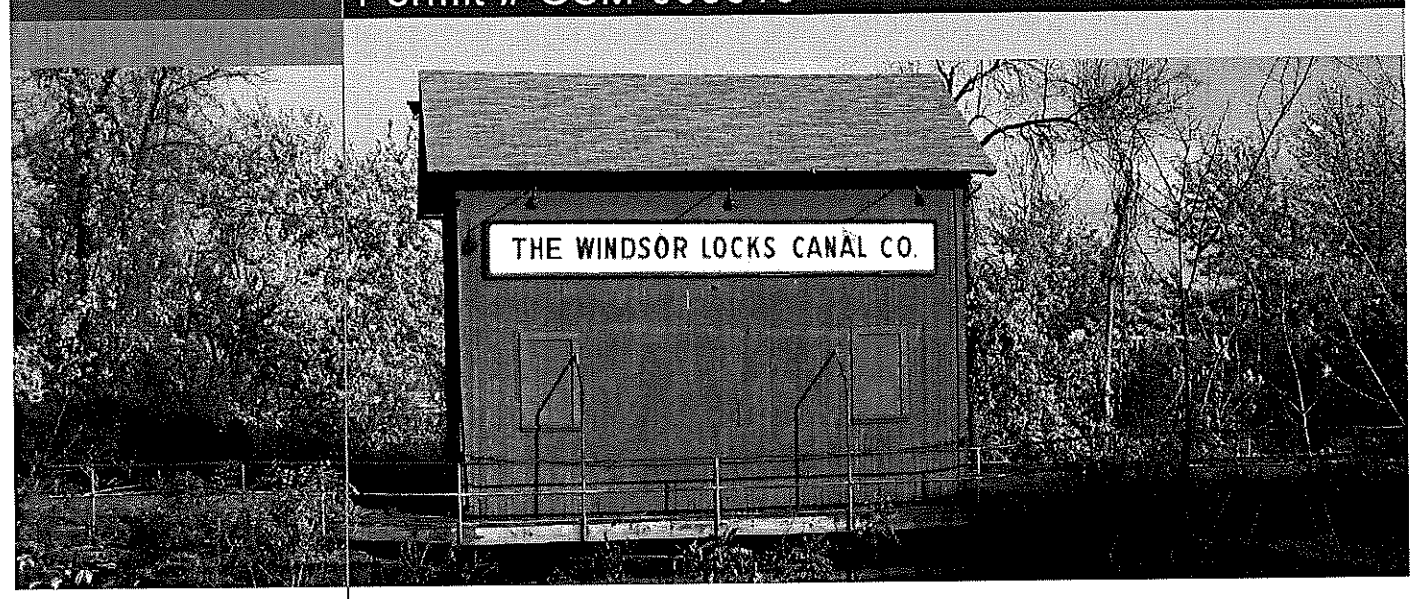
Draft for Public Review

MS4 Annual Report - 2017

Town of Windsor Locks, Connecticut
Permit # GSM 000010



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INTRODUCTION

This report documents the Town of Windsor Locks's efforts to comply with the conditions of the *General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems* (the General Permit) to the maximum extent practicable (MEP) from January 1, 2017 to December 31, 2017. The report is structured to address each minimum control measure (MCM) required by the General Permit including the following:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-construction Stormwater Management
- Pollution Prevention and Good Housekeeping

PART I: SUMMARY OF MINIMUM CONTROL MEASURE ACTIVITIES

Public Education and Outreach

A summary of the Town's progress under this MCM is presented in the following tables:

Table 1.1 Public Education and Outreach 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	Public Works hosts a stormwater webpage that provides information specific to the MS4, as well as links to key external stormwater resources Informational stormwater posters in public offices that are responsible for issuing permits or are otherwise involved in stormwater pollution prevention 150 tote bags and rain gauges distributed to promote awareness of stormwater management issues Taught several green infrastructure courses at Windsor Locks High School - 10/4/17 A stormwater management specific bulletin board with helpful tips, facts as well as the local hotline/reporting process, has been placed at Town Hall	Public education program is implemented and tracked	Department of Public Works	Jul 1, 2018	Jul 1, 2017 (Ongoing)	The webpage is currently housed at the following web address: https://www.windsorlocksct.org/departments/public-works/stormwater-information

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-2 Address education/ outreach for pollutants of concern	Ongoing	Posted link to educational materials on Town's stormwater webpage (see BMP 1-1)	Educational materials on pollutants of concern are distributed and/or posted	Department of Public Works	Jul 1, 2018	Jul 1, 2017 (Ongoing)	
1-3 Inspection and maintenance of watercourse signage	Ongoing	Signage inspected for conformance and visibility. Inspection and maintenance records tracked.	Inspections and maintenance of signage are completed and tracked	Department of Public Works	Jul 1, 2017	Jul 1, 2017 (Ongoing)	Visual inspections are part of the routine as PW employees travel routes across Town. Additionally, the Highway Foreman makes routine specific inspections at a minimum of four times per year.

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

Continue ongoing public education and outreach activities. Outreach will include Planning and Zoning, Inland Wetlands and Board of Finance to explain the overall importance of sustainable and best management practices. A workshop is planned for April 2018.

Table 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.
1-1 Implement public education and outreach – outreach event at Windsor Locks High School	Students (approx.. 150)	Green infrastructure	Multiple	Department of Public Works
1-2 Address education/ outreach for pollutants of concern – provide educational materials to general public	General public (175)	Stormwater pollutants	Nitrogen, phosphorus, bacteria, and mercury	Department of Public Works

Public Involvement/Participation

A summary of the Town's progress under this MCM is presented in the following tables:

Table 2.1 Public Involvement/Participation BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Comply with public notice requirements for the Stormwater Management Plan and Annual Reports	Complete	Stormwater Management Plan developed and posted for public review	Public notifications are made according to required schedules	Department of Public Works	Apr 3, 2017	Stormwater Management Plan received by DEEP on May 2, 2017	The Stormwater Management Plan and Annual Reports are posted on the Town's stormwater webpage: https://www.windsorlocksct.org/departments/public-works/stormwater-information
	Complete for 2017	Annual Report developed and posted for public review			Feb 15, 2018	March 2018 (Ongoing on annual basis)	
2-2 Support Community Clean-Ups	Complete for 2017	Five community clean-up events were completed in 2017 with assistance from Town offices.	Clean-up assistance provided on an annual basis and tracked	Department of Public Works/ Conservation Commission	Jun 30, 2018	By Jun 30, 2018 (Ongoing on annual basis)	

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

Waterway / Park Clean Up Schedule	Occurrence:	Department / Person Responsible
Waterworks Brook	Annually in April/May	Scouts, Conservation Commission
Source to Sea – CT River Trail	Annually in Sept.	Conservation Commission, Friends of the Canal
Spring Park	Annually in Sept.	Youth Services, Scouts, Conservation Commission
Pesci Park	Annually in Sept.	Youth Services, Scouts, Conservation Commission
Main Street	Annually May and Sept.	First Selectman's Office and Friends
Other Public Involvement Activities		
2018 Open Space Flyer into all residential Tax Bills regarding Open Space Fundraiser / Rain Barrel Sale, general stormwater education information		
2018 Stormwater Spring Workshop (Staff and Volunteer Commission Members)		

Table 2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	May 2, 2017	https://www.windsorlocksct.org/departments/public-works/stormwater-information
Availability of Annual Report announced to public	Yes	March 2018	https://www.windsorlocksct.org/departments/public-works/stormwater-information

Illicit Discharge Detection and Elimination

A summary of the Town's progress under this MCM is presented in the following tables:

Table 3.1 Illicit Discharge Detection and Elimination 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	Drafting of written IDDE program in progress	Written IDDE program developed	Department of Public Works	Jul 1, 2018	Anticipate completing by deadline	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In progress	List of stormwater outfalls in priority areas developed The Town's stormwater atlas has been updated and brought into a GIS geodatabase	Outfall database and maps developed	Department of Public Works	Jul 1, 2019	Anticipate completing by deadline	
3-3 Implement citizen reporting program	Complete	The Town received two citizen reports and investigated two	Citizen reporting system established. Reports investigated and tracked.	Department of Public Works	Jul 1, 2017	Jul 1, 2017	Citizens may report suspected illicit discharges to the MS4 through a hotline phone number for confidential reporting, as well as by emailing the Public Works Director. Reports submitted through this system will be investigated and the outcomes of each investigation will be tracked. The program will be updated, as necessary, to facilitate citizen reporting of illicit discharges.
3-4 Establish legal authority to prohibit illicit discharges	Complete	No amendments to report in 2017	Amended ordinance and/or regulations adopted (as needed)	Department of Public Works	Jul 1, 2018	Jul 1, 2017 (Amendments as needed)	Illicit discharges are currently prohibited under Chapter 307 of the Windsor Locks Code of Ordinances.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-5 Develop record keeping system for IDDE tracking	Complete	A draft IDDE database was developed and will be revised as necessary going forward	IDDE database developed	Department of Public Works	Jul 1, 2017	Jul 1, 2017 (Revised as needed)	IDDE database will be linked to MS4 geodatabase (BMP 3-2) once complete
3-6 Address IDDE in areas with pollutants of concern	Ongoing	Random outfall inspections were conducted during dry weather conditions Video surveillance of drainage infrastructure is required prior to engineering of sanitary, drainage, or road surface to identify cross-connections Two illicit discharges were detected and two were eliminated in 2017	Illicit discharges screened, tracked, and eliminated in areas with pollutants of concern.	Department of Public Works	Jun 30, 2018	Initiate by Jun 2018. Ongoing thereafter	IDDE program will be refined to focus more on priority outfalls as other IDDE BMP components are advanced and allow for more systematic investigation and tracking The two illicit discharges identified in 2017 were sanitary connections to the storm water system
3-7 Support hazardous waste collection and recycling events	Complete for 2017	The Town hosted the annual Hazardous Waste Collection Day event on October 14, 2017	Hazardous waste collection event held and results tracked	Department of Public Works	June 30, 2018	By Jun 30, 2018 (Ongoing on annual basis)	Event encourages residents of the Windsor Locks MS4 and other nearby communities to properly dispose of household hazardous waste

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

The written IDDE program will be developed and used to implement prioritized IDDE activities in the MS4. Additionally, the Town's IDDE database will be linked to the MS4 geodatabase to assist allow tracking and data management for multiple activities in one system.

Illicit discharges will continue to be investigated and eliminated, as they are discovered.

The Windsor Locks Department of Public Works, in coordination with The Metropolitan District, plans to support a community Hazardous Waste Collection Day event in 2018.

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

Date of Report	Location / suspected source	Response taken
None received in 2017	N/A	N/A

Table 3.4 Records of illicit discharges occurring during the reporting period and SSOs occurring July 2012 through end of reporting period

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)
Whiton Street Connecticut River	Unknown duration	MS4	Unknown	Residential sanitary connection to the MS4	Connection redirected to sanitary sewer	N/A
Oak Street Connecticut River	Unknown duration	MS4	Unknown	Residential sanitary connection to the MS4	Connection will be redirected to sanitary sewer	N/A

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 discharges are reported directly to the Director of Public Works, who coordinates the investigation, response, and tracking of each incident.

Table 3.6 Summary of actions taken to address septic failures

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
No septic failures identified in 2017		

Table 3.7 IDDE reporting metrics

Metrics	Value
Estimated or actual number of MS4 outfalls	91
Estimated or actual number of interconnections	Determination in progress
Outfall mapping complete	100%
Interconnection mapping complete	Determination in progress
System-wide mapping complete (detailed MS4 infrastructure)	Determination in progress
Outfall assessment and priority ranking	7%
Dry weather screening of all High and Low priority outfalls complete	0
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

3.8 Briefly describe the IDDE training for employees involved in carrying out IDDE tasks including what type of training is provided and how often is it given (minimum once per year).

IDDE training for employees is provided on an ongoing basis

Construction Site Runoff Control

A summary of the Town's progress under this MCM is presented in the following tables:

Table 4.1 Construction Site Runoff Control 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	In progress	Existing zoning and inland wetlands and watercourses regulations were enforced in 2017 No new or amended regulations were issued	Amended ordinance and/or regulations adopted	Department of Public Works, Planning and Zoning Commission	Jul 1, 2019	Ongoing	Chapters IX, X, and XI of the Windsor Locks zoning regulations and Chapter 7 of the IWW regulations require plans acceptable to staff including the engineering consultant which provide measures for controlling erosion and sediment control.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Complete	Process exists for interdepartmental coordination in site plan review and approval. Plans are submitted to several Departments for comment including Public Works.	Plan developed and implemented by coordinating departments and commissions	Department of Public Works, Planning and Zoning Commission, Town Engineer, Building Department, Inland Wetlands and Watercourses Commission	Jul 1, 2017	Jul 1, 2017	Coordination procedures to be improved as needed

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-3 Review site plans for stormwater quality concerns	Ongoing	54 proposals were reviewed by staff during the year, 14 of which were also reviewed by the Inland Wetlands and Watercourses Commission	Site plans reviewed and tracked	Planning and Zoning Commission, Town Engineer, Building Department, Inland Wetlands and Watercourses Commission	Jul 1, 2017	Jul 1, 2017 (Ongoing)	
4-4 Conduct site inspections	Ongoing	92 inspections were conducted for 24 projects	Site inspections conducted and documented	Department of Public Works, Planning and Zoning Commission, Town Engineer, Inland Wetlands and Watercourses Commission	Jul 1, 2017	Jul 1, 2017 (Ongoing)	
4-5 Implement procedure to allow public comment on site development	Complete	A public comment procedure is in place	Public comment procedure implemented for site development proposals and ongoing activities	Planning and Zoning Commission	Jul 1, 2017	Jul 1, 2017 (Ongoing)	The public may provide comment on site development, including proposed and ongoing site development and land disturbance activities at Planning and Zoning Commission meetings.

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Ongoing	Developers notified about need to comply with DEEP construction stormwater permit.	Incorporate written notification procedure into site development review process	Planning and Zoning Commission	Jul 1, 2017	Ongoing	

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

4-6 - Develop and implement written procedure to notify developers of need to comply with DEEP construction stormwater permit.

Post-construction Stormwater Management

A summary of the Town's progress under this MCM is presented in the following tables:

Table 5.1 Post-construction Stormwater Management BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Not started	No activities to report	Amended ordinance and/or regulations adopted	Department of Public Works, Planning and Zoning Commission	Jul 1, 2021	Anticipate completion by due date	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Not started	No activities to report	Compliance with requirements enforced and tracked	Department of Public Works, Planning and Zoning Commission, Town Engineer, Inland Wetlands and Watercourses Commission	Jul 1, 2019	Anticipate completion by due date	
5-3 Implement long-term maintenance plan for stormwater basins and treatment structures	Not started	No activities to report	Written plan developed and implemented	Department of Public Works, Planning and Zoning Commission, Town Engineer, Inland Wetlands and Watercourses Commission	Jul 1, 2019	Anticipate completion by due date	
5-4 DCIA mapping	Not started	No activities to report	DCIA calculated for drainage areas associated with each outfall	Department of Public Works	Jul 1, 2020	Anticipate completion by due date	

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-5 Address post-construction issues in areas with pollutants of concern	Not started	No activities to report	Retrofits identified and tracked for discharges to impaired waters	Department of Public Works	Jul 1, 2018	Anticipate completion by due date	

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

5-4 – DCIA mapping will be initiated and incorporated into the MS4 GIS geodatabase.
5-5 – Potential retrofits will be identified to reduce discharges of pollutants of concern.

Table 5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	Acres to be determined
DCIA disconnected (redevelopment plus retrofits)	acres this year / acres total to be determined
Retrofits completed	# to be determined
DCIA disconnected	% this year / % total since 2012 to be determined
Estimated cost of retrofits	$ to be determined
Detention or retention ponds identified	# this year /# total to be determined

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

The Town will calculate the baseline (2012) DCIA contributing stormwater runoff to each of its MS4 outfalls. The DCIA calculations will be made according to a protocol that is consistent with guidance available from the DEEP stormwater webpage (www.ct.gov/deep/municipalstormwater). See the Town's Stormwater Management Plan for more details.

Pollution Prevention/Good Housekeeping

A summary of the Town's progress under this MCM is presented in the following tables:

Table 6.1 Pollution Prevention/Good Housekeeping 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	Ongoing	Employees were trained on an ongoing basis	Employee training continued	Department of Public Works	Jul 1, 2017	Jul 1, 2017 (Ongoing)	Training has included the following topics: General goals and objectives of the Stormwater Management Plan Identification and reporting of illicit discharges and improper waste disposal Spill response protocols and respective responsibilities of involved personnel Street sweeping Green infrastructure Revegetation of erosion prone areas

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-2 Implement MS4 property and operations maintenance	In progress	Property and operations maintenance activities will be improved to minimize the discharge of pollutants to the MS4.	Property and operations maintenance is conducted and tracked	Department of Public Works	Jul 1, 2018	Anticipate completion by due date	
6-3 Implement coordination with interconnected MS4s	In progress	Initial discussion with CAA regarding connections to Windsor Locks MS4	Coordination of permit responsibilities implemented and documented	Department of Public Works	Jul 1, 2017	Ongoing	
6-4 Develop/implement program to control other sources of pollutants to the MS4	Not started	No activities to report	Program to control pollutants from other facilities (commercial, industrial, and other non-permitted facilities) implemented and documented	Department of Public Works	Jul 1, 2017	Ongoing	
6-5 Evaluate additional measures for discharges to impaired waters	Not started	No activities to report	Additional measures to control discharges to impaired waters implemented, as feasible, and documented	Department of Public Works	Jul 1, 2017	Ongoing	
6-6 Track projects that disconnect DCIA	Not started	No activities to report	Disconnections tracked and mapped	Department of Public Works	Jul 1, 2017	Ongoing	Disconnection percentages will be tracked once DCIA has been calculated for drainage areas

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-7 Implement infrastructure repair/rehab program	In progress	25 structural elements were repaired or rehabilitated	Infrastructure repair and rehabilitation work is completed and documented	Department of Public Works	Jul 1, 2021	Anticipate completion by due date.	
6-8 Develop/implement plan to identify/prioritize retrofit projects	Not started	No activities to report	Written plan to identify and prioritize retrofit projects developed and implemented	Department of Public Works	Jul 1, 2020	Anticipate completion by due date.	
6-9 Develop/implement street sweeping program	Ongoing	Town-wide road sweeping completed. Some roadways or parking areas swept more than once, as needed.	Street sweeping program developed and implemented	Department of Public Works	Jul 1, 2017	Jul 1, 2017 (Ongoing)	Municipal parking lots and roadway intersections showing signs of excess winter sand are periodically swept during winter months.
6-10 Develop/implement catch basin cleaning program	Ongoing	Within the MS4, 1,800 catch basins were inspected and cleaned using Vacall machine.	Catch basin cleaning program developed and implemented	Department of Public Works	Jul 1, 2020	Jul 1, 2017 (Ongoing)	
6-11 Develop/implement snow management practices	Ongoing	The Town applied the following de-icing agents to manage snow and ice: sodium chloride	Snow management practices developed and implemented	Department of Public Works	Jul 1, 2018	Jul 1, 2017 (Ongoing)	

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

Employee training on pollution prevention/good housekeeping activities will continue in 2018

Table 6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes
Street sweeping	
Curb miles swept	200 miles
Volume (or mass) of material collected	172 yards
Catch basin cleaning	
Total catch basins in priority areas	# to be determined
Total catch basins in MS4	1,800
Catch basins inspected	1,800
Catch basins cleaned	1,800
Volume (or mass) of material removed from all catch basins	225 yards
Volume removed from catch basins to impaired waters (if known)	To be determined
Snow management	
Type(s) of deicing material used	Sodium chloride
Total amount of each deicing material applied	1,100 tons
Type(s) of deicing equipment used	Spreader body
Lane-miles treated	100 miles
Snow disposal location	No relocation
Staff training provided on application methods & equipment	Pre-storm
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	0 lbs
Reduction in turf area (since start of permit)	<0.1 acre
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.
Inspections and cleanings are completed more often in locations that are known to collect debris at a faster rate. For instance, catch basins in low-lying areas may require more frequent cleanings.

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.
Not applicable at this time.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years.
The Town of Windsor Locks is highly urbanized and opportunities for retrofitting are anticipated to be limited in scope. However, the Town will evaluate retrofitting possibilities at Town facilities and also as part of upcoming public road, sidewalk, sewer, or other infrastructure improvement projects. Additional DCIA disconnection may be achievable through redevelopment projects.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years.
Not applicable at this time.

PART II: IMPAIRED WATERS INVESTIGATION AND MONITORING

This section is not required for the 2017 Annual Report. More details will be provided in the 2018 Annual Report.

PART III: ADDITIONAL IDDE PROGRAM DATA

This section is not required for the 2017 Annual Report. More details will be provided in the 2018 Annual Report.

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: J. Christopher Kervick, First Selectman	Print name: Philip J. Sissick, Director of Public Works
Signature / Date: 3/30/2018	Signature / Date: 3/30/18