How to complete the MS4 Annual Report template

**General Instructions**

* Text highlighted yellow represents generic text to be updated.
* Example responses are provided in red text. Delete these if you don’t use them.
* When viewing this template in Word, please click on the comment bubble icon to view the language from the permit for that requirement. For more detail on permit requirements, please see the corresponding page number in the general permit in each comment.

[**Part I: Summary of Minimum Control Measure (MCM) Activities**](#_Part_I:_Summary)

- Best Management Practice (BMP) Summary tables: Each MCM section starts with a BMP Summary table. A description of what to include in each column is below.

**BMP**: Self-explanatory.

**Status**: Provide status of BMP implementation (not started, ongoing, in progress, or complete).

- *In progress* means a task has been started but not yet completed.

- *Ongoing* means a task that is due each year or that is required to be maintained throughout the year (ex. Track disconnections of DCIA or Review site plans for stormwater quality concerns).

**Activities in current reporting period**: Describe ongoing and completed BMP activities. Briefly explain if you’re on schedule to meet the deadline or not. If not, explain why you don’t expect to meet the deadline.

**Measurable Goal**: Provide a measurable goal for the BMP.

**Dept/Person Responsible:** Identify the lead department and responsible person for that BMP. Note if it changed from the previous year. Third parties can be listed here if they are implementing the BMP. However, the permittee retains responsibility for tracking the BMP.

**Date completed / projected completion date:** Actual BMP completion date or when it’s scheduled to be completed.

**Additional details:** Add any additional details including reasons for overdue BMPs, specific location of BMP if applicable, reason for adding an additional BMP.

- Other Tables: Each MCM has specific data reporting requirements. Brief descriptions and/or example responses are provided for each requirement.

[**Part II: Impaired waters investigation and monitoring**](#_Part_II:_Impaired)

- Brief instructions are provided for each reporting requirement throughout Part II.

[**Part III: Additional IDDE Program Data**](#_Part_III:_Additional)

- Brief instructions are provided for each reporting requirement throughout Part III.

[**Part IV: Certification**](#_Part_IV:_Certification) **-** Self-explanatory

MS4 General Permit

Town of \_\_\_\_\_\_\_ 2021 Annual Report

Permit Number GSM \_\_\_\_\_\_\_\_

January 1, 2021 – December 31, 2021

Primary MS4 Contact: Name, Position, phone and email

This report documents [Town/Institution’s] efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2021 to December 31, 2021.

# Part I: Summary of Minimum Control Measure Activities

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

**1.1 BMP Summary**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **BMP** |  **Activities in current reporting period** | **Sources Used** (if applicable) | **Method of Distribution** | **Audience (and number of people reached)** | **Measurable Goal** | **Department / Person Responsible** | **Additional details** |
| 1-1 Implement public education and outreach |  |  |  |  |  |  |  |
| 1-2 Address education/ outreach for pollutants of concern |  |  |  |  |  |  |  |
| **Example Additional BMP:***1-3 Integrate water quality into school curriculum*  |  *Collected and developed material about impact of impervious cover on water quality* | *NEMO’s Rain Garden Website and App* | *School curriculum* | *Students; 500* | *Educate students on common stormwater topics* | *Conservation commission / D. Shrute* | *Reason for addition: Extend public education program to schools;* *Program is scheduled to be incorporated in the town’s 6th grade science curriculum during the next academic year* |

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

|  |
| --- |
|  |

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

**2.1 BMP Summary**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **BMP** | **Status**(Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date**(include the start date for anything that is ‘in progress’) | **Location Posted** | **Additional details** |
| 2-1 Final Stormwater Management Plan publicly available  |  |  |  |  |  | (Physical location / web address) |  |
| 2-2 Comply with public notice requirements for Annual Reports (annually by 2/15) |  |  |  |  |  | (Physical location / web address) |  |
| ***Example additional BMP:*** *2-3 Establish stormwater committee* | *In progress* | *In process of identifying committee members* | *Provide forum to coordinate SWMP implementation across depts. and commissions* | *Inland Wetlands / P. Vance* | *Summer 2018* |  | *Reason for addition: Committee will represent town departments & commissions with stake in stormwater mgmt.* |

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

|  |
| --- |
| *Hold quarterly stormwater committee meetings to review SMP implementation progress.* |

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

**3.1 BMP Summary**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **BMP** | **Status**(Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date**(include the start date for anything that is ‘in progress’) | **Additional details** |
| 3-1 Develop written IDDE program (Due 7/1/19) | *In progress* | *Town is in process of completing written IDDE program using the CT IDDE program template* | *Develop written plan of IDDE program* | *Public works/ M. Scott* | *Anticipate completing by the deadline of July 1, 2019.* |  |
| 3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20) |  |  |  |  |  |  |
| 3-3 Implement citizen reporting program (Ongoing) |  |  |  |  |  |  |
| 3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19) |  |  |  |  |  |  |
| 3-5 Develop record keeping system for IDDE tracking (Due 7/1/17) |  |  |  |  |  |  |
| 3-6 Address IDDE in areas with pollutants of concern |  |  |  |  |  |  |
| **Example additional BMP:***3-7 Consolidate IDDE tracking spreadsheets* | *Not started* | *Compile all the IDDE tracking requirements into one spreadsheet* |  | *Public works / M. Scott* | *Jul 1, 2018* | *Reason for addition: Make it easier to track all IDDE activities* |

