



Town of Deep River, Connecticut

2017 Annual Report

**General Permit for the Discharge of Stormwater
from Small Municipal Separate Storm Sewer Systems**

Permit Number GSM000075

MS4 General Permit
Town of Deep River 2017 Annual Report
Existing MS4 Permittee
Permit Number GSM 000075
January 1, 2017 - December 31, 2017

This report documents the Town of Deep River's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 01, 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	To be Developed in early 2018	None in 2017 Before July 01, 2018 Clean Waters Starting in Your Home and Yard Fact Sheets prepared by a collaborative effort between the Connecticut Sea Grant Extension Program and the University of Connecticut Cooperative Extension System NEMO Program will be made available to the public on the town website at:	Improving	Board of Selectmen/ Angus L. McDonald, Jr., First Selectman	July 01, 2018	Before July 01, 2018	

		http://deepriverct.us/ Before July 01, 2018 NEMO Program Fact Sheets will be made available to the public. Before July 01, 2018 NEMO Technical Papers will be made available to land use commission members.					
1-2 Address Public Education and Outreach for Pollutants of Concern*	To Be Developed in 2018	None		Board of Selectmen/Angus L. McDonald, Jr., First Selectman and Nathan L. Jacobson & Associates, Inc.	July 1, 2018		

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

1.3 Details of activities implemented to educate the community on stormwater

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

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

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Comply with public notice requirements for the Stormwater Management Plan	Completed	A hard copy of the Draft 2017 Stormwater Management Plan (SMP) was made available to the public for review and comment on the town website at: http://deepriverct.us/	Complied with requirements	Board of Selectmen/ Angus L. McDonald, Jr., First Selectman	April 03, 2017	The 2017 SMP was available to the public on April 20, 2017.	No public comments were received by the Office of the First Selectwoman
2-2 Comply with public notice requirements for Annual Reports	Will be completed	The Draft 2017 MS4 Annual Report will be made available for public review and comment on the town website at: http://deepriverct.us/	Will comply with Requirements The 2017 MS4 Annual Report will be made available to the public for review and comment.	Board of Selectmen/ Angus L. McDonald, Jr., First Selectman	Feb. 15, 2018	February 22, 2018	
2-3 Divers annually remove trash and debris approximately 300 yards north and south of Deep River Landing on the Connecticut River	Conducted Annually		Completed	Dive Club			

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

Continue the annual removal of submerged trash and debris from the Connecticut River at Deep River Landing.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	03/28/2017	Town Website
Availability of 2017 Annual Report announced to public	Yes	02/22/2018	Town Website

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

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-1 Develop written IDDE program	In Progress	A written IDDE program using the IDDE program template available from the CT DEEP is being developed.	Develop written plan of IDDE program	Board of Selectmen/ Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2018	Anticipate completing by the deadline of July 01, 2018.	The Department of Public Works will most likely be the listed contact.
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In Progress	<p>MS4 stormwater outfall mapping was conducted from July to November 2007. 288 MS4 stormwater outfalls were located with a handheld GPS unit.</p> <p>The stormwater outfall mapping was compiled on a ESRI GIS layer.</p> <p>The MS4 stormwater outfall mapping will be updated to include impaired waters as contained in the State of Connecticut, Department of Energy</p>	Development of an ESRI GIS map layer with MS4 stormwater outfalls.	Board of Selectmen/ Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2019	Anticipate completing by the deadline of July 01, 2019.	

		and Environmental Protection 2016 Integrated Water Quality Report. The stormwater outfalls in the impaired waters will be identified.					
3-3 Implement citizen reporting program	In Progress	None A program to allow the general public to report suspected illicit discharges is in the process of being set up.	Implement citizen illicit discharge reporting program	Board of Selectmen/ Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2017	Anticipate completing by July 01, 2018.	It is anticipated that the Highway Department will be the contact to accept citizen reporting of suspected illicit discharges.
3-4 Establish legal authority to prohibit illicit discharges	In Progress	An Illicit Discharge Detection and Elimination Ordinance and Citation Hearing Procedure was enacted at a Town Meeting on December 14, 2010.	Enact IDDE Ordinance and Citation Hearing Procedure	Board of Selectmen/ Angus L. McDonald, Jr., First Selectman	July 01, 2018	December 14, 2010	
3-5 Develop record keeping system for IDDE tracking	To Be Developed	No Activities to Report		Board of Selectmen/ Angus L. McDonald, Jr., First Selectman	July 01, 2018		It is anticipated that Eric Waltke, Foreman of the Highway Department will be the individual responsible for tracking citizen reporting of suspected illicit discharges.
3-6 Address IDDE in areas with pollutants of concern	To Be Developed	None Program will be developed with particular emphasis on areas exceeding 11% impervious area.		Board of Selectmen/ Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2018		

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

The written IDDE Program will be posted on the town website and a link listed in each Annual Report. The town will update the written IDDE program as needed throughout the permit term.

Eric Waltke, Foreman of the Highway Department will maintain the 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
No citizen reports of suspected illicit discharges were received by the town in 2017	Not Applicable	None Required

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. The Town of Deep River has no SSOs

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

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

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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
Scott Martinson, Chief Sanitarian of the Connecticut River Area Health District reported that failing subsurface sewage disposal systems were not a source of illicit discharges to town storm drainage systems in Deep River in 2017.	None Required	Not Applicable

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	288
Estimated or actual number of interconnections	To be Determined
Outfall mapping complete	90%
Interconnection mapping complete	50%
System-wide mapping complete (detailed MS4 infrastructure)	40%
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	90%

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 Highway Department was provided with a copy of the publication entitled *Illicit Discharge Detection and Elimination Manual, A Handbook for Municipalities*, January 2003, Published by the New England Interstate Water Pollution Control Commission.

The Highway Department was provided with a copy of the publication entitled *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments, and Technical Appendices*, Published October 2004 by the Center for Watershed Protection and Robert Pitt of the University of Alabama.

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	To be Initiated in 2018	None	Not Applicable	Land Use Department/ Cathie Jefferson, Zoning Enforcement Officer	July 1, 2019		
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Ongoing	Nathan L. Jacobson & Associates, Inc., Town Engineer, prepares land use review letters for most applications for the Inland Wetlands Commission, Planning Commission and Zoning Commission.	Interdepartmental Coordination	Land Use Department/ Cathie Jefferson, Zoning Enforcement Officer	July 01, 2017	Ongoing	
4-3 Review site plans for stormwater quality concerns	Ongoing	Nathan L. Jacobson & Associates, Inc., Town Engineer, encourages the use of LID BMPs as contained in the 2004 Connecticut Stormwater Quality Manual.	Compliance	Town Engineer/ Joseph M. Dillon, P.E., Nathan L. Jacobson & Associates, Inc.	July 01, 2017	Ongoing	
4-4 Conduct site inspections	Ongoing	The town conducts construction site inspections for proper implementation and maintenance of soil erosion and sediment control measures.	Compliance with Approved Plans	Town Engineer/ Joseph M. Dillon, P.E., Nathan L. Jacobson & Associates, Inc.	July 01, 2017	Ongoing	
4-5 Implement procedure to allow public comment on site development	Ongoing	The land use application process allows for public comment on land use applications which are submitted to the Inland Wetlands Agency and	Compliance	Land Use Department/ Cathie Jefferson, Zoning Enforcement Officer	July 01, 2017	Ongoing	

		the Planning & Zoning Commission during the Public Hearing Process when applicable.					
4-6 Implement procedure to notify developers about the CT DEEP Construction Stormwater General Permit	Ongoing	Since the inception of the MS4 program Nathan L. Jacobson & Associates, Inc., Town Engineer, has made developer's engineers aware of the need to register for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities in engineering review letters which are typically prepared as part of the land use application process.	Awareness of the need to register for the General permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities	Town Engineer/ Joseph M. Dillon, P.E., Nathan L. Jacobson & Associates, Inc.	July 01, 2017	Ongoing	

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

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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	Under Development	None	The requirements contained in Minimum Control Measure No. 4 - Construction Site Runoff Control and Minimum Control Measure No. 5 - Post-Construction Runoff Control will be forwarded to the Angus L. McDonald, Jr. and Cathie Jefferson.	Land Use Department/ Cathie Jefferson, Zoning Enforcement Officer	July 01, 2021		
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Continuing	Ongoing		Town Engineer/ Joseph M. Dillon, P.E., Nathan L. Jacobson & Associates, Inc.	July 01, 2019		
5-3 Identify retention and detention ponds in priority areas	To Be Developed	None	Retention Ponds, Detention Ponds and Hydrodynamic Separators will be inventoried. A GIS Map Layer will be	Highway Department/ Eric Waltke, Highway Foreman and Town Engineer/ Joseph M. Dillon, P.E., Nathan L. Jacobson & Associates, Inc.	July 01, 2019		

			<p>created after the inventory.</p> <p>Part of the inventory process will be a condition assessment and development of facility operation and maintenance requirements.</p>				
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	To Be Developed	None	Subsequent to development of the inventory of Retention Ponds, Detention Ponds, Hydrodynamic Separators and Sedimentation Tanks a long-term Operation and Maintenance Plan will be implemented.	Highway Department/ Eric Waltke, Highway Foreman	July 01, 2019		
5-5 DCIA mapping	Starting	Begin the process of DCIA Mapping from base mapping prepared by UConn CLEAR.	The DCIA to MS4 stormwater outfalls discharging to waters identified as impaired in the 2016 Integrated Water Quality Report and in watersheds with a DCIA of	Board of Selectmen/ Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2020		

			greater than 11 percent will start in 2018.				
5-6 Address post-construction issues in areas with pollutants of concern	To Be Developed	None	Stormwater outfalls discharging to waters identified as impaired in the 2016 Integrated Water Quality Report and in watersheds with a DCIA of greater than 11 percent will be subject to enhanced water quality treatment.	Board of Selectmen/ Nathan L. Jacobson & Associates, Inc., Town Engineer	Not specified		

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

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	Acreage to be determined in 2018
DCIA disconnected (redevelopment plus retrofits)	0 acres this year / 0 acres since 2012
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.

The DCIA Mapping will be conducted on accordance with the methodologies presented in the October 25, 2017 UConn CLEAR Webinar entitled *CT MS4 Mapping Details, Clarifications and Tools* utilizing DCIA base mapping prepared by UConn CLEAR.

Impaired waters were determined from the report entitled *2016 Integrated Water Quality Report*, dated April 2017, prepared by the State of Connecticut Department of Energy and Environmental protection.

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	To Be Developed	None	Developing	Highway Department/ Eric Waltke, Road Foreman and Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2017	July 01, 2017	
6-2 Implement MS4 property and operations maintenance	Ongoing		Continuing	Highway Department/ Eric Waltke, Road Foreman	July 01, 2018	July 01, 2017	
6-3 Implement coordination with interconnected MS4s	Ongoing	The Town of Deep River continued to coordinate MS4 responsibilities with the Town of Essex, Town of Westbrook, Town of Killingworth and the Town of Chester	Continuing	Highway Department/ Eric Waltke, Road Foreman	July 01, 2017	July 01, 2017	
6-4 Develop/implement program to control other sources of pollutants to the MS4	To be Developed	None		Town Engineer/ Joseph M. Dillon, P.E., Nathan L. Jacobson & Associates, Inc.	July 01, 2017		
6-5 Evaluate additional measures for discharges to impaired waters*	Not Applicable				July 01, 2017		
6-6 Track projects that disconnect DCIA	To Be Developed	None		Board of Selectmen/ Nathan L. Jacobson & Associates, Inc., Town Engineer	Jul 01, 2017		

6-7 Implement infrastructure repair/rehab program	To Be Developed	None		Highway Department/ Eric Waltke, Highway Foreman and Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2021		
6-8 Develop/implement plan to identify/prioritize retrofit projects	To Be Developed	None		Highway Department/ Eric Waltke, Highway Foreman and Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2020		
6-9 Implement retrofit projects to disconnect 2% of DCIA	To be Developed	None		Highway Department/ Eric Waltke, Highway Foreman	July 01, 2022		
6-10 Develop/implement street sweeping program	Ongoing	The Town of Deep River currently implements a road sweeping program whereby all town roads are swept at one time per year.		Highway Department / Eric Waltke, Highway Foreman	July 01, 2017		
6-11 Develop/implement catch basin cleaning program	Ongoing	The Town of Deep River currently implements a catch basin cleaning program whereby approximately 225 of the 600-700 catch basins were cleaned.		Highway Department/ Eric Waltke, Highway Foreman	July 01, 2020		
6-12 Develop/implement snow management practices	To be implemented	None	The CT DEEP Best Management Practices for Disposal of Snow	Highway Department/ Eric Waltke, Highway Foreman	July 01, 2018		

			Accumulations from Roadways and Parking Lots will be provided to Eric Waltke in 2018.				

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

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6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	To be initiated in 2018
Street sweeping	
Lane miles swept	65.8
Volume (or mass) of material collected	75± Cubic Yards
Catch basin cleaning	
Total catch basins in priority areas	TBD
Total catch basins in MS4	600-700
Catch basins inspected	225
Catch basins cleaned	225
Volume (or mass) of material removed from all catch basins	125± Cubic Yards
Volume removed from catch basins to impaired waters (if known)	Not Applicable
Snow management	
Type(s) of deicing material used	Deicing Mix 7 Parts Sand to 1 Part NaCl Salt

Total amount of each deicing material applied	700 Tons Sand 100 Tons Salt
Type(s) of deicing equipment used	Four Large Snow Plows/Spreaders. All Spreaders are manually controlled at an estimated application rate of 200-300 pounds per lane mile
Lane-miles treated	65.8
Snow disposal location	DPW Facility
Staff training provided on application methods & equipment	None
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	0 %
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]

It is estimated that there are approximately 600-700 catch basins in town. 225 catch basins were cleaned in 2017. Currently no optimization methods are utilized.

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.]

Storm Drainage Retrofit prioritization will be given to stormwater outfalls that are known to result in soil erosion and sedimentation. Prioritization will be given to the outfalls within the impaired water drainage basins with particular emphasis placed on stormwater outfalls which are located on fine grained glacial till soils. The retrofit program will be prioritized based on setback distance from watercourse and/or waterbodies.

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.]

Based on information contained in the Factsheet: *Town of Deep River Water Quality and Stormwater Summary*, prepared by the CT DEEP, 610.32 acres of the town has an impervious area exceeding 11% which is approximately 6.75% of the town. 199.24 acres have an impervious cover of ranging from 12% to 25%, 273.97 acres have an impervious cover ranging from 26% to 50%, 98.05 acres have an impervious cover ranging from 51% to 75% and 39.06 acres have an impervious cover ranging from 76% to 100%.

The DCIA for the town will be computed using methods contained in the paper entitled *Estimating Change in Impervious Area (IA) and Directly Connected Impervious Area (DCIA) for Massachusetts Small MS4 Permit*.

Land use files will be reviewed to determine disconnection of DCIA since July 01, 2012 for utilization in reaching the CT DEEP goal of 2% disconnection of DCIA by June 30, 2022.

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

Part II: Impaired waters investigation and monitoring [This section required beginning with 2018 Annual Report]

1. Impaired waters investigation and monitoring program

1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. This data is available on the MS4 map viewer: .

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 01, 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
4018-00-2-L8 19.29% Impervious	Impervious Cover	1
4018-00-2-L7 12.90% Impervious	Impervious Cover	2
4018-00-2-R1 12.43% Impervious	Impervious Cover	3
4018-00-2-L5 11.82% Impervious	Impervious Cover	4

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.

[illegible]

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

Print Name: Angus L. McDonald, Jr., First Selectman



Signature / Date:

May 14, 2018

Document Prepared by

Print Name: Wade M. Thomas



Signature / Date:

May 14, 2018