

MS4 General Permit
Town of KILLINGLY 2017 Annual Report
New MS4 Permittee
Permit Number GSM 201703135
January 1, 2017 – December 31, 2017

This report documents Killingly's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2017 to December 31, 2017.

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-1 Implement public education and outreach	Developing				Jul 1, 2019		
1-2 Address education/ outreach for pollutants of concern*	<i>Developing</i>				Jul 1, 2019		

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

Plan to hold a Public Informational Meeting towards the end of the reporting year.

1.3 Details of activities implemented to educate the community on Stormwater

Program Element/Activity	Audience (and number of people reached)	Topic(s) covered	Pollutant of Concern addressed (if applicable)	Responsible dept. or partner org.

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

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Comply with public notice requirements for the Stormwater Management Plan	Completed	Advertise & Post Stormwater Management Plan	Advertise & Post Stormwater Management Plan	Engineering	Apr 3, 2017	April 3, 2017	
2-2 Comply with public notice requirements for Annual Reports	Completed	Update and post annual report	Update and post annual report	Engineering & Planning	Feb 15, 2018	Feb 15, 2018	
2-3 Establish Stormwater committee	Not Started	In process of determining what would make a good committee for MS4	Layout what the committee would do and help with.	Engineering/Planning	-	Summer 2019	Reason for addition: A condensed number of people who can organize what needs to be done and share information.

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

None planned

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	03/30/17	https://www.killingly.org/sites/killinglyct/files/uploads/signed_ms4_smp.pdf
Availability of Annual Report announced to public	Yes	02/15/18	https://www.killingly.org/engineering-department-facilities-maintenance/pages/2017-ms4-annual-report

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

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-1 Develop written IDDE program	Not Started	Town is in process of completing written IDDE program.	Develop written plan of IDDE program	Engineering/Planning	Jul 1, 2019	Anticipate completing by the deadline of July 1, 2019.	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	Started	Mapping all drainage in Town focusing on priorities	Finish Maps	Engineering/Planning	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020.	
3-3 Implement citizen reporting program	Started	SeeClickFix	Used for citizens to report all issues in Town	Town Managers Office	Jul 1, 2017	July 1, 2017	
3-4 Establish legal authority to prohibit illicit discharges	Not Started				Jul 1, 2019		
3-5 Develop record keeping system for IDDE tracking	Started	IPS	Program used for all property complaints and record keeping	Engineering/Planning	Jul 1, 2017	July 1, 2017.	
3-6 Address IDDE in areas with pollutants of concern	Not Started				Not specified		

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

The written program will be posted to the Town website and a link listed in next year's Annual Report. IDDE reports available upon request, tracked in IPS software

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

Date of Report	Location / suspected source	Response taken
1-17-18	#72 Broad Street/ Roof Drain	Called owner, owner removed drain.

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

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

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

Reported and tracked in IPS

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

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	Unknown
Estimated or actual number of interconnections	Unknown
Outfall mapping complete	20%
Interconnection mapping complete	18%
System-wide mapping complete (detailed MS4 infrastructure)	18%
Outfall assessment and priority ranking	40%
Dry weather screening of all High and Low priority outfalls complete	0
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0

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

Employees involved in IDDE tasks have taken training provided by NEMO an UCONN CLEAR and will continue to do so.

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

4.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	In Progress	Reviewing draft ordinances/regulations	Write draft ordinance	Engineering/Planning	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020.	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	In Progress	All applications are reviewed by staff	Review all applications	Engineering/Planning	Jul 1, 2017	Preexisting requirement	
4-3 Review site plans for Stormwater quality concerns	In Progress	All applications received are reviewed for Stormwater quality	Review all applications	Engineering/Planning	Jul 1, 2017	Preexisting requirement	
4-4 Conduct site inspections	In Progress	Regular site inspections are conducted	Site-inspections weekly or as needed	Engineering/Planning	Jul 1, 2017	Preexisting requirement	
4-5 Implement procedure to allow public comment on site development	In Progress	Public hearings are held for most applications	Continue to follow existing regulations	Planning	Jul 1, 2017	Preexisting requirement	
4-6 Implement procedure to notify developers about DEEP construction Stormwater permit	In Progress	Applicants are notified upon submitting applications	Continue to follow existing procedures	Planning	Jul 1, 2017	Preexisting requirement	

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

Continue to monitor construction sites per existing regulations.

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

5.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Not Started			Engineering/Planning	Jul 1, 2022	Anticipate completing by the deadline of July 1, 2022.	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Not Started			Engineering/Planning	Jul 1, 2022	Anticipate completing by the deadline of July 1, 2022.	
5-3 Identify retention and detention ponds in priority areas	Not Started Officially	Town knows location of most detention ponds in priority areas	Find and map them all	Engineering/DPW/Planning	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020.	
5-4 Implement long-term maintenance plan for Stormwater basins and treatment structures	Not Started Officially	All catch basins are cleaned annually, detention ponds cleaned as needed	Draft a maintenance plan and record keeping	Engineering/Planning	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020.	
5-5 DCIA mapping	Started	Creating town-wide GIS and AutoCAD maps	Finalize and add layer to public GIS on Town website	Engineering/Planning	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020.	

