



Town of Wallingford, Connecticut

2020 Annual Report

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

Permit Number GSM000050

MS4 General Permit
Town of Wallingford 2020 Annual Report
Existing MS4 Permittee
Permit Number GSM 000050
January 1, 2020 – December 31, 2020

This report documents the town of Wallingford's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2020 to December 31, 2020.

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-1 Implement public education and outreach	All completed	Brochures, posters and fact sheet are provided at various town departments.	Educate town residents.	DPW, Engineering, Wetlands, Planning and Zoning	July 1, 2018	Completed in 2017-2019	Continue to add and update materials.
		Flyer sent out to all town residents - Annual "Clean a Road" flyer.	Improve stormwater quality.	DPW		Completed in 2017-2019	Continue to send out flyer annually.
		Town Hall Display on stormwater.	Inform the public.	DPW		Completed in 2017-2019	Continue to display.
		Stormwater activity books to schools.	Educate students.	DPW		Previously Completed in 2017-2018	Continue to reach out to schools.

		Library Series on stormwater and water quality topics. “Stormwater and You” Booth. Town website with Stormwater Management Plan and other links to stormwater information. Household Hazardous Waste Collection Point for residents – at Regional Water Authority in New Haven. Addition of pet waste care fact sheet posted to Town website and “Stormwater and You” Booth.	Educate the public. Educate public on stormwater. Educate public. Public can properly dispose of household hazardous waste. Educate public	Town Library Sponsored by Town Program Planning and DPW Engineering Information on town website and Town of Wallingford hosts twice a year Information on Town website		Previously Completed in 2017-2018 Completed in 2017-2019 Completed in 2017-2019 Completed in 2017-2019 Completed December 2020	Continue to support. Continue with current sponsor or new sponsors. Update as new information comes in. Continue with Regional Water Authority as the leading agency. Continue to display
1-2 Address education/ outreach for pollutants of concern*	In progress	Town Department brochures and pamphlets on pollutants of concern.	Educate public about Bacteria, nitrogen and phosphorus.	Water Pollution Control Authority, Aquifer Protection Regulations as supplied by various town departments	July 1, 2018	Completed in 2017-2019	Continue/update informational flyers.

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

Plan to implement new brochures, pamphlets, and update/continue with town display and booth as new stormwater information is made available from regulatory sources (CTDEEP and/or EPA). Update town website on stormwater as information is required (e.g., Annual Report posting requirement). This will continue to be changed/developed as new informational brochures and pamphlets come available.

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.
Brochures, posters and fact sheet	Town residents doing business at Town Hall and DPW.	Potential contaminants and stormwater impacts.	Phosphorus, nitrogen, bacteria, oils and TSS	DPW, Engineering, Wetlands, Planning and Zoning
Flyer sent out to all town residents - Annual "Clean a Road" flyer.	All town residents.	Trash to be eliminated from stormwater runoff.	Trash	DPW
Town Hall Display on stormwater.	Residents that do business at Town Hall.	Various stormwater topics – general information.	General information only	DPW
Stormwater activity books to schools.	Elementary Schools in Wallingford.	General pollution problems.	General information only	DPW
Library Series stormwater & water quality topics.	People who attend series.	Stormwater quality and water quality.	Topics vary	Town Library
"Stormwater and You" Booth.	Residents, families/children.	General information.	General information	DPW and Town Program Planning
Town website with Stormwater Management Plan and other links to stormwater information.	Residents and others who visit the website.	Various topics, Stormwater Management Plan, Annual Report(s).	General information	Engineering
Household Hazardous Waste Collection Point for residents – at Regional Water Authority in New Haven.	Residents that attend collection point.	Eliminate hazardous waste from stormwater.	Hazardous waste and hazardous materials	Regional Water Authority
Town Department brochures and pamphlets on pollutants of concern.	Residents that do business in these departments.	Bacteria, nitrogen and phosphorus.	Bacteria, nitrogen and phosphorus	Water Pollution Control Authority and Aquifer Protection Agency

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

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Comply with public notice requirements for the Stormwater Management Plan	Posted	Stormwater Management Plan (SWMP) posted to the town website and information about the SWMP at the Town Library, Town Clerk, in the local newspaper and at the Town Hall Display as of April 1, 2017.	Provide forum to coordinate SWMP implementation across depts. and commissions.	Engineering	Apr 3, 2017	Completed April 1, 2017	Stormwater Management Plan previously completed on time as per Permit requirements.
2-2 Comply with public notice requirements for Annual Reports	In Progress	2020 Annual Report to be posted for public review.	Provides access for residents to understand what is being accomplished in the town for stormwater management.	Law Department, Engineering and DPW	Feb 15, 2021	2017 Annual Report posted April 1, 2018. 2018 Annual Report posted June 14, 2019. 2019 Annual Report posted February 18, 2020. 2020 Annual Report submitted on February 15, 2021.	2018 Annual Report delay due to Town of Wallingford re-bidding MS4 Permit Compliance with a consultant and having funds available for this service. The Town received a public comment from Save the Sound on March 24, 2021. A hard-copy of the public comment correspondence is included with the 2020 Annual Report at the Town.
2-3 Household Hazardous Waste Collection Point for residents – at Regional Water Authority in New Haven	Completed	Done throughout the year - involve public in proper disposal of waste streams to eliminate sources to stormwater.	Public can properly dispose of household hazardous waste.	Regional Water Authority	-	Done throughout the year	Information on town website and Town of Wallingford hosts twice a year.
2-4 Compost Center	Completed	Provided to town residents for leaves and other organic debris (yard debris).	Eliminate leaves and other compost	DPW	-	Available to town residents	Compost Center located at 157 John Street, Wallingford, CT

2-5 Recycling Center	Completed	Provided town residents for solid waste to be recycled – wood, metal, mattresses, light bulbs and ballasts.	into the storm sewers. Eliminate large solid waste streams into storm sewers not handled by curb-side pick-up.	DPW	-	Available to town residents	Recycling Center located at 25 Pent Road, Wallingford, CT
2-6 Community Clean-ups	Completed	Twice per year – various locations.	Opportunity to clean-up wastes from getting into the storm sewers.	DPW	-	Town residents, community groups and businesses	Quinnipiac River Watershed clean-up. Tyler Mill Preserve Conservation Commission clean-up. Mini-Grant provided by town for groups to initiate their own clean-up.
2-7 Adopt-a-Road Program	Completed	Done since initiation of this Permit.	Town has Adopt-a-Road Program to eliminate sections of trash along roadways.	DPW	-	Town residents, community groups and businesses	
2-8 Marker Kits	Completed	Done since initiation of this Permit.	Town and High School students have placed on stormwater catch basins warning discharge to rivers and waterbodies.	DPW	-	DPW and school students	6,500 catch basins completed to date.
2-9 Citizen Reporting	Completed	*Complaint form available on town website.	For residents to report illicit discharges to storm sewers.	Engineering	April 1, 2017	April 1, 2017 Completed as per Permit requirements	

*Town website for stormwater: http://www.town.wallingford.ct.us/Content/Stormwater_and_You.asp

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

2020 Annual Report to be posted by February 15, 2021. The Town will consider additional activities pending COVID-19 restrictions.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes – previously submitted	April 1, 2017	Town website *see below
Availability of Annual Report announced to public	In progress	2017 Annual Report posted April 1, 2018. 2018 Annual Report posted June 14, 2019. 2019 Annual Report posted February 18, 2020.	Town website *see below

