

Town of South Windsor



**MS4 General Permit
2022 Annual Report
Permit No. GSM 000081**

Table of Contents

Introduction

Part I Summary of Minimum Control Measure (MCM) Activities

Part II Impaired waters investigation and monitoring

Part III Additional IDDE Program Data

Part IV Certification

Introduction

This Annual Report was developed by the Town of South Windsor for the purpose of establishing, implementing and enforcing stormwater management. The goal is to reduce the discharge of pollutants from the Town's roadways and facilities to the maximum extent practicable, to protect water quality, and to satisfy the appropriate requirements of the CT DEEP General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems (MS4), which was originally issued in January 2004.

DEEP has recently reissued the MS4 General Permit with an effective date of July 1, 2017. The reissuance of this permit builds on the six areas of responsibility (Minimum Control Measures) for each municipality. The new MS4 General Permit provides significantly more detail on the requirements and implementation of the six Minimum Control Measures as well as expanding on certain requirements.

The Town currently has many practices and programs in place relating to stormwater management and pollution prevention. The SWMP coordinates and incorporates these programs, policies, guidelines and practices. This report outlines a program of best management practices (BMP's) and measurable goals for the following six minimum control measures:

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

For each minimum control measure, the Town has defined appropriate BMP's, designated a person(s) and job title responsible for each BMP, defined a time frame for implementation for each BMP, and defined measurable goals for each BMP. The Town has identified the persons listed below to represent different departments for input as the Stormwater Committee.

Town Stormwater Committee

Jeffrey Doolittle	Engineering
Michele Lipe	Planning
Jeffrey Folger	Planning / Inland Wetlands
Vincent Stetson	Public Works / Street Services
Taylor Rodrigue	Engineering
John Caldwell	Parks and Grounds
Thad Dymkowski	GIS
Anthony Manfre	Pollution Control

The operator of the MS4 is the Town of South Windsor. The Town of South Windsor is a public entity located in the county of Hartford, State of Connecticut. The Town of South Windsor covers an area of approximately twenty-nine (29) square miles, located in northeastern Connecticut. The Connecticut Department of Transportation (DOT) operates an MS4 on state highways located in the Town of South Windsor. This system is regulated under the CT DOT's MS4 permit. Implementation of the BMPs identified in this plan will be coordinated between the Town of South Windsor and CT DOT.

This report documents the Town of South Windsor's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable from January 1, 2022 to December 31, 2022. This Annual Report has also been made available to the public in compliance with the Public Involvement requirements of the Permit. Appended to this report is a map showing the Town's impaired waterbodies.

Record Keeping

The Town of South Windsor shall keep records required by the MS4 General Permit for at least 5 years following its expiration, or longer if requested by DEEP in writing. Such records, including the Stormwater Management Plan and Annual Reports, shall be available to the public during regular business hours.

Impaired Waters

CT DEEP's Water Quality Standards were reviewed in order to determine the Surface Water Quality Classifications for each watercourse in town. Certain BMP's address the watersheds containing watercourses designated as "impaired" by the CT DEEP. Table 1 shows the water quality classification for each watershed. Table 2 summarizes the water bodies within or that run through the municipality that are listed on the 2020 List of Connecticut Water Bodies not meeting water quality standards and are designated as "impaired".

Table 1: Water Quality Surface Classifications South Windsor, CT			
Drainage Basin Number	Name	Surface Water Quality Classification	Impaired per Water Quality Standards
4500-09	Avery Brook	A	No
4000-19	Bancroft Brook	A	No
4004-05	Burnham Brook	A	No
4500-03	Campbell's Brook	A	No
4004-03	Cemetery Brook	A	No
4000-00	Connecticut River	B	Yes
4500-10	Dart (aka Wells) Brook	A	No
4200-28	Dry Brook	A	Yes
4004-02	Farm Brook	A	Yes**
4500-00	Hockanum River	B	Yes
4207-00	Ketch Brook	A	No
4500-07	Muzzy Brook	A	No
4000-21	Newberry Brook	A	No
4004-01	Plum Gully Brook	A	No
4004-00	Podunk River	A	No
4004-04	Quarry (aka Whaples) Brook	A	No
4200-00	Scantic River	B	Yes
4000-18	Stoughton's Brook	A	No

Table 2: South Windsor Impaired Waterbodies					
Waterbody ID	Water Segment Description	Water Segment Length (miles)	Impaired Use	Pollutant	Cause/Potential Source
Connecticut River * CT4000-00-03	From confluence with Scantic River to point 7000 feet south of Bissell Bridge	6.63	Fish Consumption Recreation	Polychlorinated biphenyls (not a stormwater pollutant) Escherichia coli (bacteria)	Potential sources include industrial discharges, municipal discharges, landfills, illicit discharges, remediation sites, groundwater impacts CT Statewide Bacteria TMDL
Dry Brook CT4200-28-01	From confluence with Scantic River to HW upstream of Griffin Road crossing near Vintage Road	4.70	Recreation	Escherichia coli (bacteria)	Potential sources include stormwater, insufficient on-site treatment-septic systems, agricultural activities
Hockanum River * CT4500-00-04a	From inlet to Union Pond, Manchester, upstream to confluence with Tankerhoosen River, Vernon	1.44	Habitat for Fish, Other Aquatic Life and Wildlife Recreation	Cause Unknown Escherichia coli (bacteria)	Potential sources include industrial discharges, municipal discharges, illicit discharges, remediation sites, groundwater impacts CT Statewide Bacteria TMDL
Scantic River CT4200-00-01	From mouth at Connecticut River, upstream approximately 2.8 miles to Town Line	2.88	Habitat for Fish, Other Aquatic Life and Wildlife Recreation	Cause Unknown Escherichia coli (bacteria)	Potential sources include stormwater, industrial discharges, municipal discharges, salt storage facilities, remediation sites, groundwater impacts Potential sources include stormwater, insufficient on-site treatment-septic systems, agricultural activities
Farm Brook** CT4004-02-01	From confluence with Plum Gulley Brook to HW south of Tallwood Drive	1.61	Habitat for Fish, Other Aquatic Life and Wildlife	Cause Unknown Other pollutant of concern	Potential sources include stormwater, insufficient on-site treatment-septic systems, agricultural activities

* There are no direct discharges to this waterbody from the Town of South Windsor's MS4.

** Farm Brook was added to the list of Impaired Waterbody's by DEEP in 2018.

The surface water classifications currently assigned to South Windsor watercourses are defined below.

Class A

Surface water is known or presumed to meet Water Quality Criteria which support designated uses, which may include potential drinking water supply; fish and wildlife habitat; recreational use; agricultural, industrial supply and other legitimate uses, including navigation.

Class B

Designated uses include fish and wildlife habitat, recreational use including navigation (may be restricted), agricultural and industrial supply.

Based on the DEEP Surface Water Quality Classifications, Farm Brook, Dry Brook and the Scantic River are identified as the surface waters that should take the highest priority in the Town of South Windsor's efforts to address stormwater impacts. There are no direct discharges to the Connecticut River or Hockanum River from the Town of South Windsor's MS4, although there are several local drainage basins that discharge to those regional basins.

This report documents the Town of South Windsor’s efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2022 to December 31, 2022.

Part I: Summary of Minimum Control Measure Activities

1. Public Education and Outreach (Section 6 (a)(1) / page 19)

1.1 BMP Summary

BMP	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	Educational materials have been made available to the public on the Town website including link to CTDEEP General MS4 Permit and general overview of MS4 activities.		Web based	Town residents	Update public education program and materials annually	Stormwater Committee	The Stormwater Committee will continue to develop and implement the public education program that identifies sources of stormwater pollution and the impacts of polluted stormwater to the public.
1-2 Address education/ outreach for pollutants of concern	The Town's web page is a resource for the general public. Information includes the Town IDDE Program and citizen reporting of illicit discharges of pollutants.		Web based		Distribute information on pollutants of concern	Stormwater Committee	The IDDE program is available for the public on the Town website which includes details of pollutants of concerns and how to report an illicit discharge through the Connect South Windsor portal.
1-3 Acquire / Display Education Materials	The EPA's informational brochure entitled "Step by Step: a citizen's guide to curbing polluted runoff" has been on display for distribution at the Town Hall and the Public Library. Also on display and available for distribution is a coloring book entitled		Hard copies of materials, Web based		Collect and distribute stormwater educational materials	Stormwater Committee	Materials will be reviewed annually and updated as needed. Topics on Phosphorous, Nitrogen, Bacteria, and Mercury will be addressed based on what impairments have been found in the Town's waterways.

	<p>"Stormwater", which is made available by the University of Kentucky Cooperative Extension Service and targets a younger audience.</p> <p>Links to the CTDEEP website were added to the Town website which has additional informational on stormwater management practices.</p>						
1-4 Web Based MS4 Library	<p>The Engineering Department is currently utilizing and in the process of updating and improving the stormwater web page that is posted on the Town's website. The Planning Department has also added an educational link with information on low impact development (LID) under their department's web page under "General Education Resources - Land Use".</p>		Web based		Develop web based MS4 library	Engineering Department	<p>Materials on the website will be tailored to the various pollutants found within the town's MS4 and also provide municipal specific education materials where applicable.</p> <p>The Stormwater Committee will look at all available sources of material and ways to promote the availability of these materials.</p>
1-5 Educational Displays	<p>The annual Public Works Day was held on May 19, 2022.</p>				Educate students and the public on common stormwater topics	Public Works	<p>The Town of South Windsor Public Works Department currently sponsors an annual Public Works Day event, which targets elementary age school children. The Department has constructed a three-dimensional "Stormwater Cycle" display, which is presented during the event, and it has been very popular with the children and teachers. Posters depicting the water cycle and pamphlets regarding public action to reduce pollutants in stormwater runoff are also distributed at the display. The Public Works Department</p>

							<p>has also presented the "Stormwater Cycle" display at other public events such as the Annual Wapping Fair, Family Awareness Day, The South Windsor Strawberry Festival, and Annual Heritage Day.</p> <p>In October 2007, the South Windsor Public Works Department received an award from the Connecticut Transportation Institute for innovation in educational displays with the construction of the "Stormwater Cycle" display. The Public Works Department will continue to use the "Stormwater Cycle" at annual public events. The Stormwater Committee and Town staff will evaluate the program annually and implement modifications to as needed.</p>
1-6 Proper Disposal of Household Hazardous Wastes	<p>Hazardous waste collection days sponsored by CREOC were held on 4/2, 5/14, 6/4, 8/27, 9/24, 10/29, and 11/12 in year 2022. Residents were again able to participate in the PaintCare take back program also sponsored by CREOC. There was a Paint Only collection on 7/20 in 2022.</p> <p>The Town also continued with its Electronic Recycling Program with collection events on 1/8, 3/5, 5/7, 7/9, 9/10, and 11/5 in the year 2022.</p>			Town residents	Educate public on proper disposal of hazardous wastes	Public Works	<p>The Town of South Windsor has an agreement with the Capital Regional East Operating Committee (CREOC) for collection and proper disposal of HHW which began in July 2013. CREOC membership includes the towns of Glastonbury, Hebron, Manchester, Marlborough, Somers, Stafford, Vernon, and South Windsor.</p> <p>Manchester is now the home of a regional center for HHW collection. This center, built with grant funding from CTDEEP, is operated by CREOC and is located adjacent to the Manchester Landfill on Olcott Street.</p>

							<p>The South Windsor Public Works Department distributes a Hazardous Household Waste flyer which provides information on household hazardous wastes and collection dates with locations. This information is also available on the Town's website.</p> <p>Since 2011, the Town runs a program to collect and recycle electronic wastes. The program provides a site at Town Hall for residents to drop off electronic devices free of charge and collection events are scheduled periodically throughout the year.</p>
1-7 Informational Waterway Signage	The Town's Public Works Department inspects all of the tributary signs located in town annually and replaces any signs that are missing or damaged. No signs required replacement in 2022.			Public traveling on Town roadways; 25,000+	Increase public awareness of receiving waterbodies located in town	Public Works	<p>A Tributary Signage Program has been developed by Town staff to increase public awareness in which a total of 32 roadway crossings have been identified throughout the town for placement of signage identifying the waterbody being crossed. To date, all of the signage has been fabricated and installed for all 32 roadway crossings by Public Works personnel.</p>

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

The stormwater committee discussed using the distribution of flyers through mass mailings to neighborhoods located within the MS4 that discharge to identified impaired waterways as a way to communicate sources of pollution to the public. The Stormwater Committee will review the various BMP's utilized on an annual basis to determine their effectiveness and make modifications as required.

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

2.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Location Posted	Additional details
2-1 Final Stormwater Management Plan publicly available	Ongoing	A draft of the Town's Stormwater Management Plan was made available to the public on April 1, 2017. A hard copy of the plan was available in the Engineering Department at Town Hall. A digital copy of the plan was published electronically on the Town's web page under Departments - Engineering - Storm Water Management Program - Storm Water Annual Reports.	Comply with public notice requirements	Engineering Department	4/1/2017	Physical and electronic copies available	Additionally, the SWMP and the Annual Reports will be publicly accessible on the website and in Town Hall. The public notice will allow for a 30-day comment period, at a minimum.
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	Ongoing	A public notice regarding the 2021 Annual Report was posted on January 31, 2022. A draft of the Town's 2021 Annual Report was made available February 15, 2022; a hard copy available in the Engineering Department at Town Hall and a	Review BMP's that will possibly be utilized.	Engineering Department	7/1/2018 until permit expires	Physical and electronic copies available	The Town of South Windsor will publish a public notice on its website. The notice will provide contact information to whom the public can send comments.

		<p>digital copy published electronically on the Town's web page under Departments - Engineering - Storm Water Management Program - Storm Water Annual Reports.</p> <p>A final draft of the Town's 2021 Annual report was made available to the public in April 2022; a hard copy of the report and a digital copy of the report on the Town's web page.</p>					<p>The Annual Reports will be publicly accessible on the website and in Town Hall. The public notice will allow for a 30-day comment period in February-March annually.</p>
2-3 Storm Drain Marking / Stenciling	Ongoing	<p>The Town's Environmental Planner reported that there was money available in the Open Space Fund to purchase Storm Drain Markers. He is currently looking at markers to purchase and will look to coordinate with local scout troops and other civic groups to organize a public project.</p>	<p>Demonstrate direct link between storm sewer system and surface waters</p>	<p>Environmental Planner</p>	2022-Ongoing		<p>The Stormwater Committee has identified the neighborhood draining to Farm Brook (impaired) as the first area for marking/stenciling storm drains, which includes the Bayberry Trl, Mohegan Trl, Krawski Dr, Ridgefield Dr area. The Farnham Estates neighborhood in the northeast section of town, which discharges stormwater to impaired waters,</p>

							was previously identified to be first marked but this neighborhood will undergo full reconstruction in 2025-2026 timeframe and will have storm drain stenciling or marking at that time.
2-4 Wetland & Riparian Buffer Plantings	Ongoing	The Stormwater Committee continues to sponsor annual volunteer activities as determined by availability of funding and which areas in town should be targeted for the program.	Increased participation and awareness by the general public	Environmental Planner	7/1/2019 – 12/31/2022		

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

Best Management Practices (BMP's) that will possibly be utilized include Storm Drain Marking/Stenciling, Wetland & Riparian Buffer Plantings, and other outreach activities to various community organizations that may become available. The Town plans to mark storm drains in the Farnham Estates neighborhood in 2023.

The Stormwater Committee will review the various BMP's utilized on an annual basis to determine their effectiveness and make modifications as required.

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

3.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
3-1 Develop written IDDE program (Due 7/1/19)	Complete	A final draft of the Town's IDDE Program was completed and the program requirements have begun to be implemented.	Develop written plan of IDDE program	Engineering Department	1/1/2020 – 3/16/2020	The IDDE plan provides enforceable legal authority to eliminate illicit discharges, assigns responsibilities, and developed a citizen reporting program. The plan also outlines the outfall screening and IDDE protocols consistent with the MS4 General Permit to identify, prioritize, and investigate MS4 catchments for suspected illicit discharge of pollutants. It also outlines follow-up screening and illicit discharge prevention procedures.
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20)	Complete	The Engineering Department has completed GIS base mapping of the MS4 in three local drainage basin areas that discharge to impaired waters - the Scantic River, Dry Brook, and Farm Brook. The mapping was field edited and modified as needed and data points sent to Barton & Loguidice, LLC for screening and testing of outfalls. See Parts II and III of this report for results of that screening.	Develop database of all outfalls located within the town.	Engineering Department	7/1/2019	
	Ongoing	The Town is in the process of updating a database of all MS4 outfalls and interconnections located in town. To date, 246			7/1/2019 – present	

		<p>(previously 311, however, as outfalls are identified ownership is updated) outfalls have been located, photographed, and cataloged.</p> <p>Along with utilizing the mapping of outfalls to help identify potential illicit discharges throughout the town, this information is also being used to identify outfalls that are in need of repair.</p>				
3-3 Implement citizen reporting program (Ongoing)	Ongoing	The Town allows residents to report on stormwater issues through the "Connect South Windsor" portal which can be accessed on the town's website, and is also available on any mobile phone device or tablet using Apple, Android or the Windows app.	Develop and implement citizen reporting program	Stormwater Committee		The Town of South Windsor will investigate and eliminate any illicit discharges for which a time and location of discharge are provided. The Town of South Windsor will promptly inspect the reported location and proceed according to the requirements of the IDDE program. All citizen reports and responses will be included in The Town's annual report.
3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19)	Complete	An Illicit Discharge Ordinance has been completed utilizing template provided by UCONN Center for Land Use Education and Research (CLEAR).	Establish Town illicit discharge ordinance	Stormwater Committee	3/7/2022	
3-5 Develop record keeping system for IDDE tracking (Due 7/1/17)	In Progress	The stormwater committee will work with the Town's consultant to develop a record keeping system to track illicit discharges. No illicit discharges were reported in 2022.	Develop record keeping system for IDDE tracking	Stormwater Committee	7/1/2018 – 7/1/2022	<p>The Town of South Windsor will keep a record of illicit discharges and abatement activities including location description, date(s) of inspection, sampling data (if applicable), action(s) taken, date of removal or repair and responsible party.</p> <p>In addition, the Town will develop and maintain an SSO inventory that records the location, date and time</p>

						of occurrence, estimated volume of discharge, a description of known or suspected cause, and details about mitigating measures including dates of implementation.
3-6 Address IDDE in areas with pollutants of concern	In Progress	The stormwater committee will coordinate with the Town's Health Officer to develop an inventory of known septic systems and identify any known historic on-site sanitary system failures. Septic failures that occurred in 2022 are tabulated at the end of this section.	Perform assessment of on-site sanitary systems located in town	Stormwater Committee	7/1/2018 – 7/1/2022	The Town of South Windsor will identify which areas in town are most likely to contribute nitrogen, phosphorus, and bacteria to the MS4. This assessment will consider historic on-site sanitary system failures, proximity to bacterial impaired waters, low infiltrative soils, and shallow groundwater. Any areas determined to have a high potential for septic system failure will be reported to the Health Department for corrective action.

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

The Town of South Windsor will develop a database of all stormwater discharges from a pipe or conduit located within and owned or operated by the municipality and all interconnections with other MS4s. Each entry will include:

- Type, material, size, shape and location (identified with a latitude and longitude) of conveyance, outfall or channelized flow (e.g. 24" concrete pipe);
- the name, water body ID and Surface Water Quality Classification of the immediate surface waterbody or wetland to which the stormwater runoff discharges;
- if the outfall does not discharge directly to a named waterbody, the name and water body ID of the nearest named waterbody to which the outfall eventually discharges;
- the name of the watershed, including the subregional drainage basin number (available from CT ECO at www.cteco.uconn.edu) in which the discharge is located;
- date of most recent inspection of the outfall, the condition, and any indicators of potential non-stormwater discharges as of most recent inspection;

The database will be exported into excel format for annual reports.

3.3 Provide a record of all citizen reports of suspected illicit discharges and other illicit discharges occurring during the reporting period and SSOs occurring July 2017 through end of reporting period using the following table. Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.

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)
839 Avery Street, South Windsor, CT 06074	6/30/2022, ~2.5 hours	MS4	5,000 gal	Line blockage causing sewage to come out of manhole	Downstream lines cleaned (jetted) same day.	N/A
796 Avery Street, South Windsor, CT 06074	7/1/2022 ~5 hours	MS4	5,700 gal	Line blockage causing sewage to come out of manhole	Blockage from 6/30 event reformed downstream causing another event. Downstream lines cleaned (jetted) same day.	N/A

3.4 Provide a summary of actions taken to address septic failures using the table below.

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
Permitting File System	John Fitch Blvd – Residential	Permit for full septic system replacement approved.	None	South Windsor Health Department
Permitting File System	Greenfield Dr – Residential	Permit for full septic system replacement approved.	None	South Windsor Health Department
Permitting File System	Wendy Dr – Residential	Permit for full septic system replacement approved.	None	South Windsor Health Department
Permitting File System	Wendy Dr – Residential	Permit for full septic system replacement approved.	None	South Windsor Health Department
Permitting File System	Avery St – Residential	Permit for septic leach field replacement approved.	None	South Windsor Health Department
Permitting File System	Niederwerfer Rd – Residential	Permit for septic tank replacement approved.	None	South Windsor Health Department
Permitting File System	West Rd – Residential	Permit for septic tank replacement approved.	None	South Windsor Health Department
Permitting File System	Main St – Residential	Permit for septic tank replacement approved.	None	South Windsor Health Department
Permitting File System	Main St – Residential	Permit for septic tank replacement approved.	None	South Windsor Health Department
Permitting File System	Niederwerfer Rd – Residential	Permit for septic tank replacement approved.	None	South Windsor Health Department
Permitting File System	John Fitch Blvd – Commercial	Permit for septic tank replacement approved.	None	South Windsor Health Department
Permitting File System	Wendy Dr – Residential	Permit for septic tank replacement approved.	None	South Windsor Health Department
Permitting File System	Sullivan Ave – Residential	Permit for septic tank replacement approved.	None	South Windsor Health Department

3.5 Briefly describe the method and effectiveness of said method used to track illicit discharge reports.

By code, septic failures are defined as sewage rising to the ground surface or backing up into the building. Typically, permits are pulled in the Town of South Windsor for septic repairs and replacements due to insufficiencies identified during septic inspections as part of a realty transaction process and not due to a true failure.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	515
Estimated or actual number of interconnections	44
Outfall mapping complete	75%
Interconnection mapping complete	90%
System-wide mapping complete (detailed MS4 infrastructure)	75%
Outfall assessment and priority ranking	0%
Dry weather screening of all High and Low priority outfalls complete	76
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

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

No IDDE training of Town staff was completed in 2022, however, some staff have existing training. Health department receives septic-related environmental reports and Pollution Control receives sewer-related overflows and backups. Engineering has IDDE experience and is working with a consultant to perform IDDE field investigations.

4. Construction Site Runoff Control (Section 6(a)(4) / page 25)

4.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
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4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit (Due 7/1/20)	Complete	The Town of South Windsor requires erosion and sediment controls for all projects in accordance with all state and federal regulations. Several documents are utilized for establishing guidelines and procedures for the use of erosion and sediment controls in planning, design, and construction for town projects and private development. These documents include the following: TOSW Public Improvement Specifications, TOSW Subdivision Regulations, TOSW Inland Wetland/Watercourse and Conservation Regulations, TOSW Zoning Regulations, CT Guidelines for Soil Erosion and Sediment Control.	Review and upgrade the Town's current land use regulations	Planning Department	7/1/2017 – 7/1/2022	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing)	Ongoing	The Town of South Windsor will continue to coordinate with all departments and boards involved in the review, permitting, or approval of land disturbance projects.	Interdepartmental coordination of site plan review and approval	Planning Department	7/1/2017 – 7/1/2022	The Town's Planning Department is responsible for coordinating technical reviews by other town departments for all land development applications. The Planning Department schedules a monthly meeting with town staff to discuss each application as a group. In addition, pre-application meetings are often scheduled with private developers or property owners to review development requirements and discuss what is expected.
4-3 Review site plans for stormwater quality concerns (Ongoing)	Ongoing	Procedures for site plan review which incorporate consideration of potential water quality impacts are utilized by the town. Construction plans and specifications are reviewed by the Town's Environmental Planner and the Town Engineer	Review site plans for stormwater quality concerns	Environmental Planner	7/1/2017 – current	The Town of South Windsor will conduct site plan reviews that incorporate consideration of stormwater controls or management practices to prevent or minimize impacts to water quality on sites with soil disturbance of one-half acre or

		<p>for conformance to Town requirements.</p> <p>As part of the town's land use regulations, any activity that involves site construction requires submission of application and construction plans for approval by the Town Planning and Zoning Commission and the Inland Wetlands Agency/Conservation Commission. If deemed necessary, the agencies hold a public hearing on an application if found to be in the best interest of the public. Permits are issued by the IWACC to specific applicants for conducting regulated activities upon approval, for a duration of five (5) years.</p> <p>Projects requiring registration under the General Permit for the Discharge of Stormwater associated with construction activities shall include site plans along with the permit application and a site specific stormwater pollution control plan for review and registration by CTDEEP.</p>				<p>more. The Town of South Windsor will also conduct site inspections to assess the adequacy of the installation, maintenance, operation, and repair of construction and post construction control measures and take enforcement action when necessary.</p>
4-4 Conduct site inspections (Ongoing)	Ongoing	<p>Site inspection and enforcement of control measures are utilized on all town projects and private site developments. Inspectors employed by the town are authorized to inspect all work performed and materials furnished for each project. The inspection may extend to all or any part of the work, and to the preparation or</p>	<p>Ensure the adequacy of all construction runoff control measures</p>	<p>Environmental Planner</p>	<p>7/1/2017 – present</p>	<p>The Town will perform construction site inspections and take enforcement actions if necessary to ensure the adequacy of the installation, maintenance, operation, and repair of all construction and post-construction runoff control measures. The Town of South Windsor will continue site inspections and enforcement of control measures.</p>

		<p>manufacture of the materials to be used including work and materials relating to construction site runoff control.</p> <p>The Inland Wetlands Agency/Conservation Commission and/or its designated agent(s) make routine inspections of all activities for which permits have been issued under their regulations. If the agency finds that any person or entity is conducting an activity which can be expected to impair, alter or destroy the wetlands or watercourses of the Town, or can be expected to create a source of pollution, they may be issued a written warning or order to correct such facility or condition. If the agency finds that the public health, safety or welfare requires emergency action and incorporates a finding to that effect in its order, it may order summary suspension of the permit pending further proceedings and may issue a cease and desist order to the permittee directing him to immediately halt any and all regulated activities found to be in violation of the terms of the permit. In the event said cease and desist order is not obeyed, the agency may bring an action pursuant to Section 22a-44 of the Connecticut General Statutes, as amended.</p>				
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4-5 Implement procedure to allow public comment on site development (Ongoing)	Ongoing	The Town of South Windsor will continue with the policies and procedures currently in place to receive public comment.	Allow public comment on site development	Planning Department	7/1/2017 – present	The Town of South Windsor's current procedure for public involvement in proposed and ongoing development and land disturbance activities is: For proposed developments, applicants are required to notify abutting property owners by certified mail of a scheduled public hearing. In addition, the town posts legal notices in the local newspaper and on the Town's website notifying the general public of scheduled public hearings. Digital copies of site development plans are also posted on the website for viewing. This procedure is followed by both the Planning and Zoning Commission and the Inland Wetlands Agency/Conservation Commission.
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	Ongoing	It is the policy of the Town of South Windsor to verbally advise developers and contractors of their potential obligation to obtain authorization under CTDEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities.	Inform developers about DEEP construction stormwater permit	Environmental Planner	7/1/2017 – present	The Town of South Windsor will continue to inform developers and contractors of their potential obligation to obtain authorization under CTDEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities if their project disturbs more than 1 acre of land and results in a point source discharge to Connecticut surface water(s) directly or through the Town of South Windsor's MS4. The Town will also require a copy of the Storm Water Pollution Control Plan be made available to the permittee upon request.

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

The Town of South Windsor plans to continue with current runoff control practices.

5. Post-construction Stormwater Management (Section 6(a)(5) / page 27)

5.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning (Due 7/1/22)	Complete	The Stormwater Committee and Planning Department has reviewed the current guidelines in the Town's site development regulations. Under Article 6.6.5 of the current zoning regulations (Storm Drainage), the design of any storm water management system shall be in accordance with the 2004 Connecticut Stormwater Quality Manual and the Town's Public Improvement Specifications. The Town encourages the use of on-site natural filtration functions as a part of currently accepted BMP's in the reduction of sediment and pollutants and to minimize discharge of pollutants to ground and surface water. Where feasible, roof runoff is collected and reintroduced to the groundwater table via infiltration devices where soils and water table depths permit. Energy dissipaters and flow spreading are used to discharge sheet flows over lawns. Storm runoff generated from parking lots and road pavements that carry sands, road salts, oils, etc. are initially treated at catch basins where heavy particles are trapped in basin sumps, and then	Update guidelines regarding LID and runoff reduction in site development planning and reduce regulatory barriers for implementing LID.	Planning Department	7/1/2022	<p>The Town of South Windsor will update the existing legal authority by ordinance, bylaw, regulation, standard condition of approval, or other means to require developers and contractors seeking the town's approval to consider the use of low impact development (LID) and runoff reduction site planning and development practices that meet or exceed those LID and runoff reduction practices in the CT Stormwater Quality Manual prior to other stormwater management practices allowed in town's land use regulations, guidance or construction project requirements.</p> <p>In addition, The Town of South Windsor will review its current regulations - site planning requirements, zoning regulations, street design regulations, and infrastructure specifications</p>

		<p>further treated in extended detention basins or engineered structures to remove more sediment, oil, grease, and other pollutants.</p> <p>The Town will update its regulations, as necessary, to improve compliance with MS4 general permit.</p>				<p>with minimum size criteria for impervious cover (roads, parking lots, etc.) to identify and reduce or eliminate existing regulatory barriers to implementation of LID and runoff reduction practices to the Maximum Extent Practicable.</p>
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22)	In Progress	<p>The Town of South Windsor requires that parties responsible for new development or redevelopment projects follow the standards set forth by the legal authority identified in Section 5.1 regarding the retention of stormwater on site. Any systems designed and installed to meet these requirements must be consistent with the Connecticut Stormwater Quality Manual. If not consistent, a report must be provided detailing why that is not feasible. Developers will also be required to consult with the local health official in areas with onsite septic systems to ensure any retention practices do not interfere with the functioning of those systems.</p>	<p>Update regulations to enforce LID/runoff reduction requirements.</p>	<p>Planning Department</p>	<p>7/1/2021 – present</p>	<p>The Stormwater Committee and Planning Department also plans to review the current procedures and evaluate if modifications to the existing regulations are required for the Town to request maintenance and operation plans for stormwater controls. Such modifications may include a requirement for private landowners to submit a report annually to the Town regarding maintenance and operation of their stormwater basins or structures, or keep maintenance records and produce the records upon request of the Town. This committee may also consider developing a standard condition of approval that allows the Town access to inspect structures.</p>
5-3 Identify retention and detention ponds in priority areas (Due 7/1/20)	Complete	<p>The Town has completed mapping of detention basins/ponds throughout Town. To date, 87 basins have been mapped in GIS.</p>	<p>Locate and map detention ponds throughout Town</p>	<p>Stormwater Committee</p>	<p>7/1/2022</p>	<p>The Stormwater Committee will continue to update mapping of detention basins as basins are constructed or modified.</p>

5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing)	Ongoing	In 2001, the Town compiled an inventory of known detention basins including Town owned facilities as well as privately owned. The database includes location, size, ownership, outlet type, and condition. The Engineering Department will work in conjunction with Public Works to update the database, assess condition of the basins, and prioritize the inspection and maintenance of basins located in the Town's priority areas first.	Develop and implement a long-term maintenance plan for retention/detention basins and stormwater treatment structures.	Public Works / Parks & Grounds	7/1/2019 – present	The Town of South Windsor will continue annual inspection and maintenance for retention / detention basins and stormwater treatment structures that it owns or over which it holds an easement or other authority and that are located in the town's priority areas to ensure their long-term effectiveness.
5-5 DCIA mapping (Due 7/1/20)	In Progress	The Town is utilizing the existing mapping provided by CT ECO for DCIA by watershed. The Town contracted with B&L to calculate the Directly Connected Impervious Area that contributes stormwater runoff to each MS4 outfall, beginning with the priority areas first, utilizing the Town's GIS mapping software.	Complete DCIA mapping by July 1, 2020 and update from there on.	Engineering Department	7/1/2018 – present	The Town of South Windsor will follow guidance provided by CTDEEP and UConn CLEAR to calculate the Directly Connected Impervious Area (DCIA) that contributes stormwater runoff to each of its MS4 outfalls.
5-6 Address post-construction issues in areas with pollutants of concern	Ongoing	The Environmental Planner will work with the Department of Public Works to conduct inspections of existing MS4 structures in areas with pollutants of concern to prioritize and correct identified problems.	Prioritize and correct identified problems consistent with Retrofit Plan in areas with pollutants of concern.	Environmental Planner	7/1/2019 – present	

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

The Town will continue its inspection and maintenance program for detention ponds and stormwater quality structures in 2023.

The Town will continue to update its DCIA database with new developments.

5.3 Post-Construction Stormwater Management reporting metrics

For details on this requirement, visit <https://nemo.uconn.edu/ms4/tasks/post-construction.htm>. Scroll down to the DCIA section.

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	1,079 acres
DCIA disconnected (redevelopment plus retrofits)	0.22 acres this year / Unknown acres total
Retrofit projects completed	1
DCIA disconnected	0.02% this year / Unknown% total since 2012
Estimated cost of retrofits	Unknown
Detention or retention ponds identified	Unknown this year / 87 total

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

The DCIA was calculated using the mapping provided by CT ECO. The town contracted B&L to assist in calculating baseline DCIA. This report includes calculations for 2022 developments, and the Town is workin to add in previous developments not previously tracked.

6. Pollution Prevention/Good Housekeeping (Section 6(a)(6) / page 31)

6.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
6-1 Develop/implement formal employee training program (Ongoing)	Ongoing	<p>A Stormwater Pollution Prevention Plan (SWPPP) was developed for the Town's Public Works Facility in September 2011. As part of that plan, a training program was instituted to provide facility employees with the information and techniques required to assure the facility SWPPP is properly implemented.</p> <p>The training program consists of two components. 1-Operational Procedures for Stormwater Pollution Prevention in the SWPPP. 2-Attendance at courses for pollution prevention. In December 16, 2015, the Town's consultant (Anchor Engineering Services) provided training to all of the facility employees. Topics covered included Good Housekeeping, Litter Control, Sweeping, Maintaining Erosion and Sedimentation Control Devices, Spill Control and Cleanup, Vehicle and Equipment Washing, Stormwater Control Devices, and Materials Handling.</p>	Continue providing on-the-job instruction and training to new and existing municipal employees related to stormwater management.	Public Works	7/1/2011 – present	<p>The Town of South Windsor will continue its MS4 training program for town employees to increase awareness of water quality issues. Training will include:</p> <ul style="list-style-type: none"> - Standard operating procedures consistent with the MS4 general permit; - General goals and objectives of this Stormwater Management Plan; - Identification and reporting of illicit discharges and improper disposal; and - Spill response protocols and responsibilities.

6-2 Implement MS4 property and operations maintenance (Ongoing)	Ongoing	<p>The Town of South Windsor follows procedures for fertilizer and chemical application to optimize growth and minimize the discharge of pollutants. For example, the Town is currently implementing a 0% phosphorus program for fertilizer application. Standard operating practices are adhered to for handling, storage, application, and disposal of all fertilizers and chemicals.</p> <p>The Town has also adopted a maintenance program to reduce mowing frequencies in various areas of town where applicable. The Town utilizes mulching mowers so disposal of grass clippings is not a problem. All equipment is washed in a designated wash bay in the maintenance building.</p> <p>The Town of South Windsor targets the recreational areas in town where dog walking is allowed for education and enforcement of proper disposal of pet waste. At Nevers Road Park, there is a designated area called the "Bark Park" where educational signage has been installed, and disposal receptacles are provided. A local environmental waste handling business has been contracted to remove and properly dispose of the waste.</p> <p>The Town owns and operates various buildings and facilities including pavilions and a public pool complex. All of these buildings and facilities are</p>	The Town will monitor and evaluate all maintenance operations on Town-owned properties, parks, and other facilities to minimize the discharge of pollutants to its MS4.	Public Works / Parks & Grounds	7/1/2017 – present	<p>The Town of South Windsor properties, parks, and other facilities that are owned, operated, or otherwise the legal responsibility of The Town will be maintained so as to minimize the discharge of pollutants to its MS4. Such maintenance will include, but not be limited to:</p> <p>(i) Parks and open space The Town of South Windsor will optimize the application of fertilizers by municipal employees, institutional staff, or private contractors on lands and easements for which it is responsible for maintenance.</p> <p>(ii) Pet waste management The Town of South Windsor will identify locations where inappropriate pet waste management practices are immediately apparent and pose a threat to receiving water quality due to proximity and potential for direct conveyance of waste to its storm system and waters. In such areas, The Town of South Windsor will implement targeted management efforts such as public education and enforcement.</p> <p>(iii) Waterfowl management The Town of South Windsor will identify lands where waterfowl congregate and feeding by the public occurs. To raise awareness regarding the water quality impacts, The Town of South Windsor will install signage or use other targeted techniques to</p>
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		<p>maintained to minimize the discharge of pollutants to the MS4. The Town's Public Works Facility and the Wastewater Treatment Plant are already covered under a General Permit for the Discharge of Stormwater Associated with Industrial Activities. All other buildings and facilities are covered under this MS4 Permit.</p> <p>The Town has established procedures for the storage and fueling of vehicles and equipment as incorporated into the Industrial Stormwater Permit for its facilities.</p> <p>To address the potential for polluted wash water entering the storm drainage system during routine maintenance/ cleaning of trucks and equipment, a vehicle wash station has been constructed in one of the bays of the Public Works Garage. The wash station utilizes a grit chamber to collect sand and debris, which is periodically cleaned. Wash water is then discharged into the sanitary sewer system, which is ultimately treated at the Town's Wastewater Treatment Plant.</p> <p>The Town has had a Town-wide leaf collection program for many years. Leaves are picked up curbside in late fall on all public streets, usually with two passes through each district. There is also a Leaf Bag collection that takes place on private roads. Residents also have the option of</p>			<p>educate the public about the detrimental impacts of feeding waterfowl (including the resulting feces deposition) and discourage such feeding practices.</p> <p>(iv) The Town of South Windsor Buildings and facilities (schools under the jurisdiction of The Town of South Windsor, town offices, police and fire stations, pools, parking garages and other The Town of South Windsor-owned or operated buildings or utilities)</p> <p>The Town of South Windsor will:</p> <ul style="list-style-type: none"> • evaluate the use, storage, and disposal of both petroleum and non-petroleum products and ensure, through employee training, that those responsible for handling these products know proper procedures; • ensure that Spill Prevention Plans are in place, if applicable, and coordinate with the fire department as necessary; • develop management procedures for dumpsters and other waste management equipment; • sweep parking lots and keep areas surrounding the facilities clean to minimize runoff of pollutants; • ensure that all interior building floor drains are not connected to the MS4 and are appropriately permitted. <p>(v) Vehicles and Equipment</p> <p>The Town of South Windsor will:</p> <ul style="list-style-type: none"> • establish procedures for the storage of The Town of South
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		bringing leaves to the compost site at the Public Works Facility.				<p>Windsor-owned or -operated vehicles;</p> <p>require vehicles with fluid leaks to be stored indoors or in contained areas until repaired;</p> <ul style="list-style-type: none"> • evaluate fueling areas owned by The Town of South Windsor and used by The Town of South Windsor owned or - operated vehicles and if possible, place fueling areas under cover in order to minimize exposure; • establish procedures to ensure that vehicle wash waters are not discharged to the municipal storm sewer system or to surface waters; • ensure any interior floor drains are appropriately permitted.
6-3 Implement coordination with interconnected MS4s	In Progress	The Engineering Department reached out to CTDOT to start coordination with their MS4 in South Windsor, however, DOT mapping was not yet started in South Windsor, so no progress was made with mapping interconnections between the MS4s.	Coordinate municipal operations with adjoining MS4's.	Stormwater Committee	7/1/2020 – 7/1/2022	The Town of South Windsor will coordinate with operators of interconnected MS4s (neighboring municipalities and DOT) regarding the contribution of potential pollutants from the storm sewer systems, contributing land use areas and stormwater control measures in the respective MS4s. This same coordination shall be conducted regarding operation and maintenance procedures utilized in the respective systems.
6-4 Develop/implement program to control other sources of pollutants to the MS4	In Progress	The Town utilizes Planning, Wetlands, and Engineering specifications and regulations to monitor developments and their runoff potential to minimize stormwater pollution from these sites.	The Town shall annually review the list of stormwater general permit registrants, and identify non-permitted locations which may be potential contributors and use this data to	Stormwater Committee	7/1/2020 – present	The Town of South Windsor will develop and implement a program to control the contribution of pollutants to its MS4 from commercial, industrial, municipal, institutional or other facilities, not otherwise authorized by a CT DEEP stormwater permit.

			adjust screening prioritization in the IDDE Plan as warranted.			
6-5 Evaluate additional measures for discharges to impaired waters*	Ongoing	The Town of South Windsor follows procedures for fertilizer and chemical application to optimize growth and minimize the discharge of pollutants. For example, the Town is currently implementing a 0% phosphorus program for fertilizer application. Standard operating practices are adhered to for handling, storage, application, and disposal of all fertilizers and chemicals. The Town has also adopted a maintenance program to reduce mowing frequencies in various areas of town where applicable. The Town utilizes mulching mowers so disposal of grass clippings is not a problem. All equipment is washed in a designated wash bay in the maintenance building.	Implement practices to minimize impacts from Nitrogen, Phosphorus, and Bacteria on impaired waters.	Stormwater Committee	7/1/2017 – present	
6-6 Track projects that disconnect DCIA (Ongoing)	Ongoing	The Town of South Windsor Planning Department requires impervious area quantities on applications including new developments and existing site plan modifications and therefore tracks changes in impervious area throughout the year. There are also maximum impervious area quantities identified by the Planning Department regulations.	The Town of South Windsor's goal will be to reduce 1% of its total DCIA acreage per year to the maximum extent possible. The Town will also incorporate all DCIA disconnections which occurred in the town since July 1, 2012 towards meeting this goal.	Planning Department	7/1/2021 – present	The Town of South Windsor will annually track Directly Connected Impervious Area (DCIA) that is disconnected from the MS4 as a result of redevelopment or retrofit projects within the town. For each retrofit/redevelopment project, The Town of South Windsor will document the amount of existing DCIA that is disconnected. The total amount of disconnected DCIA will be reported each year in the Annual Report.

6-7 Implement infrastructure repair/rehab program (Due 7/1/2022)	Ongoing	There were 100 structures repaired or rebuilt by the Town's Public Works Department or private contractors in 2022.	Develop a formal policy on infrastructure repair, rehabilitation, and retrofits.	Public Works	7/1/2017 – present	The Town of South Windsor will continue its program to identify MS4 structures to repair, rehabilitate, or upgrade to reduce or eliminate the discharge of pollutants into water bodies. This program will be responsive to new information on outfalls discharging pollutants, impaired waters, inspections, or observations made during outfall mapping under the IDDE section of this plan.
6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/2020)	In Progress	The Town Planning Department utilized maximum impervious area quantities with their application process, and for any property that comes in for a reuse/redevelopment of an existing site, reduction of impervious area is discussed.	Develop plan to identify and prioritize retrofit projects.	Planning Department	6/30/2022 – present	
6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22)	In Progress	The Town Planning Department identifies retrofit projects through their application process for redevelopments throughout the year.		Planning Department	6/30/2022 – present	
6-10 Develop/implement street sweeping program (Ongoing)	Ongoing	The Town's street sweeping program has continued with sweeping of silt, sand, and debris due to erosion, storms, litter, etc. All Town parking lots and roads were swept in 2022, including 141 miles of roadway with the Town's sweeper unit and 279 C.Y. of material was collected.	The Town shall continue its street sweeping program and document volume/mass of material removed.	Public Works / Street Services		The Town of South Windsor will implement a program to provide for regular inspection and maintenance of The Town of South Windsor-owned or -operated streets, parking areas and other MS4 infrastructure. The Town of South Windsor will establish and implement procedures for sweeping town-owned or operated streets and parking lots. All streets and parking lots within the MS4 Priority Areas will be inspected, swept and/or cleaned (as necessary) at least once per year in the spring following the cessation of winter maintenance

						<p>activities (i.e. sanding, deicing, etc.).</p> <p>a. The Town of South Windsor will ensure the proper disposal of street sweepings in accordance with DEEP policies, guidance and regulations. Sweepings shall not be discharged back into the storm drain system and/or surface waters.</p> <p>b. The Town of South Windsor will document results of its sweeping program in its annual reports including: a summary of inspection results, curb miles swept, dates of cleaning, volume or mass of material collected, and method(s) of reuse or disposal. The Town of South Windsor will also include documentation of any alternate sweeping plan for rural uncurbed streets and any runoff reduction measures implemented.</p>
6-11 Develop/implement catch basin cleaning program (Ongoing)	Ongoing	There were a total of 1,403 drainage structures cleaned by the Town's Public Works Department or private contractors in 2022. There was an estimated total of 211 tons of material removed from those structures.	The Town shall continue it's catch basin cleaning program and document the number of structures inspected and/or cleaned, and the volume/mass of material removed.	Public Works/ Street Services		
6-12 Develop/implement snow management practices (Due 7/1/18)	Complete	To prevent road salts from migrating into the surrounding wetlands and watercourse areas at the Town Public Works Facility, a 10,000 sq. ft. enclosed salt storage shed was constructed in 2003. Approximately 4,300 cubic yards of material can be stored in the enclosure. The building was	Develop snow management practices and implement annually.	Public Works/Street Services	7/1/2018	In its Annual Report, The Town of South Windsor will continue to document results of its snow removal program including, at a minimum: the type of staff training conducted on application methods and equipment, type(s) of deicing materials used; lane-miles

		<p>also designed to allow mixing of sand and salt within the confines of the building if required.</p> <p>Since 2006, salting operations in South Windsor have been modified to eliminate the use of sand mixed with salt, and anti-icing products "Clearlane" and "Ice-B-Gone" have been introduced. These are enhanced deicers more environmentally friendly than traditional road salt, with less impact on watersheds and fewer chlorides being introduced to the environment. Whereas salt tends to bounce off the pavement when applied, Clearlane adheres to the road surface better, which translates to fewer applications and less material used. South Windsor has also refined its standard operating practices to minimize application rates by utilizing automated application equipment and implementing a pre-treatment anti-icing policy.</p>				<p>treated; total amount of each deicing material used; type(s) of deicing equipment used; any changes in deicing practices (and the reasons for the change); and snow disposal methods.</p>
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6.2 Describe any Pollution Prevention/Good Housekeeping activities planned for the next year, if applicable.

The Town of South Windsor will continue it's pollution prevention and housekeeping practices annually including street sweeping, catch basin cleaning, and snow and deicing management.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes, as needed
Street sweeping	
Curb miles swept	282 miles
Volume (or mass) of material collected	280 CY
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	Approx. 1,100
Total catch basins town- (or institution-) wide	8,620
Catch basins inspected	1,403
Catch basins cleaned	1,403
Volume (or mass) of material removed from all catch basins	211 tons
Volume removed from catch basins to impaired waters (if known)	unknown
Snow management	
Type(s) of deicing material used	Clearlane/ Ice-B-Gone Treated Salt
Total amount of each deicing material applied	2,669 tons
Type(s) of deicing equipment used	Truck/spreader
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	Approx. 141 miles
Snow disposal location	N/A
Staff training provided on application methods & equipment	Yes, ongoing
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	n/a
Reduction in turf area (since start of permit)	Unknown
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 plans to continue with the current method of catch basin maintenance.

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. (Due 7/1/20)
Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection annually in future years. (Due 7/1/22)

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

For details on this requirement, visit <https://nemo.uconn.edu/ms4/tasks/monitoring.htm>. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. This data is available on the MS4 map viewer: <http://s.uconn.edu/ctms4map>.

Nitrogen/ Phosphorus ☐

Bacteria ☒

Mercury

Other Pollutant of Concern ☒

1.2 Describe program status

Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results.

- 1) Four (4) outfalls that discharge to impaired waterbodies have been sampled.
- 2) Based on sample results of the four outfalls sampled in 2021, no further investigations are required.
- 3) No changes have been made to the Stormwater Management Plan at this time. If the need arises to update the Plan, then changes will be made at that time.

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

2.1 Screening data

Complete the table below to report data for any wet weather sampling completed for MS4 outfalls that discharge directly to a stormwater impaired waterbody during the reporting period. For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. **You may also attach an excel spreadsheet with the same data rather than copying it into this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Latitude / Longitude	Sample Date	Parameter	Results		Name of Laboratory (if used)	Follow-up required? *
3900-OT- 07	41.862743; -72.566671	4/24/2020	Bacteria	E.Coli (col/100mL)	<10	Phoenix	NO
3900-OT- 08	41.862838; -72.567018	4/24/2020	Bacteria	E.Coli (col/100mL)	<10	Phoenix	NO
7860-OT- 08	41.859948; -72.580926	4/24/2020	Bacteria	E.Coli (col/100mL)	327	Phoenix	NO
9000-OT- 01	41.859795; -72.581763	4/24/2020	Bacteria	E.Coli (col/100mL)	86	Phoenix	NO
6030-OT-01		2/3/2022	Turbidity (u/s) Turbidity (outfall)	Turbidity (NTU) Turbidity (NTU)	3.41 11.1	Phoenix	YES
3240-OT-01A		2/3/2022	Turbidity (u/s) Turbidity (outfall)	Turbidity (NTU) Turbidity (NTU)	0.71 46.4	Phoenix	YES
3240-OT-01B		2/3/2022	Turbidity (u/s) Turbidity (outfall)	Turbidity (NTU) Turbidity (NTU)	0.71 20.6	Phoenix	YES
3360-OT-02		2/3/2022	Turbidity (u/s) Turbidity (outfall)	Turbidity (NTU) Turbidity (NTU)	2.89 14.6	Phoenix	YES
3360-OT-05		2/3/2022	Turbidity (u/s)	Turbidity (NTU)	3.85	Phoenix	YES

			Turbidity (outfall)	Turbidity (NTU)	24.2		
7590-OT-01		2/3/2022	Turbidity (u/s)	Turbidity (NTU)	1.2	Phoenix	YES
			Turbidity (outfall)	Turbidity (NTU)	13.2		
0810-OT-02		2/3/2022	Turbidity (u/s)	Turbidity (NTU)	2.77	Phoenix	YES
			Turbidity (outfall)	Turbidity (NTU)	8.29		
0810-OT-01		2/3/2022	Turbidity (u/s)	Turbidity (NTU)	2.77	Phoenix	NO
			Turbidity (outfall)	Turbidity (NTU)	6.91		

*Follow-up investigation required (last column) if the following pollutant thresholds are exceeded:

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	<ul style="list-style-type: none"> E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	<ul style="list-style-type: none"> Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample

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

N/A

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, 2021. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

Outfall	Latitude / Longitude	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
It is anticipated that this work will be initiated in 2023 based on wet weather results from sampling completed in 2022.					

Part III: Additional IDDE Program Data

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

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

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
It is anticipated that this work will be initiated in 2023.		

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

This screening is the baseline IDDE dry weather screening. For details on this requirement, visit <https://nemo.uconn.edu/ms4/tasks/monitoring.htm>. Refer to the blue column of the Monitoring comparison chart and the IDDE baseline monitoring flowchart.

Provide sample data for outfalls where flow is observed, during dry weather, of outfalls and interconnections categorized as high or low priority in priority areas. Do not include problem or excluded catchments. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write “See Attachment” below.

Table 2.1a – Non-Impaired Waterbody Samples

Outfall / Interconnection ID	Latitude / Longitude	Screening / sample date	Ammonia (mg/L)	Chlorine (mg/L)	Conductivity (umhos/cm)	Salinity (g/kg)	E. coli (col/100mL)	Surfactants (mg/L)	Water Temp (deg C)	If required, follow-up actions taken
0600-OT-01	41.825654; -72.532899	12/14/2021	0.25	0	365	0.186	213			
2160-OT-01	41.828552; -72.530904	12/14/2021	0	0	474	0.231	24200			
2250-OT-01	41.858417; -72.597530	2/5/2020	0	0.04	687.6	0.34	<10			
2250-OT-04	41.858699; -72.600527	2/5/2020	0	0	1199	0.59	591			
3770-OT-01	41.820741; -72.545338	12/14/2021	0	0.04	410	0.205	20			
3830-OT-01	41.867255; -72.566765	3/2/2020	0.25	0.04	113.3	0.05	<10			
4260-OT-01	41.866402; -72.576057	2/5/2020	0.25	0.03	390.6	0.19	<10			

5070-OT-01	41.823450; -72.534435	12/14/2021	0	0	268	0.142	<10			
5820-OT-02	41.862686; -72.582310	3/2/2020	0.25	0.02	325	0.159	<10			
7050-OT-01	41.866519; -72.584501	3/2/2020	0	0.09	373	0.182	1600			
7470-OT-01	41.827172; -72.531965	12/14/2021	0	0	691	0.344	1720			
7860-OT-14	41.862680; -72.574913	2/5/2020	0.25	0	315.8	0.15	<10			
8100-OT-02	41.866826; -72.576347	2/5/2020	0	0.04	321.7	0.15	63			
8910-OT-01	41.827189; -72.535801	12/14/2021	0	0.01	345	0.171	<10			
6360-OT- (location 1)	41.8546396; -72.5204365	12/22/2022	0	0	97.7	0.047	31.00	0.24	4.70	
6360-OT- (location 2)	41.8546396; -72.5204365	12/22/2022	0	0.08	28.50	0.139	<10	0.25	4.20	
8610-OT-	41.850963; -72.520538	12/22/2022	0.0	0.0	926	0.457	<10	0.25	9.8	

Table 2.1b – Impaired Waterbody Samples

Outfall ID	Latitude / Longitude	Screening / sample date	Ammonia (mg/L)	Chlorine (mg/L)	Conductivity (umhos/cm)	Salinity (g/kg)	E. coli (col/100mL)	Surfactants (mg/L)	Water Temp (deg C)	If required, follow-up actions taken
3240-OT-01B	41.822225; -72.543407	12/14/2021					97			
3360-OT-02	41.823698; -72.532309	12/14/2021					<10			
3900-OT-07	41.862743; -72.566671	2/5/2020					100			
9000-OT-01	41.859795; -72.581763	2/5/2020					520			

2.2 Wet weather sample and inspection data

This sampling data is the baseline wet weather priority catchment investigation sampling. For details on this requirement, visit <https://nemo.uconn.edu/ms4/tasks/monitoring.htm>. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

Provide baseline sample data for outfalls and key junction manholes of any catchment area (all high priority, low priority, and problem outfalls within the priority area) with at least one System Vulnerability Factor.

Outfall / Interconnection ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
See exceedances in Part II Section 2.1. It is anticipated that this follow-up work will be initiated in 2023.										

3. Catchment Investigation data (Appendix B (A)(7)(e) / page 9)

For details on this requirement, visit www.nemo.uconn.edu/ms4/tasks/monitoring.htm. Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

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
The Town has contracted B&L to assist in this work, which is anticipated to be substantially completed in 2023.		

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

This screening is the dry weather priority catchment investigation screening. Provide sample data, both baseline and follow-up, for key junction manholes of any catchment area begin investigated for an illicit discharge and do not have any SVFs present. Follow-up investigations must take place within one year and again within five years. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write “See Attachment” below.

Key Junction Manhole ID	Latitude / Longitude	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants
It is anticipated that this work will be initiated in 2023.						

3.3 Wet weather follow-up investigation outfall sampling data

This sampling is the follow-up investigations for the wet weather priority catchment investigation. Provide follow-up sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. Follow-up investigations must take place within one year and again within five years. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write “See Attachment” below.

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants
It is anticipated that this work will be initiated in 2023.					

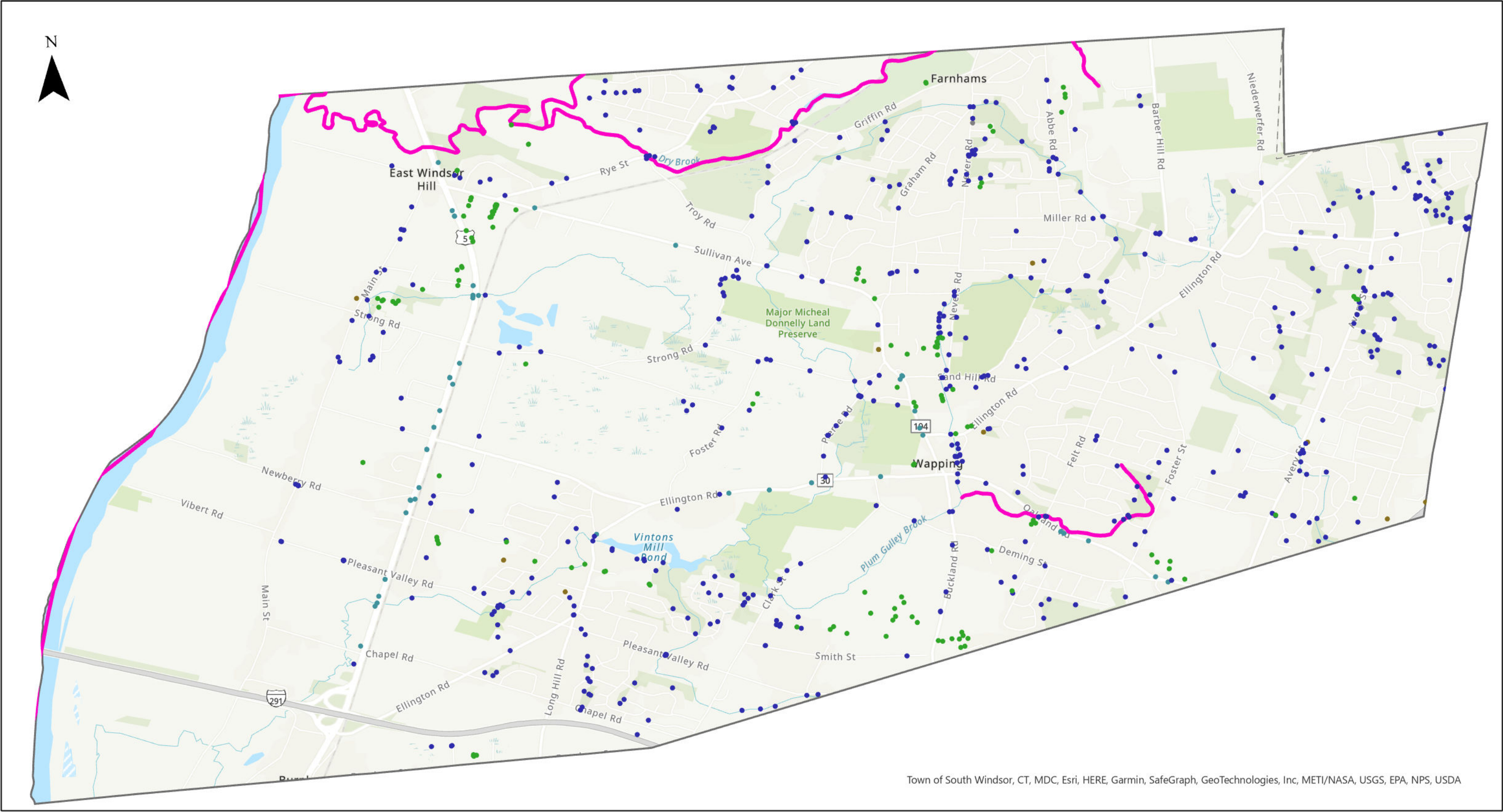
3.4 Data for each illicit discharge source confirmed through the catchment investigation procedure

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 work will be initiated in 2023.							

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:	Print name: Taylor Rodrigue, P.E.
Signature / Date:	Signature / Date:
Email:	Email: taylor.rodrigue@southwindsor-ct.gov



Town of South Windsor 2022 MS4 Annual Report
Outfalls and Impaired Waters Map