**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 and a link listed in next year’s Annual Report; 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 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 anyunpermitted 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**(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) |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**3.4 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** |
|  | *Apartment complex on Oak Street* |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

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

|  |
| --- |
|  |

**3.6 IDDE reporting metrics**

|  |  |
| --- | --- |
| **Metrics** |  |
| Estimated or actual number of MS4 outfalls | # |
| Estimated or actual number of interconnections | # |
| Outfall mapping complete | (%) |
| Interconnection mapping complete | (%) |
| System-wide mapping complete (detailed MS4 infrastructure)  | (%) |
| Outfall assessment and priority ranking | (%) |
| Dry weather screening of all High and Low priority outfalls complete | # |
| Catchment investigations complete | #  |
| Estimated percentage of MS4 catchment area investigated | % |

**3.7 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).

|  |
| --- |
|  |

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

**4.1 BMP Summary**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **BMP** | **Status**(Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date**(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 (Due 7/1/20) |  |  |  |  |  |  |
| 4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing) |  |  |  |  |  |  |
| 4-3 Review site plans for stormwater quality concerns (Ongoing) |  |  |  |  |  |  |
| 4-4 Conduct site inspections (Ongoing) |  |  |  |  |  |  |
| 4-5 Implement procedure to allow public comment on site development (Ongoing) |  |  |  |  |  |  |
| 4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing) |  |  |  |  |  |  |
| **Example additional BMP:** *4-7 Develop stormwater compliance checklist* | *In progress* | *Developing checklist to provide developers on stormwater mgmt compliance requirements* | *Standardize plan review* | *Planning / G. Lewis* | *Jul 1, 2018* | *Reason for addition: Make it easier to ensure compliance with stormwater regulations* |

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

|  |
| --- |
| *Integrate stormwater compliance checklist into review process once completed.* |

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

**5.1 BMP Summary**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **BMP** | **Status**(Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date**(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 (Due 7/1/22) |  |  |  |  |  |  |
| 5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22) |  |  |  |  |  |  |
| 5-3 Identify retention and detention ponds in priority areas (Due 7/1/20) |  |  |  |  |  |  |
| 5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing) |  |  |  |  |  |  |
| 5-5 DCIA mapping (Due 7/1/20) |  |  |  |  |  |  |
| 5-6 Address post-construction issues in areas with pollutants of concern |  |  |  |  |  |  |
| **Example additional BMP:***5-7 Investigate alternative retention pond maintenance options* | *In progress* | *Identified and received quotes from two companies that rent goats to eat overgrown weeds* | *ID sustainable means of maintaining town owned detention ponds* | *Public works / D. Shrute* | *Jul 1 2018* | *Reason for addition: ID sustainable means of maintaining town owned detention ponds* |

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

|  |
| --- |
| *Hire company to maintain highest priority retention ponds.*  |

**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** |
| Baseline (2012) Directly Connected Impervious Area (DCIA) | acres |
| DCIA disconnected (redevelopment plus retrofits) | acres this year / acres total |
| Retrofit projects completed | # |
| DCIA disconnected | % this year / % total since 2012 |
| Estimated cost of retrofits | $ |
| Detention or retention ponds identified | # this year /# total |

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

|  |
| --- |
|  |

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

**6.1 BMP Summary**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **BMP** | **Status**(Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date**(include the start date for anything that is ‘in progress’) | **Additional details** |
| 6-1 Develop/implement formal employee training program (Ongoing) |  |  |  |  |  |  |
| 6-2 Implement MS4 property and operations maintenance (Ongoing) |  |  |  |  |  |  |
| 6-3 Implement coordination with interconnected MS4s |  |  |  |  |  |  |
| 6-4 Develop/implement program to control other sources of pollutants to the MS4 |  |  |  |  |  |  |
| 6-5 Evaluate additional measures for discharges to impaired waters\* |  |  |  |  |  |  |
| 6-6 Track projects that disconnect DCIA (Ongoing) |  |  |  |  |  |  |
| 6-7 Implement infrastructure repair/rehab program (Due 7/1/21) |  |  |  |  |  |  |
| 6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/20) |  |  |  |  |  |  |
| 6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22) |  |  |  |  |  |  |
| 6-10 Develop/implement street sweeping program (Ongoing) |  |  |  |  |  |  |
| 6-11 Develop/implement catch basin cleaning program (Ongoing) |  |  |  |  |  |  |
| 6-12 Develop/implement snow management practices (Due 7/1/18) |  |  |  |  |  |  |
| **Example additional BMP:***6-13 Map & Inventory highly erosive areas in town ROW* | *Not started* | *Collect information on eroding areas in ROW from highway maintenance personnel over course of normal operations* | *ID areas contributing large volume of sediment to town waterbodies* | *Highway Dept / A. Bernard* | *Jul 1, 2020* | *Reason for addition:* *Reduce sedimentation of waterways near town ROWs* |

