

MS4 General Permit
Town of Bloomfield 2018 Annual Report
Existing MS4 Permittee
Permit Number GSM 000035
[January 1, 2018 – December 31, 2018]

This report documents Bloomfield's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2018 to December 31, 2018.

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	Ongoing	Information on Illicit Discharge Into the Public Storm Drainage System posted on Town Website with contact information	Educate the public on Illicit Discharge	Engineering	Ongoing	12/28/17	
1-2 Address education/ outreach for pollutants of concern*	In progress	Maintain library of educational materials and distribute to public; periodically evaluate educational materials and update as necessary. Stormwater brochures displayed in lobby of Town Hall and auxiliary buildings.	Educate the public on storm water quality and responsible waste management	Engineering	Ongoing		-DPW continued attending public school events. -DPW Hosted a HHW and used oil collection day (9/8/18) -DPW continued to host the "Public Works Makes It Happen" video on the website.

1-3 Additional measures for disch. Associated with pollutants of concern	Ongoing	Provide links on town website for information on trash/recycling & Hazardous waste collection;	To educate and motivate homeowners to use best management practices which reduce polluted stormwater runoff	Engineering	Ongoing		Bloomfield website & Engineering webpage
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1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.

Educational exhibit in Public Showcase (Second Floor - Town Hall) Engineering Department – August 2019.
Research use of QRcodes to educate at public parks and other environmentally sensitive areas.
Public works personnel to continue involvement at community events as resources permit.

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.
"Public Works Makes It Happen" video posted on town website, Public Works Webpage	General Public	Impact of impervious cover, stormwater quality	Phosphorus, nitrogen	Public Works
Brochures available at Public Works Building (21 Southwood Drive)	General Public	Impact of impervious cover, Septic systems & Fertilizer use	Bacteria, nitrogen and phosphorus	Public Works
Long Island Sound Study brochure available in Town Hall Main Lobby (800 Bloomfield Avenue)	General Public	How urban/suburban runoff makes its way to the sound.	Detergent, animal waste, fertilizers and hydrocarbons	Engineering

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 Continue availability of Final Stormwater Management Plan to the public		Posted Stormwater Management Plan on website	Educate Community on town standards	Engineering	Ongoing		
2-2 Comply with public notice requirements for Annual Reports	Complete	Post draft 2018 Annual Report on website	Community Involvement	Engineering	Feb 15, 2019	2/15/19	

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

Reach out to local environmental groups to enlist involvement in implementing elements of the Stormwater Management Plan.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Y	March 2017	Bloomfieldct.gov Engineering Dept.
Availability of Annual Report announced to public	Y	2/15/19	Bloomfieldct.gov Engineering Dept.

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	Complete	Written IDDE program completed	Develop and implementation of a written IDDE program incorporating requirements presented in Appendix B of the MS4 General Permit	Engineering	Jul 1, 2018	3/1/19	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In progress	Mapping complete. In the process of compiling list of all MS4 stormwater outfalls	Evaluate existing stormwater map contents against MS4 General Permit requirements and update, as necessary. Update stormwater maps as new information becomes available. Maintain and update Town outfall and storm sewer lists.	Engineering	Jul 1, 2019	Anticipate completing by July 1, 2019	
3-3 Implement citizen reporting program	Complete	Illicit Discharge information with reporting contact information available on town website	Evaluate citizen complaint recording process and record documentation of receipt of citizen complaints pertaining to illicit discharge	Engineering	Jul 1, 2017	Dec. 28, 2017	Initial reporting by phone; contact information published on Town website.

3-4 Establish legal authority to prohibit illicit discharges	Complete	Amended Ordinance adopted by Town Council	Incorporate legal authority to prohibit illicit discharges into written IDDE program.	Town Council	Jul 1, 2018	6/25/18	Storm Drainage Ordinance adopted by Town Council
3-5 Develop record keeping system for IDDE tracking	Complete		Develop documentation and implement procedures to track IDDE abatement activities	Engineering	Jul 1, 2018	6/1/18	Procedures outlined in IDDE Program; Spreadsheet created for tracking
3-6 Address IDDE in areas with pollutants of concern	Not started	Wet weather sampling of 6 outfalls performed in April 2018 for E.Coli.	Develop prioritization strategy for pollutants of concern.	Engineering	Not specified	Ongoing	

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

Continue mapping catchment areas and begin outfall monitoring in priority areas.
 Perform opportunistic inspections as appropriate.
 Maintain IDDE tracking spreadsheet.
 Institute training for employees to recognize illicit discharge.
 Written program will be updated as needed throughout the permit term.

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

Date of Report	Location / suspected source	Response taken
No reports in 2018		

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.

SUMMARY OF KNOWN SANITARY SEWER OVERFLOWS (SSO) FROM 1/1/2014 (Reported by MDC)																
Date Discovered	Time Discovered	Time Arrived (crew arrival time)	Address	Building Private Property Back-Up	Structural SSO Regulator	Source of notification	Cause of bypass	Quantity/ Volume (gallons)	Did bypass reach waters of the United States	If rain, Total Rain (inches)	Steps taken to minimize volume and duration of by-pass	Action taken to eliminate by-pass	Steps taken to Prevent Recurrence of by-pass	Was area of by-pass cleaned of debris?	Method used to clean debris	Sewershed (WPCF)
2/28/2014	1:50 PM	3:30 PM	36 Jackson Road		-	Property owner	Grease	3	No	N/A	Sewer crew called to relieve blockage	Sewer crew cleared blockage of main sewer	Regular maintenance of main sewer	Yes	Homeowner	HWPCF
4/27/2014	9:45 AM	9:30 AM	- Walsh Street		-	Resident	Grease	<100	No	N/A	Sewer crew called to relieve blockage	Sewer crew cleared blockage of main sewer	Regular maintenance of main sewer	Yes	MDC cleaned	HWPCF
9/30/2014	10:15 AM	9:50 AM	19 Hill Farm Road		-	Property Owner	Debris	15	No	N/A	Sewer crew called to relieve blockage	Sewer crew cleared blockage of main sewer	Regular maintenance of main sewer	Yes	MDC hired professional cleaner	HWPCF
2/11/2015	8:10 PM	9:20 PM	Opposite 39-41 Wesleyan Terrace	No	N/A	Homeowner	Paper and grease	<100	No	N/A	Sewer crew called to relieve blockage	Sewer crew cleared blockage of main sewer	Regular maintenance of main sewer	Yes	MDC cleaned area	HWPCF
6/29/2015	7:00 PM	7:00 PM	37 Merriam Avenue	Yes	N/A	Homeowner	Grease	<100	No	N/A	Sewer crew called to relieve blockage	Sewer crew cleared blockage of main sewer	Regular maintenance of main sewer	Yes	MDC hired outside contractor	HWPCF
11/21/2015	3:59 PM	4:45 PM	40 Loeffler Road	Yes	N/A	Property Owner	Debris	3000	No	N/A	Sewer crew called to relieve blockage	Sewer crew cleared blockage of main sewer	Regular maintenance of main sewer	Yes	MDC hired outside contractor	HWPCF
12/9/2015	7:10 PM	8:00 PM	25 Mayfair Road	Yes	N/A	Homeowner	Grease	<100	No	N/A	Sewer crew called to relieve blockage	Sewer crew cleared blockage of main sewer	Regular maintenance of main sewer	Yes	Homeowner cleaned area	HWPCF
12/19/2015	3:20 PM	4:45 PM	near 37 Maple Avenue	No	N/A	Bloomfield PD	Grease	100	Yes	N/A	Sewer crew called to relieve blockage	Sewer crew cleared blockage of main sewer	Regular maintenance of main sewer	Yes	MDC cleaned area	HWPCF
1/31/2016	4:45 PM	4:45 PM	12 Claire Lane	Yes	N/A	Plumber	Damaged by outside contractor	350	No	N/A	Sewer crew called to relieve blockage	Sewer crew removed broken manhole cover from main sewer	Replaced broken manhole cover	Yes	MDC hired professional cleaning company	HWPCF
1/23/2017	12:45 PM	12:45 PM	5 & 11 Musket Trail	Yes	N/A	Homeowner	Debris	60	No	N/A	Sewer crew called to relieve blockage	Main sewer flushed by jet truck and stoppage relieved	Regular maintenance of main sewer	Yes	MDC hired professional cleaning company	HWPCF

Reports from MDC: 2018-

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)
132 East Harold St.	12/22/18	No	<100 gallons	Grease blockage/Homeowner	Sewer crew cleared blockage of main sewer 12/22/18	

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

Suspected illicit discharges are to be reported to the Authorized Enforcement Agent. The AE Agent will review and coordinate with the Health District, Building Department and/or MDC as appropriate. Authorized Agent will authorize investigation and follow up to ensure appropriate mitigation.

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
6 Victor Lane: Metal tank collapsed	Health Dept. represents tank replaced.	
950 Mountain Road: Inspection revealed cracked tank and flooded leach fields	Health Dept. represents tank and leach fields replaced.	
51 West Street: Inspection revealed cracked tank and flooded leach fields	Health Dept. represents tank and leach fields replaced.	
24 Hoskins Rd: Failed leach fields	Health Dept. represents tank and fields replaced.	
8 Beman Lane: failed leach fields	Health Dept. represents tank and fields replaced.	
35e Tunxis Ave: failed leach fields	Health Dept. represents as full replacement.	

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	353
Estimated or actual number of interconnections	9
Outfall mapping complete	100%
Interconnection mapping complete	95%
System-wide mapping complete (detailed MS4 infrastructure)	95%
Outfall assessment and priority ranking	2%
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 it is given (minimum once per year).

No training in 2018 as IDDE program was not in place.
We expect to institute a training program for employees for recognizing illicit discharges.

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	Ongoing	Enforced zoning and inland wetland regulations	Require Developers and contractors to be consistent with the 2002 Guidelines for Soil Erosion and Sedimentation Control (as amended), the CT Stormwater Quality Manual, and all CTDEEP stormwater discharge permits	Engineering	Jul 1, 2019	Ongoing	Practice currently in place. Plan to review procedures to improve compliance where necessary.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Complete	Meeting conducted with representatives from Planning & Zoning; IWCC; Engineering and Planning departments to discuss development of new joint stormwater regulations for the town in compliance with MS4 General Permit.	Continue interdepartmental coordination for site plan reviews and approval processes	Engineering	Jul 1, 2017	June 7, 2017/ ongoing	Goal established to update land use regulations (planning and wetlands) by June, 30, 2019
4-3 Review site plans for stormwater quality concerns	Ongoing	Conducted site plan reviews (with land use applications) to ensure consideration of stormwater management and erosion control practices to prevent or minimize impacts to water quality (> 1/2 ac. Disturbance)	Review site plans for stormwater controls or management practices; evaluate and update this process as necessary	Engineering	Jul 1, 2017	July 2017/ Annually	Practice currently in place. Plan to review procedures to improve compliance where necessary.

4-4 Conduct site inspections	In Progress	Site inspections performed throughout construction.	Review and revise, if required, methods to verify applicable construction projects are compliant with municipal and MS4 General Permit requirements through inspection; review and revise, if necessary, inspection documentation and recordkeeping methods.	Engineering	Jul 1, 2017	July 2017/ Annually	Practice currently in place. Plan to review procedures to improve compliance where necessary.
4-5 Implement procedure to allow public comment on site development	In progress	Refining procedure for receipt and investigation of information submitted by the public regarding proposed and ongoing development, and land disturbance activities.	Review and refine, as necessary, procedures to collect, review, and record citizen comment on land disturbance activities	Engineering	Jul 1, 2017	July 2017/ Annually	Historically relied on public comment via phone or from neighbors during site inspections. Plan to provide alternate means on Engineering website.
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	In progress	Developers & contractors were notified of their potential obligation to obtain authorization under DEEP's General Permit for the Discharge of stormwater & Dewatering Wastewaters associated with Construction Activities for projects disturbing >1 acre of land.	Review and refine, if necessary, the process designed to notify developers or contractors of potential obligations to obtain CTDEEP Construction General Permit coverage.	Engineering	Jul 1, 2017	July 2017/ Annually	Practice currently in place. Plan to review procedures to improve compliance where necessary.

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

Review current regulations, update as needed.

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			Review/update regulations to be compliant with MS4 General Permit requirements; update as necessary	Engineering	Jul 1, 2021		
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects			Require developers and/or construction site operators of development/redevelopment projects to consider implementation of runoff reduction/LID measures required by the MS4 General Permit	Engineering and Planning Dept.	Jul 1, 2019	Anticipate completing by July 1, 2019	New LID regulations currently being drafted.
5-3 Identify retention and detention ponds in priority areas	Ongoing		Identify retention and detention ponds under Towns control within priority areas	Engineering	Jul 1, 2019		
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	DPW inspected and cut vegetation, in 13 of 18 town basins. DPW inspected, cleaned and pumped 10 of 42 Town stormwater treatment/sediment structures.	Develop and implement a long-term maintenance plan for retention/detention ponds and other stormwater treatment structures, as applicable	Public Works	Jul 1, 2019		
5-5 DCIA mapping	Not started		Calculate DCIA contributing stormwater runoff to each MS4 outfall. Update calculations as DCIA is added or removed within MS4 area	Engineering	Jul 1, 2020		

5-6 Address post-construction issues in areas with pollutants of concern	Not started		Evaluate outfall screening results and/or observations recorded during maintenance activities. Prioritize and correct identified problems consistent with Retrofit plan under BMP 6-8	Engineering	Not specified		
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5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.

Identify retention and detention ponds in priority areas;
Complete baseline DCIA mapping
Continue water quality sampling of outfalls

5.3 Post-Construction Stormwater Management reporting metrics

Metrics		
Baseline (2012) Directly Connected Impervious Area (DCIA)	UNK – Not implemented	acres
DCIA disconnected (redevelopment plus retrofits)	UNK – Not implemented	acres this year / acres total
Retrofits completed	UNK – Not implemented	#
DCIA disconnected	UNK – Not implemented	% this year / % total since 2012
Estimated cost of retrofits	UNK – Not implemented	
Detention or retention ponds identified	UNK – Not implemented	# this year / # total

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

Available mapping (GIS) will be used to estimate approximate DCIA within identified catchment 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	In progress	New hires/within 1 year: Public Works Academy (Uconn T-2 Center). Trained for proper use, storage and disposal procedures as well as DEEP industrial stormwater general permit and SPCC plan training.	Continue to provide on-the-job training to existing and new staff; review and revise training procedures as necessary	Public Works & Engineering	Jul 1, 2017	July 2017/ Annually	Public Works trains their staff. Engineering will provide training for MS4 Program requirements
6-2 Implement MS4 property and operations maintenance	In progress	(7) Town properties were audited in 2018 to determine if additional environmental compliance actions were required. Town dumpsters were inspected for leaks, and parking lots were swept to minimize potential pollutant runoff. Stockpiles are stored under cover at Public Works Facility. Public Works facility complied with DEEP Industrial Stormwater Permit. Vehicle maintenance performed in garage bays with floor drains-discharge treated by oil/water separators that are routinely inspected and pumped annually.	Identify pollutants of concern on municipal properties and develop a strategy to evaluate and address proper use, storage, and disposal. Provide on the job training to verify that employees understand and implement proper use, storage, and disposal procedures. Evaluate the need for Spill Prevention Plans and develop, if applicable. Develop and implement procedures for waste management equipment, including dumpsters, and plans to sweep parking lots and adjacent facility areas to minimize runoff and pollutants.	Public Works	Jul 1, 2018	July 2018/ Annual Implementation	Environmental Consultant verified interior building floor drains are not connected to the MS4

6-3 Implement coordination with interconnected MS4s	In progress		Identify and coordinate with operators of interconnected MS4s (CTDOT, municipalities, institutions, as applicable) to identify and reduce contribution of pollutants to the MS4	Engineering	Not specified	July 2017/ Annually	
6-4-a Develop/implement program to control other sources of pollutants to the MS4	In progress	Reviewed last published list of DEEP Stormwater general permits, and CT Brownfields Inventory	Conduct annual review of the list of stormwater general permit registrants and identify non-permitted locations that may be contributing pollutants based on screening and monitoring results.	Engineering	Not specified	July 2017/ Annually	
6-5 Evaluate additional measures for discharges to impaired waters*	In progress		Bacteria Specific: Develop, fund (as available), implement, and prioritize a retrofit or source management program to correct problem(s) within a specific timeframe. Prohibit feeding of geese/waterfowl on Town owned lands and implement a program to manage geese-waterfowl populations.	Public Works	Not specified	Annual Implementation (MEP)	DPW reviews retrofit needs annually as part of the capital improvement program, and plans projects appropriately and as funded.
6-6 Track projects that disconnect DCIA	In progress		Development and implementation of a procedure to track DCIA coverage annually	Engineering	Jul 1, 2017	July 2017/ Annually	Spreadsheet being created to track DCIA coverage reduction
6-7 Implement infrastructure repair/rehab program	In progress		Review and refine (if necessary) infrastructure repair/rehab program to be consistent with MS4 General Permit requirements	Public Works	Jul 1, 2021	Implement Annually	DPW reviews retrofit needs annually as part of the capital improvement program, and plans projects appropriately and as funded.
6-8 Develop/implement plan to identify/prioritize retrofit projects	Not started		Develop and implement a retrofit plan	Engineering	Jul 1, 2020	July 2020/ Annual Implementation	

6-9 Implement retrofit projects to disconnect 2% of DCIA	Not started		Implement retrofit projects	Engineering	Jul 1, 2022	July 2022	
6-10 Develop/implement street sweeping program	In progress	In 2018, all streets were swept (220 curb miles) and approximately 200 cy of material was generated	Implement street sweeping and municipal parking lot sweeping within MS4 at least once per year; areas with DCIA >11% or discharging to impaired waters at least once per year; Conduct street sweeping for areas outside the MS4 with DCIA >11% or discharging to impaired waters. Document street sweeping results, including dates of sweeping, curb miles swept, volume of material collected, and method of reuse or disposal.	Public Works	Jul 1, 2017	July 2017/ Annually	Program will continue in 2019
6-11 Develop/implement catch basin cleaning program	In progress	99% of approximately 3,075 total catch basins were visually inspected and cleaned; 110 structures were repaired in 2018; Material collected during cleaning was tested for proper management; they were disposed of at the Windsor Landfill.	Continue routine cleaning of catch basins, track catch basin inspection observations. Development of a catch basin inspection and maintenance plan. Record number of catch basins inspected and/or cleaned, volume of material removed in Annual Reports.	Public Works	Jul 1, 2020	Implement Annually	
6-12 Develop/implement snow management practices	In progress	Per written snow management plan: 220 curb miles were treated with salt and saltwater brine. Town staff were trained on application of salt and brine. In 2018, approximately 2,200 tons of salt were used. No snow needed to be disposed of at a selected location	Review and refine snow and ice control practices and deicing material management	Public Works	Jul 1, 2018	Implement Annually	

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

Engineering Department will be tracking any impervious cover disconnects.

DPW intends to develop a tracking system for fertilizer usage on Town properties and to implement measures to reduce usage, as appropriate.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes – new hires
Street sweeping	
Curb miles swept	220+/- miles
Volume (or mass) of material collected	200+/- cy
Catch basin cleaning	
Total catch basins in priority areas	600+/- (of total)
Total catch basins in MS4	3075 +/-
Catch basins inspected	99%
Catch basins cleaned	99%
Volume (or mass) of material removed from all catch basins	200+/-cy
Volume removed from catch basins to impaired waters (if known)	UNK
Snow management	
Type(s) of deicing material used	Saltwater Brine/Salt
Total amount of each deicing material applied	2200 +/- Tons
Type(s) of deicing equipment used	
Lane-miles treated	110 centerline miles
Snow disposal location	None identified
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)	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	\$ 0

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program

6.5 Retrofit program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project.

The retrofit program is yet to be developed. Program will be identified and reported in 2019 Annual Report as required.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years.

Plans to continue the Retrofit program have yet to be developed. Information will be provided in 2019 Annual Report as required.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years.

Plans to continue Retrofit program beyond this permit term with the goal of 1% disconnection of DCIA annually over 5 years is yet to be developed. Information will be provided in the 2019 Annual Report as required.

Part II: Impaired waters investigation and monitoring

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.

MS4 direct outlets to impaired waters were identified and sampled (wet weather) for bacteria.
5 of 6 outfalls were located off of residential roads. 1 from commercially developed roadway.

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

2.1 Screening data

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?
DDN 38	4/25/18	Bacteria	- E. coli 161 col/100ml - T Coliform >24,200 col/100ml	Phoenix Environmental Laboratories, Inc.	Yes – Total Coliform >500
DDN 21	4/25/18	Bacteria	- E. coli 41 col/100ml - T Coliform 9,210 col/100ml	Phoenix Environmental Laboratories, Inc.	Yes – Total Coliform > 500
DDN 14	4/25/18	Bacteria	- E. coli 305 col/100ml - T Coliform >24,200 col/100ml	Phoenix Environmental Laboratories, Inc.	Yes – Total Coliform > 500
DDN 239	4/25/18	Bacteria	- E. coli 959 col/100ml - T Coliform 8,660 col/100ml	Phoenix Environmental Laboratories, Inc.	Yes – E. coli > 410 Total Coliform > 500
DDN 107	4/25/18	Bacteria	- E. coli 3,080 col/100ml - T Coliform >24,200 col/100ml	Phoenix Environmental Laboratories, Inc.	Yes – E. coli > 410 Total Coliform > 500
DDN 126	4/25/18	Bacteria	- E. coli 279 col/100ml - T Coliform 8,660 col/100ml	Phoenix Environmental Laboratories, Inc.	Yes – Total Coliform > 500

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)
DDN 14	4/25/18	Bacteria	E.Coli (305) / Total (>24,200)	Phoenix Env. Lab.Inc.
DDN 21	4/25/18	Bacteria	E.Coli (41) / Total (9,210)	Phoenix Env. Lab.Inc.
DDN 38	4/25/18	Bacteria	E.Coli (161) / Total (>24,200)	Phoenix Env. Lab.Inc.
DDN 107	4/25/18	Bacteria	E.Coli (3,080) / Total (>24,200)	Phoenix Env. Lab.Inc.
DDN 126	4/25/18	Bacteria	E.Coli (279) / Total (8,660)	Phoenix Env. Lab.Inc.
DDN 239	4/25/18	Bacteria	E.Coli (959) / Total (8,660)	Phoenix Env. Lab.Inc.

Part III: Additional IDDE Program Data

1. Assessment and Priority Ranking of Catchments data (Appendix B (A)(7)(c) / page 5)

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations).

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
4404-00-3-R4 4404-09-2-R1 4404-08-1 4321-00-1	High Priority	

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: Philip K. Schenck, Jr.	Print name: Jonathan Thiesse, P.E.
Signature / Date:	Signature / Date: