | 7727-37-9 | |
| **NB 365.3 Total Phosphorus** | Analytical Method: EPA 365.3 Preparation Method: EPA 365.3 Pace Analytical Services - Newburgh | | | | | | | |
| Phosphorus , Total (as P) | **0.32** | mg/L | 0.10 | 1 | 10/13/25 11:00 | 10/13/25 13:11 | 7723-14-0 | |
| **NB 410.4 COD Low** | Analytical Method: EPA 410.4 Rev. 2.0 Preparation Method: EPA 410.4 Rev. 2.0 Pace Analytical Services - Newburgh | | | | | | | |
| Chemical Oxygen Demand | **62.1** | mg/L | 10.0 | 1 | 10/14/25 10:35 | 10/15/25 12:44 | | |
| **NB 4500 Ammonia Water** | Analytical Method: SM23 4500-NH3 G Preparation Method: SM23 4500-NH3 G Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Ammonia | **<0.50** | mg/L | 0.50 | 1 | 10/22/25 12:00 | 10/23/25 12:09 | 7664-41-7 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Circuit Ave** **Lab ID: 70384357004** Collected: 10/08/25 08:35 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB ECOLI Quantitray 18HR** | Analytical Method: SM23 9223B Preparation Method: SM23 9223B<br>Pace Analytical Services - Newburgh | | | | | | | |
| E.coli | **>2419.6** | MPN/100mL | 1.0 | 1 | 10/08/25 16:45 | 10/09/25 11:00 | | H2 |
| **NB SM4500NO2-B, Nitrite unpres** | Analytical Method: SM23 4500-NO2 B<br>Pace Analytical Services - Newburgh | | | | | | | |
| Nitrite as N | **0.065** | mg/L | 0.010 | 1 | | 10/09/25 13:53 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Knight St** **Lab ID: 70384357005** Collected: 10/08/25 08:55 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB Storm Field Data** | Analytical Method: Pace Analytical Services - Newburgh | | | | | | | |
| Collected By | **M.Acri** | | | 1 | | 10/17/25 09:31 | | |
| Collected Date | **10/08/2025** | | | 1 | | 10/17/25 09:31 | | |
| Collected Time | **08:55** | | | 1 | | 10/17/25 09:31 | | |
| Start time of storm | **06:30** | | | 1 | | 10/17/25 09:31 | | N3 |
| Storm Duration | **5 hrs** | | | 1 | | 10/17/25 09:31 | | N3 |
| Storm Magnitude | **0.25** | | | 1 | | 10/17/25 09:31 | | N3 |
| Field pH | **8.61** | Std. Units | | 1 | | 10/17/25 09:31 | | N3 |
| Field Temperature | **19.40** | deg C | | 1 | | 10/17/25 09:31 | | N3 |
| Field Specific Conductance | **70** | umhos/cm | | 1 | | 10/17/25 09:31 | | N3 |
| Field Turbidity | **102** | NTU | | 1 | | 10/17/25 09:31 | | N3 |
| Rainfall pH | **6.49** | Std. Units | | 1 | | 10/17/25 09:31 | | N3 |
| **NB 200.7 Metals, Total** | Analytical Method: EPA 200.7, Rev. 4.4 Preparation Method: EPA 200.7, Rev. 4.4 Pace Analytical Services - Newburgh | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **38.0** | mg/L | 16.5 | 1 | 10/13/25 17:30 | 10/15/25 17:32 | | N3 |
| **NB HEM, Oil and Grease** | Analytical Method: EPA 1664A Pace Analytical Services - Newburgh | | | | | | | |
| Oil and Grease | **<4.9** | mg/L | 4.9 | 1 | | 10/22/25 09:23 | | |
| **NB 2540D Total Suspen. Solids** | Analytical Method: SM23 2540D Pace Analytical Services - Newburgh | | | | | | | |
| Total Suspended Solids | **38.7** | mg/L | 16.7 | 1 | | 10/09/25 16:41 | | |
| **NB 300.0 IC Anions 48H** | Analytical Method: EPA 300.0 Rev. 2.1 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrate as N | **<0.25** | mg/L | 0.25 | 1 | | 10/08/25 21:05 | 14797-55-8 | |
| **NB 351.2 Total Kjeldahl Nitr.** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Kjeldahl, Total | **<1.0** | mg/L | 1.0 | 1 | 10/16/25 12:00 | 10/20/25 14:26 | 7727-37-9 | |
| **NB 365.3 Total Phosphorus** | Analytical Method: EPA 365.3 Preparation Method: EPA 365.3 Pace Analytical Services - Newburgh | | | | | | | |
| Phosphorus , Total (as P) | **0.26** | mg/L | 0.10 | 1 | 10/15/25 13:18 | 10/15/25 15:10 | 7723-14-0 | |
| **NB 410.4 COD Low** | Analytical Method: EPA 410.4 Rev. 2.0 Preparation Method: EPA 410.4 Rev. 2.0 Pace Analytical Services - Newburgh | | | | | | | |
| Chemical Oxygen Demand | **41.4** | mg/L | 10.0 | 1 | 10/14/25 10:35 | 10/15/25 12:44 | | |
| **NB 4500 Ammonia Water** | Analytical Method: SM23 4500-NH3 G Preparation Method: SM23 4500-NH3 G Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Ammonia | **<0.50** | mg/L | 0.50 | 1 | 10/22/25 12:00 | 10/23/25 12:10 | 7664-41-7 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: Knight St** **Lab ID: 70384357005** Collected: 10/08/25 08:55 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB ECOLI Quantitray 18HR** | Analytical Method: SM23 9223B Preparation Method: SM23 9223B<br>Pace Analytical Services - Newburgh | | | | | | | |
| E.coli | **>2419.6** | MPN/100mL | 1.0 | 1 | 10/08/25 16:45 | 10/09/25 11:00 | | |
| **NB SM4500NO2-B, Nitrite unpres** | Analytical Method: SM23 4500-NO2 B<br>Pace Analytical Services - Newburgh | | | | | | | |
| Nitrite as N | **0.057** | mg/L | 0.010 | 1 | | 10/09/25 13:53 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
315 Fullerton Avenue
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(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: New Wood Rd** **Lab ID: 70384357006** Collected: 10/08/25 09:15 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB Storm Field Data** | Analytical Method: Pace Analytical Services - Newburgh | | | | | | | |
| Collected By | **M.Acri** | | | 1 | | 10/17/25 09:32 | | |
| Collected Date | **10/08/2025** | | | 1 | | 10/17/25 09:32 | | |
| Collected Time | **09:15** | | | 1 | | 10/17/25 09:32 | | |
| Start time of storm | **06:30** | | | 1 | | 10/17/25 09:32 | | N3 |
| Storm Duration | **5 hrs** | | | 1 | | 10/17/25 09:32 | | N3 |
| Storm Magnitude | **0.25 in** | | | 1 | | 10/17/25 09:32 | | N3 |
| Field pH | **8.12** | Std. Units | | 1 | | 10/17/25 09:32 | | N3 |
| Field Temperature | **17.20** | deg C | | 1 | | 10/17/25 09:32 | | N3 |
| Field Specific Conductance | **386** | umhos/cm | | 1 | | 10/17/25 09:32 | | N3 |
| Field Turbidity | **129** | NTU | | 1 | | 10/17/25 09:32 | | N3 |
| Rainfall pH | **6.51** | Std. Units | | 1 | | 10/17/25 09:32 | | N3 |
| **NB 200.7 Metals, Total** | Analytical Method: EPA 200.7, Rev. 4.4 Preparation Method: EPA 200.7, Rev. 4.4 Pace Analytical Services - Newburgh | | | | | | | |
| Tot Hardness asCaCO3 (SM 2340B | **40.1** | mg/L | 16.5 | 1 | 10/13/25 17:30 | 10/15/25 17:36 | | N3 |
| **NB HEM, Oil and Grease** | Analytical Method: EPA 1664A Pace Analytical Services - Newburgh | | | | | | | |
| Oil and Grease | **<4.8** | mg/L | 4.8 | 1 | | 10/22/25 09:23 | | |
| **NB 2540D Total Suspen. Solids** | Analytical Method: SM23 2540D Pace Analytical Services - Newburgh | | | | | | | |
| Total Suspended Solids | **514** | mg/L | 50.0 | 1 | | 10/09/25 16:41 | | |
| **NB 300.0 IC Anions 48H** | Analytical Method: EPA 300.0 Rev. 2.1 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrate as N | **0.41** | mg/L | 0.25 | 1 | | 10/08/25 20:50 | 14797-55-8 | |
| **NB 351.2 Total Kjeldahl Nitr.** | Analytical Method: EPA 351.2 Preparation Method: EPA 351.2 Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Kjeldahl, Total | **1.4** | mg/L | 1.0 | 1 | 10/16/25 12:00 | 10/20/25 14:27 | 7727-37-9 | |
| **NB 365.3 Total Phosphorus** | Analytical Method: EPA 365.3 Preparation Method: EPA 365.3 Pace Analytical Services - Newburgh | | | | | | | |
| Phosphorus , Total (as P) | **0.36** | mg/L | 0.10 | 1 | 10/15/25 13:18 | 10/15/25 15:10 | 7723-14-0 | |
| **NB 410.4 COD** | Analytical Method: EPA 410.4 Rev. 2.0 Preparation Method: EPA 410.4 Rev. 2.0 Pace Analytical Services - Newburgh | | | | | | | |
| Chemical Oxygen Demand | **111** | mg/L | 100 | 1 | 10/14/25 10:30 | 10/15/25 12:29 | | |
| **NB 4500 Ammonia Water** | Analytical Method: SM23 4500-NH3 G Preparation Method: SM23 4500-NH3 G Pace Analytical Services - Newburgh | | | | | | | |
| Nitrogen, Ammonia | **<0.50** | mg/L | 0.50 | 1 | 10/22/25 12:00 | 10/23/25 12:11 | 7664-41-7 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## ANALYTICAL RESULTS

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

**Sample: New Wood Rd** **Lab ID: 70384357006** Collected: 10/08/25 09:15 Received: 10/08/25 16:20 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **NB ECOLI Quantitray 18HR** | Analytical Method: SM23 9223B Preparation Method: SM23 9223B<br>Pace Analytical Services - Newburgh | | | | | | | |
| E.coli | **866.4** | MPN/100mL | 1.0 | 1 | 10/08/25 16:45 | 10/09/25 11:00 | | |
| **NB SM4500NO2-B, Nitrite unpres** | Analytical Method: SM23 4500-NO2 B<br>Pace Analytical Services - Newburgh | | | | | | | |
| Nitrite as N | **0.059** | mg/L | 0.010 | 1 | | 10/09/25 13:55 | 14797-65-0 | |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
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## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 422894
QC Batch Method: EPA 200.7, Rev. 4.4
Analysis Method: EPA 200.7, Rev. 4.4
Analysis Description: NB 200.7 Metals, Total
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

METHOD BLANK: 2255294 Matrix: Water
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | <4.1 | 4.1 | 10/15/25 14:16 | N3 |

LABORATORY CONTROL SAMPLE: 2253144

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | | <16.5 | | | N3 |

MATRIX SPIKE SAMPLE: 2253208

| Parameter | Units | 70384321001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 127000 ug/L | | 126 | | | N3 |

MATRIX SPIKE SAMPLE: 2253209

| Parameter | Units | 70384294002 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 207000 ug/L | | 202 | | | N3 |

SAMPLE DUPLICATE: 2253207

| Parameter | Units | 70384321001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Tot Hardness asCaCO3 (SM 2340B | mg/L | 127000 ug/L | 124 | 2 | N3 |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 424074
QC Batch Method: EPA 1664A
Analysis Method: EPA 1664A
Analysis Description: NB 1664A HEM, Oil and Grease
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004

METHOD BLANK: 2261040 Matrix: Water
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Oil and Grease | mg/L | <5.0 | 5.0 | 10/20/25 08:15 | |

LABORATORY CONTROL SAMPLE & LCSD: 2261041 2261042

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Oil and Grease | mg/L | 40 | 36.9 | 38.1 | 92 | 95 | 78-114 | 3 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 424516
QC Batch Method: EPA 1664A
Analysis Method: EPA 1664A
Analysis Description: NB 1664A HEM, Oil and Grease
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357005, 70384357006

METHOD BLANK: 2263752 Matrix: Water
Associated Lab Samples: 70384357005, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Oil and Grease | mg/L | <5.0 | 5.0 | 10/22/25 09:23 | |

LABORATORY CONTROL SAMPLE & LCSD: 2263753 2263754

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Oil and Grease | mg/L | 40 | 38.8 | 37.1 | 97 | 93 | 78-114 | 4 | 20 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 422633 | Analysis Method: SM23 2540D
QC Batch Method: SM23 2540D | Analysis Description: NB 2540D Total Suspen. Solids
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

METHOD BLANK: 2251736 Matrix: Water
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | <2.5 | 2.5 | 10/09/25 15:49 | |

LABORATORY CONTROL SAMPLE: 2251737

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | 832 | 876 | 105 | 77-116 | |

SAMPLE DUPLICATE: 2251738

| Parameter | Units | 70384270001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | 224 | 244 | 9 | |

SAMPLE DUPLICATE: 2251759

| Parameter | Units | 70384502001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Total Suspended Solids | mg/L | 1990 | 2050 | 3 | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
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## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 422406
QC Batch Method: EPA 300.0 Rev. 2.1
Analysis Method: EPA 300.0 Rev. 2.1
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

METHOD BLANK: 2249838 Matrix: Water
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrate as N | mg/L | <0.25 | 0.25 | 10/08/25 10:46 | |

LABORATORY CONTROL SAMPLE: 2249839

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrate as N | mg/L | 2.5 | 2.5 | 99 | 90-110 | |

MATRIX SPIKE SAMPLE: 2249840

| Parameter | Units | 70384350001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Nitrate as N | mg/L | ND | 1 | 0.96 | 96 | 80-120 | |

SAMPLE DUPLICATE: 2249841

| Parameter | Units | 70384350001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Nitrate as N | mg/L | ND | <0.25 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 423754
QC Batch Method: EPA 351.2
Analysis Method: EPA 351.2
Analysis Description: NB 351.2 TKN W
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

METHOD BLANK: 2258619 Matrix: Water
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | <1.0 | 1.0 | 10/20/25 14:04 | |

LABORATORY CONTROL SAMPLE: 2258620

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 16 | 16.3 | 102 | 78-124 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2258621 2258622

| Parameter | Units | 70384357001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl, Total | mg/L | 1.2 | 2.5 | 2.5 | 1.6 | 1.5 | 19 | 14 | 50-150 | 8 | M1 |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 423119
QC Batch Method: EPA 365.3
Analysis Method: EPA 365.3
Analysis Description: NB 365.3 Total Phosphorus
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004

METHOD BLANK: 2254483 Matrix: Water
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | <0.10 | 0.10 | 10/13/25 13:11 | |

LABORATORY CONTROL SAMPLE: 2254484

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | 0.44 | 0.48 | 109 | 74-119 | |

MATRIX SPIKE SAMPLE: 2254485

| Parameter | Units | 70384025002 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | 4.8 | 0.2 | 5.1 | 120 | 58-136 | |

MATRIX SPIKE SAMPLE: 2254487

| Parameter | Units | 70384152002 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | <0.10 | 0.2 | 0.21 | 58 | 58-136 | |

SAMPLE DUPLICATE: 2254486

| Parameter | Units | 70384025002 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | 4.8 | 4.8 | 1 | |

SAMPLE DUPLICATE: 2254488

| Parameter | Units | 70384152002 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | <0.10 | <0.10 | | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 423538
QC Batch Method: EPA 365.3
Analysis Method: EPA 365.3
Analysis Description: NB 365.3 Total Phosphorus
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357005, 70384357006

METHOD BLANK: 2257329 Matrix: Water
Associated Lab Samples: 70384357005, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | <0.10 | 0.10 | 10/15/25 15:10 | |

LABORATORY CONTROL SAMPLE: 2257330

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | 0.44 | 0.45 | 103 | 74-119 | |

MATRIX SPIKE SAMPLE: 2257331

| Parameter | Units | 70384753002 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | 0.17 | 0.2 | 0.31 | 68 | 58-136 | |

MATRIX SPIKE SAMPLE: 2257333

| Parameter | Units | 70385283006 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | <0.10 | 0.2 | 0.24 | 101 | 58-136 | |

SAMPLE DUPLICATE: 2257332

| Parameter | Units | 70384753002 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | 0.17 | 0.15 | 15 | |

SAMPLE DUPLICATE: 2257334

| Parameter | Units | 70385283006 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Phosphorus , Total (as P) | mg/L | <0.10 | <0.10 | | |

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## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 423454
QC Batch Method: EPA 410.4 Rev. 2.0
Analysis Method: EPA 410.4 Rev. 2.0
Analysis Description: NB 410.4 COD
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357002, 70384357003, 70384357006

METHOD BLANK: 2256852 Matrix: Water
Associated Lab Samples: 70384357002, 70384357003, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | <100 | 100 | 10/15/25 12:28 | |

LABORATORY CONTROL SAMPLE: 2256853

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 204 | 203 | 100 | 71-130 | |

MATRIX SPIKE SAMPLE: 2256854

| Parameter | Units | 70384646001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 131 | 500 | 593 | 92 | 90-110 | |

SAMPLE DUPLICATE: 2256855

| Parameter | Units | 70384646001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 131 | 123 | 6 | |

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## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 423455
QC Batch Method: EPA 410.4 Rev. 2.0
Analysis Method: EPA 410.4 Rev. 2.0
Analysis Description: NB 410.4 COD Low
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357004, 70384357005

METHOD BLANK: 2256856 Matrix: Water
Associated Lab Samples: 70384357001, 70384357004, 70384357005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | <10.0 | 10.0 | 10/15/25 12:43 | |

LABORATORY CONTROL SAMPLE: 2256857

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 51.1 | 53.8 | 105 | 90-110 | |

MATRIX SPIKE SAMPLE: 2256858

| Parameter | Units | 70384873001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 49.7 | 50 | 97.3 | 95 | 90-110 | |

SAMPLE DUPLICATE: 2256859

| Parameter | Units | 70384873001 Result | Dup Result | RPD | Qualifiers |
|---|---|---|---|---|---|
| Chemical Oxygen Demand | mg/L | 49.7 | 47.6 | 4 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 423782
QC Batch Method: SM23 4500-NH3 G
Analysis Method: SM23 4500-NH3 G
Analysis Description: NB 4500 Ammonia Water
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357002, 70384357003

METHOD BLANK: 2258882 Matrix: Water
Associated Lab Samples: 70384357001, 70384357002, 70384357003

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | <0.50 | 0.50 | 10/17/25 17:02 | |

LABORATORY CONTROL SAMPLE: 2258883

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 5.8 | 5.5 | 95 | 75.8-120.7 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2258884 2258885

| Parameter | Units | 70384122002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 1.4 | 2.5 | 2.5 | 4.5 | 4.0 | 126 | 105 | 80-120 | 13 | M1 |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 424628
QC Batch Method: SM23 4500-NH3 G
Analysis Method: SM23 4500-NH3 G
Analysis Description: NB 4500 Ammonia Water
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357004, 70384357005, 70384357006

METHOD BLANK: 2264773 Matrix: Water
Associated Lab Samples: 70384357004, 70384357005, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | <0.50 | 0.50 | 10/23/25 12:04 | |

LABORATORY CONTROL SAMPLE: 2264774

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | 5.8 | 6.1 | 105 | 75.8-120.7 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2264775 2264776

| Parameter | Units | 70384404002 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Ammonia | mg/L | ND | 2.5 | 2.5 | 3.0 | 2.9 | 114 | 110 | 80-120 | 3 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

QC Batch: 422686
QC Batch Method: SM23 4500-NO2 B
Analysis Method: SM23 4500-NO2 B
Analysis Description: NB SM4500NO2-B, Nitrite unpres
Laboratory: Pace Analytical Services - Newburgh
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

METHOD BLANK: 2251996 Matrix: Water
Associated Lab Samples: 70384357001, 70384357002, 70384357003, 70384357004, 70384357005, 70384357006

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Nitrite as N | mg/L | <0.010 | 0.010 | 10/09/25 13:47 | |

LABORATORY CONTROL SAMPLE: 2251997

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Nitrite as N | mg/L | 0.038 | 0.035 | 92 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2251998 2251999

| Parameter | Units | 70384617001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrite as N | mg/L | ND | 0.03 | 0.03 | 0.030 | 0.030 | 100 | 101 | 83-122 | 1 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2252000 2252001

| Parameter | Units | 70384642001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrite as N | mg/L | <0.010 | 0.03 | 0.03 | 0.029 | 0.029 | 97 | 98 | 83-122 | 1 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 70384357001 | Echo Lake Rd | | | | |
| 70384357002 | Callender Rd | | | | |
| 70384357003 | Beach Ave | | | | |
| 70384357004 | Circuit Ave | | | | |
| 70384357005 | Knight St | | | | |
| 70384357006 | New Wood Rd | | | | |
| 70384357001 | Echo Lake Rd | EPA 200.7, Rev. 4.4 | 422894 | EPA 200.7, Rev. 4.4 | 423483 |
| 70384357002 | Callender Rd | EPA 200.7, Rev. 4.4 | 422894 | EPA 200.7, Rev. 4.4 | 423483 |
| 70384357003 | Beach Ave | EPA 200.7, Rev. 4.4 | 422894 | EPA 200.7, Rev. 4.4 | 423483 |
| 70384357004 | Circuit Ave | EPA 200.7, Rev. 4.4 | 422894 | EPA 200.7, Rev. 4.4 | 423483 |
| 70384357005 | Knight St | EPA 200.7, Rev. 4.4 | 422894 | EPA 200.7, Rev. 4.4 | 423483 |
| 70384357006 | New Wood Rd | EPA 200.7, Rev. 4.4 | 422894 | EPA 200.7, Rev. 4.4 | 423483 |
| 70384357001 | Echo Lake Rd | EPA 1664A | 424074 | | |
| 70384357002 | Callender Rd | EPA 1664A | 424074 | | |
| 70384357003 | Beach Ave | EPA 1664A | 424074 | | |
| 70384357004 | Circuit Ave | EPA 1664A | 424074 | | |
| 70384357005 | Knight St | EPA 1664A | 424516 | | |
| 70384357006 | New Wood Rd | EPA 1664A | 424516 | | |
| 70384357001 | Echo Lake Rd | SM23 2540D | 422633 | | |
| 70384357002 | Callender Rd | SM23 2540D | 422633 | | |
| 70384357003 | Beach Ave | SM23 2540D | 422633 | | |
| 70384357004 | Circuit Ave | SM23 2540D | 422633 | | |
| 70384357005 | Knight St | SM23 2540D | 422633 | | |
| 70384357006 | New Wood Rd | SM23 2540D | 422633 | | |
| 70384357001 | Echo Lake Rd | EPA 300.0 Rev. 2.1 | 422406 | | |
| 70384357002 | Callender Rd | EPA 300.0 Rev. 2.1 | 422406 | | |
| 70384357003 | Beach Ave | EPA 300.0 Rev. 2.1 | 422406 | | |
| 70384357004 | Circuit Ave | EPA 300.0 Rev. 2.1 | 422406 | | |
| 70384357005 | Knight St | EPA 300.0 Rev. 2.1 | 422406 | | |
| 70384357006 | New Wood Rd | EPA 300.0 Rev. 2.1 | 422406 | | |
| 70384357001 | Echo Lake Rd | EPA 351.2 | 423754 | EPA 351.2 | 424007 |
| 70384357002 | Callender Rd | EPA 351.2 | 423754 | EPA 351.2 | 424007 |
| 70384357003 | Beach Ave | EPA 351.2 | 423754 | EPA 351.2 | 424007 |
| 70384357004 | Circuit Ave | EPA 351.2 | 423754 | EPA 351.2 | 424007 |
| 70384357005 | Knight St | EPA 351.2 | 423754 | EPA 351.2 | 424007 |
| 70384357006 | New Wood Rd | EPA 351.2 | 423754 | EPA 351.2 | 424007 |
| 70384357001 | Echo Lake Rd | EPA 365.3 | 423119 | EPA 365.3 | 423122 |
| 70384357002 | Callender Rd | EPA 365.3 | 423119 | EPA 365.3 | 423122 |
| 70384357003 | Beach Ave | EPA 365.3 | 423119 | EPA 365.3 | 423122 |
| 70384357004 | Circuit Ave | EPA 365.3 | 423119 | EPA 365.3 | 423122 |
| 70384357005 | Knight St | EPA 365.3 | 423538 | EPA 365.3 | 423567 |
| 70384357006 | New Wood Rd | EPA 365.3 | 423538 | EPA 365.3 | 423567 |
| 70384357002 | Callender Rd | EPA 410.4 Rev. 2.0 | 423454 | EPA 410.4 Rev. 2.0 | 423521 |
| 70384357003 | Beach Ave | EPA 410.4 Rev. 2.0 | 423454 | EPA 410.4 Rev. 2.0 | 423521 |

Pace Analytical Services, LLC
315 Fullerton Avenue
Newburgh, NY 12550
(845)562-0890

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Watertown 2025 MS4 Stormwater
Pace Project No.: 70384357

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 70384357006 | New Wood Rd | EPA 410.4 Rev. 2.0 | 423454 | EPA 410.4 Rev. 2.0 | 423521 |
| 70384357001 | Echo Lake Rd | EPA 410.4 Rev. 2.0 | 423455 | EPA 410.4 Rev. 2.0 | 423522 |
| 70384357004 | Circuit Ave | EPA 410.4 Rev. 2.0 | 423455 | EPA 410.4 Rev. 2.0 | 423522 |
| 70384357005 | Knight St | EPA 410.4 Rev. 2.0 | 423455 | EPA 410.4 Rev. 2.0 | 423522 |
| 70384357001 | Echo Lake Rd | SM23 4500-NH3 G | 423782 | SM23 4500-NH3 G | 423792 |
| 70384357002 | Callender Rd | SM23 4500-NH3 G | 423782 | SM23 4500-NH3 G | 423792 |
| 70384357003 | Beach Ave | SM23 4500-NH3 G | 423782 | SM23 4500-NH3 G | 423792 |
| 70384357004 | Circuit Ave | SM23 4500-NH3 G | 424628 | SM23 4500-NH3 G | 424641 |
| 70384357005 | Knight St | SM23 4500-NH3 G | 424628 | SM23 4500-NH3 G | 424641 |
| 70384357006 | New Wood Rd | SM23 4500-NH3 G | 424628 | SM23 4500-NH3 G | 424641 |
| 70384357001 | Echo Lake Rd | SM23 9223B | 422526 | SM23 9223B | 422654 |
| 70384357002 | Callender Rd | SM23 9223B | 422526 | SM23 9223B | 422654 |
| 70384357003 | Beach Ave | SM23 9223B | 422526 | SM23 9223B | 422654 |
| 70384357004 | Circuit Ave | SM23 9223B | 422526 | SM23 9223B | 422654 |
| 70384357005 | Knight St | SM23 9223B | 422526 | SM23 9223B | 422654 |
| 70384357006 | New Wood Rd | SM23 9223B | 422526 | SM23 9223B | 422654 |
| 70384357001 | Echo Lake Rd | SM23 4500-NO2 B | 422686 | | |
| 70384357002 | Callender Rd | SM23 4500-NO2 B | 422686 | | |
| 70384357003 | Beach Ave | SM23 4500-NO2 B | 422686 | | |
| 70384357004 | Circuit Ave | SM23 4500-NO2 B | 422686 | | |
| 70384357005 | Knight St | SM23 4500-NO2 B | 422686 | | |
| 70384357006 | New Wood Rd | SM23 4500-NO2 B | 422686 | | |

Pace® Location Requested (City/State):

# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 70384357

70384357

Company Name: Town of Watertown
Street Address: 61 Echo Lake Rd, Watertown, CT 06795
Customer Project #:
Project Name: Town of Watertown MS4 Stormwater Sampling
Site Collection Info/Facility ID (as applicable):

Contact/Report To: Carissa Plourde
Phone #: 860-845-5240
E-Mail: plourde@watertownct.gov
Cc E-Mail: lukowski@watertownct.gov
Invoice to:
Invoice E-mail:
Purchase Order # (if applicable):
Quote #:

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET
County / State origin of sample(s): CT

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other
Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No
Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other
Date Results Requested:
DW PWSID # or WW Permit # as applicable:
Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

Specify Container Size **: 1 1 3 3 3 4
Identify Container Preservative Type***: 4 1 1 3 2 8

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested: Oil & Grease; TSS; NO3, NO2; NH3, TKN, TP, COD; Hardness; E. coli

Lab Use Only: Proj. Mgr: Stephanie Monst; Acct.Num / Client ID:; Table #:; Profile / Template:; Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

| Customer Sample ID | Matrix * | Comp / Grab | Composite Start Date | Composite Start Time | Collected or Composite End Date | Collected or Composite End Time | # Cont. | Residual Chlorine Result | Residual Chlorine Units | Sample Comment |
|---|---|---|---|---|---|---|---|---|---|---|
| Echo Lake Rd | Storm | G | | | 10.8.25 | 0735 | 6 | | | |
| Callender Rd | Storm | G | | | | 0750 | 6 | | | |
| Beach Ave | Storm | G | | | | 0815 | 6 | | | |
| Circuit Ave | Storm | G | | | | 0835 | 6 | | | |
| Knight St | Storm | G | | | | 0855 | 6 | | | |
| New Wood Rd | Storm | G | | | | 0915 | 6 | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Additional instructions from Pace®: Run E.coli even if out of hold time

Collected By: M. Ac.
Printed Name:
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

| # Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C): | Corrected Temp. (°C): |
|---|---|---|---|---|
| | | | | 0.1 |

Ice [ ] Dry

| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: |
|---|---|---|---|
| | 10.8.25 0945 | | 10-8-25 1415 |
| | 10-8-25 1620 | | 10/8 1620 |
| | | | |
| | | | |

Tracking Number:

Delivered by: [ ] In-Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other

Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

ENV-FRM-CORQ-0019 v02 110123 ©

DC#_Title: ENV-FRM-NEWB-0002 Sample Condition Upon Receipt Form
Effective Date: 7/21/2022

# WO#: 70384357

PM: SLM Due Date: 10/22/25
CLIENT: NB-Watertown

m (SCUR)

Proje
Clie

**Date and Initials of person:**
Examining contents:_____
Label:_____
Deliver to location:_____
pH:_____

Thermometer Used: IRG4 Date: 10.08.2025 Time: 1620 Initials:_____

State of Origin: CT

Cooler #1 Temp. °C 0.1 (Visual) 0.1@0°C,-0.1@20°C (Correction Factor)_____ (Actual) ☑ Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other_____

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground
☐ Other_____

Tracking #_____

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes ☐ No Ice: (Wet) Blue Melted None

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Samples were collected by Pace employee ☐ Yes ☐ No ☐ N/A

| | | Comments: |
|---|---|---|
| Chain of Custody Present | ☑Yes ☐ No ☐ N/A | |
| Chain of Custody Filled Out | ☑Yes ☐ No ☐ N/A | |
| Relinquished Signature on COC | ☑Yes ☐ No ☐ N/A | |
| Sampler Name and Signature on COC | ☑Yes ☐ No ☐ N/A | |
| Samples Arrived within Hold Time | ☑Yes ☐ No ☐ N/A | |
| Rush TAT requested on COC | ☐Yes ☐ No ☐ N/A | |
| Sufficient Volume | ☑Yes ☐ No ☐ N/A | |
| Correct Containers Used | ☑Yes ☐ No ☐ N/A | |
| Containers Intact | ☑Yes ☐ No ☐ N/A | |
| Sample Labels match COC (sample IDs & date/time of collection) | ☑Yes ☐ No ☐ N/A | |
| All containers needing acid/base preservation have been checked. | ☐Yes ☐ No ☐ N/A | Preservation Information: Preservative:_____ Lot #/Trace #:_____ Date:_____ Time:_____ Initials:_____ |
| All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: Vials, Microbiology, O&G, Metals | ☐Yes ☐ No ☐ N/A | |
| Headspace in VOA Vials? (>6mm): | ☐Yes ☐ No ☐N/A | |
| Trip Blank Present: | ☐Yes ☐ No ☐N/A | |

**Additional Login Comments:**

**Client notification/ Resolution**
**Person Contacted:** **Date/Time:**
**Comments/Resolution:**

# MS4 STORMWATER FIELD SHEET

Client/Project Name: Town of Watertown
Project Location: 777 Echo Lake Rd

Stormwater ID: **Echo Lake Rd**
Sample Number: 70384357-001

Date: 10/8/2025
Time: 7:35

Field Tech: MA
Weather: Raining

Number of Containers: 5
Container Preservative: H2SO4, HNO3 Na2S2O3, HCl

Sample Method:

**Bailer**

Filtration:

on Site **at Lab** None

Comments:
Start of Storm: 6:30
Storm Duration: 5 hrs
Storm Magnitude: 0.25 in

## Field Parameters

| pH | Temp | Cond | Turbidity | Rainfall pH |
|---|---|---|---|---|
| 8.24 su | 18.20 °C | 59 umhos | 12 ntu | 6.47 su |

## Meter Calibration

| Date: | 10/7/25 | Time: | 7:50 | | | Model |
|---|---|---|---|---|---|---|
| | Pre-Cal. | Post-Cal. | | Pre-Cal. | Post-Cal. | |
| pH 4 | 4.36 | 4.00 | Cond. | 1425 | 1413 | YSI / Hanna / **Sper** |
| pH 7 | 7.02 | 7.03 | D.O. | | | |
| pH 10 | 10.43 | 10.08 | | | | |

# MS4 STORMWATER FIELD SHEET

Client/Project Name: Town of Watertown
Project Location: Callender Rd & Park Rd

Stormwater ID: **Callender Rd**
Sample Number: 70384357-002

Date: 10/8/2025
Time: 7:50

Field Tech: MA
Weather: Raining

Number of Containers: 5
Container Preservative: H2SO4, HNO3
Na2S2O3, HCl

Sample Method:

**Baller**

Filtration:

on Site **at Lab** None

Comments:
Start of Storm: 6:30
Storm Duration: 5 hrs
Storm Magnitude: 0.25 in

## Field Parameters

| pH | Temp | Cond | Turbidity | Rainfall pH |
|---|---|---|---|---|
| 7.87 su | 17.80 °C | 188 umhos | 256 ntu | 6.43 su |

## Meter Calibration

| Date: | 10/7/25 | Time: | 7:50 | | | Model |
|---|---|---|---|---|---|---|
| | Pre-Cal. | Post-Cal. | | Pre-Cal. | Post-Cal. | |
| pH 4 | 4.36 | 4.00 | Cond. | 1425 | 1413 | YSI / Hanna / **Sper** |
| pH 7 | 7.02 | 7.03 | D.O. | | | |
| pH 10 | 10.43 | 10.08 | | | | |

# MS4 STORMWATER FIELD SHEET

Client/Project Name: Town of Watertown
Project Location: Beach Ave & Nova Scotia Hill Rd

Stormwater ID: **Beach Ave**
Sample Number: 70384357-003

Date: 10/8/2025
Time: 8:15

Field Tech: MA
Weather: Raining

Number of Containers: 5
Container Preservative: H2SO4, HNO3
Na2S2O3, HCl

Sample Method:

**Bailer**

Filtration:

on Site **at Lab** None

Comments:

Start of Storm: 6:30
Storm Duration: 5 hrs
Storm Magnitude: 0.25 in

## Field Parameters

| pH | Temp | Cond | Turbidity | Rainfall pH |
|---|---|---|---|---|
| 8.22 su | 17.90 °C | 83 umhos | 76 ntu | 6.42 su |

## Meter Calibration

| Date: | 10/7/25 | Time: | 7:50 | | | Model |
|---|---|---|---|---|---|---|
| | Pre-Cal. | Post-Cal. | | Pre-Cal. | Post-Cal. | |
| pH 4 | 4.36 | 4.00 | Cond. | 1425 | 1413 | YSI / Hanna / **Sper** |
| pH 7 | 7.02 | 7.03 | D.O. | | | |
| pH 10 | 10.43 | 10.08 | | | | |

# MS4 STORMWATER FIELD SHEET

Client/Project Name: Town of Watertown
Project Location: 50 Circuit Ave
Stormwater ID: **Circuit Ave**
Sample Number: 70384357-004

Date: 10/8/2025
Time: 8:35
Field Tech: MA
Weather: Raining

Number of Containers: 5
Container Preservative: H2SO4, HNO3
Na2S2O3, HCl

Sample Method:

**Bailer**

Filtration:

on Site **at Lab** None

Comments:
Start of Storm: 6:30
Storm Duration: 5 hrs
Storm Magnitude: 0.25 in

## Field Parameters

| pH | Temp | Cond | Turbidity | Rainfall pH |
|---|---|---|---|---|
| 8.62 su | 16.70 °C | 36 umhos | 58 ntu | 6.56 su |

## Meter Calibration

| Date: | 10/7/25 | Time: | 7:50 | | | Model |
|---|---|---|---|---|---|---|
| | Pre-Cal. | Post-Cal. | | Pre-Cal. | Post-Cal. | |
| pH 4 | 4.36 | 4.00 | Cond. | 1425 | 1413 | YSI / Hanna / **Sper** |
| pH 7 | 7.02 | 7.03 | D.O. | | | |
| pH 10 | 10.43 | 10.08 | | | | |

# MS4 STORMWATER FIELD SHEET

Client/Project Name: Town of Watertown
Project Location: 40 Knight St

Stormwater ID: **Knight St**
Sample Number: 70384357-005

Date: 10/8/2025
Time: 8:55

Field Tech: MA
Weather: Raining

Number of Containers: 5
Container Preservative: H2SO4, HNO3
Na2S2O3, HCl

Sample Method:

**Baller**

Filtration:

on Site **at Lab** None

Comments:
Start of Storm: 6:30
Storm Duration: 5 hrs
Storm Magnitude: 0.25 in

## Field Parameters

| pH | Temp | Cond | Turbidity | Rainfall pH |
|---|---|---|---|---|
| 8.61 su | 19.40 °C | 70 umhos | 102 ntu | 6.49 su |

## Meter Calibration

| Date: | 10/7/25 | Time: | 7:50 | | | Model |
|---|---|---|---|---|---|---|
| | Pre-Cal. | Post-Cal. | | Pre-Cal. | Post-Cal. | |
| pH 4 | 4.36 | 4.00 | Cond. | 1425 | 1413 | YSI / Hanna / **Sper** |
| pH 7 | 7.02 | 7.03 | D.O. | | | |
| pH 10 | 10.43 | 10.08 | | | | |

# MS4 STORMWATER FIELD SHEET

Client/Project Name: Town of Watertown
Project Location: New Wood Rd & Commercial St
Stormwater ID: **New Wood Rd**
Sample Number: 70384357-006

Date: 10/8/2025
Time: 9:15
Field Tech: MA
Weather: Raining

Number of Containers: 5
Container Preservative: H2SO4, HNO3
Na2S2O3, HCl

Sample Method:

**Baller**

Filtration:

on Site **at Lab** None

Comments:
Start of Storm: 6:30
Storm Duration: 5 hrs
Storm Magnitude: 0.25 in

## Field Parameters

| pH | Temp | Cond | Turbidity | Rainfall pH |
|---|---|---|---|---|
| 8.12 su | 17.20 °C | 386 umhos | 129 ntu | 6.51 su |

## Meter Calibration

| Date: | 10/7/25 | Time: | 7:50 | | | Model |
|---|---|---|---|---|---|---|
| | Pre-Cal. | Post-Cal. | | Pre-Cal. | Post-Cal. | |
| pH 4 | 4.36 | 4.00 | Cond. | 1425 | 1413 | YSI / Hanna / **Sper** |
| pH 7 | 7.02 | 7.03 | D.O. | | | |
| pH 10 | 10.43 | 10.08 | | | | |

# Illicit Discharge Detection and Elimination (IDDE) Program

## Town of Watertown, CT

2/13/2026

*This document is based on a template originally created by Fuss & O'Neill and modified for statewide use with the CTDEEP General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, effective July 1, 2017.*

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## Town of Watertown


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*Instructions: Update table of contents accordingly based on the final document.*

# 1 Introduction

*Instructions: Throughout this document, the symbol '##' and yellow highlighted text is used to indicate locations where community-specific information is required or where alternate template language is provided for existing and new MS4 permittees.*

## 1.1 MS4 Program

The Town of Watertownhas developed an Illicit Discharge Detection and Elimination (IDDE) program to address the requirements of the Connecticut Department of Energy and Environmental Protection (CTDEEP) *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems*, effective July 1, 2017, hereafter referred to as the "2017 MS4 Permit" or "MS4 Permit."

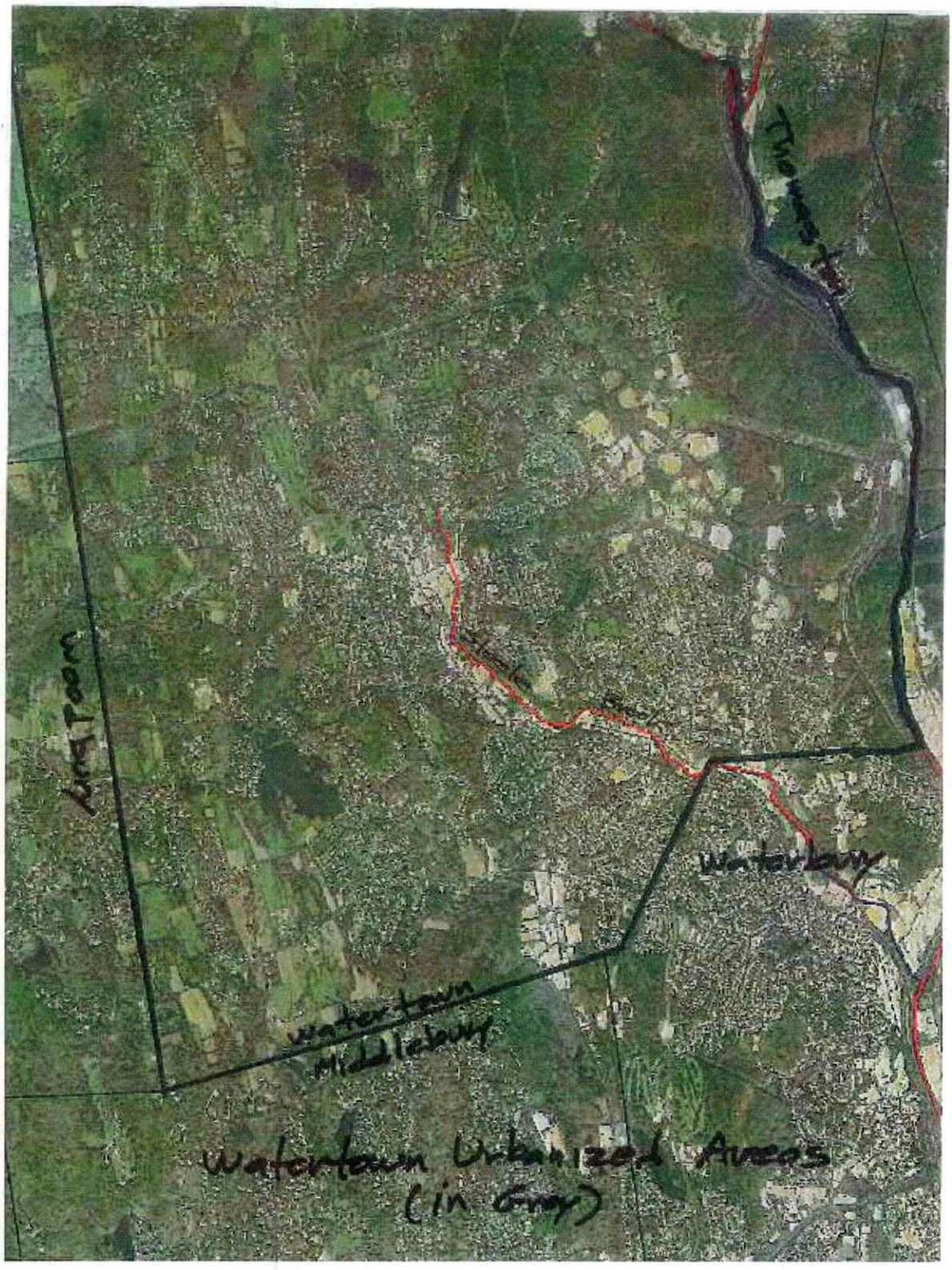
The MS4 Permit requires that each permittee, or regulated community, address six Minimum Control Measures. These measures include the following:

1. Public Education and Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management in New Development or Redevelopment
6. Pollution Prevention/Good Housekeeping.

Under Minimum Control Measure 3, the permittee is required to implement an IDDE program to provide the legal authority to prohibit and eliminate illicit discharges to the MS4, find the source of any illicit discharges, eliminate those illicit discharges, and ensure ongoing screening and tracking to prevent and/or eliminate future illicit discharges. The IDDE program must also be recorded in a written (hardcopy or electronic) document and meet the IDDE program requirements specified in the MS4 Permit. This document has been prepared to address this requirement.

## 1.2 Geographic Scope of IDDE Program

The MS4 Permit requires municipalities to implement the IDDE program within the Urbanized Area (based on 2010 U.S. Census) and those catchment areas of the MS4 with either Directly Connected Impervious Area (DCIA) of greater than 11% or which discharge directly to impaired waters (i.e., "priority" areas). Error! Reference source not found. depicts the urbanized area and other areas outside of the urbanized area that, collectively, may be considered priority areas within the Town of Watertown.


Thomaston
Watertown
Middlebury
Watertown Urbanized Areas
(in Gray)

## 1.3 Illicit Discharges

An "illicit discharge" is any unpermitted discharge to waters of the state that does not consist entirely of stormwater or uncontaminated ground water except: (1) certain allowable non-stormwater discharges when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4, or (2) discharges authorized under a separate NPDES permit that authorize a discharge to the MS4.

Illicit discharges may take a variety of forms. Illicit discharges may enter the drainage system through direct or indirect connections. Direct connections may be relatively obvious, such as cross-connections of sanitary sewer services to the storm drain system. Indirect illicit discharges may be more difficult to detect or address, such as failing septic systems that discharge untreated domestic wastewater to a ditch within the MS4, or a sump pump that discharges contaminated water on an intermittent basis.

Some illicit discharges are intentional, such as dumping used oil (or other pollutant) into catch basins, a resident or contractor illegally tapping a new sewer lateral into a storm drain pipe to avoid the costs of a sewer connection fee and service, and illegal dumping of yard wastes into surface waters. Some illicit discharges are related to the unsuitability of original infrastructure to the modern regulatory environment. Examples of illicit discharges in this category include connected floor drains in old buildings, as well as sanitary sewer overflows that enter the drainage system. Sump pumps legally connected to the storm drain system may be used inappropriately, such as for the disposal of floor washwater or old household products, in many cases due to a lack of understanding on the part of the homeowner.

Elimination of some discharges may involve substantial cost and effort, such as disconnecting and reconnecting sanitary sewer laterals or replacing leaking sanitary and/or storm sewer lines. Others, such as improving adherence to proper pet waste management practices through public education and by providing pest waste baggies and receptacles, can be accomplished through relatively low-cost efforts.

Regardless of the intention, when not addressed, illicit discharges can be a significant source of pollutants to surface waters, including metals, toxics, oil, grease, solvents, nutrients, and pathogens.

## 1.4 Allowable Non-Stormwater Discharges

The following categories of non-stormwater discharges are allowed under the MS4 Permit provided: (1) the permittee controls such non-stormwater discharges to the Maximum Extent Practicable (MEP), as required by the MS4 Permit; (2) such non-stormwater discharges do not contribute to a violation of water quality standards; and (3) such non-stormwater discharges are documented in the Stormwater Management Plan and are not significant contributors of pollutants to any identified MS4:

- Uncontaminated groundwater discharges including, but not limited to, pumped ground water, foundation drains, water from crawl space pumps and footing drains
- Irrigation water including, but not limited to, landscape irrigation and lawn watering runoff

- Residual street wash water associated with sweeping
- Discharges or flows from firefighting activities (except training)
- Naturally occurring discharges such as rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), springs, diverted stream flows and flows from riparian habitats and wetlands.

If these discharges are identified as significant contributors to the MS4, they must be considered an "illicit discharge" and addressed by the IDDE program (i.e., control these sources so they are no longer significant contributors of pollutants, and/or eliminate them entirely).

## 1.5 Receiving Waters and Impairments

**Table 1-1** lists the impaired waters within the boundaries of the Town of Watertown based on the latest version of the State of Connecticut Integrated Water Quality Report produced by CTDEEP every two years. Impaired waters are water bodies that do not meet water quality standards for one or more designated use(s) such as recreation or aquatic habitat.

*Instructions: Visit the CT MS4 Towns & Data Map on the UConn CLEAR MS4 website to find out what waters in your community are impaired:*
*http://nemo.uconn.edu/ms4/tools/ms4map.html*

*Refer to CTDEEP's website for a listing of impaired waters contained in the State of Connecticut 2016 Integrated Water Quality Report:*
*http://www.ct.gov/deep/lib/deep/water/water_quality_management/305b/2016_iwqr_final.pdf*

**Table 1-1. Impaired Waters**

| Waterbody Name | Segment ID | Category | Impairment and Stormwater Pollutant of Concern | Approved TMDL |
|---|---|---|---|---|
| Steele Brook | CT6912-00 | 1 | Not Supporting Recreation – E.coli (**bacteria**) | N/A |
| | | | | |
| | | | | |

Source: State of Connecticut 2016 Integrated Water Quality Report (CTDEEP).
Category 5 Waters – Available data and/or information indicate that one or more designated uses are not being supported and a TMDL is needed.

*Instructions: Review the impaired waters and approved Total Maximum Daily Loads (TMDLs) and describe below any IDDE-related requirements identified in the TMDLs.*

## 1.6 IDDE Program Goals, Framework, and Timeline

The objective of the IDDE program is to systematically find and eliminate sources of non-stormwater discharges to the MS4 and implement procedures to prevent such discharges. The program consists of the following major components as outlined in the MS4 Permit:

- Legal authority to prohibit illicit discharges and enforce this prohibition
- Program for citizen reporting of illicit discharges
- Storm system mapping
- Sanitary Sewer Overflow (SSO) elimination
- Assessment and priority ranking of catchments
- Outfall and interconnection screening and sampling
- Catchment investigations
- Identification/confirmation of illicit sources
- Illicit discharge removal
- Follow-up screening
- Employee training.

The IDDE investigation protocol framework is shown in **Figure 1-2**. The required timeline for implementing the IDDE program is shown in **Table 1-2**.

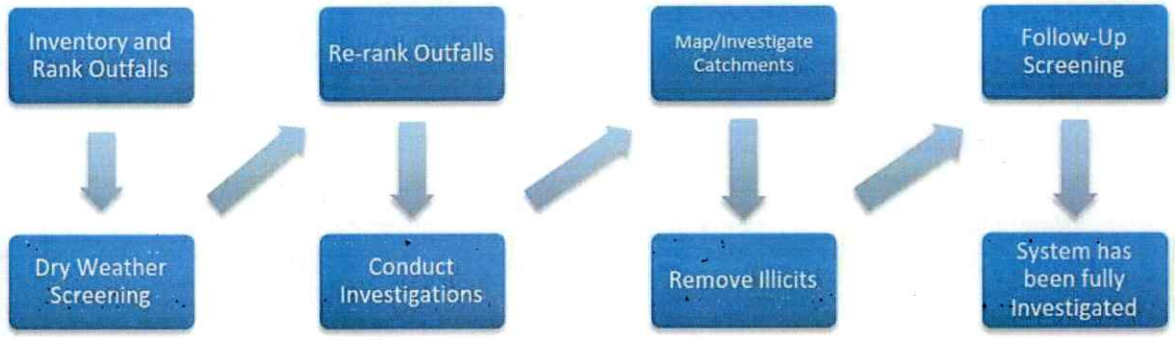



**Figure 1-1. IDDE Investigation Procedure Framework**

**Table 1-2. IDDE Program Implementation Timeline**

| IDDE Program Requirement | Deadline | | | | | |
|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 10 |
| SSO Inventory (5-year look back) | Oct 30, 2017 | | | | | |
| Program for Citizen Reporting | Effective Date | | | | | |
| Establish IDDE Legal Authority | July 1, 2018 | July 1, 2019 | | | | |
| Written IDDE Program | July 1, 2018 | July 1, 2019 | | | | |
| Outfall/Interconnection Inventory | | July 1, 2019 | | | | |
| Map All Stormwater Outfalls | | July 1, 2019 | July 1, 2020 | | | |
| Initial Assessment and Priority Ranking of Catchments (update annually) | | July 1, 2019 | | | July 1, 2022 | |
| Complete Detailed Storm System Mapping | | | July 1, 2020 | | July 1, 2022 | |
| Begin Dry Weather Outfall Screening (high and low priority outfalls) | July 1, 2018 | July 1, 2019 | | | | |
| Complete Dry Weather Outfall Screening (high and low priority outfalls) | | | | | July 1, 2022 | |
| Catchment Investigations – Problem Outfalls (80% and 100% of problem catchments) | | | July 1, 2020 | | July 1, 2022 | |
| Catchment Investigations* – all Problem, High and Low Priority Outfalls | | | | | | July 1, 2027 |

Deadlines shown in red apply to new MS4 permittees, where they are different than the deadlines for existing 2004 MS4 permittees.

*For existing 2004 MS4 permittees, catchment investigations must begin with three months of finalization of investigation procedure and no later than 15 months from effective date of permit. New MS4 permittees must begin these investigations no later than 2 years and 3 months from effective date of permit.

## 1.7 IDDE Program Accomplishments – 2004 MS4 Permit

*Instructions: Municipalities should have completed certain IDDE program elements in compliance with the 2004 MS4 Permit. These activities should be summarized below to document work that has already been completed and help eliminate duplication of effort when developing and implementing an updated IDDE program to meet the requirements of the 2017 MS4 Permit.*

The 2004 MS4 Permit required MS4 communities to develop a plan to detect illicit discharges using a combination of storm system mapping, adopting a regulatory mechanism to prohibit illicit discharges and enforce this prohibition, and identifying tools and methods to investigate suspected illicit discharges. MS4s were also required to define how confirmed discharges would be eliminated and how the removal would be documented.

The Town of Watertown has completed or implemented the following IDDE program elements consistent with the 2004 MS4 Permit requirements:

- Dry weather outfall screening and sampling
- Wet weather outfall monitoring
- Outfall mapping
- Additional storm system mapping, including the locations of catch basins, manholes and pipe connectivity
- Sanitary Sewer Overflow (SSO) inventory
- Adoption of an illicit discharge ordinance or similar legal authority
- Procedures for locating illicit discharges (i.e., visual screening of outfalls for dry weather discharges, dye or smoke testing)
- Procedures for locating the source of the discharge
- Procedures for removal of the source of an illicit discharge
- Procedures for documenting actions and evaluating impacts on the storm sewer system subsequent to removal.

# 2 Authority and Responsibilities

## 2.1 Legal Authority

The Town of Watertown has adopted an Ordinance titled "Illicit Discharge and Connection to Stormwater System" in Chapter 26, Article VI of the Code of Ordinances. A copy of the Illicit Discharge and Connection to Stormwater System is provided in **Appendix A**. The Illicit Discharge and Connection to Stormwater System provides the Town of Watertown with adequate legal authority to:

- Prohibit illicit discharges
- Investigate suspected illicit discharges
- Eliminate illicit discharges, including discharges from properties not owned by or controlled by the MS4 that discharge into the MS4 system
- Implement appropriate enforcement procedures and actions.

The Town of Watertown will review its current Illicit Discharge and Connection to Stormwater System Ordinance and related policies for consistency with the MS4 Permit. The Town of Watertown will update, if necessary, Illicit Discharge and Connection to Stormwater System Ordinance within one year of the permit effective date (July 1, 2018).

## 2.2 Statement of Responsibilities

The Watertown Public Works Department is the lead municipal agency or department responsible for implementing the IDDE program pursuant to the provisions of the Illicit Discharge and Connection to Stormwater System Ordinance. Other agencies, departments, or personnel with responsibility for aspects of the program include:

- Highway Department – Monitors illicit discharges from residences to Town rights of way
- Sewer Department – Checks for sanitary outfalls or leaks from connected residences
- Engineering Department – responsible for storm drain connections and discharges
- Building Inspector – reports on irregularities to Public Works and Land Use
- Torrington Area Health Department – monitors septic system poperations and failures
- Wetlands Enforcement Officer – Monitors ongoing projects for compliance plus investigates property owner complaints for possible wetland violations
- Planning Department – Administrator checks for compliance with Stormwater Regulations
- Town Manager – Relays citizen concerns to proper department for review and follow up

# 3 Citizen Reporting of Illicit Discharges

The MS4 Permit requires municipalities to develop a program for citizen reporting of illicit discharges. The Town of Watertown has established a system to allow for citizen reporting which includes an email address or phone number for submitting comments. The reporting system is described on the Town of Watertown website and in municipal offices, and consists of the QAlert system for reporting any concerns or illegal discharges.

The Town of Watertown will investigate and eliminate any illicit discharges reported by citizens or organizations, provided such a report incorporates at least a time and location of an observed discharge. The Town of Watertownwill conduct an inspection of the reported outfalls, manholes or other sites promptly after receiving such a report. The Town of Watertown will incorporate the reported outfalls into the IDDE program. Citizen reports and the responses to those reports will be included in the Annual Report.

# 4 Mapping

The Town of Watertown originally developed mapping of its stormwater system to meet the mapping requirements of the 2004 MS4 Permit. The completed elements include

Approximately 5,400 catch basins have been cataloged, including 980 in the priority areas. 811 outfalls and 9,980 storm system interconnections have been mapped, and 140 catchment areas have been identified.

A copy of the existing storm system map is provided in **Appendix B**.

The 2017 MS4 Permit requires a revised and more detailed storm system map than was required by the 2004 MS4 Permit. The Town of Watertown is responsible for updating the stormwater system mapping pursuant to the MS4 Permit. The Town of Watertown will report on the progress towards completion of

the storm system map in each annual report. Updates to the stormwater mapping will be included in **Appendix B**.

## 4.1 Outfall and Interconnection Inventory and Mapping

The Town of Watertown will develop an inventory (spreadsheet or database in a format compatible with Microsoft Excel) and mapping at a minimum scale of 1"=2000' and maximum scale of 1"=100' showing all stormwater outfalls[1] located within and owned or operated by the municipality (or institution for institutional MS4s) and all interconnections[2] with other MS4s. The map should, if possible, be developed in GIS or comparable digital format (i.e., CAD).

The inventory and map will include the following information for each outfall and interconnection:

- Unique identifier
- Type, material, size (e.g., 24-inch concrete pipe)
- Spatial location (latitude and longitude with a minimum accuracy of +/-30 feet)
- Name, water body ID and Surface Water Quality Classification of the immediate surface water body or wetland to which the stormwater runoff discharges
- If the outfall does not discharge directly to a named water body, the name and water body ID of the nearest named water body to which the outfall eventually discharges
- Name of the watershed, including subregional drainage basin number, in which the discharge is located
- Date of most recent inspection
- Physical condition
- Indicators of potential non-stormwater discharges (including presence or evidence of suspect flow and sensory observations such as odor, color, turbidity, floatables, or oil sheen) as of the most recent inspection.

The inventory and mapping will be completed within two years of the permit effective date (July 1, 2019).

The inventory will be updated annually to include data collected in connection with dry weather screening and other relevant inspections. An updated inventory and mapping will be provided in each annual report.

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[1] **Outfall** means a point source as defined by 40 CFR § 122.2 and in Section 2 of the 2017 MS4 Permit as the point where the MS4 discharges to waters of the state. An outfall does not include open conveyances connecting two separate storm sewers or pipes, tunnels or other conveyances that connect segments of the same stream or other waters of the state and that are used to convey waters of the state. It is strongly recommended that a permittee inspect all accessible portions of the system as part of this process. Culverts longer than a simple road crossing shall be included unless the permittee can confirm that they are free of any connections and simply convey waters of the state.

[2] **Interconnection** means the point where the permittee's MS4 discharges to another MS4 or other storm sewer system, through which the discharge is conveyed to waters of the state or to another storm sewer system and eventually to a water of the state.

## 4.2 Detailed System Mapping

A detailed storm system map will be developed for, at a minimum, the portions of the municipality within "priority" areas. The detailed mapping is intended to facilitate the identification of key infrastructure, factors influencing proper system operation, and the potential for illicit discharges.

The mapping may be produced by hand or computer-aided methods (e.g., GIS or CAD). The required scale and detail of the map will be appropriate to facilitate a rapid understanding of the system by the municipality and CTDEEP. The mapping will also serve as a planning tool for the implementation and phasing of the IDDE program and demonstration of the extent of complete and planned investigations and corrections. The mapping will be updated as necessary to reflect newly discovered information and required corrections or modifications.

The following mapping elements are required:

- Outfalls and receiving waters (previously required by the 2004 MS4 Permit)
- Pipes, catch basins, and/or manholes
- Open channel conveyances (swales, ditches, etc.)
- Interconnections with other MS4s and other storm sewer systems
- Municipally owned stormwater treatment structures (e.g., detention and retention basins, infiltration systems, bioretention areas, water quality swales, gross particle separators, oil/water separators, or other proprietary systems)
- Catchment delineations for use in priority rankings, or prioritizing BMP retrofits
- Water bodies identified by name and indication of all use impairments as identified on the most recent State of Connecticut Integrated Water Quality Report.

The following mapping elements are required where available:

- Municipal Sanitary Sewer system (if available)
- Municipal combined sewer system (if applicable).

The following mapping elements are recommended:

*Instructions: The 2016 MS4 Permit recommends but does not require the following elements to be included in the storm system map, as information becomes available. Delete all mapping elements that do not apply, and list and/or describe other related map elements relevant to the municipality's system mapping that have been included, or will be included, in the system mapping.*

- Storm sewer material, size (pipe diameter), age
- Sanitary sewer system material, size (pipe diameter), age
- Where a municipal sanitary sewer system exists, properties known or suspected to be served by a septic system, especially in high density urban areas
- Area where the permittee's MS4 has received or could receive flow from septic system discharges

- Seasonal high water table elevations impacting sanitary alignments
- Topography
- Orthophotography
- Alignments, dates and representation of work completed of past illicit discharge investigations
- Locations of suspected confirmed and corrected illicit discharges with dates and flow estimates.

Detailed system mapping will be completed within three years of the effective date of the permit (July 1, 2020).

# 5 Sanitary Sewer Overflow Inventory

The 2016 MS4 Permit requires municipalities to prohibit illicit discharges, including sanitary sewer overflows (SSOs), to the separate storm sewer system. SSOs are discharges of untreated sanitary wastewater from a municipal sanitary sewer that can contaminate surface waters, cause water quality problems and property damage, and threaten public health. SSOs can be caused by blockages, line breaks, sewer defects that allow stormwater and groundwater to overload the system, power failures, improper sewer design, and vandalism.

Based on a review of available records, no SSOs resulting in discharge to the MS4 are known to have occurred in the Town of Watertown in the five years prior to the effective date of the MS4 Permit (July 1, 2012 – June 30, 2017).

Upon detection of an SSO, the Town of Watertown Water and Sewer Authority will eliminate it as expeditiously as possible and take interim measures to minimize the discharge of pollutants to and from its MS4 until the SSO is eliminated. Upon becoming aware of an SSO to the MS4, the Town of Watertown Water and Sewer Authority will provide written notice to CTDEEP within five (5) days of becoming aware of the SSO occurrence.

The inventory in **Table 5-1** will be updated by the Town of Watertown Water and Sewer Authority when new SSOs are detected. The SSO inventory will be included in the annual report, including the status of mitigation and corrective measures to address each identified SSO.

**Table 5-1. SSO Inventory**

| SSO Location[1] | Discharge Point[2] | Date[3] | Time Start[3] | Time End[3] | Estimated Volume[4] | Description[5] | Mitigation Completed[6] | Mitigation Planned[7] |
|---|---|---|---|---|---|---|---|---|
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[1] Location (approximate street crossing/address and receiving water, if any)
[2] A clear statement of whether the discharge entered a surface water directly or entered the MS4
[3] Date(s) and time(s) of each known SSO occurrence (i.e., beginning and end of any known discharge)
[4] Estimated volume(s) of the SSO occurrence
[5] Description of the occurrence indicating known or suspected cause(s)
[6] Mitigation and corrective measures completed with dates implemented
[7] Mitigation and corrective measures planned with implementation schedules

*Instructions: Complete this SSO inventory for all Sanitary Sewer Overflows (SSOs) that have discharged to the MS4 within the five (5) years prior to the effective date of the 2017 MS4 Permit. This inventory must be completed within one (1) year of the effective date of the permit. The table should be updated with information on new SSOs that are detected.*

# 6 Catchment Assessment and Priority Ranking

The MS4 Permit requires an assessment and priority ranking of catchments in terms of their potential to have illicit discharges and SSOs and the related public health significance. The ranking will determine the priority order for screening of outfalls and interconnections, catchment investigations for evidence of illicit discharges, and provides the basis for determining permit milestones.

## 6.1 Catchment Delineations

A catchment is the area that drains to an individual outfall or interconnection. Catchments will be delineated to define contributing areas for investigation of potential sources of illicit discharges. Catchments are typically delineated based on topographic contours and mapped drainage infrastructure, where available. As indicated in Section 4.2, catchment delineations will be completed as part of the detailed system mapping.

Larger-scale watershed boundaries available from CTDEEP or local watershed organizations, such as CTDEEP Local Basin boundaries, may be used instead of individual outfall catchment areas to support the initial assessment and priority ranking of catchments. Required updates to the catchment assessment and priority ranking will incorporate refined catchment details as they become available.

## 6.2 Assessment and Priority Ranking of Catchments

The Town of Watertown Public Works Department will complete an initial illicit discharge potential assessment and priority ranking of catchments based on existing information, including the outfall and interconnection inventory and mapping.

The initial assessment and priority ranking will be completed within two (2) years from the effective date of the permit (by July 1, 2019).

An updated assessment and priority ranking will be provided in each annual report thereafter, including a listing of all catchments and the results of the ranking for each catchment. The assessment and priority ranking will be updated annually based on catchment delineations, the results of dry weather screening, and other relevant information.

Catchments associated with outfalls and interconnections will be classified into one of the following categories:

1. **Excluded Catchments**: Catchments with no potential for illicit discharges. This category is limited to:

    - Roadway drainage in undeveloped areas with no dwellings and no sanitary sewers
    - Drainage for athletic fields, parks or undeveloped green space and associated parking without services

- Cross-country drainage alignments (that neither cross nor are in proximity to sanitary sewer alignments) through undeveloped land.

2. **Problem Catchments**: Catchments with known or suspected contributions of illicit discharges based on existing information. This category includes any catchments where previous outfall/interconnection screening indicates likely sewer input. Likely sewer input indicators are any of the following:

    - Olfactory or visual evidence of sewage,
    - Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
    - Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine.

    Screening and sampling is not required for Problem Catchments. Problem Catchments must be scheduled for catchment investigation. Following the initial ranking of catchments, subsequent rankings shall not add any catchments to the Problem Catchment category.

3. **High Priority Catchments**: Catchments that have not been classified as Problem Catchments and that are:

    - Discharging to an area of concern to public health due to proximity of public beaches, recreational areas, drinking water supplies or shellfish beds
    - Determined by the permittee as high priority based on outfall/interconnection screening and catchment characteristics assessment.

    Any catchment where outfall/interconnection screening indicates likely sewer input as described under Item 1, Problem Catchments, shall be ranked at the top of the High Priority Catchments category and scheduled for catchment investigation.

4. **Low Priority Catchments**: Catchments determined by the permittee as low priority based on outfall/interconnection screening (see Section 7) and catchment characteristics assessment (see below).

Catchments will be ranked into the above priority categories (except for excluded catchments, which may be excluded from the IDDE program) based on the following characteristics of the defined initial catchment areas, where information is available. Additional relevant characteristics, including location-specific characteristics, may be considered but must be documented in the IDDE program.

*Instructions: Select the characteristics that apply most to your community or MS4. Delete the characteristics where data is not available or that do not apply, and list and/or describe other relevant characteristics used to initially rank catchments.*

- **Previous screening results** – previous screening/sampling results indicate likely sewer input (see criteria above for Problem Catchments).

- **Past discharge complaints and reports.**

- **Poor dry weather receiving water quality** – the following guidelines are recommended to identify waters as having a high illicit discharge potential:
    - Exceeding water quality standards for bacteria
    - Ammonia levels above 0.5 mg/l
    - Surfactants levels greater than or equal to 0.25 mg/l.

- **Density of generating sites** – Generating sites are those places, including institutional, municipal, commercial, or industrial sites, with a potential to generate pollutants that could contribute to illicit discharges. Examples of these sites include, but are not limited to, car dealers; car washes; gas stations; garden centers; and industrial manufacturing areas.

- **Age of development and infrastructure** – Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old will probably have a high illicit discharge potential. Developments 20 years or younger will probably have a low illicit discharge potential.

- **Sewer conversion** – Contributing catchment areas that were once serviced by septic systems, but have been converted to sewer connections may have a high illicit discharge potential.

- **Historic combined sewer systems** – Contributing catchment areas that were once serviced by a combined sewer system, but have been separated may have a high illicit discharge potential.

- **Surrounding density of aging septic systems** – Septic systems thirty years or older in residential land use areas are prone to have failures and may have a high illicit discharge potential.

- **Culverted streams** – Any river or stream that is culverted for distances greater than a simple roadway crossing may have a high illicit discharge potential.

- **Water bodies** that receive a discharge from the MS4 and are drinking water supplies, shell fishing areas, beaches or waters used for contact recreation.

- **Impaired water bodies** that receive a discharge from the MS4 or waters with approved TMDLs applicable to the permittee, where illicit discharges have the potential to contain the pollutant identified as the cause of the water quality impairment.

**Table 6-1** is a catchment assessment and priority ranking matrix that can be used to document the catchment assessment and priority ranking process.

**Table 6-1. Catchment Assessment and Priority Ranking Matrix**

| Catchment ID | Receiving Water | Previous Screening Results Indicate Likely Sewer Input? [1] | Discharging to Area of Concern to Public Health? [2] | Frequency of Past Discharge Complaints | Receiving Water Quality [3] | Density of Generating Sites [4] |
|---|---|---|---|---|---|---|
| Information Source | | Catchment inspections and sample results | GIS Maps | Municipal Staff | Impaired Waters List | Land Use/GIS Maps, Aerial Photography |
| Scoring Criteria | | Yes = 3 (Problem Catchment) No = 0 | Yes = 3 No = 0 | Frequent = 3 Occasional = 2 None = 0 | Poor = 3 Fair = 2 Good = 0 | High = 3 Medium = 2 Low = 1 |
| Sample 1 | XYZ River | 3 | 0 | 2 | 0 | 2 |
| Sample 2 | XYZ Lake | 0 | 3 | 0 | 3 | 1 |
| Sample 3 | XYZ Stream | 0 | 0 | 2 | 0 | 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Scoring Criteria:**

[1] Previous screening results indicate likely sewer input if any of the following are true:

- Olfactory or visual evidence of sewage,
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the r
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine

[2] Catchments that discharge to or in the vicinity of any of the following areas: public beaches, recreational areas, drinking water sup

[3] Receiving water quality based on latest version of State of Connecticut Integrated Water Quality Report.

- Poor = Waters with approved TMDLs (Category 4a Waters) where illicit discharges have the potential to contain the polluta
- Fair = Water quality limited waterbodies that receive a discharge from the MS4 (Category 5 Waters)
- Good = No water quality impairments

[4] Generating sites are institutional, municipal, commercial, or industrial sites with a potential to contribute to illicit discharges (e.g., (

[5] Age of development and infrastructure:

- High = Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old
- Medium = Developments 20-40 years old
- Low = Developments less than 20 years old

[6] Areas once served by combined sewers and but have been separated, or areas once served by septic systems but have been conve

[7] Aging septic systems are septic systems 30 years or older in residential areas.

[8] Any river or stream that is culverted for distance greater than a simple roadway crossing.

*Instructions: Complete this catchment assessment and initial priority ranking (or similar spreadsheet) based on existing be adjusted based on community- and site-specific factors. Other similar scoring or ranking approaches may be used, c*

# 7 Outfall and Interconnection Screening and Sampling

The 2017 MS4 Permit requires screening and sampling of outfalls and interconnections from the MS4 in dry and wet weather for evidence of illicit discharges and SSOs, including:

- Baseline outfall and interconnection screening (dry weather)
- Confirmatory screenings (dry and/or wet weather depending on catchment characteristics)
- Follow-up screening (dry and/or wet weather depending on catchment characteristics).

The Watertown Public Works Department, through its subcontractor, Pace Analytic Services, LLC, is responsible for conducting dry and wet weather outfall and interconnection screening and sampling.

## 7.1 Dry and Wet Weather Rainfall Criteria

For the purposes of outfall screening and sampling, dry and wet weather conditions are defined as follows:

- **Dry Weather** – dry weather screening and sampling shall proceed when no more than 0.1 inches of rainfall has occurred in the previous 24-hour period.

- **Wet Weather** – wet weather screening and sampling shall occur during or after a storm event of sufficient depth or intensity to produce a stormwater discharge at the outfall. There is no specific rainfall amount that will trigger sampling, although minimum storm event intensities that are likely to trigger sanitary sewer interconnections are preferred. Sampling during the initial period of discharge ("first flush") will be avoided. To the extent feasible, sampling should occur during the spring (March through June) when groundwater levels are relatively high.

Note that wet weather criteria for impaired waters outfall monitoring pursuant to Section 6(i) of the MS4 Permit are different than the above wet weather criteria for outfall screening and sampling.

For purposes of determining dry and wet weather conditions, precipitation data from the Waterbury-Oxford Airport Weather Station (KOXC) will be used. If KOXC is not available or not reporting current weather data, then New York, NY will be used as a back-up.

The remainder of this section is focused on dry weather screening and sampling. Wet weather screening and sampling is discussed further in the context of catchment investigations, including confirmatory and followup screening in Section 8.

## 7.2 Dry Weather Screening/Sampling

*Instructions: The dry weather screening and sampling procedures described in this section are based on the requirements outlined in the 2017 MS4 Permit. The CMRSWC "SOP1: Dry Weather Outfall Inspection" provides additional suggestions for carrying out a screening/sampling program. http://centralmastormwater.org/Pages/crsc_toolbox/Dry%20Outfall%20Inspection%20SOP%20and%20Form_Final.pdf. Municipalities should include example Sample Labels, Field Sheets and Chain of Custody forms in the appendices of this written IDDE program.*

Dry weather flow is a common indicator of potential illicit connections. The 2017 MS4 Permit requires all outfalls/interconnections (excluding Problem and Excluded Catchments) to be screened (i.e., visually inspected) for the presence of dry weather flow. Dry weather outfall screening and sampling may take place when no more than 0.1 inches of rainfall has occurred in the previous 24-hour period.

### 7.2.1 General Procedure

The dry weather outfall screening and sampling procedure consists of the following general steps:

1. Identify outfall(s) to be screened/sampled based on outfall inventory and initial catchment priority ranking.
2. Acquire the necessary staff, mapping, and field equipment (see **Table 7-1** for list of potential field equipment).
3. Conduct the outfall inspection during dry weather:
    a. Mark and photograph the outfall.
    b. Record the inspection information and outfall characteristics (using paper forms or digital form using a tablet or similar device) (see form in **Appendix C**).
    c. Look for and record visual/olfactory evidence of pollutants in flowing outfalls including odor, color, turbidity, and floatable matter (suds, bubbles, excrement, toilet paper or sanitary products). Also observe outfalls for deposits and stains, vegetation, and damage to outfall structures.
4. If an outfall is inaccessible or submerged, proceed to the first accessible upstream manhole or structure for the observation and sampling and report the location with the screening results. If an interconnection is inaccessible or submerged, perform screening at the first accessible location within the permittee's system upgradient of the interconnection.
5. If flow is observed, sample and test the flow following the procedures described in the following sections.
6. If no flow is observed, but evidence illicit discharges exists (illicit discharges are often intermittent or transitory), revisit the outfall during dry weather within one week of the initial observation, if practicable, to perform a second dry weather screening and sample any observed flow. Other techniques can be used to detect intermittent or transitory flows including conducting inspections during evenings or weekends and using optical brighteners.
7. Input results from screening and sampling into spreadsheet/database. Include pertinent information in the outfall/interconnection inventory and priority ranking.
8. Include all screening data in the annual report.

## 7.2.2 Field Equipment

**Table 7-1** lists field equipment commonly used for dry weather outfall screening and sampling.

**Table 7-1. Field Equipment – Dry Weather Outfall Screening and Sampling**

| Equipment | Use/Notes |
|---|---|
| Clipboard | For organization of field sheets and writing surface |
| Field Sheets | Field sheets for both dry weather inspection and Dry weather sampling should be available with extras |
| Chain of Custody Forms | To ensure proper handling of all samples |
| Pens/Pencils/Permanent Markers | For proper labeling |
| Nitrile Gloves | To protect the sampler as well as the sample from contamination |
| Flashlight/headlamp w/batteries | For looking in outfalls or manholes, helpful in early mornings as well |
| Cooler with Ice | For transporting samples to the laboratory |
| Digital Camera | For documenting field conditions at time of inspection |
| Personal Protective Equipment (PPE) | Reflective vest, Safety glasses and boots at a minimum |
| GPS Receiver | For taking spatial location data |
| Water Quality Sonde | If needed, for sampling conductivity, temperature, pH |
| Water Quality Meter | Hand held meter, if available, for testing for various water quality parameters such as ammonia, surfactants and chlorine |
| Test Kits | Have extra kits on hand to sample more outfalls than are anticipated to be screened in a single day |
| Label Tape | For labeling sample containers |
| Sample Containers | Make sure all sample containers are clean.<br>Keep extra sample containers on hand at all times.<br>Make sure there are proper sample containers for what is being sampled for (i.e., bacteria requires sterile containers). |
| Pry Bar or Pick | For opening catch basins and manholes when necessary |
| Sandbags | For damming low flows in order to take samples |
| Small Mallet or Hammer | Helping to free stuck manhole and catch basin covers |
| Utility Knife | Multiple uses |
| Measuring Tape | Measuring distances and depth of flow |
| Safety Cones | Safety |
| Hand Sanitizer | Disinfectant/decontaminant |
| Zip Ties/Duct Tape | For making field repairs |
| Rubber Boots/Waders | For accessing shallow streams/areas |
| Sampling Pole/Dipper/Sampling Cage | For accessing hard to reach outfalls and manholes |

### 7.2.3 Sample Collection and Analysis

If flow is present during a dry weather outfall inspection, a sample will be collected and analyzed for the required permit parameters[3] listed in **Table 7-2**. The general procedure for collection of outfall samples is as follows:

1. Fill out all sample information on sample bottles and field sheets (see **Appendix C** for Sample Labels and Field Sheets)
2. Put on protective gloves (nitrile/latex/other) before sampling
3. Collect sample with dipper or directly in sample containers. If possible, collect water from the flow directly in the sample bottle. Be careful not to disturb sediments.
4. If using a dipper or other device, triple rinse the device with distilled water and then in water to be sampled (not for bacteria sampling)
5. Use test strips, test kits, and field meters (rinse similar to dipper) for most parameters (see **Table 7-2**)
6. Place laboratory samples on ice for analysis of bacteria and pollutants of concern
7. Fill out chain-of-custody form (**Appendix C**) for laboratory samples
8. Deliver samples to the laboratory
9. Dispose of used test strips and test kit ampules properly
10. Decontaminate all testing personnel and equipment

Field test kits or field instrumentation are permitted for all parameters except indicator bacteria and any pollutants of concern. Field kits need to have appropriate detection limits and ranges. **Table 7-2** lists various field test kits and field instruments that can be used for outfall sampling associated with the 2017 MS4 Permit parameters, other than indicator bacteria and any pollutants of concern. Analytical procedures and user's manuals for field test kits and field instrumentation are provided in **Appendix D**.