* http://www.town.wallingford.ct.us/Content/Stormwater_and_You.asp

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

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
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3-1 Develop written IDDE program	Completed	Completed	Develop written plan of IDDE program.	Law Department, DPW and Engineering	Jul 1, 2018	September 2019	Town developed IDDE Program in early 2019, and finalized thereafter.
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	Completed	A way for the Town to track/reference all the outfalls and interconnections for the MS4.	Develop the lists/mapping for the outfalls of the MS4.	Engineering Department	Jul 1, 2019	Completed May 1, 2019	Mapping of all outfalls, catch-basins and other stormwater infrastructure completed in 2019.
3-3 Implement citizen reporting program	Completed	Implemented an Illicit Discharge Reporting Form available on the town website.	Citizen reporting system.	Engineering Department	Jul 1, 2017	Previously completed April 1, 2017	
3-4 Establish legal authority to prohibit illicit discharges	Completed	New (approved on 3/14/18) Stormwater Management Ordinance.	Regulate, prohibit, establish legal authority and ensure compliance with MS4.	Town Law Department and Engineering	Jul 1, 2018	Previously completed 3/14/18	Town of Wallingford, CT Ordinance No. 621
3-5 Develop record keeping system for IDDE tracking	Completed	Follow-up of citizen reporting to confirm an illicit discharge and document.	Documents illicit discharge reports by citizens.	Engineering Department	Jul 1, 2017	Completed previously - April 1, 2017	
3-6 Address IDDE in areas with pollutants of concern	In progress	Follow-up investigation of confirmed Illicit discharge.	Find and stop source(s) of the illicit discharge.	Engineering Department	Not specified	Dry weather screening for IDDE completed in 2020.	Follow up investigation by Engineering Department with possible sampling by others (consultant)

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

IDDE dry weather screening completed throughout 2020 in areas identified with potential concerns based on previously completed wet and dry weather screening results. Additional IDDE dry and wet weather screenings will be completed in 2021 (and annually thereafter) of the selected priority outfalls based on the highest contributors of any pollutants of concern. Original stormwater infrastructure mapping completed in 2019 and in AutoCAD. In 2021, all stormwater-related mapping will be integrated into a GIS-based system and town-wide maps will be provided in the 2021 Annual Report.

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

Date of Report	Location / suspected source	Response taken
6/1/2020	Residential property in Wallingford/ potential septic failure	Upon completion of an investigation by the Town, it was determined that the discharge was groundwater from a nearby sump pump. No further action necessary.

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

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)
7 Old Gate Road, Wallingford, CT 06492	January 16, 2019	Storm drain of MS4	Unknown	Homeowner	Health Department – Town of Wallingford discovered a 4” PVC line illegally discharging into the MS4 storm water system. In March 2019, the Town of Wallingford proceeded to inspect and cap the illegal sewage discharge pipe to prevent future effluent from entering the storm water system.	Discharge water samples collected from the PVC line were reported above applicable criteria for E.coli and ammonia.

No additional reports of illicit discharges were reported during the current reporting period.

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

The Town of Wallingford has a form on their website http://www.town.wallingford.ct.us/Content/Stormwater_and_You.asp that the person making the complaint can complete and then submit to the Town Engineering Department. The Engineering Department will then investigate the complaint to confirm an actual illicit discharge has occurred. The tracking will be done by the Engineering Department.

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

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
Suspected septic failures or discharges of sewage to the MS4 are tracked by the Town Health Department (one documented sewage discharge to the MS4 in 2019)	If determined to be a sewage discharge to the MS4, the homeowner/business owner was contacted by the Health Department.	Unknown

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3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	650
Estimated or actual number of interconnections	6,500
Outfall mapping complete	100%
Interconnection mapping complete	25%
System-wide mapping complete (detailed MS4 infrastructure)	50%
Outfall assessment and priority ranking	85%
Dry weather screening of all High and Low priority outfalls complete	90%
Catchment investigations complete	18 +\-
Estimated percentage of MS4 catchment area investigated	20% +\-

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).

Annual training is provided to all DPW staff to recognize and report back for illicit discharges. Annual training was provided on November 12, 2020. The next annual IDDE training event will be completed in 2021.

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

4.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Completed	Specific zoning and wetlands regulations in place for stormwater management for construction.	Control sediment/runoff from construction activities.	Planning and Zoning (P & Z) and Wetlands	July 1, 2019	Previously completed on July 1, 2017	Update regulations when approved by each department
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Completed	Site plan reviews completed by applicable departments.	Ascertain all applicable departments have required site plans for impacts on stormwater.	P & Z. Wetlands if wetlands may be affected	July 1, 2017	Previously completed on June 30, 2018	Integrated compliance checklist.
4-3 Review site plans for stormwater quality concerns	Completed	As part of site plan reviews and required in the Contractor's Stormwater Management Plan.	Provides for proper procedures for sediment and erosion control.	P & Z. Wetlands if wetlands may be affected	July 1, 2017	Previously completed on July 1, 2017	Projects that require a Planning & Zoning permit are reviewed to comply with the CTDOT Drainage Manual, including attenuating peak flow for up to and including the 100-year storm. Often times, applications will include under- and above-ground detention /infiltration basins to achieve compliance. Additionally, on-going efforts to modify the zoning ordinance to improve stormwater quality in the IX and I5 zones, and within the

							Watershed Protection District. There is an application currently in front of IWWC (5 Research Parkway, proposed warehouse) in which the Commission has hired a peer reviewer for the proposed soil erosion and sediment control measures as well as site inspections during construction.
4-4 Conduct site inspections	Completed	Site inspections done on an as needed basis. General written procedures for P & Z for enforcement.	Ensures compliance with regulations of each department.	P & Z and Wetlands	July 1, 2017	Completed in 2017-2019	Wetlands enforcement on application and in regulations. See above.
4-5 Implement procedure to allow public comment on site development	Completed	P & Z and Wetlands allow for public comment.	Allows public to consider impact of Construction Projects.	P & Z and Wetlands	July 1, 2017	Completed in 2017-2019	
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Completed	Posted in specific departments as to the requirements.	Provides awareness to all developers about permit.	P & Z and Wetlands	July 1, 2017	Previously completed on July 1, 2017	Add in the future to applications for P & Z and Wetlands departments.
4-7 Require Waste Control On-Site	In progress	Verbal warning if department becomes aware.	Controls waste/debris from getting in stormwater discharge.	P & Z and Wetlands	--	July 31, 2019	

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

The Commission has hired a peer reviewer for the proposed soil erosion and sediment control measures as well as site inspections during construction. Most, if not all, permitted construction projects are subject to a Soil Erosion Bond with the Planning & Zoning Office, as well as site inspections to observe soil erosion and sediment control measures throughout construction.

