

MS4 General Permit
Town of Branford 2017 Annual Report
Existing MS4 Permittee
Permit Number GSM 000068
[January 1, 2017 – December 31, 2017]
March 16, 2018

This report documents Town of Branford’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	In progress	Handouts in Town Hall and info on website regarding hazardous materials storage & disposal. Info at annual Branford Festival. Assist with Branford River Clean-up day.	Educate the public on stormwater quality and management	Solid Waste Manager	Jul 1, 2018	Ongoing	
1-2 Address education/ outreach for pollutants of concern*	In planning stage	Work with the school system to include storm water management in their curriculum and ways to improve water quality	Educate students about water quality & pollutants	Solid Waste Manager	Jul 1, 2018	Meeting planned with Middle School Science Coordinator	
1-3 Septic System Maintenance	In progress	The Town runs a low cost pump out service for non-sewered areas of town and also provides information to health district if inspections of systems show problems	Reduce nitrogen discharge from septic systems	East Shore Health Department	Jul 1, 2018	The pump out program is ongoing, health department is working on system to track all septic system pump outs, even with private vendors	

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

As described above, addition of storm water management and water quality into the middle school curriculum is being explored.

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.
Brochures at Inland Wetlands Office and Solid Waste Management about Best Management Practices	Developers and homeowners (approx. 200 people)	Impact of impervious cover, Septic systems & Fertilizer use	Bacteria, nitrogen and phosphorus	Solid Waste Management and Inland Wetlands Department

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	complete	Stormwater Management Plan was posted on Town Website on 3/31/17	Public Notice	Town Engineer	Apr 3, 2017	3/31/17	
2-2 Comply with public notice requirements for Annual Reports	complete	Draft Annual Report was posted on Town Website on 2/15/18	Public Notice		Feb 15, 2018	February 15, 2018	

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.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	3/31/17	Town website/engineer page
Availability of Annual Report announced to public	Yes	2/15/18	Town website/engineer page

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	In progress	Town is in process of completing written IDDE program using the CT IDDE program template & hiring consultant	Develop written plan of IDDE program	Town Engineer	Jul 1, 2018	Anticipate completing by the deadline of July 1, 2018.	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas					Jul 1, 2019		
3-3 Implement citizen reporting program	In progress	Town receives complaints via online reporting to DPW, calls are logged into this system	Develop reporting program	Town Engineer & DPW	Jul 1, 2017		
3-4 Establish legal authority to prohibit illicit discharges					Jul 1, 2018		
3-5 Develop record keeping system for IDDE tracking	In progress	Town receives complaints via online reporting to DPW, calls are logged into this system	Develop reporting program	Town Engineer & DPW	Jul 1, 2017		
3-6 Address IDDE in areas with pollutants of concern					Not specified		

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

The written program will be posted to the Engineering Department 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 List of citizen reports of suspected illicit discharges received during this reporting period.

Date of Report	Location / suspected source	Response taken

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

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

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

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	#
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	%

3.8 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).

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					Jul 1, 2019		
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	In progress	Mult-department site plan review meetings occur monthly		Town Planner	Jul 1, 2017		
4-3 Review site plans for stormwater quality concerns	In progress	Mult-department site plan review meetings occur monthly		Town Planner	Jul 1, 2017		
4-4 Conduct site inspections	In progress	ZEO and IWEO conduct regular site inspections		ZEO and IWEO	Jul 1, 2017		
4-5 Implement procedure to allow public comment on site development	In progress	Special Exceptions have public hearing requirements		Town Planner	Jul 1, 2017		
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	In progress	Developing handout for applicants		Town Planner	Jul 1, 2017		

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	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					Jul 1, 2021		
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects					Jul 1, 2019		
5-3 Identify retention and detention ponds in priority areas					Jul 1, 2019		
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures					Jul 1, 2019		
5-5 DCIA mapping					Jul 1, 2020		
5-6 Address post-construction issues in areas with pollutants of concern					Not specified		

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

Have DPW or property owners maintain highest priority retention ponds.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	acres
DCIA disconnected (redevelopment plus retrofits)	acres this year / acres total
Retrofits 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	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	complete	Industrial Activity & MS4 Pollution prevention/good housekeeping training of staff by Fuss & O'Neill May 19,2017	Training staff	Town Engineer	Jul 1, 2017	May 19, 2017	
6-2 Implement MS4 property and operations maintenance					Jul 1, 2018		
6-3 Implement coordination with interconnected MS4s					Not specified		
6-4 Develop/implement program to control other sources of pollutants to the MS4					Not specified		
6-5 Evaluate additional measures for discharges to impaired waters*					Not specified		
6-6 Track projects that disconnect DCIA					Jul 1, 2017		

6-7 Implement infrastructure repair/rehab program					Jul 1, 2021		
6-8 Develop/implement plan to identify/prioritize retrofit projects					Jul 1, 2020		
6-9 Implement retrofit projects to disconnect 2% of DCIA					Jul 1, 2022		
6-10 Develop/implement street sweeping program	ongoing	121 miles of street sweeping completed in 2017, including streets and municipal parking lots	Street Sweeping	DPW	Jul 1, 2017	annually	
6-11 Develop/implement catch basin cleaning program	Ongoing	1,563 catchbasins cleaned in 2017 by an outside contractor	Catchbasin cleaning program	DPW	Jul 1, 2020	annually	Create recording keeping and targeted cleaning program in the future
6-12 Develop/implement snow management practices					Jul 1, 2018		

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

Street sweeping and catchbasin cleaning occur annually.

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	#
Total catch basins in MS4	#
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	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	\$

6.4 Catch basin cleaning program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule. [\[Complete this section for the 2017 Annual Report only\]](#)

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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.]

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.]

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.]

Part II: Impaired waters investigation and monitoring [This section required beginning with 2018 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.

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?

2.2 Credit for screening data collected under 2004 permit

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

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

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

Provide the following information for outfalls exceeding the pollutant threshold.

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

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

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

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

Part III: Additional IDDE Program Data [This section required beginning with 2018 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

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

2.2 Wet weather sample and inspection data

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

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

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

3.1 System Vulnerability Factor Summary

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

Outfall ID	Receiving Water	System Vulnerability Factors

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.
7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.

11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather 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

3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants

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

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

Part IV: Certification

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

Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name: James B. Cosgrove, First Selectman	Print name: Janice A. Plaziak, P.E., Town Engineer
Signature / Date:	Signature / Date: