

2019 ANNUAL REPORT

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)

Registration No. GSM000082

for

*Town of Southington, CT
75 Main Street
Southington, Connecticut*



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MS4 General Permit
Town of Southington 2019 Annual Report
Existing MS4 Permittee
Permit Number GSM000082
January 1, 2019 – December 31, 2019

Primary MS4 Contact: Jim Grappone, Assistant Town Engineer, 860-276-6231, grapponej@southington.org

This report documents Town of Southington's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2019 to December 31, 2019 (reporting period).

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/ projected	Additional details
1-1 Implement public education and outreach	Ongoing	Continue to develop and update the Town's website (http://www.Southington.org) with pertinent information concerning stormwater/urban runoff and its effects on the environment. Continue to partner with environmental advocacy organizations, such as the Quinnipiac River Association (QRWA), Save the Sound, Southington Land Trust and Open Space Committee.	Number of volunteers/projects	Engineering/James Grappone	Ongoing	Ongoing throughout the General Permit	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed/ projected	Additional details
1-2 Address education/ outreach for pollutants of concern	Complete	Town Clerk handing out brochure on picking up pet waste "Here's The Scoop, Pick Up After Your Pet" to residents. Trout Release in Meriden assisted by QRWA Homeowner's Guide to Maintaining Septic Systems which is produced by the US EPA Terracycle program to collect empty personal care, snack bags, Brita Filters, to ship to a recycler/upcycler collection center	1000 brochures distributed Educate Southington Middle School students on the environment Raise awareness for pollutants of concern Raise recycling awareness	Engineering/Town Clerk John Duffy (PreK-12 Science Curriculum Coordinator) Health Department Southington Land Trust	July 1, 2018 Spring 2018 July 1, 2018 July 1, 2019	Ongoing during 2019	The brochures were sent out with annual registration notices "Do Your Part – Be Septic Smart!" brochure given
1-3 Integrate water quality into school curriculum	In progress	Planning a water unit for Grade 6. Focus on runoff, the difference between point and non-point pollution and the actions that homeowners can take to minimize impacts from runoff.	Educate students on common stormwater topics, pollution prevention, and water quality topics	Engineering/James Grappone/Southington Public Schools/John Duffy	July 1, 2019	Ongoing	In addition, water quality education is incorporated in high school during the school year under the Environmental Science Program

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

- Coordinate with school officials to determine feasibility of program with Quinnipiac River Watershed Association involving environmental educational tours and activities for the high school and elementary school. QRWA does a similar program in Meriden, Cheshire, Wallingford and New Haven schools systems.

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.
Earth Date Clean-up (Annual in April)	General Public	Removal of Debris on the Rails to Trails and Novick's Orchard Open Space.	Litter	Southington Land Trust
Quinnipiac River Clean-up	Land Trust Members and their families	Removal of Debris in the Quinnipiac River	Debris – furniture, pipes, carpets, tarps, computer monitors	QRWA with support from the Southington Land Trust
Terracycle Event	General Public	Recycling	Recycling of packaging and personal care items	Southington Land Trust
Stormwater Management Program website was created	General Public	Implementation of the MS4 General Permit	All	Engineering Department
Links “river pollutants and solutions here” and “Current Threats to the Quinnipiac River” were added to the Stormwater website	General Public	These links provide access to the Quinnipiac River Watershed Association and the Quinnipiac River webpage, which contain information regarding threats and solutions to river pollution.	All	Engineering Department
Links to various stormwater programs were added to the Stormwater website	General Public	All	All	Engineering 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/ projected	Additional details
2-1a Final Stormwater Management Plan publically available	Completed	Completed registration and General Permit for SMP		Public Works/Director	SMP - Apr 3, 2017	May 17, 2017	
2-1b Comply with public notice requirements for Annual Reports	Ongoing	Published public notice		Public Works/Director	Annual Report - Feb 15, 2020 Annual Report Available - Feb 15, 2020	Notice for Annual Report - 8/19/2021 & 10/4/2021 Draft Annual Report Available - 10/4/2021.	

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

- Continue to reach out to local organizations, such as QRWA, Southington Serves, Southington Community Services, Activate Southington, Scout Troops that may want to participate in the review and implementation of the SMP.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to public	Yes	5/17/17	www.southington.org/departments/engineering_department/stormwater_info
Availability of Annual Report announced to public	Yes	2019 Report Announced 8/19/2021 & 10/4/2021	www.southington.org/departments/engineering_department/stormwater_info

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/ projected	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	Develop written plan of IDDE program	Public Works, Planning & Zoning Commission, Conservation Commission/Directors	Jul 1, 2018	Ongoing	The plan will be added as an appendix to the Planning & Zoning Regulations
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	Complete	The list of outfalls to be investigated for all impaired water bodies has been mapped and field verified	Inspect all outfalls	Public Works/Director	Jul 1, 2019	Jul 1, 2019	During the summer of 2018 with the assistance of two interns, the Town did initial screening & evaluation of dry weather flow at 1100 outlet locations
3-3 Implement citizen reporting program	Complete	The Town of Southington's Engineering website encourages citizens to report illicit discharges through a "Report Stormwater and Erosion Complaint" function.	Promote citizen reporting of illicit discharges into the Town's storm drainage systems	Public Works James. A Grappone, P.E.	Jul 1, 2017	April 2018	Complaints are emailed to Public Works/Engineering

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed/ projected	Additional details
3-4 Establish legal authority to prohibit illicit discharges	In progress	The Town has a draft illicit Discharge Ordinance which will be adopted by all major Boards and Commissions	Ordinance adopted and included in Code and Aquifer Protection/Zoning regulations	Town Council, Planning & Zoning Commission, Conservation Commission/Directors	Jul 1, 2018	Feb 14, 2020	Public hearing and/or informational meeting will need to take place before the respective Boards and Commissions adopt the ordinance.
3-5 Develop record keeping system for IDDE tracking	Completed	The Town hired Barton & Loguidice to take initial screenings at 34 outfalls to impaired water bodies. 16 of these outfalls were noted discharging.	Create and maintain a reliable system for recording stormwater issues and tracking illicit discharges.	Public works/Director	Jul 1, 2017	July 1, 2019	Investigation data will be collected on a tablet and uploaded onto the Town's GIS layer
3-6 Address IDDE in areas with pollutants of concern	Not started				Not specified		

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

- The written program will be posted to the Dept. of Public works 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
None reported		

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

Location	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	Sampling data (if applicable)
130 Blatchly Ave	4/7/19	No	1-50 gal	Homeowner called Fire Department on Sunday night, sewer backed up into their basement. TOS also responded to the property.	TOS advised homeowners to contact Crystal Restoration for cleanup. Two pumps failed at the TOS pump station on Blatchly Ave.	
746 Main Street	6/19/19	MS4	1-50 gal	TOS noticed an odor and liquid coming out of a manhole.	TOS jetted a few segments down past where the blockage started. They also went out a second time in the afternoon and jetted it again just to make sure everything was good. Will be adding this section to our list for sewer lining.	
3 Zwicks Farm Road	6/30/19	No	1-50 gal	Homeowner contacted the WPC plant because of a backup in their basement. TOS responded and found grit and grease in the main line.	TOS responses and relieved the blockage and gave the residents a list of companies for cleanup.	
West Queen Street	8/29/19	No	N/A	Major water main break on West Queen Street caused damage to our sanitary main line and the manhole.	The sanitary piping was cleaned from just upstream/downstream of the break and is functioning properly. Marek Bros. completed raising the manhole to grade and re-capped a leaking sewer stub into the same manhole (no active connection). We will re-video from the raised manhole to our pump station to make sure there isn't any issues.	

Location	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	Sampling data (if applicable)
TOS Blatchy Pump Station	12/6/19	No	N/A	Issue at Blatchly Lift Station. TOS staff responded to high wet well alarm. When staff arrived the can was partially submerged and the manhole had a decent amount of water in it. Staff powered down the station and used the vac truck to remove water from the manhole. Staff also used the generator on the camera truck to power a sump pump to remove the water from the can. We are still investigating where the water in the can came from. Our initial belief is that one of the pots failed and water is flowing from the pot into the can. Southington Sanitary is also onsite because we are expecting flows to pick up soon once the residents wake up. We have not had any complaints from residents about any backups.	TOS completed the plans/specs to install the 1500' of 8" gravity sewer and Tighe & Bond is nearing completion of the pump station demolition plans/specs. Gravity sewer work has been completed.	
Tridel Drive	12/23/19	No	N/A	Tony called to say that the manhole in the street on Tridel Drive is filling up. He said his plumber is out there now but he thinks the problem is in the main.	TOS responded and determined this was an issue with our main line. There were roots in the line that caused the blockage. Staff jetted the line and removed the roots. There wasn't any water that spilled out of the manhole.	

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

- Illicit discharge reports as well as other stormwater and erosion related issues/concerns are received by the Department of Public works. The information is put into Municipality (permit and complaint tracking system) and stored in a database. The DPW administrative assistant and/or engineer reviewing the report have the ability to generate a work request via email to investigate and follow through on resolving the issue reported.

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
269 River Street	Repaired	
3 Edgewood Circle	Repaired	
155 High Ridge Road	Repaired	
121 Autumn Drive	Repaired	
25 Pennywise Lane	Repaired	
298 Hitchcock Road	Repaired	
93 Bruce Ave	Repaired	
1063 Mt. Vernon Road	Repaired	
38 Pennywise Lane	Repaired	
440 East Street	Repaired	
212 Pacer Lane	Repaired	
7 Southshire Drive	Repaired	
221 Walkely Drive	Repaired	
289 Lazy Lane	Repaired	
34 Norwood Drive	Repaired	
73 Walkely Drive	Repaired	
1937 Mt. Vernon Road	Repaired	
10 Upson Place	Repaired	
72 Lowery Drive	Repaired	
220 Andrews Street	Repaired	
1276 Marion Avenue	Repaired	
85 Highridge Road	Repaired	
69 Cedar Drive	Repaired	
53 Evergreen Lane	Repaired	
744 Marion Avenue	Repaired	
45 Evergreen Lane	Repaired	
278 Pilgrim Lane	Repaired	

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
1512 Meriden Avenue	Repaired	
1337 Woodruff Street	Repaired	

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	1104
Estimated or actual number of interconnections	124
Outfall mapping complete	95%
Interconnection mapping complete	95%
System-wide mapping complete (detailed MS4 infrastructure)	90%
Outfall assessment and priority ranking	TBD
Dry weather screening of all High and Low priority outfalls complete	100%
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).

- The Illicit Discharge Detection and Elimination (IDDE) employee training program was held at the same time as our annual training for MS4 and review of the Stormwater Pollution Prevention Plan for Highway/Parks (March 14, 2019) and the Water Pollution Control Facility (March 21, 2019). Topics covered are examples of an illicit discharge (sanitary waste water, vehicle wastewater, oil, gas, grease, laundry wash water, automotive fluids and paints) and that any unusual discharge of odor, discoloration, suds, sheen and dry weather flow should be reported to a supervisor.

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/ projected	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Ongoing	Implemented a change in the zoning regulations that allows for less required parking areas for new developments; therefore, reducing the amount of impervious area.	Continually update stormwater regulations in the Land Use documents	Planning & Zoning, Conservation Commission, IW/Directors	Jul 1, 2019	Jul 1, 2019 Ongoing	The Town has established a “zero increase” in peak flow runoff (storage up to the 25 year storm event) in the regulations for new site plans and subdivisions
4-2 Develop/ Implement plan for interdepartmental coordination in site plan review and approval	Complete	Zoning and building permits are tracked using Municipality Software Permit System	Permitting System tracking	Planning, Engineering, Health, Fire, Building departments/dept. Directors	Jul 1, 2017	Jul1, 2017	Very good coordination exists between all development departments for technical review. Comments are tracked by the Planning Department.
4-3 Review site plans for stormwater quality concerns	Ongoing	Engineering and Planning conduct comprehensive site plan/subdivision plan reviews that incorporate proper stormwater controls and BMP’s to prevent impacts to water quality.	Permitting System tracking	Engineering, Planning/Directors	Jul 1, 2017	Jul 1, 2017 Ongoing	The town executes a standard Stormwater Connection Agreement with any property who makes a direct connection to the MS4.
4-4 Conduct site inspections	Ongoing	Engineering & Planning conduct site inspections during installation of public improvements as well as during land disturbances.		Planning, Engineering, Health, Fire, Building/Department heads	Jul 1, 2017	Jul 1, 2017 Ongoing	The purpose of the Town’s routine inspections is to assess the adequacy of the installation, maintenance, operation and repair of construction and post-construction control measures and enforcement.
4-5 Implement procedure to allow public comment on site development	Complete	The Town follows all State of CT Public hearing requirements on applications for P&Z, Subdivision, IW, etc.	Receipt of Green-cards for hearing notices.	P&z, Conservation, IW/Directors	Jul 1, 2017	Jul 1, 2017	The Town follows up on all public comments received during and after the public hearings.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed/ projected	Additional details
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Complete	Amount of disturbed area is verified with each application. If the total disturbed area is five or more acres, a "Stormwater and Dewatering Wastewaters from Construction Activities" general permit is required by CT DEEP.	Items of checklist review	Planning/Engineering/Directors	July 1, 2017	July 1, 2017	This is an ongoing process and the Town will make changes as necessary.

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

- Update the Town of Southington's Stormwater regulations, as necessary, to comply with the MS4 requirements.
- Routine inspection of active construction sites are being performed.
- Implement a checklist for inspector's use when visiting construction sites.

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 / projected	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Ongoing	Current Zoning and Subdivision regulations including the Conservation Plan of Development include the use of LID for land use design	Full adoption of LID. Regulations to reduce impervious coverage.	Public works, P&Z, Conservation Commission, IW/Director	Jul 1, 2021	Jul 1, 2021	Need to establish legal authority provisions
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Ongoing	Staff reviewed of Zoning & subdivision regulations to determine possible modifications to better match the requirement of the 2017 General Permit	The adoption of a LID ordinance.	Public Works, Zoning Enforcement/Directors of each department.	Jul 1, 2019	Jul 1, 2019 Ongoing	The Town has a Zero increase in runoff (ZIRO) guideline in the Zoning/subdivision regulations since 2005.
5-3 Identify retention and detention ponds in priority areas	Complete	All detention ponds are mapped on the GIS drainage layer	Complete list including inspections & ranking of all basins	Public Works/Director	Jul 1, 2019	Jul 1, 2019	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed / projected	Additional details
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	The Town performs annual inspections and removes accumulated sediment, as necessary.	Complete list of all these structures.	Public Works/Director	Jul 1, 2019	Jul 1, 2019	The Town is reviewing current procedures and will improve for compliance with MS4 GP.
5-5 DCIA mapping	Ongoing	Town is in the process of analyzing DCIA from mapping provided by UConn Clear.	Calculate DCIA	Public Works/Director	Jul 1, 2020	11/15/19	The town will develop & maintain DCIA within the MS4 priority area.
5-6 Address post-construction issues in areas with pollutants of concern	Ongoing	The Town performs routine inspections and follow-up on complaints received	Prioritize areas subject to erosion and sediment	Engineering/Planning/Health Department – Directors of each department.	Not specified	Ongoing	

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

- Expand on data collection for all Town owned detention/retention ponds and underground stormwater treatment structures. The database will also include inspection and maintenance records.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics		
Baseline (2012) Directly Connected Impervious Area (DCIA)	410.48 acres	acres
DCIA disconnected (redevelopment plus retrofits)	0 ac / 3.4 ac	acres this year / acres total
Retrofit projects completed	9	#
DCIA disconnected	0% / 0.83%	% this year / % total since 2012
Estimated cost of retrofits	Unknown	\$
Detention or retention ponds identified	160	# total

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

The Town used the baseline DCIA method process from CT NEMO website.

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/ projected	Additional details
6-1 Develop/implement formal employee training program	Ongoing	Parks/Highway/Treatment Plant employees received annual industrial Stormwater and MS4 training. Town conducts additional training in street sweeping, catch basin cleaning and repairing, retrofitting of the stormwater system.	Continue to ensure that all town employees are educated to recognize pollutant sources, prevent or reduce pollutant runoff from municipal operations, and implement erosion and sedimentation and stormwater controls to meet the requirements of the Permit.	Public Works/Director	Jul 1, 2017	Ongoing	Anchor Engineering and Tighe & Bond Engineers performed training on 2/14/19 (Parks/Highway) and 3/21/19 (Treatment Plant)
6-2 Implement MS4 property and operations maintenance	Ongoing	Under the Industrial General Permit, the Town's Bulky Waste and Garage properties are being maintained. Stormwater samples are being done by B&L and submitted to CT DEEP. Parks and trails are being inspected and maintained throughout the year.	Identify and evaluate town buildings and facilities whose operations may impact stormwater runoff and provide operation maintenance recommendations for each facility. Maintain all Town owned properties in accordance with MS4 GP	Public Works, Town Facilities Managers/Directors, Parks & Recreation Commission, Conservation Commission	Jul 1, 2018	Jul 1, 2018 Ongoing	The Town continues reviewing current practices and looking for areas for optimization.
6-3 Implement coordination with interconnected MS4s	Ongoing	The Town has shared GIS information with New Britain, Bristol, Plainville & Cheshire. The Town has begun researching and identifying interconnections with DOT systems.	Map and identify all interconnected MS4's	Public Works/Director	Not specified	Ongoing	
6-4 Develop/implement program to control other sources of pollutants to the MS4	Completed	Town has implemented a pesticide/fertilizer application policy as well as Standard Operating Procedures for snow management.	Develop and implement a program to control the contribution of pollutants to the MS4 from commercial, industrial, municipal, institutional or other facilities.	Public works/Director	Not specified	Ongoing	The dog park and the paved linear trail have pet waste disposal signs and trash receptacles that regularly get emptied.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed/ projected	Additional details
6-5 Evaluate additional measures for discharges to impaired waters*	In progress	Outfalls were identified with high potential to contributing bacteria and they will be reviewed for dog park, parks with open waters and sites with failing septic systems.	On Town-owned or operated lands with a high potential to contribute bacteria, the Town will develop, fund, implement, and prioritize a retrofit or source management program to correct the problem(s).	Public Works/Director	Not specified		
6-6 Track projects that disconnect DCIA	In progress	A table was created for tracking disconnected DCIA. Ongoing additions to the table.	Annually track the total acreage of DCIA that is disconnected from the MS4 as a result of redevelopment or retrofit p	Public Works/director	Jul 1, 2017	Jul 1, 2017 Ongoing	Town to look into more grant opportunities with Save the Sound for rain garden projects that would disconnect roof drains from the drainage system.
6-7 Implement infrastructure repair/ rehab program	In progress	The Town is in the process of reviewing its programs to repair and rehabilitate its infrastructure in a timely manner to reduce or eliminate the discharge of pollutants	Continue a program to identify MS4 structures to repair, rehabilitate, or upgrade to reduce or eliminate the discharge of pollutants into water bodies	Public Works/Director	Jul 1, 2021	Jul 1, 2021	The Town continues reviewing current practices and looking for areas for optimization.
6-8 Develop/implement plan to identify/ prioritize retrofit projects	In progress	Review opportunities for redevelopment projects	Develop a Retrofit Project Plan to identify and prioritize potential DCIA disconnection projects.	Public Works/Director	Jul 1, 2020	Jul 1, 2020	
6-9 Implement retrofit projects to disconnect 2% of DCIA	Not started	Reviewing credit for previously approved projects.	Implement retrofit projects	Public Works/Director	Jul 1, 2022	Jul 1, 2022	
6-10 Develop/ implement street sweeping program	Complete	All streets and Town maintained parking lots were cleaned and swept in the spring following the winter maintenance activities. Public Building Parking Lots and Municipal Parking Lots are included in this program. School Parking Lots are done by a private contractor. Bid out by the Board of Education every winter.	Continue annual street sweeping program to mitigate sediment and debris on Town roads and properties.	Public Works/Director	Jul 1, 2017	Jul 1, 2017 Ongoing	The Town continues reviewing current practices and looking for areas for optimization.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed/ projected	Additional details
6-11 Develop/ implement catch basin cleaning program	Complete	Catch basins were inspected and cleaned out, as necessary, to the maximum extent practicable.	Continue current maintenance program in accordance with the Permit.	Public Works/Director	Jul 1, 2020	Jul 1, 2017 Ongoing	The Town continues reviewing current practices and looking for areas for optimization.
6-12 Develop/ implement snow management practices	Complete	Road salt is used to treat Town roads rather than a sand mixture. To mitigate wetland impact, snow banks/piles were transferred to a bulky waste site.	Continue current snow management practices in accordance with the Permit.	Public Works/Director	Jul 1, 2018	Jul 1, 2018 On-going	The Town continues reviewing current practices and looking for areas for optimization.

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

- Conduct annual MS4 training events.
- Continue to review MS4 property and operations maintenance practices and look for areas for optimization.
- Continue street sweeping, catch basin cleansing and snow management practices.
- Additional maintenance and reduce pesticide application rates on Town owned MS4 properties.
- Continue to research MS4 interconnection coordination with neighboring Towns and the State.
- Continue tracking projects that disconnect DCIA.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	2/14/19 (Parks/Highway) 3/21/19 (Treatment Plant)
Street sweeping	
Curb miles swept	~400 miles
Volume (or mass) of material collected	~600 tons
Catch basin cleaning	
Total catch basins in priority areas	5,667
Total catch basins	6,853
Catch basins inspected	326
Catch basins cleaned	307
Volume (or mass) of material removed from all catch basins	~110 tons
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Rock salt & magnesium chloride treated rock salt

Total amount of each deicing material applied	~713 tons rock salt ~5,006 tons treated rock salt
Type(s) of deicing equipment used	Dump trucks with automated spreaders
Lane-miles treated	~412 miles
Snow disposal location	623 Old Turnpike Road
Staff training provided on application methods & equipment	Yes, ongoing throughout fall and winter
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	4,570 lbs used in 2019
Reduction in turf area (since start of permit)	25 acres treated in 2019
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	Unknown

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program

The Town of Southington Department of Public Works personnel performed visual inspections of catch basins throughout Town to determine which areas were most in need of cleaning. These observations, in conjunction with anticipated road projects, provide direction on which quadrant of the Town will be cleaned in a given year. The remaining quadrants of Town will be targeted in subsequent years.

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.

In 2020, the Town will be working to identify and prioritize potential projects for the Retrofit Program to the maximum extent practicable.

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

In 2020, the Town will be working to identify and prioritize potential projects for the Retrofit Program to the maximum extent practicable.

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

In 2020, the Town will be working to identify and prioritize potential projects for the Retrofit Program to the maximum extent practicable.

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.

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.

- 1) Wet weather samples were collected from 49 of 85 total outfalls that discharge to impaired waters corresponding to 58% completed.
- 2) 27 outfalls sampled exceeded pollutant thresholds and require follow-up investigation.
- 3) Based on the results of the samples collected the top six (6) worst outfalls have been selected and will begin annual sampling in 2020.

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

2.1 Screening data collected under 2017 permit

Outfall ID	Sample Date	Latitude	Longitude	Turbidity at Outfall (NTU)	Turbidity Upstream (NTU)	E. Coli (col/100mL)	Lab	Investigation Required
OF-110-5	9/25/2018	41.6125985	-72.8796627	6.42	2.17		Phoenix	NO
OF-110-6	9/25/2018	41.6125910	-72.8793097	6.8	2.21		Phoenix	NO
OF-137-13	12/28/2018	41.6337395	-72.8552509	9.9	1.19		Phoenix	YES
OF-170-1	9/25/2018	41.6042801	-72.8825591	7.02	17.6		Phoenix	NO
OF-170-2	9/25/2018	41.6043029	-72.8826533	6.94	16.68		Phoenix	NO
OF-220-3	9/25/2018	41.6469879	-72.8712885	2.59	0.73	1440	Phoenix	YES
OF-220-4	12/28/2018	41.6481933	-72.8691601	0.25	2.72		Phoenix	NO
OF-220-5	12/28/2018	41.6481143	-72.8689917	1.1	2.8		Phoenix	NO
OF-226-2	6/18/2019	41.5929468	-72.8476617			1670	Phoenix	YES
OF-24-1	6/18/2019	41.5934893	-72.8858710	9.89	3.21	9000	Phoenix	YES
OF-250-3	6/18/2019	41.5975956	-72.8862296	3.71	1.88	4880	Phoenix	YES
OF-250-6	6/18/2019	41.5989042	-72.8856834	4.5	2.53	3260	Phoenix	YES
OF-250-7	9/25/2018	41.5993821	-72.8854859	8.18	8.95		Phoenix	NO
OF-26-2	6/18/2019	41.5732944	-72.8669540			2480	Phoenix	YES
OF-273-13	6/18/2019	41.5595194	-72.8736833			4610	Phoenix	YES
OF-273-4	9/25/2018	41.5698507	-72.8734671	1.07	1.81	3970	Phoenix	YES
OF-273-6	9/25/2018	41.5697454	-72.8732725	1.46	1.44	211	Phoenix	YES
OF-274-1	6/18/2019	41.6008165	-72.8848318	21.6	4.01	2910	Phoenix	YES
OF-274-2	6/18/2019	41.6021435	-72.8842510	7.14	3.79	19900	Phoenix	YES
OF-274-5	6/25/2019	41.6031841	-72.8834120	0	0.96		Phoenix	YES
OF-279-1	6/18/2019	41.5995434	-72.8852986	7.5	1.89	14100	Phoenix	YES
OF-290-1	6/18/2019	41.5924982	-72.8510273			1440	Phoenix	YES
OF-302-2	12/28/2018	41.6426579	-72.8533152	1.34	9.4		Phoenix	NO
OF-302-3	12/18/2018	41.6425098	-72.8531356		0.86		Phoenix	NO
OF-307-2	9/25/2018	41.5673879	-72.8764145	1.63	2.61	457	Phoenix	YES
OF-307-3	9/25/2018	41.5667859	-72.8771880	6.76	2.72	2610	Phoenix	YES
OF-312-1	9/25/2018	41.6395115	-72.8816729	1.64	5.17		Phoenix	NO

Outfall ID	Sample Date	Latitude	Longitude	Turbidity at Outfall (NTU)	Turbidity Upstream (NTU)	E. Coli (col/100mL)	Lab	Investigation Required
OF-322-4	6/18/2019	41.5725744	-72.8669837			6130	Phoenix	YES
OF-355-1	9/25/2018	41.6410539	-72.8544266	2.84	12.67		Phoenix	NO
OF-362-1	12/28/2018	41.6421404	-72.8530585	0.76	9.2		Phoenix	NO
OF-373-1	9/25/2018	41.6281419	-72.8547848	3.99	3.23		Phoenix	NO
OF-373-2	12/28/2018	41.6281795	-72.8545357	0.75	9.2		Phoenix	NO
OF-373-3	6/25/2019	41.6279144	-72.8544707	6.09	0.41	>24200	Phoenix	YES
OF-391-4	6/18/2019	41.5927549	-72.8578598			2100	Phoenix	YES
OF-394-1	9/25/2018	41.5663374	-72.8772964	3.38	1.4	2280	Phoenix	YES
OF-404-13A	9/25/2018	41.5648070	-72.8832425	1.63	11.2	404	Phoenix	YES
OF-406-2	9/25/2018	41.6322984	-72.8561304	51.1	53.8		Phoenix	NO
OF-429-6	9/25/2018	41.6285516	-72.8545188	16.6	12.27		Phoenix	NO
OF-432-2	12/28/2018	41.6264588	-72.8520709	0.34	9.45		Phoenix	NO
OF-432-3	6/25/2019	41.6268014	-72.8521203	0	0	161	Phoenix	YES
OF-432-4	12/28/2018	41.6268297	-72.8523531	54.7	9.45		Phoenix	YES
OF-44-1	9/25/2018	41.5701514	-72.8706327	2.73	2.32	>24200	Phoenix	YES
OF-477-1	6/18/2019	41.5739981	-72.8665649			2280	Phoenix	YES
OF-63-6	9/25/2018	41.6134802	-72.8780096	5.78	4.54		Phoenix	NO
OF-76-1	12/28/2018	41.6477605	-72.8621129	0.94	2.22		Phoenix	NO
OF-76-2	12/28/2018	41.6477976	-72.8620392	1.11	2.22		Phoenix	NO
OF-8-1	9/25/2018	41.5777287	-72.8974598	3.26	3.12		Phoenix	NO
OF-83-1	6/18/2019	41.5983017	-72.8858356	12.1	3.15	15500	Phoenix	YES

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	Latitude / Longitude	Sample date	Parameter	Results	Name of Laboratory	Follow-up required? *
N/A						

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

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall ID	Status of drainage area investigation	Control measure to address impairment
It is anticipated that this will be initiated during 2021.		

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

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

Outfall	Latitude / Longitude	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
It is anticipated that this will be conducted annually, starting prior to June 30, 2021.					

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	2. Category	3. Rank
This table is in progress and it is anticipated that it will be completed during 2021.		

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.

Table 2.1a – Non-Impaired Waterbody Samples

Outfall ID	Sample Date	Latitude	Longitude	Ammonia (mg/L)	Chlorine (mg/L)	Conductivity (umhos/cm)	Salinity (g/kg)	Temp (oC)	MBAs (mg/L)	E. Coli (col/100ml)	Lab	Investigation Required
OF-179-3	9/18/2019	41.5757309	-72.87587364	0	0.11	460	0.213	6.7	0.25	10	Phoenix	NO
OF-227-2	7/9/2019	41.5667228	-72.85978946	0	0.04	516	0.22	18.1	0.25	144	Phoenix	NO
OF-28-1	7/9/2019	41.57042271	-72.8996247	0	0.06	674	0.316	19.7	0.25	17300	Phoenix	NO
OF-28-4A	7/9/2019	41.57115767	-72.91325791	0	0.01	453	0.211	17.2	0.25	<10	Phoenix	NO
OF-33-14	7/9/2019	41.57174201	-72.90127825	0	0.06	1280	0.612	20.9	0.25	122	Phoenix	NO
OF-342-1	9/26/2019	41.58687156	-72.87550711	0.25	0.04	495	0.213	26.3	0	41	Phoenix	NO
OF-383-1	7/9/2019	41.56630127	-72.85762074	0	0.03	465	0.213	16.3	0.25	20	Phoenix	NO
OF-398-1	7/9/2019	41.56468392	-72.87093454	0	0.02	482	0.213	15.5	0.25	<10	Phoenix	NO
OF-400-2	7/9/2019	41.56075619	-72.86038117	0	0.03	615	0.172	21.3	0.25	487	Phoenix	NO
OF-400-3	7/9/2019	41.56188774	-72.86023584	0	0.04	635	0.298	19.8	0.25	450	Phoenix	NO

Table 2.1a – Non-Impaired Waterbody Samples

Outfall ID	Sample Date	Latitude	Longitude	Ammonia (mg/L)	Chlorine (mg/L)	Conductivity (umhos/cm)	Salinity (g/kg)	Temp (oC)	MBAs (mg/L)	E. Coli (col/100ml)	Lab	Investigation Required
OF-408-2	7/9/2019	41.56247041	-72.85676655	0.25	0.04	370	0.279	16	0.5	2100	Phoenix	NO
OF-527-1	7/9/2019	41.57156721	-72.90013719	0	0.14	884	0.412	16.8	0.25	441	Phoenix	NO
OF-66-16	9/18/2019	41.61428905	-72.86580545	0	0.04	69.1	0.0323	8.6	0.5	74	Phoenix	NO
OF-8-3	9/18/2019	41.57867901	-72.89857857	0	0.03	1143	0.559	9.9	0.5	<10	Phoenix	NO

Table 2.1b – Impaired Waterbody Samples

Outfall ID	Sample Date	Latitude	Longitude	E. Coli (col/100ml)	Turbidity at Outfall (NTU)	Turbidity Upstream (NTU)	Lab	Investigation Required
OF-24-1	9/18/2019	41.593489	-72.885871	<10	2.89	2.12	Phoenix	NO
OF-44-1	7/9/2019	41.570151	-72.870633	8660			Phoenix	YES

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. You may also attach a lab report with the same data rather than copying it to this table.

Outfall / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
It is anticipated that this will be initiated during 2021.										

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.

Outfall ID	Receiving Water	System Vulnerability Factors
This table is in progress and it is anticipated that it will be completed during 2021.		

Where SVFs are:

- History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
- Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
- Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
- Common or twin-invert manholes serving storm and sanitary sewer alignments.
- Common trench construction serving both storm and sanitary sewer alignments.
- 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	Latitude / Longitude	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants
It is anticipated that this will be initiated during 2021.						

3.3 Wet weather investigation outfall sampling data

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants
It is anticipated that this will be initiated during 2021.					

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
It is anticipated that this will be initiated during 2021.							

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

Print name:

Mark J. Sciota
Town Manager

Signature / Date:



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11/10/21 11/5/2021