5-6 Address post-construction issues in areas with pollutants of concern	Not Started	N/A	N/A	Engineering/Planning	Not specified	Not specified	

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

Draft a maintenance plan and record keeping to maintain highest priority retention ponds with Town crews.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	7,167.91 acres
DCIA disconnected (redevelopment plus retrofits)	0 acres this year / 0 acres total
Retrofits completed	0
DCIA disconnected	0% this year / 0% total since 2012
Estimated cost of retrofits	Unknown
Detention or retention ponds identified	7 this year /7 total

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

Utilized CT NEMO/CLEAR impervious land cover mapping to determine basins greater than or equal to 11% impervious coverage and urban areas.

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

6.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-1 Develop/implement formal employee training program	Not Started				Jul 1, 2019	Anticipate completing by the deadline of July 1, 2019.	
6-2 Implement MS4 property and operations maintenance	Not Started				Jul 1, 2018	Anticipate completing by the deadline of July 1, 2018.	
6-3 Implement coordination with interconnected MS4s	Not Started				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	Not Started	None	Go back and track all projects that disconnect DCIA		Jul 1, 2017		
6-7 Implement infrastructure repair/rehab program	Not Started Officially	DPW currently does this on an as needed basis	From a Record keeping system. Continue to perform rehab/repairs	DPW/Engineering	Jul 1, 2021	Anticipate completing by the deadline of July 1, 2021.	

6-8 Develop/implement plan to identify/prioritize retrofit projects	Not Started			Engineering/Planning	Jul 1, 2020		
6-9 Implement retrofit projects to disconnect 2% of DCIA	Not Started		Will need to change planning and zoning regulations	Engineering/Planning	Jul 1, 2022		
6-10 Develop/implement street sweeping program	Started	DPW currently does this and sweeps all roads 1-2 times a year	Form a record keeping system of roads swept and quantity of material picked up	DPW/Engineering	Jul 1, 2018	Anticipate completing by the deadline of July 1, 2018.	
6-11 Develop/implement catch basin cleaning program	Started	DPW currently does this and cleans all catch basins 1 times a year	Form a record keeping system of catch basins cleaned and quantity of material picked up	DPW/Engineering	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020.	
6-12 Develop/implement snow management practices			Draft a Snow Removal Management plan like larger towns.	DPW/Engineering	Jul 1, 2018	Anticipate completing by the deadline of July 1, 2018.	

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

Unknown

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	NEMO & CLEAR
Street sweeping	
Curb miles swept	245 miles
Volume (or mass) of material collected	1,900 cy estimated
Catch basin cleaning	
Total catch basins in priority areas	1,859
Total catch basins in MS4	3,248
Catch basins inspected	Unknown
Catch basins cleaned	1,500 estimated
Volume (or mass) of material removed from all catch basins	500 cy estimated
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Salt, Sand
Total amount of each deicing material applied	2,140 Tons Salt, 4,280 Tons Sand
Type(s) of deicing equipment used	Spreaders
Lane-miles treated	265 miles
Snow disposal location	80 Edwardson St
Staff training provided on application methods & equipment	no
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	None
Reduction in application of fertilizers (since start of permit)	None
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

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule. [Complete this section for the 2017 Annual Report only]
Created two positions within the DPW that are responsible for the cleaning of all the catch basins. By creating these positions it will provide consistency on cleaning patterns as well as inspections.

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. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

Not Started.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

Not Started.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

Not Started.

Part II: Impaired waters investigation and monitoring [This section required beginning with 2019 Annual Report]

1. Impaired waters investigation and monitoring program

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

Nitrogen/ Phosphorus ☐ Bacteria ☐ Mercury ☐ 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.

None yet, currently locating outfalls to the impaired waters.

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

2.1 Screening data collected under 2017 permit

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

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

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

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall	Status of drainage area investigation	Control measure implementation to address impairment
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4. Prioritized outfall monitoring (Section 6(i)(1)(D) / page 43)

Once outfall screening has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021.

Outfall	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
			Still Locating Outfalls	

Part III: Additional IDDE Program Data [[This section required beginning with 2019 Annual Report](#)]

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

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies.

Outfall / Interconnection ID	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

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

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

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

3.1 System Vulnerability Factor Summary

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

Outfall ID	Receiving Water	System Vulnerability Factors
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

Key Junction Manhole ID	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants
Not Started					

3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants
Not Started				

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: Sean Hendricks	Print name: David Capacchione
Signature / Date:	Signature / Date: