

2017 Annual Report – MS4 General Permit

City of Milford
Milford, Connecticut

February 2018



Prepared by:



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MS4 General Permit
City of Milford 2017 Annual Report
Existing MS4 Permittee
Permit Number GSM 000037
January 1, 2017 – December 31, 2017

This report documents the City of Milford'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	Not started		Update and maintain City websites to include educational materials.	Stormwater Committee, Public Works	Jul 1, 2018	Anticipate completion by deadline of July 1, 2018.	
	Ongoing	Girl Scout Troop 38305 monitored 6 literature distribution boxes along two pond areas on the Wepawaug River, checking them weekly. Over 1,000 "Don't Feed the Waterfowl" brochures have	Distribute educational materials.			Ongoing	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		been distributed through their effort.					
1-2 Address education/ outreach for pollutants of concern*	Ongoing	Girl Scout "Don't Feed the Waterfowl" education program targets bacteria pollution problems, which is a pollutant of concern for 6 impaired waters in the City.	Select educational materials appropriate for impaired waters and stormwater pollutants of concern	Stormwater Committee, Public Works	Jul 1, 2018	Ongoing	

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

- Initiate outreach on small lawns and native plantings to encourage decreased fertilizer use and enhanced stormwater infiltration.
- Add education and outreach materials to the City website.
- Girl Scouts expected to continue distribution of "Don't Feed the Waterfowl" brochures.

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.
"Don't Feed the Waterfowl" brochures distributed by Girl Scout Troop	Community residents; over 1,000 brochures distributed	Impact of feeding waterfowl on water quality/pollution	Bacteria	Girl Scout Troop 38305
Coastal Certificate program	Master Gardeners, 25 students participated, including 10 from Milford	Environmental issues unique to coastal waters, impacts of nutrient runoff	Nitrogen	City of Milford CT Audubon Society CT Sea Grant
Dune restoration project (outreach project associated with Coastal Certificate program)	Community members, 30 volunteers participated, approx. 100 volunteer hours	Environmental issues unique to coastal waters, impacts of nutrient runoff,	Nitrogen	City of Milford CT Audubon Society CT Sea Grant

		erosion		
Hometown Habitat movie showing	Community residents, 70 attendees	Importance of native plants		City of Milford CT Audubon Society CT Sea Grant
Conservation education participation, including CLCC, CAWS, UConn Native Plant Conference, SALT, CACIWC, LI Sound Nitrogen Meeting attendance	Over 152 education participation hours	Native Plants, Nitrogen runoff, etc.	Nitrogen	Various
Water quality and stormwater public outreach	<ul style="list-style-type: none"> • Senior Center • Milford 7th grade (3 classes) • Milford High School, J. Law – AP Environmental Science (2 classes) 	<ul style="list-style-type: none"> • Conservation History, Past Lessons, Future Choices • Impacts of Human Activities on Biodiversity pilot program • Land Use 		Steve Johnson, Acting Asst. Public Works Director, City of Milford

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 and Annual Reports	Complete	The draft Stormwater Management Plan was made available to the public: <ul style="list-style-type: none"> • An electronic copy was posted on the City's website. 	Make draft Stormwater Management Plan available electronically on the City website and paper	Engineering, Public Works	Apr 3, 2017	April 3, 2017	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
			copies available in the Engineering Offices by April 1, 2017. Publish notice of availability on website or local newspaper.				
	Complete	The final Stormwater Management Plan was made available to the public: <ul style="list-style-type: none"> An electronic copy was posted on the City's website. 	Make final Stormwater Management Plan available electronically on the City website and paper copies available in Engineering Offices.		Jul 1, 2017	May 2017	
	Complete	Notice of annual report posted to City website indicating that draft report will be available for public review beginning February 15, 2018	Make draft annual report available electronically on the City website and paper copies available in Engineering Offices. Publish notice of availability on website(s) or local newspaper.		Feb 15, 2018	Notice posted: Jan 31, 2018	Link to notice appeared on homepage, with full notice at the following URL: http://www.ci.milford.ct.us/home/news/ms4-annual-report-notice

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
	Not started		Make final annual report available electronically on the City website.		Apr 1, 2018	Anticipate completion by the deadline of April 1, 2018.	
2-2 Work with area organizations and groups	Ongoing	Stormwater staff met throughout the reporting period.	Conduct regular meetings of the Milford Stormwater Committee	Engineering, Public Works	—	Ongoing	
	Ongoing	<ul style="list-style-type: none"> • Two CT DEEP Master Wildlife Conservationists volunteered 45 hours during the annual DEEP Geese Banding project. • Milford Land Conservation Trust member, Susan Johnson, volunteered 8 hours on a geese population monitoring survey. • Coastal Wetland Litter clean-up <ul style="list-style-type: none"> ○ MacKenzie's Annual Walnut Beach Litter clean up – 125 people, estimated over 400 volunteer hours plus City 	Work with local organizations (ECC, etc.) to identify public involvement opportunities and assist with plan implementation.	Stormwater Committee		Ongoing	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		<ul style="list-style-type: none"> of Milford support for debris disposal. o Alice G. volunteer , over 20 hours cleaning coastal wetland / tidal areas of litter o Milford Oyster Festival – litter cleanup along Milford Harbor – 20 people, 60 hours to clean-up. · Rain Garden/Garden projects <ul style="list-style-type: none"> o Cheryl, Master Garden Club, 74 hours o Steve Johnson, over 80 hours 					

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

- Participate as a registered community in the Sustainable Connecticut initiative.
- Hold regular meetings that cover stormwater-related topics, such as monthly Multi-Hazard Mitigation Plan Meetings and Inland Wetlands Meetings.
- Work on nine ongoing Coastal Resiliency Projects underway for 2018. Hold related public information and outreach meetings and monthly discussions.
- Submit 2017 Annual Report to DEEP by April 1, 2018.
- Continue to involve the public in annual reporting process
 - o Post notice of 2018 annual report by January 31, 2019
 - o Make draft 2018 report available on the City website

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	yes	May 2017	www.ci.milford.ct.us/home/news
Availability of Annual Report announced to public	yes	January 31, 2018	http://www.ci.milford.ct.us/home/news/ms4-annual-report-notice

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		Prepare IDDE Plan for the City.	Engineering, Public Works	Jul 1, 2018	Anticipated completion by deadline of July 1, 2018	
3-2 Conduct SSO inventory	Complete	Review of records was conducted to determine all SSOs from July 1, 2012 to June 30, 2017.	Review City records to identify any known locations where SSOs have discharged to the MS4 within the previous 5 years (July 1, 2012 – June 30, 2017).	Engineering, Public Works, Wastewater Division	Oct 29, 2017	February 7, 2018	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-3 Develop list and map of all MS4 stormwater outfalls in municipality	Complete	Three new outfalls were identified and mapped.	Update GIS MS4 mapping to include all stormwater outfalls in the municipality.	Engineering, Public Works, GIS	Jul 1, 2019	Dec 31, 2017	
	Not started		Develop a list (database or spreadsheet) including required elements listed on page 24 of 50 of the General Permit for all stormwater outfalls in municipality.			Anticipated completion by deadline of July 1, 2019.	
	Not started.		Update GIS storm system mapping in priority areas to include required elements listed on pages 3 & 4 in Appendix B of the General Permit including catchment delineations.			Jul 1, 2020	Anticipated completion by deadline of July 1, 2020.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-4 Develop citizen reporting program	Complete	Reporting occurs through the City's online service request system.	Continue to use the online comment area on the City's webpage as a citizen reporting 'hotline' and advertise it on the City website and in municipal offices.	Engineering, Public Works	Jul 1, 2017	July 1, 2017	Add reporting options to the system with language directly referencing illicit discharge activities and add a link to the system from the City's Stormwater page in 2018.
3-5 Establish legal authority to prohibit illicit discharges	Not started		Review City's existing ordinance related to illicit discharge and revise, as necessary.	Planning and Zoning	Jul 1, 2018	Anticipated completion by deadline of July 1, 2018	
3-6 Develop record keeping system for IDDE tracking	Complete	The Health, Engineering, and Public Works Departments are responsible for tracking and logging incoming reports and responses.	Develop IDDE tracking recordkeeping system.	Health, Engineering, Public Works	Jul 1, 2017	July 1, 2017	
3-7 Address IDDE in areas with pollutants of concern	Not started		Identify areas with high potential for septic system failure.	Engineering, Public Works	Not specified	Anticipated completion by the end of the permit period.	
3-8 Assess and prepare a priority ranking of catchments	Not started		Classify each catchment into an excluded, problem, high	Engineering, Public Works	Jul 1, 2019 (initial)	Anticipated completion by deadline of July 1, 2019	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
	Not started		Rank catchments within each category (except excluded catchments) based on screening factors found on page 6 & 7 in Appendix B of the General Permit.			Anticipated completion by deadline of July 1, 2019	
3-9 Conduct outfall and interconnection screening and sampling	Not started		Conduct dry weather screening and sampling (where flowing) of every MS4 outfall and interconnection (except for excluded and Problem Catchments).	Engineering, Public Works	Jul 1, 2019	Anticipated completion by deadline of July 1, 2019	
3-10 Conduct catchment investigations and remove illicit discharges	Not started		Evaluate catchments for System Vulnerability Factors and begin catchment	Engineering, Public Works	Jul 1, 2018	Anticipated completion by deadline of July 1, 2018	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
	Not started		investigations. Where System Vulnerability Factors are present, conduct manhole inspections. Isolate and verify sources. Remove identified illicit discharges and conduct confirmatory outfall screening.		Jul 1, 2020	Anticipated completion by deadline of July 1, 2020	

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

- Establish written IDDE program.
- Establish legal authority to prohibit illicit discharges.
- Evaluate catchments for System Vulnerability Factors and begin catchment investigations.
- Add reporting options to the online reporting system with language directly referencing illicit discharge activities and add a link to the system from the City's Stormwater page.
- Continue MS4 mapping.

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

Date of Report	Location / suspected source	Response taken
04/03/2017	50 Wilson Street / Septic failure	Complaint was assigned to Robert Grive, VMD, RS. In progress. On-site inspection with complainant 04/04/17. Warning letter sent to property owner 04/17/17. Owners will be required by ordinance to hook up to city sewer. NOV issued 07/11/17.

05/03/2017	23 Flax Mill Terrace	Complaint was assigned to Paul Scholz, RS. Resolved.
05/12/2017	323 Wheelers Farms Road / Septic failure	Complaint was assigned to Paul Scholz, RS. In progress. Site visit 05/16/17. Phone message left for owner 05/17/17.
05/29/2017	64 Seaside Avenue / Septic failure	Complaint was assigned to Gregory Peters, REHS, MHS. Resolved.
06/14/2017	680 Wheelers Farms Road / Septic failure	Complaint was assigned to Robert Grive, VMD, RS. Resolved. Met with property owner 06/20/17. Coordination with inland wetlands indicates need for a survey of wetlands and watercourses 06/21/2017. Soil tests conducted 08/15/2017. Septic system plans under design, review, and revision 10/17 to 11-17. New septic system installed 01/23/18.
06/21/2017	Merwin Avenue/Mark Street / Unknown	Complaint was assigned to Laura Miller REHS/RS who referred the complaint to the wastewater division on 6/22/17
09/13/2017	Vicinity of 1134 Naugatuck Avenue / Unknown	Complaint was assigned to Tara Mustakos Wassmer REHS/RS, CHES. Site investigation was conducted on 9/15/17; no odor was detected at time of inspection, and no further action taken.
11/15/2017	260 Orange Avenue / Broken sewer line in tunnel under A-Wing of building	Complaint was assigned to Robert Grive, VMD, RS. Site visit was conducted on 11/15/17; no odors were observed. Students were moved to an unaffected wing. Notes indicate that clean up and repair would take place after students and faculty left the building.

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)
89 Bridgeport Avenue	06/12/2012	MS4	Unknown	Sewer leaking at rear of property onto Bridgeport Ave	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Wastewater Department was contacted. Assigned to Gregory Peters. Resolved.	
9 Ellis Street	06/12/2012	MS4	Unknown	Report of possible sewage overflow at property	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Gregory Peters. Resolved.	
1201 Boston Post Road	11/29/2012	Unknown	Unknown	Unknown. Strong sewage odor behind stores and management	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Robert Grive. Resolved.	

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)
				office in vicinity of Target, Foot Locker, and Charlotte Russe.		
7 Cindy Circle	01/16/2013	MS4	Unknown	Pipe coming out of back of home and depositing raw sewage into 10 x 10 hole.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Paul Scholz. Resolved.	
40 Gulf Street	03/01/2013	MS4	Unknown	Unknown. Raw sewage coming up in back yard.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Paul Scholz. Resolved.	
9 Ash Street	07/01/2013	MS4	Unknown	Unknown. Raw sewage in back yard of apartment building serviced by sewer. Tenant reports duration of discharge as 5 months.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Tara Mustakos. Resolved.	
561 New Haven Avenue	07/17/2013	MS4	Unknown	Overflow of sewage outside of Family Mart building.	Reported by Robin Lynch from Engineering and Sewer Commission. Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Robert Grive. Resolved.	
7 Cindy Circle	04/21/2014	MS4	Unknown	Open pit in rear yard; dwelling may/may not be tied into sanitary sewers.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Paul Scholz. Resolved.	
367 Bridgeport Avenue	08/28/2014	Unknown	Unknown	Unknown. Strong sewage odor at Dunkin Donuts.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Robert Grive. Resolved.	

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)
1292 Boston Post Road	09/23/2014	Unknown	Unknown	Unknown. Strong sewage odor at Burger King.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Gregory Peters. Resolved.	
92 E Broadway	09/10/2015	MS4	Unknown	Sewage spill at apartment complex.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Robert Grive. Resolved.	
50 Wilson Street	04/03/2017 Over 1 year	MS4	Unknown	Septic system failure during heavy rain.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Robert Grive. In progress. On-site inspection with complainant 04/04/17. Warning letter sent to property owner 04/17/17. Owners will be required by ordinance to hook up to city sewer. NOV issued 07/11/17.	
23 Flax Mill Terrace	05/03/2017	MS4	Unknown	Report of un-permitted SSDS being installed on property.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Paul Scholz. Resolved.	
323 Wheelers Farms Road	05/12/2017	MS4	Unknown	Septic system failure.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Paul Scholz. In progress. Site visit 05/16/17. Phone message left for owner 05/17/17.	
64 Seaside Ave	05/29/2017	MS4	Unknown	Septic system failure.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Gregory Peters. Resolved.	
680 Wheelers Farms Road	06/14/2017	MS4	Unknown	Septic failure/breakout at rear of property.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Robert Grive. Resolved. Met with property owner 06/20/17. Coordination with inland wetlands indicates need for a survey of	

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)
					wetlands and watercourses 06/21/2017. Soil tests conducted 08/15/2017. Septic system plans under design, review, and revision 10/17 to 11-17. New septic system installed 01/23/18.	
Merwin Avenue/Mark Street	06/21/2017 Two days.	Unknown	Unknown	Report of sewage odor lasting two days.	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Laura Miller. Resolved.	

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

The Health, Engineering and Public Works Departments are responsible for tracking and logging incoming reports and responses. Engineering Department staff track illicit discharge information in the field. The Engineering Department is observant during routine site inspections, which include: Pre-Construction and as-built inspections of curbs, sidewalks, driveway aprons, and sanitary sewer laterals; "Call Before You Dig" mark-outs; site inspections in preparation of Land Use Application (Zoning, ZBA, CAM, IWA) reviews; site inspections in preparation of as-built site plan reviews; performing land surveys.

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
50 Wilson Street	Complaint was assigned to Robert Grive, VMD, RS. In progress. On-site inspection with complainant 04/04/17. Warning letter sent to property owner 04/17/17. Owners will be required by ordinance to hook up to city sewer. NOV issued 07/11/17.	Unknown
680 Wheelers Farms Road	Complaint was assigned to Robert Grive, VMD, RS. Resolved. Met with property owner 06/20/17. Coordination with inland wetlands indicates need for a survey of wetlands and watercourses 06/21/2017. Soil tests conducted 08/15/2017. Septic system plans under design, review, and revision 10/17 to 11-17. New septic system installed 01/23/18.	Unknown
323 Wheelers Farms Road	Complaint was assigned to Paul Scholz, RS. In progress. Site visit 05/16/17. Phone message left for owner	Unknown

	05/17/17.	
64 Seaside Avenue	Complaint was received by Milford Health Department, investigated and handled by Health Department or referred to appropriate City Agency for follow-up. Assigned to Gregory Peters. Resolved.	Unknown

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	873
Estimated or actual number of interconnections	Not yet mapped/counted
Outfall mapping complete	100%
Interconnection mapping complete	0%
System-wide mapping complete (detailed MS4 infrastructure)	20%
Outfall assessment and priority ranking	0%
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).

<p>Topic-specific trainings are provided annually. In 2017, training included:</p> <ul style="list-style-type: none"> · Spill Response training for Public Works and Wastewater employees · Salt brine spill training for Public Works employees · Training through trade publications, stormwater-related webinars and seminars, and professional meetings · Use of the EPA IDDE Guidance Manual for reference as needed

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	Not started		Review and update, as necessary, existing land use regulations and implementation policies for compliance with the MS4 General Permit construction site stormwater runoff control requirements.	Planning and Zoning, Zoning Enforcement Officers	Jul 1, 2019	Anticipated completion by deadline of July 1, 2019	The City anticipates that only minor review will be needed. Engineering Department will provide assistance with review upon request.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Ongoing	Department of Permitting and Land Use (DPLU) provides copies of applications to Engineering Department for review and comments. Sewer/Health and Inland Wetlands also review and report back.	Implement interdepartmental coordination procedures as described in Section 5.2 of this Plan.	Planning and Zoning, Engineering, Public Works, Inland Wetlands Agency	Jul 1, 2017	Ongoing	
4-3 Review site plans for stormwater quality concerns	Ongoing	· 97 site plans were reviewed by Engineering for stormwater quality concerns. This number includes re-review of previously reviewed site plans which had been	Continue to complete site plan reviews for all projects subject to the land use regulations listed in BMP 4-1.	Planning and Zoning, Engineering, Inland Wetlands Agency	Jul 1, 2017	Ongoing	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		<p>revised in response to prior Engineering Department review comments. Site plans reviewed included plans submitted for Land Use Permits (Zoning, IWA, CAM) and As-built Site Plans submitted for CO and/or bond release.</p> <ul style="list-style-type: none"> Inland Wetlands reviewed 36 site plans for stormwater quality concerns. 					
4-4 Conduct site inspections	Ongoing	<ul style="list-style-type: none"> All properties submitted for Engineering Department review were inspected in the field. Erosion and sedimentation inspections were conducted by Inland Wetlands and/or on-site consultants. 	Continue to conduct inspections and enforcement to assess and ensure the adequacy of the installation, maintenance, operation, and repair of construction and post-construction control measures.	Engineering, Planning and Zoning, Zoning Enforcement Officers, Inland Wetlands Agency	Jul 1, 2017	Ongoing	
4-5 Implement procedure to allow public comment on site development	Complete	No comments received by Engineering Department.	Continue to use the online comment area on the City's webpage as a citizen reporting 'hotline' and advertise it on the City website and in municipal offices.	Planning and Zoning	Jul 1, 2017	July 1, 2017	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Ongoing	Informed developers/contractors of their potential obligations under the DEEP construction general permit.	Continue to inform developers/contractors of their potential obligation to register under the DEEP construction general permit and to provide a copy of the Storm Water Pollution Control Plan to Milford upon request.	Planning and Zoning	Jul 1, 2017	Ongoing	Developing a physical handout or bookmark to give out in 2018.

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

- Continue to implement interdepartmental coordination in plan review, involving DPLU, Engineering, and Inland Wetlands.
- Continue inspections and enforcement of current regulations, review regulations to consider including provisions for controlling construction wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary wastes at the construction site that may cause adverse impacts to water quality.
- Continue to document the number (per permit year) of construction plan submittals, construction startups, and construction inspections and report these numbers in their annual reports.
- Develop a handout or bookmark to give out to inform developers/contractors of obligation to register under the construction general permit.

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		Review and update, as necessary, existing land use regulations and implementation policies (including Engineering	Planning and Zoning, Engineering	Jul 1, 2021	Anticipated completion by deadline of July 1, 2021	Engineering Department standards currently require, as a minimum, zero artificial increase in runoff due to development, based upon 25 year, 6 hour

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
			Division design guidelines) for compliance with the General Permit post-construction stormwater management requirements.				storm.
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Not started		Review and update, as necessary, current regulations to identify, reduce, or eliminate existing regulatory barriers to implementation of LID and runoff reduction practices.	Planning and Zoning, Engineering	Jul 1, 2021	Anticipated completion by deadline of July 1, 2021	
	Ongoing	97 plans were reviewed by Engineering for runoff reduction. None were specifically reviewed for LID. Plans were also reviewed for compliance with DEEP minimum standards for Water Quality Volume ("WQV"), runoff generated by first 1" of rainfall.	Complete plan reviews and ensure compliance for all projects subject to the legal authority and/or guidelines listed in BMP 5-1.		Jul 1, 2019	Ongoing	
5-3 Implement long-term maintenance plan for stormwater basins and treatment structures	In progress	Engineering Department required long term maintenance plans to be provided for larger	Develop a long-term maintenance plan for retention/detention basins and	Planning and Zoning, Engineering	Jul 1, 2019	Anticipated completion by the deadline of July 1, 2019	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		projects (principally commercial, industrial, retail, multi-family, and mixed use).	stormwater treatment structures.				
	Not started		Implement maintenance plan including annual inspection of retention / detention basins and stormwater treatment structures and removal of accumulated sediment and pollutants.	Engineering, DPW		Anticipated completion by the deadline of July 1, 2019	
5-4 Estimate DCIA	Not started		Calculate the Directly Connected Impervious Area (DCIA) of outfall catchment areas using guidance provided by DEEP and UConn CLEAR.	Planning and Zoning, Engineering	Jul 1, 2020	Anticipated completion by the deadline of July 1, 2020	
	Not started		Revise DCIA estimate as development, redevelopment, or retrofit projects effectively add or remove DCIA.		Jul 1, 2021	Anticipated completion by the deadline of July 1, 2021	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-5 Address post-construction issues in areas with pollutants of concern	Not started		Address erosion and sediment problems noted during inspections conducted under BMP 5-3 through the retrofit program developed under BMP 6-7.	Engineering, Public Works	Not specified	Anticipated completion by the end of the permit period	
5-6 Identify retention and detention ponds in priority areas	Not started				Jul 1, 2019	Anticipated completion by the deadline of July 1, 2019	

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

- Begin review and updating of existing land use regulations.
- Begin developing estimates of DCIA.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	Unknown
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	\$0
Detention or retention ponds identified	0 this year / 0 total

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

DCIA will be estimated from high-resolution impervious cover and land use/cover data available from UConn NEMO and empirical equations (Sutherland Equations) relating DCIA and Total Impervious Area (TIA). The DCIA estimates will be developed at the CTDEEP Local Basin scale.

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 Implement employee training program	Ongoing	<ul style="list-style-type: none"> • Engineering provided informal training through trade publications, stormwater-related webinars and seminars, and professional meetings. • All employees of Public Works and Waste Water were trained in Spill Response training in 2017 • Public Works employees attended salt brine spill training. 	Implement training program for City employees, building on the City's current program (see topics listed in Section 7.2)	Public Works	Jul 1, 2017	Ongoing	
6-2 Implement MS4 property and operations maintenance	Ongoing	The City has a city-wide ordinance that no fertilizer is to be used on City fields.	Implement turf/fertilizer management BMPs for parks and open space.	Public Works, Highway/Parks Division	Jul 1, 2018	Ongoing	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
	Not started		Implement pet waste education program and install additional signage, baggies, and disposal receptacles in areas where pet walking is common.	Public Works, Highway/Parks Division		Anticipated completion by the deadline of July 1, 2018	
	Ongoing	The City saw noticeable improvement in waterfowl management due to the implementation of the Girl Scout's "Don't Feed the Waterfowl" campaign.	Implement waterfowl management BMPs in targeted areas.	Public Works, Highway/Parks Division		Ongoing	
	Ongoing	<ul style="list-style-type: none"> DEEP conducted a random inspection of the Public Works Underground Storage Tank System and found everything was in compliance. Public Works has SWPPP and Spill Prevention policies in place. 	Evaluate municipal buildings and facilities for spill prevention and pollution prevention practices and implement additional BMPs as necessary.	Public Works, Engineering		Ongoing	
	Ongoing	<ul style="list-style-type: none"> Fuel station signage at Public Works was updated with proper fueling procedures. Public Works is 	Evaluate and modify, as necessary, municipal vehicle and equipment	Public Works		Ongoing	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
		evaluating the need to increase frequency of parking lot sweeping at the City lot.	parking, fueling, and maintenance practices.				
	Ongoing	Leaf management continued per standard City protocol.	Continue and augment current leaf management program.	Public Works, Highway/Parks Division		Ongoing	
6-3 Coordinate with interconnected MS4s	Not started		Coordinate with neighboring municipalities, institutions, and DOT regarding stormwater management program activities associated with adjacent MS4s.	Public Works, Engineering	Not specified	Anticipated completion by the end of the permit period.	
6-4 Control contribution of pollutants to the MS4 from facilities not authorized under a CTDEEP stormwater permit	Not started		Control through IDDE program, water quality monitoring, the City's illicit discharge ordinance, and targeted education and outreach to commercial, industrial, municipal, institutional facilities	Engineering, Public Works	Not specified	Anticipated completion by the end of the permit period.	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
			owners/operators (see BMP 1-1).				
6-5 Evaluate additional measures for discharges to impaired waters*	Not started		Implement the measures and procedures described in Section 7.2 including those measures to address stormwater pollutants of concern.	Public Works, Engineering	Not specified	Anticipated completion by the end of the permit period	
6-6 Implement infrastructure repair/rehab program	Ongoing	MS4 infrastructure is repaired as needed in a timely manner.	Repair, rehabilitate, or retrofit MS4 infrastructure (e.g., conveyances, structures, outfalls) as needed in a timely manner.	Public Works	Jul 1, 2018	Ongoing	
6-7 Develop and implement retrofit plan	Not started		Develop retrofit plan and list of priority sites.	Engineering	Jul 1, 2020	Anticipated completion by deadline of July 1, 2020	
	Not started		Disconnect 1% per year of Milford's DCIA from the MS4.		Jul 1, 2021	Anticipated completion by deadline of July 1, 2021	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-8 Track projects that disconnect DCIA	Ongoing		Annually track total acreage of DCIA that is disconnected as a result of redevelopment or retrofits (see BMPs 5-4 and 6-7).	Engineering, Planning and Zoning	Jul 1, 2017	Ongoing	
6-9 Implement pavement sweeping program	Ongoing		Continue to inspect and sweep all municipally-owned or – operated streets and parking lots annually in spring following the cessation of winter maintenance activities (i.e., sanding, deicing).	Public Works, Highway/Parks	Jul 1, 2017	Ongoing	
	Ongoing		Evaluate runoff reduction measures such as permeable pavement or other measures to promote sheet flow of stormwater for all new and redeveloped municipal parking lots.	Engineering, Public Works		Ongoing	No new or redeveloped municipal parking lots during the reporting period.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-10 Develop/implement catch basin cleaning program	Not started		Inspect and clean 100% of catch Basins.	Public Works, Highway/Parks	Jul 1, 2020	Anticipated completion by deadline of July 1, 2020	
	Ongoing	Developed plan to prioritize catch basins in areas that directly discharge to impaired waterways and collect inspection and cleaning data that will allow City to gradually build an optimization schedule.	Develop a plan for optimizing catch basin cleaning (i.e., reduced frequency in certain areas) based on inspection findings, such that no catch basin is more than 50% full.		Apr 1, 2018	Ongoing	
6-11 Develop/implement snow management practices	Ongoing		Implement practices for deicing material management and snow and ice control.	Public Works, Highway/Parks	Jul 1, 2018	Ongoing	

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

- Add bag dispensers at the dog park and enhance the fenced dog park area to allow for alternating resting and active fields.
- Continue to utilize green-certified cleaning products.
- Offer ongoing training and refresher courses on spills and maintenance.
- Investigate parks equipment stored at the Academy and evaluate and modify, as necessary, any vehicle and equipment parking, fueling, and maintenance practices.
- Generate a list of municipal facilities with oil storage, etc., and evaluate the need for additional BMPs.
- Continue to evaluate salt alternatives for de-icing.
- For the 2018 calendar year, the City will record the streets swept and the debris tonnage collected for those streets. This will help to identify any high priority areas that

- require additional sweeping.
- The City will inspect catch basins when they are cleaned and document the inspection findings.
 - The City's Public Works department will continue to respond to service requests for street sweeping, clean out storm drains, and other services that are submitted in person, by phone, e-mail, or through our DPW Service Request Form on our City's website, <http://www.ci.milford.ct.us/public-works/webforms/dpw-service-request-form>.
 - City employees and contractors responsible for street sweeping and catch basin cleaning in Milford will review the CT DEEP Guidelines for Municipal Practices for Street Sweepings & Catch Basin Cleanings (http://www.ct.gov/deep/lib/deep/waste_management_and_disposal/solid_waste/street_sweepings.pdf) and acknowledge that they have done that so they are familiar with the Best Management Practices.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	yes
Street sweeping	
Curb miles swept	410 miles
Volume (or mass) of material collected	735 tons
Catch basin cleaning	
Total catch basins in priority areas	Unknown
Total catch basins in MS4	Approx. 8000
Catch basins inspected	798
Catch basins cleaned	798
Volume (or mass) of material removed from all catch basins	350 tons
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	<ul style="list-style-type: none"> • Untreated Salt • Treated Salt (Ice B Gone alcohol by product additives and molasses with green dye to reduce salt usage and lower melting temp) • Liquid Brine solution (CalMag)
Total amount of each deicing material applied	<ul style="list-style-type: none"> • Untreated Salt: 317.59 tons • Treated Salt: 1,783.65 tons • Liquid Brine Solution: 10,502 gallons
Type(s) of deicing equipment used	Salt is dispensed by truck with calibrated spreaders at a concentration of about 50% of what CT DOT uses per lane mile. Brine is applied as a pre-treatment with holding tanks and a dispenser.

Lane-miles treated	Approx. 230 miles
Snow disposal location	If excess snow needs to be removed from roadways, Milford has two locations: <ul style="list-style-type: none"> · Eisenhower Park – Foote Field Parking lot North Street, opposite Kozlowski Road · Eisenhower Park – Lower parking lot from entrance at 780 North Street
Staff training provided on application methods & equipment	yes
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	n/a City does not apply fertilizers, per ordinance
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

6.4 Catch basin cleaning program

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

The City will prioritize catch basin cleaning in the areas that directly discharge to impaired waterways. City will document catch basins cleaned by street and nearby addresses. Each catch basin will be inspected and sediment depth measured or approximated to estimate its capacity. The City will monitor cleaned basins and document cleaning at the 50% level.

The City's Public Works department will continue to respond to service requests for street sweeping, clean out storm drains, and other services that are submitted in person, by phone, e-mail, or through our DPW Service Request Form on our City's website, <http://www.ci.milford.ct.us/public-works/webforms/dpw-service-request-form>.

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

n/a

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

n/a

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

n/a

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

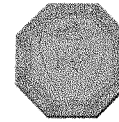
Key Junction Manhole ID	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants

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: <i>Ben Blake</i>	Print name: <i>Steve Johnson / Fuss & O'Neill</i>
Signature / Date: <i>[Signature]</i>	Signature / Date: <i>2-14-18</i>