*Instructions: The following table lists possible field meters and test kits that may be used to meet the dry weather screening and sampling requirements outlined in the 2017 MS4 Permit. Additional information is available on the UConn CLEAR MS4 Permit website: http://nemo.uconn.edu/ms4/implement/monitoring.htm*

[3] Other potentially useful parameters, although not required by the MS4 Permit, include **fluoride** (indicator of potable water sources in areas where water supplies are fluoridated), **potassium** (high levels may indicate the presence of sanitary wastewater), and **optical brighteners** (indicative of laundry detergents).

**Table 7-2. Outfall Screening Sampling Parameters and Analysis Methods**

| Analyte or Parameter | Instrumentation (Portable Meter) | Field Test Kit |
|---|---|---|
| Ammonia | CHEMetrics™ V-2000 Colorimeter<br>Hach™ DR/890 Colorimeter<br>Hach™ Pocket Colorimeter™ II | CHEMetrics™ K-1410<br>CHEMetrics™ K-1510 (series)<br>Hach™ NI-SA<br>Hach N1-8<br>Hach™ Ammonia Test Strips |
| Surfactants (Detergents) | CHEMetrics™ I-2017 | CHEMetrics™ K-9400 and K-9404<br>Hach™ DE-2 |
| Chlorine | CHEMetrics™ V-2000, K-2513<br>Hach™ Pocket Colorimeter™ II | Hach CN-66F |
| Conductivity | CHEMetrics™ I-1200<br>YSI Pro30<br>YSI EC300A<br>Oakton 450 | NA |
| Temperature | YSI Pro30<br>YSI EC300A<br>Oakton 450 | NA |
| Salinity | YSI Pro30<br>YSI EC300A<br>Oakton 450 | NA |
| Temperature | YSI Pro30<br>YSI EC300A<br>Oakton 450 | NA |
| Indicator Bacteria: *E. coli* (freshwater) or Enterococcus (saline water) | EPA certified laboratory procedure (40 CFR § 136) | NA |
| Pollutants of Concern[1] | EPA certified laboratory procedure (40 CFR § 136) | NA |

[1] Where the discharge is directly into a water quality limited water or a water subject to an approved TMDL, the sample must be analyzed for the pollutant(s) of concern identified as the cause of the water quality impairment.

Testing for indicator bacteria and any pollutants of concern must be conducted using analytical methods and procedures found in 40 CFR § 136.[4] Samples for laboratory analysis must also be stored and preserved in accordance with procedures found in 40 CFR § 136. **Table 7-3** lists analytical methods, detection limits, hold times, and preservatives for laboratory analysis of dry weather sampling parameters.

[4] 40 CFR § 136: http://www.ecfr.gov/cgi-bin/text-idx?SID=b3b41fdea0b7b0b8cd6c4304d86271b7&mc=true&node=pt40.25.136&rgn=div5

*Instructions: Include in the following table the appropriate highlighted indicator bacteria parameter(s) – E. coli for freshwater and Enterococcus for saltwater – and applicable pollutants of concern for outfalls that discharge directly into impaired waters or waters subject to an approved TMDL.*

**Table 7-3. Required Analytical Methods, Detection Limits, Hold Times, and Preservatives**

| Analyte or Parameter | Analytical Method | Detection Limit | Max. Hold Time | Preservative |
|---|---|---|---|---|
| Ammonia | **EPA**: 350.2, **SM**: 4500-NH3C | 0.05 mg/L | 28 days | Cool ≤6°C, $H_2SO_4$ to pH <2, No preservative required if analyzed immediately |
| Surfactants | **SM**: 5540-C | 0.01 mg/L | 48 hours | Cool ≤6°C |
| Chlorine | **SM**: 4500-Cl G | 0.02 mg/L | Analyze within 15 minutes | None Required |
| Temperature | **SM**: 2550B | *NA* | Immediate | None Required |
| Specific Conductance | **EPA**: 120.1, **SM**: 2510B | 0.2 µs/cm | 28 days | Cool ≤6°C |
| Salinity | **SM**: 2520 | - | 28 days | Cool ≤6°C |
| Indicator Bacteria:<br>*E.coli (freshwater)*<br>*Enterococcus (saltwater)* | *E.coli*<br>**EPA**: 1603<br>**SM**: 9221B, 9221F , 9223 B<br>**Other**: Colilert®, Colilert-18® | *E.coli*<br>**EPA**: 1 cfu/100mL<br>**SM**: 2 MPN/100mL<br>**Other**: 1 MPN/100mL | 6 hours | Cool ≤6°C, 0.0008% $Na_2S_2O_3$ (sodium thiosulfate) |
| Total Phosphorus (Pollutant of Concern) | **EPA**: Manual-365.3, Automated Ascorbic acid digestion-365.1 Rev. 2, ICP/AES4-200.7 Rev. 4.4<br><br>**SM**: 4500-P E-F | **EPA**: 0.01 mg/L<br>**SM** : 0.01 mg/L | 28 days | Cool ≤6°C, $H_2SO_4$ to pH <2 |
| Total Nitrogen (Pollutant of Concern) (Ammonia + Nitrate/Nitrite, methods are for Nitrate-Nitrite and need to be combined with Ammonia listed above.) | **EPA**: Cadmium reduction (automated)-353.2 Rev. 2.0, **SM**: 4500-$NO_3$ E-F | **EPA**: 0.05 mg/L<br>**SM** : 0.05 mg/L | 28 days | Cool ≤6°C, $H_2SO_4$ to pH <2 |

EPA = EPA Methods SM = Standard Methods

## 7.3 Interpreting Outfall Sampling Results

Outfall analytical data can be used to help identify the major type or source of discharge. **Table 7-4** shows values identified by the U.S. EPA and the Center for Watershed Protection as typical screening values for select parameters. These represent the typical concentration (or value) of each parameter expected to be found in stormwater. Screening values that exceed these benchmarks may be indicative of pollution and/or illicit discharges.

**Table 7-4. Benchmark Field Measurements for Select Parameters**

| Analyte or Parameter | Benchmark |
|---|---|
| Ammonia | >0.5 mg/L |
| Conductivity | >2,000 µS/cm |
| Surfactants | >0.25 mg/L |
| Chlorine | >0.02 mg/L<br>(detectable levels per the 2017 MS4 Permit) |
| Indicator Bacteria<br>*E.coli (freshwater)* | *E.coli*: the geometric mean of the five most recent samples taken during the same bathing season shall not exceed 126 colonies per 100 ml and no single sample taken during the bathing season shall exceed 235 colonies per 100 ml for designated swimming areas, 410 colonies per 100 ml for non-designated swimming areas, and 576 colonies per 100 ml for all other uses. |

Catchments are considered highly likely to contain illicit discharges from sanitary sources when either of the following combinations of sampling results is detected:

- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine.

Catchments with outfall screening results that meet the above criteria shall be ranked at the top of the High Priority Catchments category for investigation.

# 8 Catchment Investigations

Once stormwater outfalls with evidence of illicit discharges have been identified, various methods can be used to investigate the source of the potential discharge within the outfall catchment area. Common catchment investigation techniques include, but are not limited to:

- Review of maps, historic plans, and records
- Manhole inspection
- Dry and wet weather sampling
- Video inspection
- Smoke testing
- Dye testing.

This section outlines a systematic procedure to investigate outfall catchments and identify the source(s) of potential illicit discharges. Information and data collected as part of the catchment investigations will be reported in each annual report.

## 8.1 System Vulnerability Factors

The Watertown Public Works Department will review relevant mapping and historic plans and records to identify areas within the catchment with higher potential for illicit connections. The following information will be reviewed:

- Plans related to the construction of the drainage network
- Prior work on the storm drains
- Health Department or other municipal data on septic system failures or required upgrades
- Records related to septic system breakouts, SSOs, and sanitary sewer surcharges

Based on the review of this information, the presence of any of the following **System Vulnerability Factors (SVFs)** will be identified for each catchment. SVFs indicate a risk of sanitary or septic system inputs to the MS4 under wet weather conditions.

*Instructions: Select the following System Vulnerability Factors that apply most to your community or MS4 and delete those that do not apply. For example, SSOs and sanitary sewer-related factors are not relevant for communities served solely by septic systems.*

- History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
- Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
- Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.

- Any storm drain infrastructure greater than 40 years old in medium and densely developed areas.
- Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).
- History of multiple health department actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).

A SVF inventory will be documented for each catchment (see **Table 8-1**), retained as part of this written IDDE program, and included in the annual report.

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**Table 8-1. Outfall Catchment System Vulnerability Factor (SVF) Inventory**

| Catchment ID | Receiving Water | 1 History of SSOs | 2 Common or Twin Invert Manholes | 3 Common Trench Construction | 4 Storm/Sanitary Crossings (Sanitary Above) | 5 Sanitary Lines with Underdrains | 6 Inadequate Sanitary Level of Service | 7 Areas Formerly Served by Combined Sewers | 8 Sanitary Infrastructure Defects | 9 SSO Potential In Event of System Failures | 10 Sanitary and Storm Drain Infrastructure >40 years Old | 11 Septic with Poor Soils or Water Table Separation | 12 History of BOH Actions Addressing Septic Failure |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Catchment 1 | Steele Brook | No | No | No | No | No | No | No | No | Yes | Yes | Yes | Yes |
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**Presence/Absence Evaluation Criteria:**

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages
2. Common or twin-invert manholes serving storm and sanitary sewer alignments
3. Common trench construction serving both storm and sanitary sewer alignments
4. Crossings of storm and sanitary sewer alignments where the sanitary system is shallower than the storm drain system
5. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system
6. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints
7. Areas formerly served by combined sewer systems
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations
9. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance)
12. History of multiple health department actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance)

## 8.2 Dry Weather Investigation (Manhole Inspections)

The Town of Watertown will implement a dry weather storm drain network investigation that involves systematically and progressively observing, sampling and evaluating key junction manholes in the MS4 to determine the approximate location of suspected illicit discharges.

The Watertown Public Works Department will be responsible for implementing the dry weather manhole inspection program and making updates as necessary. Infrastructure information will be incorporated into the storm system map, and catchment delineations will be refined based on the field investigation, where necessary. The SVF inventory will also be updated based on information obtained during the field investigations, where necessary.

Several important terms related to the dry weather manhole inspection program are defined by the MS4 Permit as follows:

- **Junction Manhole** is a manhole or structure with two or more inlets accepting flow from two or more MS4 alignments. Manholes with inlets solely from private storm drains, individual catch basins, or both are not considered junction manholes for these purposes.

- **Key Junction Manholes** are those junction manholes that can represent one or more junction manholes without compromising adequate implementation of the illicit discharge program. Adequate implementation of the illicit discharge program would not be compromised if the exclusion of a particular junction manhole as a key junction manhole would not affect the permittee's ability to determine the possible presence of an upstream illicit discharge. A permittee may exclude a junction manhole located upstream from another located in the immediate vicinity or that is serving a drainage alignment with no potential for illicit connections.

For all catchments identified for investigation, during dry weather, field crews will systematically inspect **key junction manholes** for evidence of illicit discharges and confirm or identify potential system vulnerability factors. This program involves progressive inspection and sampling at manholes in the storm drain network to isolate and eliminate illicit discharges.

The manhole inspection methodology will be conducted in one of two ways (or a combination of both):

- By working progressively up from the outfall and inspecting key junction manholes along the way, or
- By working progressively down from the upper parts of the catchment toward the outfall and inspecting key junction manholes along the way.

For most catchments, manhole inspections will proceed from the outfall moving up into the system. However, the decision to move up or down the system depends on the nature of the drainage system and the surrounding land use and the availability of information on the catchment and drainage system. Moving up the system can begin immediately when an illicit discharge is detected at an outfall, and only a map of the storm drain system is required. Moving down the system requires more advance

preparation and reliable drainage system information on the upstream segments of the storm drain system, but may be more efficient if the sources of illicit discharges are believed to be located in the upstream portions of the catchment area. Once a manhole inspection methodology has been selected, investigations will continue systematically through the catchment.

Inspection of key junction manholes will proceed as follows:

1. Manholes will be opened and inspected for visual and olfactory evidence of illicit connections. A sample field inspection form is provided in **Appendix C**.

2. If flow is observed, a sample will be collected and analyzed at a minimum for ammonia, chlorine, and surfactants. Field kits can be used for these analyses. Sampling and analysis will be in accordance with procedures outlined in **Section 7**. Additional indicator sampling may assist in determining potential sources.

3. Where sampling results or visual or olfactory evidence indicate potential illicit discharges, the area draining to the junction manhole will be flagged for further upstream manhole investigation and/or isolation and confirmation of sources.

4. Subsequent key junction manhole inspections will proceed until the location of suspected illicit discharges can be isolated to a pipe segment between two manholes.

5. If no evidence of an illicit discharge is found, catchment investigations will be considered complete upon completion of key junction manhole sampling.

## 8.3 Wet Weather Investigation (Outfall Sampling)

Where a minimum of one (1) System Vulnerability Factor (SVF) is identified based on previous information or the catchment investigation, a wet weather investigation must also be conducted at the associated outfall. The Watertown Public Works Department will be responsible for implementing the wet weather outfall sampling program and making updates as necessary.

Outfalls will be inspected and sampled under wet weather conditions, to the extent necessary, to determine whether wet weather-induced high flows in sanitary sewers or high groundwater in areas served by septic systems result in discharges of sanitary flow to the MS4.

Wet weather outfall sampling will proceed as follows:

1. At least one wet weather sample will be collected at the outfall for the same parameters required during dry weather screening (refer to **Table 7-3** and **Table 7-4**).

2. Wet weather sampling will occur during or after a storm event of sufficient depth or intensity to produce a stormwater discharge at the outfall.
    a. There is no specific rainfall amount that will trigger sampling, although minimum storm event intensities that are likely to trigger sanitary sewer interconnections are preferred.

b. Sampling during the initial period of discharge ("first flush") will be avoided.
c. To the extent feasible, sampling should occur during the spring (March through June) when groundwater levels are relatively high. Refer to **Section 7.1** for information on weather tracking.

3. If wet weather outfall sampling indicates a potential illicit discharge, then additional wet weather source sampling will be performed, as warranted, or source isolation and confirmation procedures will be followed as described in **Section 8.4**.

4. If wet weather outfall sampling does not identify evidence of illicit discharges, and no evidence of an illicit discharge is found during dry weather manhole inspections, catchment investigations will be considered complete.

## 8.4 Source Isolation and Confirmation

*Instructions: Include all relevant SOPs for specific tools such as dye testing and smoke testing, in Appendix F.*

*The CMRSWC "Locating Illicit Discharges SOP" provides suggested language for a source isolation and confirmation program.*
*http://centralmastormwater.org/Pages/crsc_toolbox/Locating%20Illicit%20Discharges%20SOP%20and%20Form_FINAL.pdf*

*Sample Smoke Testing SOP:*
*ftp://ftp.ocfl.net/divisions/Utilities/pub/C%20I%20P/Specifications/Smoke%20Testing%20SOP.pdf*
*Sample Dye Testing SOP:*
*http://www.oseh.umich.edu/pdf/guideline/dye_testing_guideline.pdf*

Once the source of an illicit discharge is approximated between two manholes, more detailed investigation techniques will be used to isolate and confirm the source of the illicit discharge. The following methods may be used in isolating and confirming the source of illicit discharges:

- Sandbagging
- Smoke Testing
- Dye Testing
- CCTV/Video Inspections
- Optical Brightener Monitoring
- IDDE Canines.

These methods are described in the sections below. Instructions and Standard Operating Procedures (SOPs) for these and other IDDE methods are provided in **Appendix F**.

Public notification is an important aspect of a detailed source investigation program. Prior to smoke testing, dye testing, or TV inspections, the Watertown Fire Department will notify property owners in the affected area. Smoke testing notification will include emergency Town alert system for single family homes, businesses and building lobbies for multi-family dwellings.

### 8.4.1 Sandbagging

This technique can be particularly useful when attempting to isolate intermittent illicit discharges or those with very little perceptible flow. The technique involves placing sandbags or similar barriers (e.g., caulking, weirs/plates, or other temporary barriers) within outlets to manholes to form a temporary dam that collects any intermittent flows that may occur. Sandbags are typically left in place for 48 hours, and should only be installed when dry weather is forecast. If flow has collected behind the sandbags/barriers after 48 hours it can be assessed using visual observations or by sampling. If no flow collects behind the sandbag, the upstream pipe network can be ruled out as a source of the intermittent discharge. Finding appropriate durations of dry weather and the need for multiple trips to each manhole makes this method both time-consuming and somewhat limiting.

### 8.4.2 Smoke Testing

Smoke testing involves injecting non-toxic smoke into drain lines and noting the emergence of smoke from sanitary sewer vents in illegally connected buildings or from cracks and leaks in the system itself. Typically a smoke bomb or smoke generator is used to inject the smoke into the system at a catch basin or manhole and air is then forced through the system. Test personnel are place in areas where there are suspected illegal connections or cracks/leaks, noting any escape of smoke (indicating an illicit connection or damaged storm drain infrastructure). It is important when using this technique to make proper notifications to area residents and business owners as well as local police and fire departments.

If the initial test of the storm drain system is unsuccessful then a more thorough smoke-test of the sanitary sewer lines can also be performed. Unlike storm drain smoke tests, buildings that do not emit smoke during sanitary sewer smoke tests may have problem connections and may also have sewer gas venting inside, which is hazardous.

It should be noted that smoke may cause minor irritation of respiratory passages. Residents with respiratory conditions may need to be monitored or evacuated from the area of testing altogether to ensure safety during testing.

### 8.4.3 Dye Testing

Dye testing involves flushing non-toxic dye into plumbing fixtures such as toilets, showers, and sinks and observing nearby storm drains and sewer manholes as well as stormwater outfalls for the presence of the dye. Similar to smoke testing, it is important to inform local residents and business owners. Police, fire, and local public health staff should also be notified prior to testing in preparation of responding to citizen phone calls concerning the dye and their presence in local surface waters.

A team of two or more people is needed to perform dye testing (ideally, all with two-way radios). One person is inside the building, while the others are stationed at the appropriate storm sewer and sanitary sewer manholes (which should be opened) and/or outfalls. The person inside the building adds dye into a plumbing fixture (i.e., toilet or sink) and runs a sufficient amount of water to move the dye through the plumbing system. The person inside the building then radios to the outside crew that the dye has been dropped, and the outside crew watches for the dye in the storm sewer and sanitary sewer, recording the presence or absence of the dye.

The test can be relatively quick (about 30 minutes per test), effective (results are usually definitive), and inexpensive. Dye testing is best used when the likely source of an illicit discharge has been narrowed down to a few specific houses or businesses.

### 8.4.4 CCTV/Video Inspection

Another method of source isolation involves the use of mobile video cameras that are guided remotely through stormwater drain lines to observe possible illicit discharges. IDDE program staff can review the videos and note any visible illicit discharges. While this tool is both effective and usually definitive, it can be costly and time consuming when compared to other source isolation techniques.

### 8.4.5 Optical Brightener Monitoring

Optical brighteners are fluorescent dyes that are used in detergents and paper products to enhance their appearance. The presence of optical brighteners in surface waters or dry weather discharges suggests there is a possible illicit discharge or insufficient removal through adsorption in nearby septic systems or wastewater treatment. Optical brightener monitoring can be done in two ways. The most common, and least expensive, methodology involves placing a cotton pad in a wire cage and securing it in a pipe, manhole, catch basin, or inlet to capture intermittent dry weather flows. The pad is retrieved at a later date and placed under UV light to determine the presence/absence of brighteners during the monitoring period. A second methodology uses handheld fluorometers to detect optical brighteners in water sample collected from outfalls or ambient surface waters. Use of a fluorometer, while more quantitative, is typically more costly and is not as effective at isolating intermittent discharges as other source isolation techniques.

### 8.4.6 IDDE Canines

Dogs specifically trained to smell human related sewage are becoming a cost-effective way to isolate and identify sources of illicit discharges. While not widespread at the moment, the use of IDDE canines is growing as is their accuracy. The use of IDDE canines is not recommended as a standalone practice for source identification; rather it is recommended as a tool to supplement other conventional methods, such as dye testing, in order to fully verify sources of illicit discharges.

## 8.5 Illicit Discharge Removal

When the specific source of an illicit discharge is identified, the Watertown Public Works Department will exercise its authority as necessary to require its removal. The annual report will include the status of IDDE investigation and removal activities including the following information for each confirmed source:

- The location of the discharge and its source(s)
- A description of the discharge
- The method of discovery
- Date of discovery
- Date of elimination, mitigation or enforcement action
- Estimate of the volume of flow removed.

### 8.5.1 Confirmatory Outfall Screening

Within one (1) year of removal of all identified illicit discharges and SSO sources within a catchment area, confirmatory outfall or interconnection screening will be conducted. The confirmatory screening will be conducted in dry weather unless System Vulnerability Factors have been identified, in which case both dry weather and wet weather confirmatory screening will be conducted. If confirmatory screening indicates evidence of additional illicit discharges, the catchment will be scheduled for additional investigation. Confirmatory screening is not required in catchments where no illicit discharges or System Vulnerability Factors have been identified and no previous screening indicated suspicious flows.

## 8.6 Follow-up Screening

Upon completion of all catchment investigations and illicit discharge removal and confirmation (if necessary), each outfall or interconnection will be scheduled for follow-up screening within five (5) years, or sooner based on the catchment's illicit discharge priority. Ongoing screening will consist of dry weather screening and sampling consistent with the procedures described in **Section 7** of this document. Ongoing wet weather screening and sampling will also be conducted at outfalls where wet weather screening was required due to System Vulnerability Factors and will be conducted in accordance with the procedures described in **Section 8.1**. All sampling results will be reported in the annual report.

## 8.7 Illicit Discharge Prevention Procedures

The Town of Watertown will implement the following mechanisms and procedures to assist in the prevention of illicit discharges and SSOs:

- Spill response and prevention procedures including identification of spills, reporting procedures, containment procedures, and documentation.
- Public awareness (may be part of the education program required by Subsection 2 of the MS4 Permit).

- Reporting hotlines and training of public employees involved in the IDDE program on way to identify potential illicit discharges and SSOs.

# 9 Training

Annual IDDE training will be made available to all employees involved in the IDDE program. This training will, at a minimum, include information on how to identify illicit discharges and may also include additional training specific to the functions of particular personnel and their function within the framework of the IDDE program. Training records will be maintained in **Appendix E**. The frequency and type of training will be included in the annual report.

# 10 Progress Reporting

The progress and success of the IDDE program will be evaluated on an annual basis. The evaluation will be documented in the annual report and will include the following indicators of program progress:

- Measures that demonstrate efforts to locate illicit discharges
- Number of illicit discharges identified and removed
- Percent and area in acres of the catchment area served by the MS4 evaluated using the catchment investigation procedure
- Number of dry weather outfall inspections/screenings
- Number of wet weather outfall inspections/sampling events
- Number of enforcement notices issued
- All dry weather and wet weather screening and sampling results
- Estimate of the volume of sewage removed, as applicable
- Number of employees trained annually.

The success of the IDDE program will be measured by the IDDE activities completed within the required permit timelines.

# Appendix A

## Legal Authority (IDDE Ordinance)

# Chapter 26 – STREETS, SIDEWALKS AND OTHER PUBLIC PLACES

## ARTICLE VI. - ILLICIT DISCHARGE AND CONNECTION TO STORMWATER SYSTEM

### Sec 26-220. Purpose/Intent.

The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of
Watertown through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process.The objectives of this ordinance are:

(1) To prohibit and eliminate illicit connections and discharges to the municipal separate storm sewersystem
(2) To establish legal authority to carry out all inspection, surveillance and monitoring proceduresnecessary to ensure compliance with this ordinance

### Sec. 26-221. Definitions.

For the purposes of this ordinance, the following shall mean:

*Authorized Enforcement Agency:* employees or designees of the director of public works (DPW).

*Best Management Practices (BMPs):* schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state consistent with state, federal or other equivalent and technically supported guidance. BMPs also include treatment requirements, operating procedures, and practices to controlsite runoff, spillage or leaks, sludge or waste disposal, or drainage from material storage.

*Clean Water Act:* The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequentamendments thereto.

*Construction Activity:* Any activity associated with construction at a site including, but not limited to, clearingand grubbing, grading, excavation, and dewatering.

*Hazardous Materials:* Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

*Illegal Discharge:* Any direct or indirect non-storm water discharge to the storm drain system, except asexempted in Section 26-226 of this ordinance.

*Illicit Connections:* An illicit connection is defined as either of the following: Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, any drain or conveyance connectedfrom a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

*Industrial Activity:* Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26
(b)(14).

*National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit:* means a permitissued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

*Non-Stormwater Discharge:* Any discharge to the storm drain system that is not composed entirely of stormwater.

*Person:* Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

*Pollutant:* Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous

substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxiousor offensive matter of any kind.

*Premises:* Any building, lot, parcel of land, or portion of land whether improved or unimproved includingadjacent sidewalks and parking strips.

*Storm Drainage System:* Publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

*Stormwater:* Waters consisting of rainfall runoff, including snow or ice melt, during a rain event.

*Stormwater Pollution Prevention Plan:* A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a siteand the actions to eliminate or reduce pollutant discharges to Stormwater, Stormwater Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

*Wastewater:* Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

## Sec. 26-222. Applicability.

This ordinance shall apply to all water entering the storm drain system generated on any developed andundeveloped lands unless explicitly exempted by an authorized enforcement agency.

## Sec. 26-223. Responsibility For Administration.

The DPW shall administer, implement, and enforce the provisions of this ordinance. Any powers granted or duties imposed upon the authorized enforcementagency may be delegated in writing by the Director of the authorized enforcement agency to persons or entities acting in the beneficial interest of or in the employ of the agency.

## Sec. 26-224. Severability.

The provisions of this ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Ordinance.

## Sec. 26-225. Ultimate Responsibility.

The standards set forth herein and promulgated pursuant to this ordinance are minimum standards; therefore this ordinance does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

## Sec. 26-226. Discharge Prohibitions.

*Prohibition of Illegal Discharges.*

No person shall discharge or cause to be discharged into the municipal storm drain system or watercoursesany materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water. The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

(1)The following discharges are exempt from discharge prohibitions established by this ordinance: uncontaminated ground water discharges including, but not limited to, pumped ground water, foundation drains, water from crawl space pumps and footing drains; irrigation water including, but not limited to, landscape irrigation and lawn watering runoff; residual street wash water associated with sweeping; discharges or flows from firefighting activities (except training); and naturally occurring discharges such asrising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), springs,diverted stream flows and flows from riparian habitats and wetlands.

(2) Any non-stormwater discharge to the MS4 authorized by a permit issued pursuant to Section 22a-430 or22a-430b of the Connecticut General Statutes is also authorized under this ordinance.

*Prohibition of Illicit Connections.*

(1) The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.

(2) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(3) A person is considered to be in violation of this ordinance if the person connects a line conveying sewageto the MS4 or allows such a connection to continue.

## Sec. 227. Suspension of MS4 Access.

*Suspension due to Illicit Discharges in Emergency Situations*

The DPW may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.

*Suspension due to the Detection of Illicit Discharge*
Any person discharging to the MS4 in violation of this ordinance may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The authorized enforcement agency will notify a violator of the proposed termination of its MS4 access. The violator may petition the authorized enforcement agency for a reconsideration and hearing.

A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the authorized enforcement agency.

## Sec. 26-228. Industrial Or Construction Activity Discharges.

Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the DPW prior to the allowing of discharges to the MS4.

## Sec. 26-229. Monitoring of Discharges.

(1) Applicability

This section applies to all facilities that have storm water discharges associated with industrial activity, including construction activity.

(2) Access to Facilities.

(a) The DPW shall be permitted to enter and inspect facilities subject to regulation under this ordinance as often as may be necessary to determine compliance with this ordinance. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the authorized enforcement agency.

(b) Facility operators shall allow the DPW ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.

(c) The DPW shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the authorized enforcement agency to conduct monitoring and/or sampling of the facility's storm water discharge.

(d) The DPW has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.

(e) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the DPW and shall not be replaced. The costs of clearing such access shall be borne by the operator.

(f) Unreasonable delays in allowing the DPW access to a permitted facility is a violation of a storm water discharge permit and of this ordinance. A person who is the operator of a facility with a NPDES permit to discharge storm water associated with industrial activity commits an offense if the person denies the authorized enforcement agency reasonable access to the permittedfacility for the purpose of conducting any activity authorized or required by this ordinance.

(g) If the DPW has been refused access to any part of the premises from which stormwater is discharged, and it is able to demonstrate probable cause to believethat there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this ordinance or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the authorized enforcement agency may seek issuance of a search warrant from any court of competent jurisdiction.

## Sec. 26-230. Requirement to Prevent, Control, and Reduce Storm Water Pollutants by the Use of Best Management Practices.

DPW will adopt requirements identifying Best Management Practices for any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, atsaid person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPP) as necessary for compliance with requirements of the NPDESpermit.

## Sec. 26-231. Watercourse Protection.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

## Sec. 26-232. Notification of Spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S. said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials saidperson shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the
[authorized enforcement agency] within three business days of the phone notice. If the discharge of prohibitedmaterials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

## Sec. 26-233. Enforcement.

(1) Notice of Violation.
Whenever the DPW finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, the authorized enforcement agency may ordercompliance by written notice of violation to the responsible person. Such notice may require without limitation:

(a) The performance of monitoring, analyses, and reporting;
(b) The elimination of illicit connections or discharges;
(c) That violating discharges, practices, or operations shall cease and desist;
(d) The abatement or remediation of storm water pollution or contamination hazards and the restoration of anyaffected property; and
(e) Payment of a fine or penalty to recoup costs incurred by the DPW;
(f) Suspension of any discharge to the MS4 system consistent with Section 8 of this ordinance; and
(g) The implementation of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Where elimination is not possible within 60 days of source confirmation, a schedule for its elimination will be set for no more than 180 days. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

## Sec. 26-234. Appeal of Notice of Violation.

Any person receiving a Notice of Violation may appeal the determination of the authorized enforcement agency. The notice of appeal must be received within 30 days from the date of the Notice of Violation. Hearing on the appeal before the DPW or his/her designee shall take place within 15 days from the date of receipt of the notice of appeal. The decision of the municipal authority or their designeeshall be final.

## Sec. 26-235. Enforcement Measures After Appeal.

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, inthe event of an appeal, within 30 days of the decision of the municipal authority upholding the decision of the authorized enforcement agency, then representatives of the authorized enforcement agency shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possessionof any premises to refuse to allow the government agency or designated contractor to enter upon the premises for the purposes set forth above.

## Sec. 26-236. Cost of Abatement of the Violation.

Within 30 days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within 30 days. If the amount due is not paid within a timely manner as determined by the decision of the municipal authority or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on theproperty for the amount of the assessment.

Any person violating any of the provisions of this article shall become liable to the city by reason of such violation. The liability shall be paid in not more than 12 equal payments. Interest at the rate of [_] percent perannum shall be assessed on the balance beginning on the 1st day following discovery of the violation.

## Sec. 26-237. Injunctive Relief.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Ordinance. If a person has violated or continues to violate the provisions of this ordinance, the authorized enforcement agency may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

## Sec. 26-238. Compensatory Action.

In lieu of enforcement proceedings, penalties, and remedies authorized by this Ordinance, the authorizedenforcement agency may impose upon a violator alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, etc., or may refer the violator

## Sec. 26-239. Violations Deemed A Public Nuisance

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Ordinance is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or acivil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

## Sec. 26-240. Criminal Prosecution.

Any person that has violated or continues to violate this ordinance shall be liable to criminal prosecution to the fullest extent of the law and shall be subject to a criminal penalty of $100 dollars per violation per dayand/or imprisonment for a period of time not to exceed 30 days.

The authorized enforcement agency may recover all attorney's fees court costs and other expenses associated with enforcement of this ordinance, including sampling and monitoring expenses.

## Sec. 26-241. Remedies Not Exclusive.

The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable

federal, state or local law and it is within the discretion of the authorized enforcement agency to seekcumulative remedies.

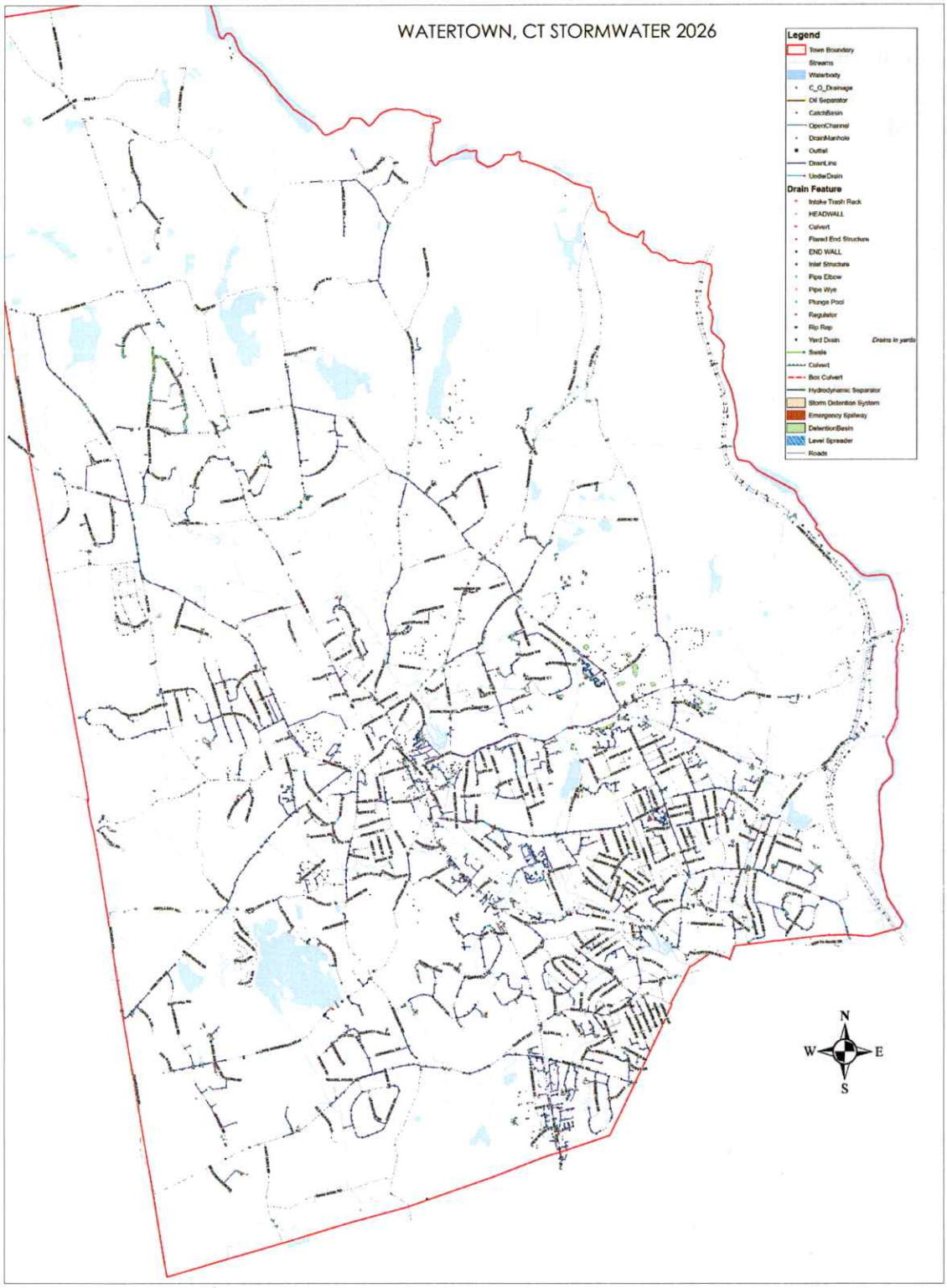
## Sec. 26-242. Adoption Of Ordinance.

This ordinance shall be in full force and effect 21 days after its final passage, adoption and publication. All prior ordinances and parts of ordinances in conflict with this ordinance are hereby repealed.

Adoption of Ordinance

Passed and adopted by the Watertown Town Council at its regularly scheduled meeting on March 20, 2023

# Appendix B


WATERTOWN, CT STORMWATER 2026
Legend
Town Boundary
Streams
Waterbody
C_O_Drainage
Oil Separator
CatchBasin
OpenChannel
DrainManhole
Outfall
DrainLine
UnderDrain
Drain Feature
Intake Trash Rack
HEADWALL
Culvert
Flared End Structure
END WALL
Inlet Structure
Pipe Elbow
Pipe Wye
Plunge Pool
Regulator
Rip Rap
Yard Drain
Drains in yards
Swale
Culvert
Box Culvert
Hydrodynamic Separator
Storm Detention System
Emergency Spillway
DetentionBasin
Level Spreader
Roads
N
W
E
S

## Field Forms, Sample Bottle Labels, and Chain of Custody Forms

### MS4 STORMWATER FIELD SHEET

Plan/Project Name: Town of Watertown — Stormwater ID: New Wood Rd

Project Location: New Wood Rd & Commercial St — Sample Number: 7038435 / -026

Date: 10/8/2025 — Field Tech: MA

Time: 9:1h — Weather: Raining

Number of Containers: 5

Container Preservative: H2SO4, HNO3

Na2S2O3, HCl

Sample Method:

Bailer

Filtration:

In Situ. at Lab None

Comments:

Start of Storm: 6:30

Storm Duration: 3 hrs

Storm Magnitude: 0.25 in

#### Field Parameters

| pH | Temp | Cond | Turbidity | Rainfall pH |
|---|---|---|---|---|
| 8.12 su | 17.20 °C | 380 umhos | 129 ntu | 4.51 su |

#### Meter Calibration

| Date: | 10/7/25 | Time: | 7:50 | | | Mode: |
|---|---|---|---|---|---|---|
| | Pre-Cal. | Post-Cal. | | Pre-Cal. | Post-Cal | |
| pH 4 | 4.36 | 4.00 | Cond. | 1425 | 1413 | YSI / Hanna / Spec |
| pH 7 | 7.07 | 7.00 | | | | |
| pH 10 | 10.43 | 10.08 | | | | |

Page 38 of 38

Pace® Location Requested (City/State):

# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

**LAB USE ONLY- Affix Workorder/Login Label Here**

Scan QR Code for instructions

| | | | |
|---|---|---|---|
| Company Name: | Town of Watertown | Contact/Report To: | Carissa Plourde |
| Street Address: | 61 Echo Lake Rd. Watertown, CT 06795 | Phone #: | 860-945-5240 |
| | | E-Mail: | plourde@watertownct.org, |
| | | Cc E-Mail: | donorfio@watertownct.org |
| Customer Project #: | | | bunevich@watertownct.org |
| Project Name: | Annual MS4 Stormwater | Invoice To: | Jerry Lukowski |
| Site Collection Info/Facility ID (as applicable): | | Invoice E-Mail: | lukowski@watertownct.org |
| | | Purchase Order # (if applicable): | |
| | | Quote #: | |

Specify Container Size **: 1 1 3 3 3 4

Identify Container Preservative Type***: 4 1 1 3 2 8

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) $HNO_3$, (3) $H_2SO_4$, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) $NaHSO_4$, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ X ] ET

County / State origin of sample(s):

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other _____

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

**Rush (Pre-approval required):** [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

Analysis Requested

Lab Use Only

Proj. Mgr: **Stephanie Monat**

AcctNum / Client ID: **Jerry Lukowski**

Table #:

Profile / Template: **12403/4**

Prelog / Bottle Ord. ID:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

| Customer Sample ID | Matrix * | Comp / Grab | Composite Start Date | Composite Start Time | Collected or Composite End Date | Collected or Composite End Time | # Cont. | Res. Chlorine Results | Res. Chlorine Units | Oil & Grease | TSS | Nitrate, Nitrite | Ammonia, TKN, T.phos, COD | Hardness | E.coli | | | Field Data | Sample Comment | Preservation non-conformance identified for sample. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Echo Lake Rd. | SW | G | | | | | 6 | | | X | X | X | X | X | X | | | X | | |
| Callender Rd. | SW | G | | | | | 6 | | | X | X | X | X | X | X | | | X | | |
| Beach Ave. | SW | G | | | | | 6 | | | X | X | X | X | X | X | | | X | | |
| Circuit Ave. | SW | G | | | | | 6 | | | X | X | X | X | X | X | | | X | | |
| Knight St. | SW | G | | | | | 6 | | | X | X | X | X | X | X | | | X | | |
| New Wood Rd. | SW | G | | | | | 6 | | | X | X | X | X | X | X | | | X | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
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Additional Instructions from Pace®:

Collected By: (Printed Name)

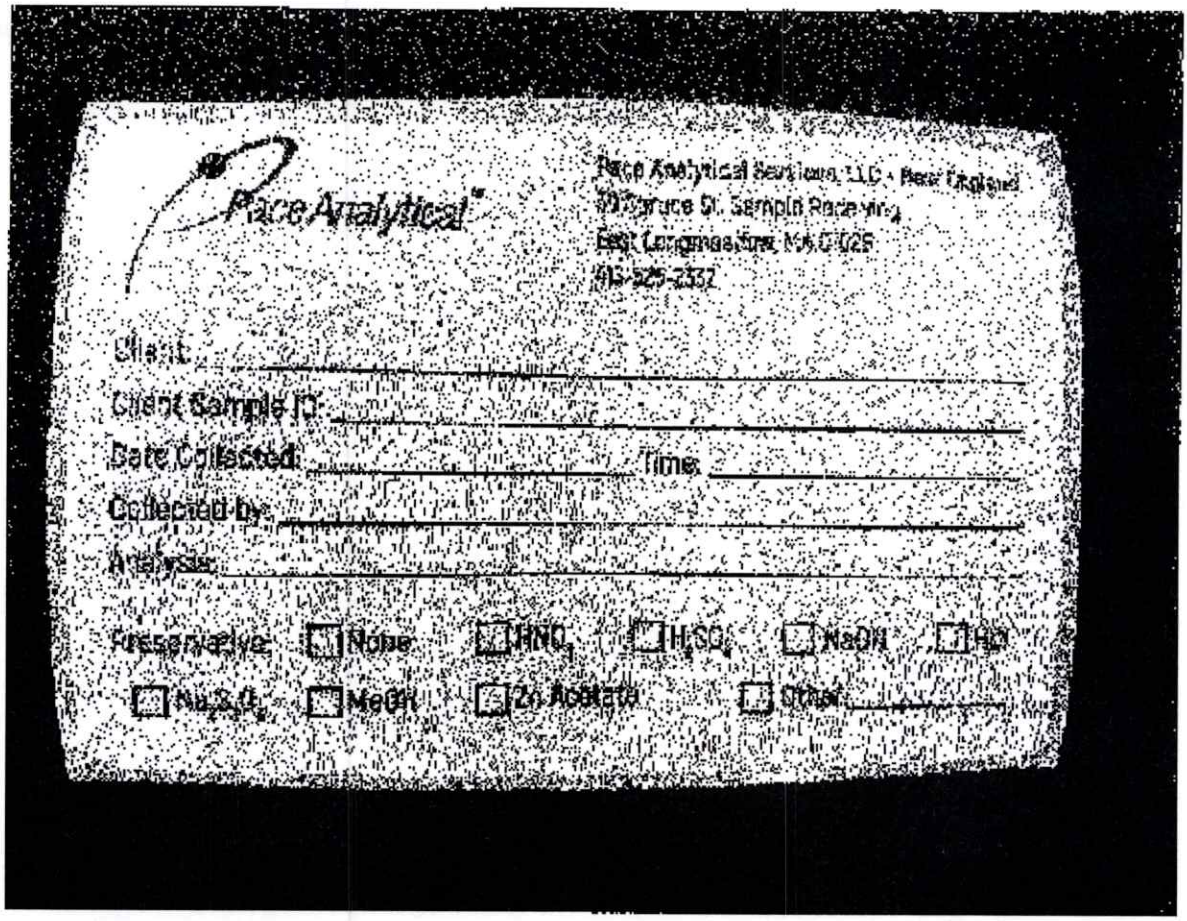
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

| # Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C) | Corrected Temp. (°C) | On Ice: |
|---|---|---|---|---|---|
| | | | | | |

| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: | Tracking Number: |
|---|---|---|---|---|
| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: | Delivered by: [ ] In- Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other |
| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: | |
| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: | Page: of |

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/ ENV-FRM-CORQ-0019_v02_110123 ©


Pace Analytical
Client:
Client Sample ID:
Date Collected:
Time:
Collected by:
Analysis:
Preservative:
None
HNO3
H2SO4
NaOH
HCl
Na2S2O3
MeOH
Zn Acetate
Other

# ppendix D

## Water Quality Analysis Instructions, User's Manuals and Standard Operating Procedures

*Instructions: Include paper or digital copies of water quality analysis instructions, procedures, and SOPs for all sample parameters and all meters or field test kits that are used for analysis. This includes the manufacturer's instructions for how to use field test kits as well as the manufacturer's instructions or user's manual for any field instrumentation.*

Pace Analytical Lab has their water quality instructions, procedures and SOP's which are unavailable at the time of this Program.

# Appendix E

## IDDE Employee Training Record

*Instructions: Use the table provided in the plan, a spreadsheet, or other training log to document annual training for employees involved in the IDDE program.*

**Illicit Discharge Detection and Elimination (IDDE) Program**
**Employee Training Record**

**##MUNICIPALITY, Connecticut**

**Date of Training:** _____

**Duration of Training:** _____

| Name | Title | Signature |
|---|---|---|
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# Appendix F

## Source Isolation and Confirmation Methods: Instructions, Manuals, and SOPs

*Instructions: Provide manufacturer instructions, manuals and procedures and any in-house SOPs used to perform source isolation and confirmation for illicit discharges.*