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

|  |
| --- |
|  |

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

|  |
| --- |
| **Metrics** |
| Employee training provided for key staff  | (y/n) / date(s) |
| Street sweeping |  |
|  |  |
| Curb miles swept | miles |
| Volume (or mass) of material collected | lbs or tons  |
| Catch basin cleaning |  |
| Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide) | # |
| Total catch basins town- (or institution-) wide | # |
| Catch basins inspected | # |
| Catch basins cleaned | # |
| Volume (or mass) of material removed from all catch basins | lbs or tons |
| Volume removed from catch basins to impaired waters (if known) | lbs or tons |
| Snow management |  |
| Type(s) of deicing material used |  |
| Total amount of each deicing material applied | lbs or tons |
| Type(s) of deicing equipment used |  |
| Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane) | miles |
| Snow disposal location |  |
| Staff training provided on application methods & equipment | (y/n) / dates(s) |
| Municipal turf management program actions (for permittee properties in basins with N/P impairments) |  |
| Reduction in application of fertilizers (since start of permit) | lbs or % |
| Reduction in turf area (since start of permit) | acres |
| Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems) |  |
| Cost of mitigation actions/retrofits | $ |

* 1. **Catch basin cleaning program**

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

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

|  |
| --- |
| **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)** |
|  |

# Part II: Impaired waters investigation and monitoring

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](http://www.nemo.uconn.edu/ms4).

Nitrogen/ Phosphorus [ ]  Bacteria [ ]  Mercury [ ] [ ]  [ ]  Other Pollutant of Concern [ ]

**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.**  |
|  |

**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)](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? \*** |
| *Ex. 6-3B* |  | *7/30/17* | *Bacteria* | *-* *E. coli 1,000 col/100ml**- T Coliform 600 col/100ml* | *Chemworks* | *Yes* |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

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
* Total Coliform > 500 col/100ml
 |
| Bacteria (salt waterbody) | * Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB
* 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 ID** | **Status of drainage area investigation** | **Control measure to address impairment** |
| *Ex. 1-1B* | *Completed investigation of outfall drainage area – athletic field complex drains into waterbody* | *Reduce fertilizer use on fields and create 50 foot vegetated buffer.* |
|  |  |  |
|  |  |  |

**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)** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

# Part III: Additional IDDE Program Data

# 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** |
| *4011-00-2-R3* | *High Priority*  | *3* |
| *4000-33-2-R2* | *Low Priority* | *10* |
|  |  |  |

1. **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**

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 / Interconnection ID** | **Latitude / Longitude** | **Screening / sample date** | **Ammonia** | **Chlorine** | **Conductivity** | **Salinity** | **E. coli or enterococcus** | **Surfactants** | **Water Temp** | **Pollutant of concern**  | **If required, follow-up actions taken** |
| *6-4A* |  | *3/20/17* | *0.3 mg/l* | *Not detected* | *400 uS/cm* | *0.4 ppt* | *E. coli**200 col/100ml* | *0.2 mg/l* | *15 C* | *n/a* | *No* |
| *6-4B* |  | *3/20/17* | *-* | *-* | *-* | *-* | *-* | *-* | *-* | *-* | *Evidence of prior dry weather flow – raised priority of catchment investigation* |
|  |  |  |  |  |  |  |  |  |  |  |  |

**2.2 Wet weather sample and inspection data**

This sampling data is the baseline wet weather priority catchment investigation sampling. For details on this requirement, visit <https://nemo.uconn.edu/ms4/tasks/monitoring.htm>. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

Provide baseline sample data for outfalls and key junction manholes of any catchment area (all high priority, low priority, and problem outfalls within the priority area) with at least one System Vulnerability Factor. **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 / InterconnectionID | Latitude / Longitude | Sample date | Ammonia  | Chlorine | Conductivity | Salinity | E. coli or Enterococcus | Surfactants | Water Temp | Pollutant of concern |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

1. **Catchment Investigation data** (Appendix B (A)(7)(e) / page 9)

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 green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

**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 |
| *1-1C* | *Mill River* | *1, 3, 5, 6, 8* |
|  |  |  |
|  |  |  |

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**

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 ManholeID | Latitude / Longitude | Screening / Sample date | Visual/ olfactory evidence of illicit discharge | Ammonia  | Chlorine | Surfactants |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**3.3 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.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| OutfallID | Latitude / Longitude | 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 |
| Print name: | Print name: |
| Signature / Date: | Signature / Date: |
| Email:  | Email: |