

**MS4 General Permit**  
**Town of Cromwell 2023 Annual Report**  
**Permit Number GSM000061**  
**January 1, 2023 – December 31, 2023**  
**Primary MS4 Contact: Jon Harriman, Town Engineer, [jharriman@cromwellct.com](mailto:jharriman@cromwellct.com)**

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This report documents Town 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 [LM1]**

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

**1.1 BMP Summary [LM2]**

| <b>BMP</b>                                  | <b>Activities in current reporting period</b>   | <b>Sources Used (if applicable)</b> | <b>Method of Distribution</b>             | <b>Audience (and number of people reached)</b> | <b>Measurable Goal</b>                                     | <b>Department / Person Responsible</b> | <b>Additional details</b> |
|---|---|-------------------------------------|---|--|--|--|---------------------------|
| 1-1 Implement public education and outreach | <ul style="list-style-type: none"><li>• Made a variety of pamphlets available to the Public at Town Hall covering a range of Stormwater topics</li><li>• Provided a number of clickable links on the Engineering Department web page covering stormwater topics</li></ul> | Various web links                   | Town Hall<br><br>Town of Cromwell website | Unknown – accessible to all                    | 10 brochures made available<br>11 web links made available | Engineering                            |                           |

|   |   |   |                            |                             |                                    |              |   |
|---|---|---|----------------------------|-----------------------------|------------------------------------|--------------|---|
| 1-2 Address education/ outreach for pollutants of concern | <ul style="list-style-type: none"> <li>Obtaining pamphlets covering pollutant of concern information</li> </ul> |   | Town Hall                  | Unknown – accessible to all | 4 brochures – one for each concern | Engineering  |   |
| 1-3 Available at Public information meetings              | Ongoing –   | <ul style="list-style-type: none"> <li>Town Engineer attends/participates at P&amp;Z and Inland Wetlands meetings to educate on the MS4 requirements and stormwater quality issues</li> </ul> | Monthly attendance ongoing | <50                         |                                    | Engineering  | Plan was implemented under previous general permit, and continues today |
| 1-4 Continued Watercourse Signage                         | Ongoing   | <ul style="list-style-type: none"> <li>Street sign supplier 1.</li> </ul>   | Highway Department         | Driving public              |                                    | Public Works | Ongoing and as-needed   |

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

Plan to create a mailer for residents living on or along watercourses in Town identified as impaired.

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

### 2.1 BMP Summary [LM3]

| BMP  | Status<br>(Complete, Ongoing, In Progress, or Not started) | Activities in current reporting period   | Measurable Goal | Department / Person Responsible | Date completed or projected completion date<br>(include the start date for anything that is 'in progress') | Location Posted              | Additional details                                     |
|--|--|--|-----------------|---------------------------------|--|------------------------------|--|
| 2-1 Final Stormwater Management Plan publicly available [LM4]                          | complete   | One Time   |                 | Engineering                     |  | www.cromwellct.com           |  |
| 2-2 Comply with public notice requirements for Annual Reports (annually by 2/15) [LM5] | complete   | One Time   |                 | Engineering                     |  | www.cromwellct.com           |  |
| 2-3 Present to Town Council, BOF& Public Works   | Complete   | One Time   |                 | Engineering                     | Completed  |                              |  |
| 2-4 Participate in Household Hazardous Waste and Solid Waste Recycling                 | Ongoing  | Transfer Station available to all residents, two hazardous waste collection days provided annually | Annually        | Solid Waste Public Works        | July 1, 2018   | Quarterly collection events. | 184 residents participated, waste amounts not provided |
| 2-5 CT River Conservancy – Cleanup   | Annual event   | CT River Cleanup Event   | Annually        | Volunteer Group                 | NA   | October 2023                 | Cromwell Middle School & DPW, Cromwell RTC             |

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

Participate in regional Household Hazardous Waste collection events organized by RiverCOG. Assist with hauling waste generated in Source to Sea river clean up event(s). Offer catch basin labeling to local Boy Scout Troop for service hours.

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

#### 3.1 BMP Summary [LM6]

| BMP  | Status<br>(Complete, Ongoing, In Progress, or Not started) | Activities in current reporting period   | Measurable Goal                            | Department / Person Responsible | Date completed or projected completion date<br>(include the start date for anything that is 'in progress') | Additional details  |
|--|--|--|--|---------------------------------|--|---|
| 3-1 Develop written IDDE program   | Complete   | Plan implementation continued  | Written plan of IDDE program was developed | Engineering                     | Completed May of 2018  | Posted at <a href="http://www.cromwellct.com">www.cromwellct.com</a>  |
| 3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas | Complete   | The Town continues to update the map when changes (roadway reconstruction, new infrastructure) occur | Develop map and list                       | Engineering                     | Completed prior to July 1, 2017. As new subdivisions are built, new info is added to the map               | Outfall locations can be seen on town GIS website <a href="http://www.cromwellct.com">www.cromwellct.com</a> The engineering department maintains the full data set |
| 3-3 Implement citizen reporting program                                    | Ongoing  | Plan implementation continued  | Receive citizen complaints                 | Engineering<br>M. Shewokis      | Citizen reporting went online prior to July 1, 2017.   | No complaints received this year.   |
| 3-4 Establish legal authority to prohibit illicit discharges               | Complete   | Ordinance created, approved by Town Council and Public Hearing                                       | Establish Legal Authority                  | Engineering<br>J. Harriman      | Adopted May 9, 2018 – Published August 1, 2018   | Town Code is posted at <a href="http://www.cromwellct.com">www.cromwellct.com</a>   |
| 3-5 Develop record keeping system for IDDE tracking                        | Ongoing  | Spreadsheet will be developed when first IDDE is reported  | Create spreadsheet                         | Engineering<br>J. Harriman      | TBD  | Spreadsheet in process  |
|  |  |  |  |                                 |  |   |

|   |          |   |                              |   |  |   |
|---|----------|---|------------------------------|---|--|---|
| 3-6 Address IDDE in areas with pollutants of concern                          | Ongoing  | Engineering department continues IDDE sampling                                    | Sampling continued this year | Engineering<br>M. Shewokis<br>J. Harriman | Began sampling in 2020   |   |
| 3-7 Detailed MS4 infrastructure mapping                                       | Complete | The MS4 system is 100% mapped, updates are done as new infrastructure is acquired | Develop map and list         | Engineering                               | Completed prior to July 1, 2017. As new subdivisions are built, new info is added to the map | Outfall locations can be seen on town GIS website <a href="http://www.cromwellct.com">www.cromwellct.com</a> The engineering department maintains the full data set |
| 3-8 Complete list and maps of all MS4 outfalls throughout municipality (>10") | Complete | The MS4 system is 100% mapped, updates are done as new infrastructure is acquired | Develop map and list         | Engineering                               | Completed prior to July 1, 2017. As new subdivisions are built, new info is added to the map | Outfall locations can be seen on town GIS website <a href="http://www.cromwellct.com">www.cromwellct.com</a> The engineering department maintains the full data set |

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

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

IDDE Sampling program will continue as weather permits.

**3.3[LM7] Provide a record of all citizen reports of suspected illicit discharges and other illicit discharges occurring during the reporting period and SSOs occurring July 2017 through end of reporting period using the following table. Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.**

| Location<br>(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) |
|--|---------------------------------|-----------------------------------|-----------------------------|--|--|-------------------------------|
| 4 Alcap Ridge – Mattabassett River                                   | August 31, 2023 <1 week         | MS4                               | unknown                     | CT Hard Rock – stone cutting slurry          | A wastewater pipe discharge to the front yard and trickled into the roadway. It was from the cutting of stone inside the business. Owner removed the discharge, installed grit separator and connected to sanitary sewer | NA                            |

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

**3.4 [LM8] Provide a summary of actions taken to address septic failures using the table below.**

| Method used to track illicit discharge reports | Location and nature of structure with failing septic systems | Actions taken to respond to and address the failures | Impacted waterbody or watershed, if known | Dept. / Person responsible |
|--|--|--|---|----------------------------|
| None this year                                 |  |  |   |                            |
|  |  |  |   |                            |
|  |  |  |   |                            |

**3.5 [LM9] Briefly describe the method and effectiveness of said method used to track illicit discharge reports.**

|  |  |
|--|--|
| The discharge was noticed by PD, reported to zoning and then reported to sewer department. |  |
|--|--|

**3.6 IDDE reporting metrics**

| Metrics  |  |
|--|--|
| Estimated or actual number of MS4 outfalls                           | 214  |
| Estimated or actual number of interconnections                       | Est. 17                                      |
| Outfall mapping complete   | 100 %  |
| Interconnection mapping complete                                     | 100%   |
| System-wide mapping complete (detailed MS4 infrastructure)           | 100 %  |
| Outfall assessment and priority ranking                              | 100 %  |
| Dry weather screening of all High and Low priority outfalls complete | All accessible outfalls have been assessed   |
| Catchment investigations complete                                    | None required per testing monitoring results |

|   |     |
|---|-----|
| Estimated percentage of MS4 catchment area investigated | 95% |
|---|-----|

**3.7 [LM10]** Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often it is given (minimum once per year).

The Town combines IDDE training with general MS4 and Industrial stormwater permit training session on an annual basis.

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

##### 4.1 BMP Summary [LM11]

| BMP  | Status<br>(Complete, In Progress, or Not started) | Activities in current reporting period  | Measurable Goal     | Department / Person Responsible                 | Date completed or projected completion date<br>(include the start date for anything that is 'in progress') | Additional details  |
|--|---|---|---------------------|---|--|---|
| 4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit | Complete  | Town Staff (Town Planner and Town Engineer) have met to discuss permit requirements | Upgrade regulations | Town Planner<br>Town Engineer                   | August 8, 2015   | Zoning regulations are currently being updated. Should complete 2024 – this regulation update has taken longer than anticipated |
| 4-2 Develop/Implement plan for interdepartmental   | Ongoing   | Town Planner forwards applications to various department heads for review           | Review applications | Town Planner<br>Zoning Officer<br>Town Engineer | This has been in place since before 2012   | This has been Town procedure all along  |

|  |         |   |  |   |  |   |
|--|---------|---|--|---|--|---|
| coordination in site plan review and approval  |         |   |  | Fire Chief<br>Police Chief                      |  |   |
| 4-3 Review site plans for stormwater quality concerns                                  | Ongoing | Site plan applications reviewed by Town Engineer, Zoning Officer & Town Planner | 258 applications reviewed                                  | Town Planner<br>Zoning Officer<br>Town Engineer | This has been in place since before 2012 | This has been Town procedure all along  |
| 4-4 Conduct site inspections   | Ongoing | Conduct frequent inspections (ZEO, Engineering)                                 | 2,652 inspections at 17 sites in 2022                      | Engineering<br>ZEO                              | This has been in place since before 2012 | This has been Town procedure all along  |
| 4-5 Implement procedure to allow public comment on site development                    | Ongoing | Allow Public Comment on Site Development projects                               | Public comment was allowed at all P&Z & Wetlands meetings. | Town Planner<br>ZEO                             | This has been in place since before 2012 | Public Comment is on every IWC & P&Z agenda. Public Hearings also allow application specific comment  |
| 4-6 Implement procedure to notify developers about DEEP construction stormwater permit | Ongoing | Notify developers of DEEP permit requirement                                    | Append procedure to Town Engineer's review comments        | Town Engineer                                   | Jul 1, 2017                              | Town Engineer inserts a handout and a general comment to all applications where this applies. Ongoing |

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

|                                 |
|---------------------------------|
| Continue to follow present SOP. |
|---------------------------------|

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

### 5.1 BMP Summary

| BMP | Status<br>(Complete, Ongoing, In Progress, or Not started) | Activities in current reporting period | Measurable Goal | Department / Person Responsible | Date completed or projected completion date<br>(include the start date for anything that is 'in progress') | Additional details |
|-----|--|--|-----------------|---------------------------------|--|--------------------|
|-----|--|--|-----------------|---------------------------------|--|--------------------|

|  |                    |  |   |                      |                              |  |
|--|--------------------|--|---|----------------------|------------------------------|--|
| 5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning | Complete           | There is a plan to update the entire zoning regulations. Pending that the Town has created a handout that goes to all P&Z and wetlands applicants informing them the LID must be considered. | Update zoning regulations – update application packet | PZC<br>Town Planner  | Jul 1, 2022                  | When the Town updates the zoning regulation the LID language will be added to the regulations. Regulation update began in 2022, should complete in 2023. |
| 5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects                                   | Started            | Town Engineer is requesting 1" retention. No written regulation exists yet. Compliance has been good.  |   | PZC<br>Town Engineer | Jul 1, 2019                  | This will change when the revised regulations are incorporated this year.  |
| 5-3 Identify retention and detention ponds in priority areas   | Completed          | A binder of above ground and underground structures was created. This list is for the entire Town, not just priority areas.  | Create list   | Engineering          | Jul 1, 2019                  | This is updated as new development occurs  |
| 5-4 Implement long-term maintenance plan for stormwater basins and treatment structures                                    | In Progress        | A binder of above ground and underground structures was created  | Maintain infrastructure annually                      | Highway Division     | Jul 1, 2019                  | The Town manufactured a bracket to attach a mower head to mini excavator allowing for clearing in pond structures that were not previously maintained.   |
| 5-5 DCIA mapping   | Baseline completed |  | Map DCIA  | Engineering          | Jul 1, 2020                  | Completed June 2020  |
| 5-6 Address post-construction issues in areas with pollutants of concern[LM12]   | In Progress        | A binder of above ground and underground structures was created  | Perform maintenance                                   | Public works         | On-going routine maintenance |  |

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

1. Circle back to retention ponds that were full of water last year preventing maintenance below the water line.
- 2 A consultant is updating zoning regs to include LID.

### 5.3 Post-Construction Stormwater Management reporting metrics

For details on this requirement, visit <https://nemo.uconn.edu/ms4/tasks/post-construction.htm>. Scroll down to the DCIA section.

| Metrics[LM13]   |                                      |
|---|--------------------------------------|
| Baseline (2012) Directly Connected Impervious Area (DCIA) | 319 acres DCIA = 12.5%               |
| DCIA disconnected (redevelopment plus retrofits)          | 15.6 acres = 4.9%                    |
| Retrofit projects completed                               | 1                                    |
| DCIA disconnected   | 15.6 acres                           |
| Estimated cost of retrofits                               | \$4.12M total project cost           |
| Detention or retention ponds identified                   | 19 (includes underground structures) |

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

The Town used it's GIS consultant, AppGEO, to perform this task using GIS analysis and DEEP guidance.

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

### 6.1 BMP Summary [LM14]

| BMP   | Status<br>(Complete, Ongoing, In Progress, or Not started) | Activities in current reporting period   | Measurable Goal                   | Department / Person Responsible | Date completed or projected completion date<br>(include the start date for anything that is 'in progress') | Additional details  |
|---|--|--|-----------------------------------|---------------------------------|--|---|
| 6-1 Develop/implement formal employee training program                          | Ongoing  | No training this year due to COVID restrictions                                    | Train once annually               | Public Works Engineering        | 2012   |   |
| 6-2 Implement MS4 property and operations maintenance                           | In Progress  | A binder with all treatment and detention structures with maintenance was utilized | SOP created                       | Public Works                    | January 2019   | Above average rain and high groundwater this year had most ponds inundated during maintenance attempts. |
| 6-3 Implement coordination with interconnected MS4s                             | Ongoing  | No MS4 needs identified this year. Our only interconnections are with CTDOT        |                                   | Engineering                     | Not specified  |   |
| 6-4 Develop/implement program to control other sources of pollutants to the MS4 | Not started  |  |                                   |                                 | Not specified  |   |
| 6-5 Evaluate additional measures for discharges to impaired waters*             | Not started  |  |                                   |                                 | Not specified  |   |
| 6-6 Track projects that disconnect DCIA   | Ongoing  | DCIA baseline calculation completed  | Maintain a list to track progress | Engineering                     | DCIA calculation completed June, 2020.   |   |

|   |             |  |  |                          |  |  |
|---|-------------|--|--|--------------------------|--|--|
| 6-7 Implement infrastructure repair/rehab program                   | In Progress | Sewer department raised several manhole elevations to prevent flood water infiltration in an area that now floods frequently.  | Reduce I/I in the sanitary sewer system              | Cromwell WPCA            | 2018 started   | Repair project to begin 2023.  |
| 6-8 Develop/implement plan to identify/prioritize retrofit projects | In progress | Plan is to implement retrofits into capitol projects as they arise and where finding allows.   | Disconnect impervious surfaces                       | Engineering              | summer 2023  | Overland ROW on headwaters to Coles Brook. Blockage on a private culvert is flooding the area.   |
| 6-9 Implement retrofit projects to disconnect 2% of DCIA            | In progress | Completing analysis of lookback projects. A Town parking lot was reconstructed including redirecting runoff to a rain garden/infiltration area. ½ of parking lot area has been disconnected. | Disconnect 2% of DCIA                                | Public Works Engineering | Began in 2016  | Complete   |
| 6-10 Develop/implement street sweeping program                      | Complete    | The Town sweeps twice per year. In spring after snow, and in fall during leaf collection. Every road mile is swept 2x  | Sweep twice annually                                 | Highway Department       | Start date unknown   | The Town has had a street sweeper fo many years. Sweeping program predates this permit. Town is transitioning to leaf suckers which is reducing the need to sweep in the fall. |
| 6-11 Develop/implement catch basin cleaning program                 | Complete    | The Town cleans at least 1/3 of the basins annually on a rotating schedule   | 800 basins cleaned this year                         | Highway Department       | Start date unknown   | The catch basin cleaning program has been in effect prior to 2012. Janets Sweeping is the contractor   |
| 6-12 Develop/implement snow management practices                    | In progress | Implemented a salt brine pre-treatment system in problem areas (hills, curves, bridges)  | Reduce salt use with brine solution                  | Highway Department       | Salt brine trucks purchased in 2018                                  | Very little snow removal/salting done this year due to mild winter.  |
| 6-13 Roadside litter pickup   | Ongoing     | Town used Nip Fund dollars to fund litter pickup near CT Rvier and Sebethe Drive/Kirby Road  | Address areas of excessive litter that gets into MS4 | Solid Waste Department   | January, March, April, May, June, Novemeber and December 30 manhours | Seasonal employees from the parks/highway departments work with Solid Waste Foreman  |

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

The Town will continue to implement SOP activities – street sweeping twice per year, catch basin cleaning and stormwater treatment infrastructure maintenance. The Town now has two leaf sucker vacuums, we are finding the street sweeping hours are being reduced due to the use of this more efficient method of leaf collection. Town staff are requesting funding for a third leaf sucker vacuum machine.

## 6.3 Pollution Prevention/ Good Housekeeping reporting metrics

| Metrics  |                                     |
|--|-------------------------------------|
| Employee training provided for key staff [LM15]  | n                                   |
| Street sweeping[LM16]  |                                     |
| Curb miles swept   | 234.6 miles (2x both sides of road) |
| Volume (or mass) of material collected   | 19 yards (mostly leaves)            |
| Catch basin cleaning[LM17]   |                                     |
| Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide) | 788                                 |
| Total catch basins town- (or institution-) wide  | 1937                                |
| Catch basins inspected   | 836                                 |
| Catch basins cleaned   | 836                                 |
| Volume (or mass) of material removed from all catch basins   | ~5 yards                            |
| Volume removed from catch basins to impaired waters (if known)   | unknown                             |
| Snow management[LM18]  |                                     |
| Type(s) of deicing material used   | Treated salt                        |
| Total amount of each deicing material applied  | 1350 tons average                   |
| Type(s) of deicing equipment used  | Plow truck sander, salt brine truck |
| Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)   | 117.3                               |
| Snow disposal location   | Park parking lots                   |
| Staff training provided on application methods & equipment   | Y – ongoing for new staff           |
| Municipal turf management program actions (for permittee properties in basins with N/P impairments)[LM19]              |                                     |

|  |              |
|--|--------------|
| Reduction in application of fertilizers (since start of permit)  | No reduction |
| Reduction in turf area (since start of permit)   | No reduction |
| Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)[LM20] |              |
| Cost of mitigation actions/retrofits   | NA           |

#### 6.4 Catch basin cleaning program [LM21]

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

The Town is divided into three regions; east of Main Street (Route 99), between Main Street and Shunpike Road (Route 3) and west of Shunpike Road. Each section is cleaned every three years on a rotating schedule. The town hasn't used sand for snow operations in many years and streets are swept twice annually. It is our experience that this schedule ensures that there is not a significant buildup in the sumps that would lead to a discharge at an outfall. Catch basins near construction sites are monitored by engineering and zoning department staff, and any sediment buildup requiring removal is completed by the offending development/developer through Notice of Violation.

#### **6.5 Retrofit program**[LM22]

**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. (Due 7/1/20)**

The Town completed a large roadway/drainage reconstruction project in 2016. This project encompassed a densely populated neighborhood of nine streets referred to as the Raymond Place project. The area was/is 25% DCIA. The project consisted of a new drainage system that ran the drainage to a new storm water pond constructed in the northern end of Watrous Park. The project effectively disconnected 15.6 acres of DCIA. The 2% goal was reached with the first look back project – the DCIA reduction is 4.9%. There was no disconnect project work this year.

**Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection annually in future years. (Due 7/1/22)**

A project in Pierson Park is planned for this year that will slightly reduce the amount of connected surface area that currently discharges to Cromwell Creek (an impaired waterway).

## Part II: Impaired waters investigation and monitoring[LM23]

### 1. Impaired waters investigation and monitoring program

For details on this requirement, visit <https://nemo.uconn.edu/ms4/tasks/monitoring.htm>. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

**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 ☒  
Concern ☐

Bacteria ☒

Mercury

Other Pollutant of

#### 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.

The Town continued monitoring/sampling on August 7, 2023.

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

#### 2.1 Screening data

Complete the table below to report data for any wet weather sampling completed for MS4 outfalls that discharge directly to a stormwater impaired waterbody during the reporting period. For details on this requirement, visit [www.nemo.uconn.edu/ms4/tasks/monitoring.htm](http://www.nemo.uconn.edu/ms4/tasks/monitoring.htm). Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. **You may also attach an excel spreadsheet with the same data rather than copying it into this table.** If you do attach a spreadsheet, please write "See Attachment" below.

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

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)  | <ul style="list-style-type: none"> <li>E. coli &gt; 235 col/100ml for swimming areas or 410 col/100ml for all others</li> <li>Total Coliform &gt; 500 col/100ml</li> </ul>   |
| Bacteria (salt waterbody)   | <ul style="list-style-type: none"> <li>Fecal Coliform &gt; 31 col/100ml for Class SA and &gt; 260 col/100ml for Class SB</li> <li>Enterococci &gt; 104 col/100ml for swimming areas or 500 col/100 for all others</li> </ul> |
| 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 ID | Status of drainage area investigation                            | Control measure to address impairment |
|------------|--|---------------------------------------|
| CR-0006    | Ongoing – possible septic – no reported/known failures or issues | Increase street sweeping              |
| CC-0008    | Ongoing – source undetermined                                    | Increase street sweeping              |
| CC-0004    | Ongoing – source undetermined                                    | Increase street sweeping              |
| WI-0008    | Ongoing – source undetermined                                    | Increase street sweeping              |
| WI-0007    | Ongoing – source undetermined                                    | Increase street sweeping              |
| WI-0029    | Ongoing – source undetermined                                    | Increase street sweeping              |

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

Once outfall sampling 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, 2021. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

| Outfall | Latitude / Longitude                 | Sample Date | Parameter(s) | Results | Name of Laboratory (if used) |
|---------|--------------------------------------|-------------|--------------|---------|------------------------------|
| CR-0006 | 41°36'41.1804"N<br>- 72°39'10.9524"W | 8/7/23      | E. Coli      | 1553    | EML                          |
| WI-0007 | 41°36'46.152"N<br>- 72°39'56.1684"W  | 8/7/23      | E. Coli      | 461     | EML                          |
| WI-0008 | 41°36'47.1888"N<br>- 72°39'W         | 8/7/23      | E. Coli      | 2420    | EML                          |
| WI-0029 | 41°36'35.3055"N<br>- 72°39'09.816"W  | 8/7/23      | E. Coli      | 579     | EML                          |
| CC-0004 | 41°36'33.8184"N<br>- 72°39'19.6308"W | 8/7/23      | E. Coli      | 866     | EML                          |
| CC-0008 | 41°36'27.2448"N<br>- 72°39'19.8576"W | 8/7/23      | E. Coli      | 687     | EML                          |



### Part III: Additional IDDE Program Data

#### 1. Assessment and Priority Ranking of Catchments data (Appendix B (A)(7)(c) / page 5)<sup>[LM24]</sup>

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

| 1. Catchment ID<br>(DEEP Basin ID) | 2. Category   | 3. Rank |
|------------------------------------|---------------|---------|
| 4000-00-6+R18                      | Low Priority  | 4       |
| 4000-32-1                          | Low Priority  | 1       |
| 4000-36-1                          | Low Priority  | 2       |
| 4600-17-1                          | Low Priority  | 3       |
| 4000-00-6+R19                      | Low Priority  | 5       |
| 4000-00-6+R20                      | Low Priority  | 6       |
| 4000-00-6+R21                      | Low Priority  | 7       |
| 4000-00-6+R22                      | High Priority | 10      |
| 4600-00-3-R7                       | Low Priority  | 8       |
| 4000-00-6+R23                      | High Priority | 11      |
| 4600-00-3-R15                      | Low Priority  | 9       |
| 4000-31-1-L1                       | High Priority | 12      |
| 4000-32-1-L1                       | High Priority | 13      |
| 4000-36-1-L3                       | High Priority | 14      |
| 4600-31-1                          | High Priority | 15      |
| 4600-18-1-L1                       | High Priority | 16      |
| 4600-23-1                          | High Priority | 17      |

|               |               |    |
|---------------|---------------|----|
| 4600-00-3-R16 | High Priority | 18 |
| 4600-22-1     | High Priority | 19 |
| 4600-27-1     | High Priority | 20 |
| 4600-22-2-R1  | High Priority | 21 |
| 4600-00-3-R8  | High Priority | 22 |
| 4600-00-3-R9  | High Priority | 23 |
| 4600-00-3-R10 | High Priority | 24 |
| 4600-00-3-R11 | High Priority | 25 |
| 4600-00-3-R13 | High Priority | 26 |
| 4600-00-3-R14 | High Priority | 27 |
| 4600-00-3-R16 | High Priority | 28 |

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

### 2.1[LM25] Dry weather screening and sampling data from outfalls and interconnections

This screening is the baseline IDDE dry weather screening. For details on this requirement, visit <https://nemo.uconn.edu/ms4/tasks/monitoring.htm>. Refer to the blue column of the Monitoring comparison chart and the IDDE baseline monitoring flowchart.

Provide sample data for outfalls where flow is observed, during dry weather, of outfalls and interconnections categorized as high or low priority in priority areas. Do not include problem or excluded catchments. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

| Outfall /<br>Interconnection<br>ID | Latitude /<br>Longitude | Screening<br>/ sample<br>date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or<br>enterococcus | Surfactants | Water<br>Temp | Pollutant<br>of<br>concern | If required, follow-up actions<br>taken |
|------------------------------------|-------------------------|-------------------------------|---------|----------|--------------|----------|----------------------------|-------------|---------------|----------------------------|---|
|------------------------------------|-------------------------|-------------------------------|---------|----------|--------------|----------|----------------------------|-------------|---------------|----------------------------|---|



| 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 than 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 than poor owner maintenance).

### 3.2[LM28] Key junction manhole dry weather screening and sampling data

This screening is the dry weather priority catchment investigation screening. Provide sample data, both baseline and follow-up, for key junction manholes of any catchment area begin investigated for an illicit discharge and do not have any SVFs present. Follow-up investigations must take place within one year and again within five years. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

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

### 3.3[LM29] Wet weather follow-up investigation outfall sampling data

This sampling is the follow-up investigations for the wet weather priority catchment investigation. Provide follow-up sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. Follow-up investigations must take place within one year and again within five years. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

| Outfall ID | Latitude / Longitude | Sample date | Ammonia | Chlorine | Surfactants |
|------------|----------------------|-------------|---------|----------|-------------|
|            |                      |             |         |          |             |

### 3.4[LM30] 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

Print name: Anthony J. Salvatore – Town Manager

Signature / Date:

 3/11/2024  
Email: townmanager@cromwellct.com

Document Prepared by

Print name: Jon Harriman – Town Engineer

Signature / Date:

 3/11/2024  
Email: jharriman@cromwellct.com