



2022 Annual Report

Municipal Separate Storm Sewer System

KILLINGLY, CT

Prepared by

**TOWN OF KILLINGLY
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April 1, 2022

MS4 General Permit
Town of Killingly 2022 Annual Report
New MS4 Permittee
Permit Number GSM 201703135
January 1, 2022 – December 31, 2022
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This report documents the Town of Killingly's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2022 to December 31, 2022.

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	Continue to procure relevant stormwater content related to animal waste, septic care, and improper disposal of household waste & chemicals	Web resources as well as pamphlets & handouts	Information available on Town's Engineering website and Town Hall	Website & Town Hall visitors	Started July 1, 2019, continue to update existing library and post to website as new material becomes available	Engineering	
1-2 Address education/outreach for pollutants of concern	Same as above, continue general education	Web resources as well as pamphlets & handouts	Information available on Town's Engineering website and Town Hall			Planning	
1-3 Integrate water quality into school curriculum	None	None		Students; 500	Continue to coordinate with school officials to determine feasibility of program	Planning	Reason for addition: Extend public education program to schools

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

- Additional fact sheet and stormwater quality education materials will be made available to the public on the Town's website and/or at Town gathering places
- Continue to post educational info to Town website

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	Complete	Continued availability of Stormwater Management Plan	Continue availability of Stormwater Management Plan	Engineering	4/3/2017	Stormwater Management Plan	
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	Complete	Update & post annual report	Update & post annual report	Engineering	2/15/2020	2020 Draft Annual Report	
2-3 Promote community stormwater management efforts & more town wide clean-up days	In progress	Held a hazardous waste clean up day to promote proper disposal of household chemicals, held a clean up day at the baseball fields at 31 Wauregan Road (directly adjacent to Quinebaug River)	Schedule more town wide clean ups	Planning/Economic Development	Summer 2022	Clean-up day information will continue to be posted to Town website & Facebook page as they are scheduled in the future	

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

- Earth Day Clean Up & Wildflower Planting Day – April 21st 2023 at the Killingly Industrial Park
- Continue community outreach and involvement

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)	Complete	Town has completed written plan of IDDE program	Implement IDDE Plan	Town Manager	Completed Nov, 2020	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20)	Complete	Town has compiled a list as well as mapped all MS4 stormwater outfalls in priority areas	Update mapping & outfall list as necessary	Planning/DPW	Completed Oct, 2020	
3-3 Implement citizen reporting program (Ongoing)	Ongoing	Received & acted on citizen complaints as received	Track citizen reports/complaints	Engineering	Completed 7/1/2017 Revised 3/15/2021	Currently review and act on any complaints as received. The Town has contact information on Town's website to file complaints or reports
3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19)	Complete	Developed ordinance & regulations for compliance with current MS4 regulations	Enforce regulations & legal authority as necessary	Town Manager	Completed Sept, 2020	

3-5 Develop record keeping system for IDDE tracking (Due 7/1/17)	Complete	Created a section in the IPS software to track IDDE	Enter all reported IDDE	Planning	Completed Jul 1, 2017	Revised Summer 2022
3-6 Address IDDE in areas with pollutants of concern	In Progress	Investigate complaints or observations from town staff. Also use outfall screening data to track any IDDE that the town becomes aware of.	Evaluate screening data to determine where to begin catchment investigations	Engineering/Planning	Ongoing	7/1/2023

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

- Maintain master IDDE tracking on IPS and ensure all employees involved in IDDE program understand the logging process
- Enforce IDDE ordinance as necessary
- Begin catchment investigations and detect/eliminate point sources of illicit discharge

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 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 (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)
460 Putnam Pike	2/17/2013	N/A	200 Gallons	Grease & Wipes	Jetted Line Clean	
31 Wauregan Road (WPCA Facility)	4/7/2013	N/A	200 Gallons	Bio-tower bar rack blocked	Cleaned Bar Rack	
31 Wauregan Road (WPCA Facility)	12/4/2013	N/A	100 Gallons	Sludge Spilling in parking lot	Shoveled, Vacuumed, & Washed	
Main St (RT 12 & Morin Ave)	12/12/2013	N/A	50 Gallons	Grease, Roots, an rags blocking line	Jetted Line Clean	
51 Adelaide St	1/3/2014	N/A	100 Gallons	Rags Blocking Line	Jetted Line Clean	

Morin Ave	9/4/2015	N/A	50 Gallons	Roots Blocking Line	Cut Roots & Jetted Line Clean
99 Morin Ave	9/14/2015	N/A	50 Gallons	Roots Blocking Line	Cut roots and jetted line clean
137 Woodward St	1/15/2016	Davis Brook/Five Mile River	2000 Gallons	Heavy Grit & Grease Blocking Line	Jetted Line, Town laer had the line vacuumed, jetted and video inspected
Cat Hollow	5/13/2016	N/A	100 Gallons	Roots and Cloth blocking line in manhole	Removed blockage, jetted line and made small earth dam by shovel to contain overflow
31 Wauregan Rd (WPCA Facility)	2/17/2016	N/A	200 Gallons	Slought solids at trickling filter	Cleaned bar rack
31 Wauregan Rd (WPCA Facility)	3/25/2016	N/A	800 Gallons	Trickling filter	Cleaned bar rack
31 Wauregan Rd (WPCA Facility)	3/25/2016	N/A	4500 Gallons	Trickling filter broke media and blocked rack	Fixed issue that caused overflow and spread lime on fields to neutralize
31 Wauregan Rd (WPCA Facility)	7/20/2016	N/A	<1 Gallon	Trickling Filter Wall Seams	Contracted a company to repair seams
2 Mill Rd	9/10/2019	N/A	51-5000 Gallons	Roots Blocking Line	Jetted line clean
105 Pineville Rd	9/13/2021	Five Mile river		Failing septic system	Approached the property owner about the possibility of an illicit discharge. The property owner already had plans to correct the failing system & did so shortly after. The discharge ceased after septic work
237 Ballouville Rd	9/8/2021	N/A		Grease or oil discharge to catch basin	Town staff identified a questionable catch basin that had signs of grease/oil on the grate. Sent property owner a letter regarding suspected situation and received no response
98 Breakneck Hill Rd	9/13/2021	N/A		Possible discharge to Town catch basin	Town staff identified a sewer smell in a catch basin in front of a residence. We dye tested the home to identify an illicit connection. Investigation was inconclusive

44 Corinne St	9/22/2021	N/A	Possible Discharge to Town catch basin	Town staff identified a soapy discharge in a catch basin in front of a residence. We dye tested the residence and identified a sink and washing machine connected directly to the catch basin. A letter was sent to rectify the situation. Will continue to monitor as necessary
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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
NEDDH typically handles septic failures	See above	Town staff will continue to look for signs of failing systems during yearly catch basin cleaning and continue to collaborate efforts to remedy the problems discovered	See above	
Citizen Reports	See Above	Town staff work with residents with failing septic systems to facilitate connection to the Town's Sanitary Sewer system		

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

- Citizens can report on "SeeClickFix", by phone, by email, or walk-in.
- Town staff tracks illicit discharge in the town IPS software. Engineering, Wetlands, Zoning and Public Works Departments all investigate in the field as well as observe during routine site inspections.
- The most effective method of reporting illicit discharges is the Town Highway Department staff reporting to the engineering office as they make discoveries. The highway department staff cleans all Town owned catch basins over the course of a year. The highway department staff has been trained to identify illicit discharges and have done a great job communicating with engineering when they identify something.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	~115
Estimated or actual number of interconnections	Mapping Complete, no interconnections found
Outfall mapping complete	Estimated 99%

Interconnection mapping complete	Estimated 75%
System-wide mapping complete (detailed MS4 infrastructure)	75% Complete, mapping updated as needed
Outfall assessment and priority ranking	70%
Dry weather screening of all High and Low priority outfalls complete	0
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

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).

Within the Town Hall, Engineering, Planning & Zoning, as well as the Town Manager are well aware of the dangers of illicit discharges. These staff will continue to be trained as new pertinent information becomes available.

The public works staff are instrumental in identifying illicit discharges around Town. Due to the nature of their jobs and the amount of time they spend cleaning & inspecting drainage structures, the public works staff are a key part of IDDE for the Town of Killingly.

As new information becomes available, or as new staff are added to the public works crew, they will be trained on the importance of identifying illicit discharges. The catch basin cleaning crew also has direct contact information to the engineering department, who is the responsible party for carrying out investigation and correction of any possible issues.

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

4.1 BMP Summary

BMP	Status (Complete, 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)	Complete	Article V Section 590 of the Killingly Town zoning regulations requires the submission of an E & S plan for all projects with earth disturbance greater than ½ acre	Continue to review all applications	Town Manager	Completed 7/1/2020	
4-2 Develop/implement plan for interdepartmental coordination in site plan review and approval (Ongoing)	In progress	All applications are reviewed by staff for stormwater quality	Review all applications	Engineering/Planning	Ongoing	Both Planning & Zoning as well as Engineering will continue to review all new applications to ensure compliance with Town's SWP
4-3 Review site plans for stormwater quality concerns (Ongoing)	In progress	All applications received are reviewed by staff for Stormwater quality according to Article IV Section 470	Review all applications	Engineering/Planning	Ongoing	Both Planning & Zoning as well as Engineering will continue to review all new applications to ensure compliance with Town's SWP
4-4 Conduct site inspections (Ongoing)	In Progress	Regular site inspections are conducted, and documented in MS4 section of IPS	Site-inspections weekly or as needed	Engineering/Planning	Ongoing	Planning & Zoning ensure compliance on the site interior of the property line & Engineering ensures compliance from the property line to the street (ensure all sediment stays on site)
4-5 Implement procedure to allow public comment on site development (Ongoing)	In Progress	Public hearings are held for most applications	Continue to follow existing regulations	Planning	Ongoing	

4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	In Progress	Applicants are notified upon submitting applications	Continue to follow existing regulations	Planning	Ongoing	
4-7 Develop stormwater compliance write-ups for every new application	In progress	In the plan review process record concerns and compliance to Stormwater quality	Standardize plan review	Planning	Completed 7/1/2020	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.

Inform developers what is required/expected for E&S control during the review process as well as handing out E&S control procedures. Develop Stormwater compliance writeups/Stormwater compliance checklist for every new application. Continue to do regular site visits early in the project to ensure developers understand the importance of E&S controls

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)	Ongoing	Evaluation of existing regulations for compliance to LID measures	Incorporate sample LID measures into town's engineering design manual or zoning regulations.	Engineering/Planning/ Town Manger	Ongoing	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22)	Ongoing	Inspection of construction sites and communication with site contractors	Continued enforcement of zoning regulations as stated in Article V, Section 570.5.5 Storm Drainage	Engineering/Planning	Ongoing	

5-3 Identify retention and detention ponds in priority areas (Due 7/1/20)	Complete	Town has developed a list of retention and detention ponds and mapped them in GIS	Continue maintenance procedures as necessary (mowing, structure inspection, trash removal)	DPW	7/1/2020	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing)	Ongoing	All catch basins are cleaned annually, detention ponds are cleaned and mowed as needed	Complete list of structures & develop a written maintenance plan	DPW	Complete 7/1/2022	Public works staff keep written logs of all catch basins cleaned as well as invert measurements and condition reports
5-5 DCIA mapping (Due 7/1/20)	Complete	Created town-wide GIS maps using town impervious cover data from UCONN CLEAR	Calculate impervious cover to each outfall	Engineering/Planning	Completed 10/1/2020	
5-6 Address post-construction issues in areas with pollutants of concern	In Progress	Review projects before, during, and after construction Continue inspections and make corrections or suggestions as required by zoning regulations		Engineering/Planning	Not specified	Town reviews projects before, during, and after construction. Projects are not approved until stabilized to the satisfaction of the town. Cash bonds are secured if work not completed to satisfaction of town or released upon completion of work

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

Draft a written maintenance plan and record keeping maintaining highest priority retention ponds with Town crews.

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)	4331.62 acres
DCIA disconnected (redevelopment plus retrofits)	2 acres this year / acres total

Retrofit projects completed	2
DCIA disconnected	% this year / % total since 2012
Estimated cost of retrofits	Unknown
Detention or retention ponds identified	All 13 in Town Identified

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

Utilized CT NEMO/CLEAR impervious land cover data to determine basins greater than or equal to 11% impervious cover as well as urbanized areas. Also using spreadsheet template from NEMO to track DCIA.

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)	Not Started		Create or find a training program for Town staff that incorporates MS4 topics	Town Manager	Late anticipate completing by the July 1, 2020	
6-2 Implement MS4 property and operations maintenance (Ongoing)	In Progress	Continue cleaning catch basins, sweeping, and general housekeeping of town facilities	Maintain Town owned MS4 facilities and map them	DPW	Ongoing beginning Jul 1, 2018	
6-3 Implement coordination with interconnected MS4s	In Progress	The Town has begun its mapping efforts to help identify interconnections – none have been identified as of yet	Coordinate with DOT regarding stormwater management program activities associated with adjacent MS4's	Engineering/DPW	Not specified	Town will coordinate with interconnected MS4's as necessary

6-4 Develop/implement program to control other sources of pollutants to the MS4	Not Started		Program will be developed and implemented as necessary	Engineering/Planning	Not specified	
6-5 Evaluate additional measures for discharges to impaired waters*	Not Started		Discharges will be evaluated as necessary	Engineering/Planning	Not specified	
6-6 Track projects that disconnect DCIA (Ongoing)	In progress	Use template DCIA spreadsheet from NEMO	Continue to track DCIA	Engineering/DPW/Planning	Ongoing	
6-7 Implement infrastructure repair/rehab program (Due 7/1/21)	Complete	DPW currently does this on an as needed basis, repairs performed via complaints and inspections	Formed a Record keeping system, using GIS and spreadsheet Continue to track rehab/repairs	DPW/Engineering	Completed 7/1/2021	
6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/20)	In Progress	Review and prioritize upcoming town owned road projects for feasibility of disconnection or retrofits	Track total acreage of DCIA that is disconnected annually as a result of redevelopment or retrofits	Engineering/Planning	7/1/2020	Continue to keep track of proposed & completed retrofit projects
6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22)	Ongoing	Continue to look for locations ideal for disconnections via site plan review according to Town Zoning Regulations (Section 530.6)	Continue to look for disconnect	Engineering/Planning	Zoning regulations modified in 2020 to review all site plans and applications for disconnection opportunities	

6-10 Develop/implement street sweeping program (Ongoing)	In progress	DPW currently does this and sweeps all roads 2 times a year	Form a record keeping system of roads swept and quantity of aterial picked up	DPW	Ongoing beginning Jul 1, 2018
6-11 Develop/implement catch basin cleaning program (Ongoing)	In progress	DPW currently does this and cleans all catch basins once a year	Form a record keeping system of catch basins cleaned and quantity of material picked up	DPW	Ongoing beginning Jul 1, 2020
6-12 Develop/implement snow management practices (Due 7/1/18)	In progress	Currently have a written Snow/Ice removal plan	Update the record keeping system of quantity of material used	DPW	Ongoing beginning Jul 1, 2018
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	DPW	Jul 1, 2020

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

6.1 BMP Summary

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

The town is looking into the feasibility of cleaning up visible bulky waste from the landfill property at 246 Brickhouse Road. There are several sites where visible bulky waste (scrap metal, plastics, tires, decomposed wood, etc) can be found outside of the current landfill. Considering the site borders Quanduck Brook, removing the rubbish could potentially improve the surface quality downstream of the site.

For this upcoming reporting year, we would like to test the efficacy of using curb inlet infiltration systems/dry wells as well as tree box filters to mitigate the amount of pollutants that are conveyed to the Quinebaug & Five Mile Rivers in highly connected areas. With good results, the town would like to implement these methods whenever possible moving forward in order to make an effort to disconnect 1% of DCIA annually.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics

Employee training provided for key staff	FY 2020/2021
Street sweeping	
Curb miles swept	245 miles
Volume (or mass) of material collected	Unknown
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	~1,800
Total catch basins town- (or institution-) wide	~3,250
Catch basins inspected	TBA
Catch basins cleaned	~1,000
Volume (or mass) of material removed from all catch basins	~400 CY
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Salt
Total amount of each deicing material applied	-18-19
Type(s) of deicing equipment used	Truck Spreaders
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	265 miles
Snow disposal location	80 Edwardson St
Staff training provided on application methods & equipment	(Y) 12/10/2022
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	0
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	\$0.0

6.4 Catch basin cleaning program

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

This is the second year having the two designated positions for catch basin cleaning. It continues to work well for documenting catch basins that need repairs/replacement. We will continue to work with the crew to provide better documentation of catch basins cleaned and volumes removed.

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)

The retrofit identification and prioritization process should begin by looking for disconnection possibilities in areas that are highly connected & also town owned. Considering funding is the town's greatest setback, focusing on high connectivity % on town owned property will allow the town to disconnect the maximum amount of area while also staying within the means of the annual budget. The downtown or "Borough" is responsible for the highest % of impervious cover, meaning this part of town should be prioritized for potential retrofits.

As the Town chooses to tackle certain road projects, each one is assessed for the feasibility of disconnecting the runoff and infiltrating it. Test pits are dug at strategic locations and field percolation tests are conducted to determine the suitability of the soils for infiltration. This is something that we explore on every project possible.

The current scheduled retrofit project is the reconstruction of lower Reynolds Street located in downtown Danielson. Considering Reynolds Street is located basically in the center of Town and adjacent to Davis Park which is the only piece of Town owned property that is completely grass covered, Reynolds Street would be a great place to increase public interest in the implementation of a low impact development practice. The Town plans to build several curb inlets with tree box filters/infiltration systems in order to disconnect roughly 12321.1 square yards, or 0.25 Acres of impervious cover.

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)

In order to achieve the goal of 1% DCIA the town will need to take an aggressive approach when selecting potential projects. As funding will continue to be the town's biggest obstacle, all upcoming construction projects should be reviewed and analyzed by town staff to determine if a retrofit project is a possibility. In future years the budget can be re-assessed to determine the scope of future potential retrofit projects.

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>.

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.

Wet weather outfall sampling was begun in the summer of 2022. Two outfall locations were sampled and the results can be found below.

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. 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? *
CS - 1	-71.88958, 41.79001	6/22/2022	Bacteria	E-Coli: <2419.6 MPN/100ml	Microbac Laboratories	YES
MS-1	-71.88676, 41.80213	6/22/2022	Bacteria	E-Coli: 1299.7 MPN/100ml	Microbac Laboratories	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
CS-1	Re-Sample summer of 2023 to assess e-coli levels	TBD
MS-1	Re-Sample summer of 2023 to assess e-coli levels	TBD

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)
				Still Locating outfalls	

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
Not Started		

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

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. 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
Not Started											

2.2 Wet weather sample and inspection data

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 sample data for outfalls and key junction manholes of any catchment 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 / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
Not Started										

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. 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
	Not Started	

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 Key junction manhole dry weather screening and sampling data

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
Not started						

3.3 Wet weather investigation outfall sampling data

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
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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
Not Started							

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: Alec Ethier

Signature / Date:	Signature / Date: 3/31/2023
Email:	Email: aethier@killinglyct.gov