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

5.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	In progress	Regulations currently exist and are enforced for runoff reduction.	Requires site developments to be low impact and reduce runoff.	P & Z and Wetlands if impacted	July 1, 2021	July 1, 2020	Town Engineering working on strengthening regulations.
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	In progress	Stormwater Maintenance Plan required for > or = 1 acre disturbance.	Long term, quarterly and after every storm event developer inspects.	P & Z	July 1, 2019	July 1, 2019	P&Z approval requirements meet requirements of permit.
5-3 Identify retention and detention ponds in priority areas	In development	Inspections done for sediment in excess of 50% design capacity.	Allows for ponds to operate properly.	Engineering	July 1, 2019	Jul 1, 2019	Identified retention basins in priority areas. Majority of town basins are privately owned.
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	In development	In areas of the Urbanized Area and DCIA > 11% to Impaired Waters	Allows for reduction of pollutants to MS4.	Engineering	July 1, 2019	Jul 1, 2019	Long-Term Maintenance Program outlined in Long-Term Post Construction Stormwater Management Maintenance Plan developed for town in 2019.
5-5 DCIA mapping	In development	Calculate DCIA at each MS4 outfall.	Provides understanding of overall DCIA in the MS4.	Engineering with other Town designated departments	July 1, 2019	Completed June 2019.	DCIA mapping completed and provided to the Town by a consultant.
5-6 Address post-construction issues in areas with pollutants of concern	In development	For specific pollutants of concern identify and address on case by case basis.	Reduce/Eliminate pollutants of concern.	Engineering with other Town designated departments	Not specified	Jul 1, 2020	Retrofit Program (in progress) will identify target areas for potential post-construction issues.

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

Town Engineering working on strengthening regulations. Long-Term Post Construction Stormwater Management Maintenance Plan developed for the town in 2019 will serve as platform for complying with MS4 permit requirements.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	575.19 acres
DCIA disconnected (redevelopment plus retrofits)	(TBD) acres this year / acres total
Retrofits completed	(TBD)
DCIA disconnected	(TBD)
Estimated cost of retrofits	(TBD) \$
Detention or retention ponds identified	(5) 5 this year / 5 total (town owned only)

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

For the above baseline DCIA metrics, DCIA acreage is based on initial calculation / evaluation. The method used for calculations includes the following: Based on information contained in the CT DEEP Factsheet entitled *Town of Wallingford Water Quality and Stormwater Summary*, prepared by the CT DEEP, 9,423.13 acres of the town has an impervious area exceeding 12% which is approximately 36.49% of the town. 2,507.95 acres have an impervious cover of ranging from 12% to 25%, 3,734.37 acres have an impervious cover ranging from 26% to 50%, 2,239.48 acres have an impervious cover ranging from 51% to 75% and 941.33 acres have an impervious cover ranging from 76% to 100%.

Based on information contained in the MS4 mapping tab of Connecticut Environmental Conditions Online (CT ECO) The impervious surface area consists of 1,088.52 acres of buildings, 1,040.91 acres of roads (768.32 acres of Non-State Roads and 272.59 acres of State Roads) and 1,938.86 acres of other impervious surfaces for a total impervious surface area of 4,068.29 acres.

The DCIA Mapping was conducted in substantial accordance with the methodologies presented in the October 25, 2017 UConn CLEAR Webinar entitled *CT MS4 Mapping Details, Clarifications and Tools*, the October 19, 2018 UConn CLEAR Workshop entitled *CT MS4 Mapping Workshop* as well as information contained in the EPA reference entitled *Estimating Change in Impervious Area (IA) and Directly Connected Impervious Area (DCIA) for Massachusetts Small MS4 Permit utilizing Sutherland equations*.

The DCIA computations were prepared utilizing Connecticut Environmental Conditions Online MS4 base mapping prepared by UConn CLEAR.

Impaired waters were determined from the report entitled *2018 Integrated Water Quality Report*, dated August 01, 2019, prepared by the State of Connecticut Department of Energy and Environmental protection.

The method to determine the 2012 baseline DCIA was to first compile the CT DEEP drainage basin characteristics in a Microsoft Excel spreadsheet. Information on the Connecticut Environmental Conditions Online MS4 Mapping was used to determine the impervious area breakdown as Buildings, Roads and Other. For CT DEEP drainage basins that fell in two or more municipalities the advanced mapping tab of Connecticut Environmental Conditions Online was used to delineate and determine the applicable town CT DEEP basin area. It was assumed that the entire drainage basin characteristics were directly proportional to the applicable town CT DEEP drainage basin area.

In that ConnDOT has a MS4 Stormwater Program which applies to state owned roads and facilities which the town has no control over, it was decided that the impervious state road area would be determined and deducted from the total impervious road area for each CT DEEP drainage basin as the impervious road areas associated with state highways and facilities constitutes a considerable portion of the total town impervious road area.

The ConnDOT state highway, parking lot and facility impervious road areas were then determined for each CT DEEP drainage basin.

The ConnDOT state highway, parking lot and facility impervious road areas were then deducted from the total town impervious road area to determine a town owned impervious road area for each CT DEEP drainage basin.

Subsequent to the above deduction, the total impervious area in acres and percentage was then recomputed for each CT DEEP drainage basin.

The DCIA formula for each of four development types was then utilized to compute the DCIA. The impervious area in acres was assigned to each of the four Sutherland equations which were modified for the northeastern United State. The Sutherland equation to be utilized was determined using the following methodology:

For impervious percentage less than 6%:

100% of the impervious area was assigned to the slight connectivity Sutherland Equation where $DCIA\% = 0.01 \cdot (IA\%)^{2.0}$

For an impervious area between 6% and 12 %:

50% of the area was assigned to the partial connectivity Sutherland Equation where $DCIA\% = 0.04 \cdot (IA\%)^{1.7}$

and

50% was assigned to the average connectivity Sutherland Equation where $DCIA\% = 0.10 \cdot (IA\%)^{1.5}$

For an impervious area between 12% and 18 %:

50% of the area was assigned to the average connectivity Sutherland Equation where $DCIA\% = 0.10 \cdot (IA\%)^{1.5}$

and

50% was assigned to the high connectivity Sutherland Equation where $DCIA\% = 0.40 \cdot (IA\%)^{1.2}$

For an impervious area of greater than 18 %:

100% of the area was assigned to the high connectivity Sutherland Equation where $DCIA\% = 0.40 \cdot (IA\%)^{1.2}$

The DCIA for each CT DEEP drainage basin was then summed to determine the entire town DCIA.

Subsequent to completion of 2012 Baseline DCIA computations, UConn CLEAR Mapping available on Connecticut Environmental Conditions Online (CT ECO) was revised to separate road impervious area into State Road Impervious Area (Acres) and Town Road Impervious Area (Acres).

The original 2012 Baseline DCIA computations were revised utilizing the UConn CLEAR State Road Impervious Area (Acres) and Town Road Impervious Area (Acres). No major 2012 Baseline DCIA computation discrepancies were noted.

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

The DCIA calculations for the Town are included as an attachment to this Annual Report.

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

6.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-1 Develop/implement formal employee training program	Completed Annually	Trained all DPW personnel on proper stormwater management procedures and spill control.	Eliminate non-stormwater discharges into the storm sewers.	DPW	July 1, 2017	November 12, 2020	Continue annual training
6-2 Implement MS4 property and operations maintenance	Completed	Spill Response Team through fire department is spill occurs. SPCC Plan in place for DPW facility.	Eliminates/minimizes spills/releases to the environment and waterways.	DPW and local fire department	July 1, 2019	December 31, 2019	Continue these activities
6-3 Implement coordination with interconnected MS4s	Completed	Work with Engineering on list and mapping of all outfalls and interconnections if updates are needed.	To have a current list and mapping of the outfalls and interconnections.	Engineering and DPW	Not specified	Previously completed on December 31, 2018	
6-4 Develop/implement program to control other sources of pollutants to the MS4	In development	Work with other town departments on control of other pollutants to the MS4	Reducing other possible pollutants to the MS4.	Engineering and DPW, and potentially other departments	Not specified	In progress	Continued meetings with DPW, P&Z, Engineering and outside consultation for additional pollutant reductions.
6-5 Evaluate additional measures for discharges to impaired waters*	In development	Work with other town departments on control of other pollutants to the MS4	Reducing other possible pollutant to impaired waters.	Engineering and DPW, and potentially other departments	Not specified	In progress	Continued meetings with DPW, P&Z, Engineering and outside consultation for additional pollutant reductions.

6-6 Track projects that disconnect DCIA	Tracking	Engineering is currently tracking projects that disconnect DCIA.	Reducing runoff to storm sewers.	Engineering Department	July 1, 2017	December 31, 2019	Continue to track disconnected DCIA
6-7 Implement infrastructure repair/rehab program	In development	When stormwater structures require repair or rehabilitation	Reduce/Eliminate potential pollutants from a faulty stormwater structure(s).	DPW and Engineering Department	July 1, 2021	In progress	Continue to document infrastructure repairs conducted by DPW.
6-8 Develop/implement plan to identify/prioritize retrofit projects	In development	Planning and Zoning to develop a list of approved retrofits/redevelopments for the past 5 years.	Utilize LID and other run-off reduction measures to improve stormwater quality.	P & Z and Engineering Department	July 1, 2020	July 1, 2021	Track previous – past 5 years. Begin to track additional retrofits/redevelopments as they are completed
6-9 Implement retrofit projects to disconnect 2% of DCIA	In development	Attempt to meet the 1% per year DCIA disconnections.	Reduction of pollutants to the MS4.	P & Z and Engineering Department	July 1, 2022	July 1, 2022	
6-10 Develop/implement street sweeping program	Completed	All streets are swept at least once per year to remove sand and other debris.	Reduce particulates and other debris from entering the MS4.	DPW	July 1, 2017	July 1, 2017	Street sweeping program of all town-owned roads annually.
6-11 Develop/implement catch basin cleaning program	Completed	Inspection of at least 1,000 catch basins per year; clean if sediment loaded 50% or greater.	Reduce particulates and other debris from entering the MS4.	DPW	July 1, 2020	July 1, 2020	Currently catch-basins in problem areas are cleaned on an as-needed basis. DPW maintains detailed maps and routes for ongoing cleaning program.
6-12 Develop/implement snow management practices	Completed	Excess snow is transported and disposed of at the Town's Pent Road facility	Excess snow with particulates and other debris does not attribute to polluting the MS4.	DPW	July 1, 2018	July 1, 2018	DPW staff are aware of risks associated with snow distribution and potential effects of runoff. Generally, excess snow is staged at the property in which it is

							being managed and/or on the sides of roadways.
Example additional BMP: 6-13	Completed	New Road Construction Projects – implementation of sheet flow drainage to eliminate use of catch basins.	Reduces pollutants to the MS4 where this BMP is used.	DPW			

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

The DPW will continue to conduct annual stormwater compliance training and assess catch-basins and clean or repair as needed.

6.3 Pollution Prevention/Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes / February 2018 (scheduled for March/April 2020)
Street sweeping	
Curb miles swept	231 miles
Volume (or mass) of material collected	409 tons
Catch basin cleaning	
Total catch basins in priority areas	6,500
Total catch basins in MS4	6,500
Catch basins inspected	1,000 + per year
Catch basins cleaned (based on historical data of problem catch basins)	100
Volume (or mass) of material removed from all catch basins	150 tons
Volume removed from catch basins to impaired waters (if known)	Not known
Snow management	
Type(s) of deicing material used	<98% NaCl

	<0.5% Molasses <0.5% MgCl ₂ <0.01% Yellow Prussiate Soda
Total amount of each deicing material applied	An average of 400 tons per storm event
Type(s) of deicing equipment used	Various trucks
Lane-miles treated	231 miles each event
Snow disposal location	25 Pent Road, Wallingford
Staff training provided on application methods & equipment	Yes/When hired
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	Subcontractor does application as per manufacturer's specifications.
Reduction in turf area (since start of permit)	Same as above previous reduction method.
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	TBD

6.4 Catch basin cleaning program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule. [\[Complete this section for the 2017 Annual Report only\]](#)
Inspect at least 1,000 catch basins each year. When a catch basin is sediment loaded 50% or greater, the catch basin gets cleaned. All catch basins are cleaned after a road paving parking is completed.

On an annual basis over 1,000 catch basins are inspected by the DPW, any of the catch basins inspected that are over 50% sediment loaded, then these are cleaned by DPW. Focus on known problem catch basins (historic data for DPW). Limited staff and equipment to perform this task.

6.5 Retrofit program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project. [Provide information if available in 2018 report. Section to be completed for the 2020 Annual Report.]

The Retrofit Program is currently in development by the Town and ATC. The Program is being designed by using the DCIA calculations in combination with a refined calculation per catchment area. The results of this evaluation will be used in the context of the areas adjacent to impaired water bodies, urbanized areas and areas with DCIA greater than 11%. The Town will initially focus on town-owned properties for possible disconnect. The final Retrofit Program will be discussed in the 2021 Annual Report.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years. [Provide information if available in 2018 report. Section to be completed for the 2020 Annual Report.]

The Retrofit Program will target specific high-priority areas and focus on future redevelopment of those areas to disconnect areas with DCIA. The Town will initially focus on town-owned properties for possible disconnect. Additional details to be provided in the 2021 Annual Report.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years. [Provide information if available in 2018 report. Section to be completed for the 2020 Annual Report.]

The Retrofit Program will target specific high-priority areas and focus on future redevelopment of those areas to disconnect areas with DCIA. Additional details to be provided in the 2021 Annual Report.

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

Impaired waters investigation and monitoring program

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

Nitrogen/ Phosphorus ☐

Bacteria ☒

Mercury ☐

Other Pollutant of Concern ☒

1.2 Describe program status.

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

To date, 88 outfalls that discharge to an impaired waterbody have been sampled and 85 have been inspected during dry weather conditions. Stormwater discharge analytical results have indicated generally elevated concentrations of bacteria at outfalls sampled. Outfalls that discharge to impaired waterbodies with "other pollutant of concern" have indicated generally low turbidity, with the exception of select outfalls to Wharton's Brook. Additional sampling and dry weather screening for the remaining outfalls will be completed in 2021, to properly develop long-term stormwater sampling program. A summary of the results are attached as tables and PDF documentation below the text of this report.

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

2.1 Screening data collected under permit

A table is attached below the text describing any outfalls screened during the reporting period. Each Annual Report will add on to the previous year's screening data showing a cumulative list of outfall screening data.

2.2 Credit for screening data collected under 2004 permit

If any outfalls to impaired waters were sampled under the 2004 MS4 permit, that data can count towards the monitoring requirements under the modified 2017 MS4 permit. Complete the table below to record sampling data for any outfalls to impaired waters under the 2004 MS4 permit.

Outfall	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required?

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

A table is attached below the text to provide the follow-up investigation information for outfalls exceeding the pollutant threshold.

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

Once outfall screening has been completed for at least 50% of outfalls to impaired waters, identify 12 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2020.

Outfall	Sample Date	Parameter(s)	Results (MPN/100mls)	Name of Laboratory (if used)
MR-1	04/30/2020	Bacteria, Other	E.coli: 5,790 Total Coliform: >24,200	Phoenix Laboratory
MR-2	9/10/2020	Bacteria, Other	E. coli: 3,870 Total Coliform: >24,200	Phoenix Laboratory
QR-6	04/24/2020	Bacteria, Other	E.coli: 4,610 Total Coliform: >24,200	Phoenix Laboratory
QR-8	04/24/2020	Bacteria, Other	E.coli: 631 Total Coliform: >24,200	Phoenix Laboratory
QR-9	04/30/2020, 9/10/2020	Bacteria, Other	E.coli: 8,160 Total Coliform: >24,200	Phoenix Laboratory
QR-10	9/10/2020	Bacteria, Other	E.coli: >24,200 Total Coliform: >24,200	Phoenix Laboratory
QR-11	9/10/2020	Bacteria, Other	E. coli: >24,200 Total Coliform: >24,200	Phoenix Laboratory
QR-17	04/13/2020	Bacteria, Other	E.coli: 3,450 Total Coliform: >24,200	Phoenix Laboratory
AB-1	9/10/2020	Bacteria	E. coli: 24,200 Total Coliform: >24,200	Phoenix Laboratory
AB-2	9/10/2020	Bacteria	E. coli: 3,870 Total Coliform: >24,200	Phoenix Laboratory
AB-3	9/10/2020	Bacteria	E. coli: 880 Total Coliform: >24,200	Phoenix Laboratory
AB-4	9/10/2020	Bacteria	E. coli: 195 Total Coliform: >24,200	Phoenix Laboratory

Part III: Additional IDDE Program Data [[This section required beginning with 2018 Annual Report](#)].

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

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

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
5200 (Quinnipiac River)	High Priority	TBD based on the % of impervious area
5207 (Wharton Brook)	Low Priority	TBD based on the % of impervious area
5208 (Muddy River)	Low Priority	TBD based on the % of impervious area

***Also see attached catchment ranking table**

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

See attached table of sampling data for outfalls where flow is observed, including the pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies.

2.2 Wet weather sample and inspection data

See attached table for wet weather sampling data for outfalls that discharge to impaired waterbodies.

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

3.1 System Vulnerability Factor Summary

For those catchments being investigated for illicit discharges (i.e. categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. **See attached table for SVF summary.**

Outfall ID	Receiving Water	System Vulnerability Factors
	Quinnipiac River	
	Wharton Brook	
	Lyman Hall Brook	
	Allen Brook	
	Muddy River	

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.
7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

Key Junction Manhole ID	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants

3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants

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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
QR-11	Senior Center	Murky and iridescent	Dry weather screening	05/17/2019	--	--	--

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: Robert Baltramaitis Wallingford Department of Public Works	Print name: Luke R. Whitehouse ATC Group Services LLC
Signature:  Date: 4/14/21	Signature:  Date: April 8, 2021

Table 6-1. Catchment Assessment and Priority Ranking Matrix

Catchment ID	Receiving Water	Previous Screening Results Indicate Likely Sewer Input? ¹	Discharging to Area of Concern to Public Health? ²	Frequency of Past Discharge Complaints	Receiving Water Quality ³	Density of Generating Sites ⁴	Age of Development/ Infrastructure ⁵	Historic Combined Sewers or Septic? ⁶	Aging Septic? ⁷	Culverted Streams? ⁸	Additional Characteristics	Score	*Priority Ranking
Information Source		Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other		
Scoring Criteria		Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
QR-1	Quinnipiac River	0	0	-	2	2	-	0	0	0		4	Low Priority
QR-2	Quinnipiac River	0	0	-	2	3	2	0	0	0		7	High Priority
QR-3	Quinnipiac River	0	0	-	2	-	-	0	0	0		2	Low Priority
QR-4	Quinnipiac River	0	0	-	2	2	-	0	-	0		4	Low Priority
QR-5	Quinnipiac River	0	0	-	2	2	2	0	0	0		6	High Priority
QR-6	Quinnipiac River	0	0	-	2	-	3	0	0	0		5	Low Priority
QR-7	Quinnipiac River	0	0	-	2	-	3	0	0	0		5	Low Priority
QR-8	Quinnipiac River	0	0	-	2	-	3	0	0	0		5	Low Priority
QR-9	Quinnipiac River	0	0	-	2	3	3	0	0	0		8	High Priority
QR-10	Quinnipiac River	0	0	-	2	2	3	0	3	0		10	High Priority
QR-11	Quinnipiac River	3	0	-	2	3	2	0	3	0		13	Problem
QR-12	Quinnipiac River	3	0	-	2	2	3	0	3	0		13	Problem
QR-13	Quinnipiac River	3	0	-	2	-	-	0	0	0		5	Problem
QR-14	Quinnipiac River	0	0	-	2	-	-	0	0	0		2	Low Priority
QR-15	Quinnipiac River	3	0	-	2	2	3	0	0	0		10	Problem
QR-16	Quinnipiac River	3	0	-	2	-	3	0	0	0		8	Problem
QR-17	Quinnipiac River	3	0	-	2	-	3	0	0	0		8	Problem
QR-18	Quinnipiac River	0	0	-	2	-	3	0	0	0		5	Low Priority
QR-19	Quinnipiac River	0	0	-	2	2	3	0	0	0		7	High Priority
QR-20	Quinnipiac River	0	0	-	2	2	3	0	0	0		7	High Priority
QR-21	Quinnipiac River	0	0	-	2	3	3	0	0	0		8	High Priority
QR-22	Quinnipiac River	0	0	-	2	2	3	0	0	0		7	High Priority
QR-23	Quinnipiac River	3	0	-	2	-	3	0	0	0		8	Problem
WB-1	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-2	Wharton Brook	0	0	-	2	-	2	0	0	0		4	Low Priority
WB-3	Wharton Brook	0	0	-	2	-	2	0	0	0		4	Low Priority
WB-4	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-5	Wharton Brook	0	0	-	2	-	1	0	0	0		3	Low Priority
WB-6	Wharton Brook	0	0	-	2	-	3	0	3	0		8	High Priority
WB-7	Wharton Brook	0	0	-	2	-	1	0	0	0		3	Low Priority

Catchment ID	Receiving Water	Previous Screening Results Indicate Likely Sewer Input? ¹	Discharging to Area of Concern to Public Health? ²	Frequency of Past Discharge Complaints	Receiving Water Quality ³	Density of Generating Sites ⁴	Age of Development/ Infrastructure ⁵	Historic Combined Sewers or Septic? ⁶	Aging Septic? ⁷	Culverted Streams? ⁸	Additional Characteristics	Score	*Priority Ranking
Information Source		Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other		
Scoring Criteria		Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
WB-8	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-9	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-10	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-11	Wharton Brook	0	0	-	2	-	-	0	3	0		5	Low Priority
WB-12	Wharton Brook	0	0	-	2	-	-	0	3	0		5	Low Priority
WB-13	Wharton Brook	0	0	-	2	-	-	0	3	0		5	Low Priority
WB-14	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-15	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-16	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-17	Wharton Brook	0	0	-	2	-	3	0	3	0		8	High Priority
WB-18	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-19	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-20	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-21	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-22	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-23	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-24	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-25	Wharton Brook	0	0	-	2	2	3	0	0	0		7	High Priority
WB-26	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-27	Wharton Brook	0	0	-	2	2	-	0	0	0		4	Low Priority
WB-28	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-29	Wharton Brook	0	0	-	2	2	3	0	0	0		7	High Priority
WB-30	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-31	Wharton Brook	0	0	-	2	-	-	0	3	0		5	Low Priority
WB-32	Wharton Brook	0	0	-	2	-	-	0	0	0		2	Low Priority
WB-33	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-34	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-35	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-36	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-37	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-38	Wharton Brook	0	0	-	2	-	2	0	0	0		4	Low Priority
WB-39	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-40	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority

Catchment ID	Receiving Water	Previous Screening Results Indicate Likely Sewer Input? ¹	Discharging to Area of Concern to Public Health? ²	Frequency of Past Discharge Complaints	Receiving Water Quality ³	Density of Generating Sites ⁴	Age of Development/ Infrastructure ⁵	Historic Combined Sewers or Septic? ⁶	Aging Septic? ⁷	Culverted Streams? ⁸	Additional Characteristics	Score	*Priority Ranking
Information Source		Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other		
Scoring Criteria		Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
WB-41	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-42	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-43	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-44	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-45	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-46	Wharton Brook	0	0	-	2	-	1	0	0	0		3	Low Priority
WB-47	Wharton Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
WB-48	Wharton Brook	0	3	-	2	-	3	0	0	0		8	High Priority
LH-1	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-2	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-3	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-4	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-5	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-6	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-7	Lyman Hall Brook	0	0	-	2	-	2	0	0	0		4	Low Priority
LH-8	Lyman Hall Brook	0	0	-	2	-	2	0	0	0		4	Low Priority
LH-9	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-10	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-11	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-12	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-13	Lyman Hall Brook	0	0	-	2	-	3	0	0	3		5	Low Priority
LH-14	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
LH-15	Lyman Hall Brook	0	0	-	2	-	2	0	0	0		4	Low Priority
LH-16	Lyman Hall Brook	0	0	-	2	-	2	0	0	0		4	Low Priority
LH-17	Lyman Hall Brook	0	0	-	2	-	3	0	0	0		5	Low Priority
AB-1	Allen Brook	0	0	-	3	-	3	0	0	0		6	High Priority
AB-2	Allen Brook	0	0	-	3	-	3	0	0	0		6	High Priority
AB-3	Allen Brook	0	0	-	3	-	-	0	0	0		3	Low Priority
AB-4	Allen Brook	0	0	-	3	-	-	0	0	0		3	Low Priority
AB-5	Allen Brook	0	0	-	3	-	-	0	0	0		3	Low Priority

Catchment ID	Receiving Water	Previous Screening Results Indicate Likely Sewer Input? ¹	Discharging to Area of Concern to Public Health? ²	Frequency of Past Discharge Complaints	Receiving Water Quality ³	Density of Generating Sites ⁴	Age of Development/ Infrastructure ⁵	Historic Combined Sewers or Septic? ⁶	Aging Septic? ⁷	Culverted Streams? ⁸	Additional Characteristics	Score	*Priority Ranking
Information Source		Catchment inspections and sample results	GIS Maps	Municipal Staff	Impaired Waters List	Land Use/GIS Maps, Aerial Photography	Land Use Information, Visual Observation	Municipal Staff, GIS Maps	Land Use, Municipal Staff	GIS and Storm System Maps	Other		
Scoring Criteria		Yes = 3 (Problem Catchment) No = 0	Yes = 3 No = 0	Frequent = 3 Occasional = 2 None = 0	Poor = 3 Fair = 2 Good = 0	High = 3 Medium = 2 Low = 1	High = 3 Medium = 2 Low = 1	Yes = 3 No = 0	Yes = 3 No = 0	Yes = 3 No = 0	TBD		
MR-1	Muddy River	0	0	-	2	-	-	0	3	0		5	Low Priority
MR-2	Muddy River	3	0	-	2	-	-	0	3	0		8	Problem
MR-3	Muddy River	3	0	-	2	-	-	0	3	0		8	Problem

Scoring Criteria:

¹ Previous screening results indicate likely sewer input if any of the following are true:

- Olfactory or visual evidence of sewage,
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine

² Catchments that discharge to or in the vicinity of any of the following areas: public beaches, recreational areas, drinking water supplies, or shellfish beds

³ Receiving water quality based on latest version of State of Connecticut Integrated Water Quality Report.

- Poor = Waters with approved TMDLs (Category 4a Waters) where illicit discharges have the potential to contain the pollutant identified as the cause of the impairment
- Fair = Water quality limited waterbodies that receive a discharge from the MS4 (Category 5 Waters)
- Good = No water quality impairments

⁴ Generating sites are institutional, municipal, commercial, or industrial sites with a potential to contribute to illicit discharges (e.g., car dealers, car washes, gas stations, garden centers, industrial manufacturing, etc.)

⁵ Age of development and infrastructure:

- High = Industrial areas greater than 40 years old and areas where the sanitary sewer system is more than 40 years old
- Medium = Developments 20-40 years old
- Low = Developments less than 20 years old

⁶ Areas once served by combined sewers and but have been separated, or areas once served by septic systems but have been converted to sanitary sewers.

⁷ Aging septic systems are septic systems 30 years or older in residential areas.

⁸ Any river or stream that is culverted for distance greater than a simple roadway crossing.

* Town of Wallingford ranked catchments with a total score of >5 as High Priority for catchment investigation.

Table 1 Dry and Wet Weather Inspections and Sampling Town of Wallingford - MS4 Permit Requirements										
Outfall ID/ Map	Location/Drainage Area	Water Class/ SW COC	Dry Weather Inspection	Follow-Up Dry Weather Inspection	Wet Weather Sampling	Analytical Results	Follow-Up Wet Weather Sampling	Analytical Results	Tasks Remaining	Notes
QR-1 / 21	Hanover Street	B / Bacteria-Other	3/27/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
QR-2 / 21	Barker Place	B / Bacteria-Other	5/15/2019	---	---	---	---	---	None	Per Town Memo dated 6-10-19: This outfall does not appear to exist.
QR-3 /21	Oak Street (west)	B / Bacteria-Other	5/15/19- Outfall is silted-in..	---	4/24/2020	High Bacteria	4/30/2020	High Bacteria	Re-inspect Dry	
QR-4 / 22	Oak Street (east)	B / Bacteria-Other	5/15/19- Outfall is silted-in.	---	---	---	---	---	None	Outfall destroyed due to current construction
QR-5 / 22	Warehouse Point Rd	B / Bacteria-Other	3/27/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
QR-6 / 22	Chapel Street (south)	B / Bacteria-Other	3/27/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
QR-7 / 22	Chapel Street	B / Bacteria-Other	3/27/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
QR-8 / 22	Hill Ave area/Main Street	B / Bacteria-Other	3/27/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
QR-9 / 24	Hosford Street	B / Bacteria-Other	5/17/2019	---	4/24/2020	High Bacteria	4/30/2020	High Bacteria	Re-inspect Dry	
QR-10 / 24	Lake Street	B / Bacteria-Other	5/17/2019	---	4/13/2020	High Bactera	4/24/2020	High Bacteria	Re-inspect Dry	Per Town Memo dated 6-10-19: This outfall was cleaned of trash and debris. Some repair is needed.
QR-11 / 24	Silk Street	B / Bacteria-Other	5/17/2019	3/27/2020 - Illicit Discharge Sample Collected	6/10/2019	High Bacteria	4/13/2020	High Bacteria	None	Per Town Memo dated 6-3-19: Trash removed from outfall area. Water beneath outfall is murky and iridescent. Outfall discharging during dry weather screening.
QR-12 / 25	Oak Street	B / Bacteria-Other	5/17/2019	None	6/10/2019	High Bacteria	4/30/2020	High Bacteria	None	
QR-13 / 16	River Road (north)	B / Bacteria-Other	5/17/2019	---	6/25/2019	High Bacteria	4/13/2020	High Bacteria	Re-inspect Dry	
QR-14 / 16	River Road (south)	B / Bacteria-Other	5/17/2019	---	4/13/2020	High Bacteria	4/30/2020	High Bacteria	Re-inspect Dry	
QR-15 / 16	Quinnipiac Street (north)	B / Bacteria-Other	5/17/2019	None	6/25/2019	High Bacteria	4/13/2020	---	None	Outfall pipes filled in - no longer convey stormwater
QR-16 / 16	Quinnipiac Street (south)	B / Bacteria-Other	5/17/2019	None	6/25/2019	High Bacteria	4/13/2020	---	None	Outfall pipes filled in - no longer convey stormwater
QR-17 / 16	from Clinton Place	B / Bacteria-Other	5/15/2019	None	6/25/2019	High Bacteria	4/13/2020	High Bacteria	None	
QR-18 / 16	Cheshire Road	B / Bacteria-Other	5/15/2019	---	4/13/2020	High Bacteria	4/24/2020	High Bacteria	Re-inspect Dry	
QR-19 / 16	Cook Hill Rd/South Turnpike Rd	B / Bacteria-Other	3/27/2020	None	---				Wet	
QR-20 / 17	Carlton Street	B / Bacteria-Other	3/27/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
QR-21 / 17	John Street	B / Bacteria-Other	3/27/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
QR-22 / 17	Oliver Creek Road	B / Bacteria-Other	3/27/2020	---	4/13/2020	High Bacteria	4/24/2020	High Bacteria	Re-inspect Dry	
QR-23 / 18	Toelles Road	B / Bacteria-Other	6/10/2019	None	6/25/2019	High Bacteria	4/13/2020	High Bacteria	None	
WB-1	North Farms Rd @Rt 68	A / Other	2/18/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-2	Saddle Brook Drive	A / Other	2/18/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-3	Grassy Hill Ct/Grieb Rd	A / Other	2/18/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-4	Jeffery Dr	A / Other	2/18/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-5	Grieb Rd/East Main St Int.	A / Other	2/18/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-6	East Main St North of Rolling Meadow Dr	A / Other	2/18/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-7	Rolling Meadow Dr/Timber Lane	A / Other	2/18/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-8	Sieter Hill Rd	A / Other	2/18/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-9	East Main St /Steven St	A / Other	Catch-Basin connected to WB-14 Outfall	--	--	--	--	--	None	--
WB-10	East Main St bet Steven St & Dean St	A / Other	Catch-Basin connected to WB-14 Outfall	--	--	--	--	--	None	--
WB-11	from Pine Glen Terrace	A / Other	WB-11 incorporated with WB-12	--	--	--	--	--	None	--
WB-12	from Pine Glen Terrace	A / Other	3/23/2020	None	3/13/2020	High Turbidity	4/24/2020	High Turbidity	None	
WB-13	from Pine Glen Terrace	A / Other	3/23/2020	None	3/13/2020	High Turbidity	4/24/2020	High Turbidity	None	
WB-14	Dean Drive	A / Other	3/23/2020	None	3/13/2020	<SNTU Turb Diff.	None		None	
WB-15	East Main St south of Dean Dr	A / Other	Catch-Basin connected to WB-14 Outfall	--	--	--	--	--	None	
WB-16	East Main St	A / Other	3/23/2020	None	3/13/2020	High Turbidity	3/23/2020	High Turbidity	None	Impaired outfall
WB-17	Old Durham Rd	A / Other	5/15/2019	None	6/25/2019	High Turbidity	4/21/2020	High Turbidity	None	
WB-18	Old Durham Rd	A / Other	5/15/2019	None	6/25/2019	High Turbidity	3/23/2020	High Turbidity	None	High turbidity due to leaf litter
WB-19	Old Durham Rd (west side)	A / Other	5/15/2019	None	--	--	--	--	None	Stormwater manhole located - unable to located outfall
WB-20	East Main at Old Durham Rd (east side)	A / Other	5/15/2019	None	3/23/2020	<SNTU Turb Diff.			None	
WB-21	East Main St	A / Other	5/15/2019	None	3/23/2020	<SNTU Turb Diff.			None	
WB-22	Christian St (west)	A / Other	5/15/2019	None	6/25/2019	High Turbidity	3/23/2020	High Turbidity	None	
WB-23	Christian St (east)	A / Other	5/15/2019	None	6/25/2019	High Turbidity	3/23/2020	High Turbidity	None	
WB-24	Walnut Lane	A / Other	3/23/2020	None	3/23/2020	High Turbidity	4/21/2020	<SNTU Turb Diff.	None	
WB-25	Center Street (west)	A / Other	5/17/19 & 2/25/20	None	3/23/2020	High Turbidity	4/21/2020	Destroyed	None	Outfall was destroyed
WB-26	Center Street (west)	A / Other	5/17/19 & 2/25/20	None	3/23/2020	High Turbidity	4/21/2020	High Turbidity	None	Bridge is under construction - soil disturbance/sand bags being stored in water body
WB-27	Center Street	A / Other	5/17/19 & 2/25/20	None	3/23/2020	High Turbidity	4/21/2020	High Turbidity	None	Bridge is under construction - soil disturbance/sand bags being stored in water body
WB-28	Wall Street (west)	A / Other	5/17/2019	None	3/23/2020	<SNTU Turb Diff.			None	
WB-29	Pomeroy Avenue	A / Other	5/17/19 & 2/25/20	None	6/10/2019	High Turbidity	3/23/2020	High Turbidity	None	
WB-30	Wall Street (east)	A / Other	5/17/19 & 2/25/20	None	3/23/2020	<SNTU Turb Diff.			None	

Table 1 Dry and Wet Weather Inspections and Sampling Town of Wallingford - MS4 Permit Requirements										
Outfall ID/ Map	Location/Drainage Area	Water Class/ SW COC	Dry Weather Inspection	Follow-Up Dry Weather Inspection	Wet Weather Sampling	Analytical Results	Follow-Up Wet Weather Sampling	Analytical Results	Tasks Remaining	Notes
WB-31	Henry Street (east)	A / Other	5/17/19 & 2/25/20	None	6/10/2019	High Turbidity	3/23/2020	High Turbidity	None	
WB-32	Henry Street (west)	A / Other	3/23/2020	None	3/23/2020	High Turbidity	4/24/2020	<SNTU Turb Diff.	None	Discharges into field
WB-33	Backes Ct	A / Other	5/17/19 & 2/25/20	None	6/10/2019	High Turbidity	3/23/2020	High Turbidity	None	
WB-34	Water St Ext (west)	A / Other	5/17/19 & 2/25/20	None	6/25/2019	High Turbidity	3/23/2020	High Turbidity	None	
WB-35	Wart St Ext (east)	A / Other	5/17/19 & 2/25/20	None	6/25/2019	High Turbidity	3/23/2020	High Turbidity	None	
WB-36	Sylvan Ave	A / Other	2/25/2020	None	3/23/2020	High Turbidity	4/24/2020	<SNTU Turb Diff.	None	Discharges into riprap
WB-37	Danny's Way	A / Other	2/25/2020	None	3/23/2020	<SNTU Turb Diff.			None	
WB-38	South Elm St bet Charben & Sigwin	A / Other	2/25/2020	None	3/23/2020	<SNTU Turb Diff.			None	Sample collected from stormwater manhole
WB-39	Londonderry Dr	A / Other	3/27/2020	None	3/23/2020	<SNTU Turb Diff.			None	
WB-40	Londonderry Dr	A / Other	3/23/2020	None	---	---	---	---	None	Pipe disconnected - outfall does not exist
WB-41	Wharton Brook Dr	A / Other	2/25/2020	None	3/23/2020	High Turbidity	4/24/2020	<SNTU Turb Diff.	None	Under bridge; poor water quality due to trash and turbidity of receiving water body
WB-42	LHHS	A / Other	3/23/2020	None	3/17/2020	<SNTU Turb Diff.	None		None	
WB-43	South Elm St @Pond Hill Rd (west)	A / Other	5/15/2019	None	3/17/2020	<SNTU Turb Diff.	None		None	
WB-44	Pond Hill Rd (east)	A / Other	5/15/2019	None	3/17/2020	<SNTU Turb Diff.	None		None	
WB-45	South Elm St near Rt 5	A / Other	3/27/2020	None	4/24/2020	<SNTU Turb Diff.	None		None	
WB-46	Docker Drive (north)	A / Other	3/27/2020	None	4/24/2020	<SNTU Turb Diff.	None		None	
WB-47	Docker Drive	A / Other	6/10/2019	None	4/24/2020	<SNTU Turb Diff.	None		None	
WB-48	Northfield Rd (east)	A / Other	6/10/2019	None	6/10/2019	<SNTU Turb Diff.			None	
LH-1	Reskin Drive (west)	A / Other	--	--	--	--	--	--	None	Outfall does not exist
LH-2	Field Drive	A / Other	5/15/2019	None	6/10/2019	<SNTU Turb Diff.			None	
LH-3	Cardinal Drive	A / Other	5/15/2019	None	6/10/2019	<SNTU Turb Diff.			None	
LH-4	Cardinal Drive	A / Other	3/23/2020	None	3/17/2020	<SNTU Turb Diff.	None		None	
LH-5	Cardinal Drive/Sorrento Rd Int	A / Other	Unable to Locate (beneath heavy growth)	None	--	--	--	--	None	Outfall does not appear to exist
LH-6	Pond Hill Rd/Kondracki Lane	A / Other	5/15/2019	None	3/17/2020	<SNTU Turb Diff.	None		None	
LH-7	Pond Hill Rd/Pogmore Dr	A / Other	5/15/2019	None	3/17/2020	<SNTU Turb Diff.	None		None	
LH-8	Harrison Road (south)	A / Other	5/15/2019	None	3/17/2020	<SNTU Turb Diff.	None		None	Per Town Memo dated 6-3-19: Trash removed from outfall area.
LH-9	Mellor Road	A / Other	5/15/2019	None	3/17/2020	<SNTU Turb Diff.	None		None	
LH-10	Kondracki Lane	A / Other	3/23/2020	None	3/17/2020	<SNTU Turb Diff.	None		None	Outfall not located - sample collected from stormwater manhole
LH-11	Saw Mill Drive	A / Other			4/24/2020	<SNTU Turb Diff.	None		Dry	
LH-12	Kondracki Lane	A / Other	5/15/2019	None	3/17/2020	<SNTU Turb Diff.	None		None	
LH-13	Kondracki Lane	A / Other	---	---	4/24/2020	<SNTU Turb Diff.	None		Dry	
LH-14	Kondracki Lane	A / Other	---	---	4/24/2020	<SNTU Turb Diff.	None		Dry	
LH-15	Elika Road via Kondracki Lane	A / Other	5/15/2019	None	4/24/2020	<SNTU Turb Diff.	None		None	
LH-16	Kondracki Lane	A / Other	5/15/2019	None	4/24/2020	<SNTU Turb Diff.	None		None	
LH-17	Laurel Drive	A / Other	5/15/2019	---	4/24/2020	<SNTU Turb Diff.	None		Re-inspect Dry	
AB-1	Northfield Road	A /Bacteria	3/23/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
AB-2	Courtland Drive	A /Bacteria	3/23/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
AB-3	Harrison Road	A /Bacteria	3/23/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
AB-4	Harrison Road (north)	A /Bacteria	3/23/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
AB-5	Hatrison Road	A /Bacteria	3/23/2020	None	4/13/2020	High Bacteria	4/24/2020	High Bacteria	None	
MR-1 / 41	Riverside Drive	AA / Bacteria-Other	---	---	4/13/2020	High Bacteria	4/30/2020	High Bacteria	Dry	
MR-2 / 41	West Dayton Hill Rd (east)	AA / Bacteria-Other	5/17/2019	---	6/10/2019	High Bacteria	4/13/2020	High Bacteria	Re-inspect Dry	
MR-3 / 41	West Dayton Hill Rd (west)	AA / Bacteria-Other	5/17/2019	---	6/10/2019	High Bacteria	4/13/2020	High Bacteria	Re-inspect Dry	Per Town Memo dated 6-3-19: Trash removed from outfall area.

Table 2
Priority Outfall Monitoring
Town of Wallingford - MS4 Permit Requirements

Outfall ID/ Map	Location/Drainage Area	Water Class/ SW COC	Dry Weather Inspection	Wet Weather Sampling	Analytical Results	Tasks Remaining	Notes
QR-6	Chapel Street (south)	B / Bacteria-Other	3/27/2020	4/24/2020	High Bacteria	Annual Sampling	
QR-8	Hill Ave area/Main Street	B / Bacteria-Other	3/27/2020	4/24/2020	High Bacteria	Annual Sampling	
QR-9	Hosford Street	B / Bacteria-Other	5/17/2019	9/10/2020	High Bacteria	Annual Sampling	
QR-10	Lake Street	B / Bacteria-Other	5/17/2019	9/10/2020	High Bactera	Annual Sampling	Per Town Memo dated 6-10-19: This outfall was cleaned of trash and debris. Some repair is needed.
QR-11	Silk Street	B / Bacteria-Other	5/17/2019	9/10/2020	High Bacteria	Annual Sampling	Per Town Memo dated 6-3-19: Trash removed from outfall area. Water beneath outfall is murky and iridescent. Outfall discharging during dry weather screening.
QR-17	Clinton Place	B / Bacteria-Other	5/15/2019	4/13/2020	High Bacteria	Annual Sampling	
AB-1	Northfield Road	A /Bacteria	3/23/2020	9/10/2020	High Bacteria	Annual Sampling	
AB-2	Courtland Drive	A /Bacteria	3/23/2020	9/10/2020	High Bacteria	Annual Sampling	
AB-3	Harrison Road	A /Bacteria	3/23/2020	9/10/2020	High Bacteria	Annual Sampling	
AB-4	Harrison Road (north)	A /Bacteria	3/23/2020	9/10/2020	High Bacteria	Annual Sampling	

Table 2
Priority Outfall Monitoring
Town of Wallingford - MS4 Permit Requirements

Outfall ID/ Map	Location/Drainage Area	Water Class/ SW COC	Dry Weather Inspection	Wet Weather Sampling	Analytical Results	Tasks Remaining	Notes
MR-1	Riverside Drive	AA / Bacteria-Other	5/17/2019	4/30/2020	High Bacteria	Dry Weather Inspection and Annual Sampling	
MR-2	West Dayton Hill Rd (east)	AA / Bacteria-Other	5/17/2019	9/10/2020	High Bacteria	Annual Sampling	