

MS4 General Permit
City of West Haven 2018 Annual Report
Existing MS4 Permittee
Permit Number GSM 000002
January 1, 2018 – December 31, 2018

This report documents City’s efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2018 to December 31, 2018.

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	In Progress	Coordination with the City’s website developer to develop a Stormwater page under the DPW page.	Develop public education program; Implement public education program and summarize data	Public Works and Engineering	Jul 1, 2018	Anticipate completing the public education and outreach plan by July 1, 2019.	Audubon Clean up day was held in March 2018
	Completed	Educational outreach materials and cleanup day with the Audubon at Sandy Point.				March 2018	
1-2 Address education/ outreach for pollutants of concern*	In Progress	Coordination with the City’s website staff to develop a Stormwater page under the DPW page.	Identify pollutants of concern and incorporate into materials under BMP-1	Public Works and Engineering	Jul 1, 2018	Anticipate completing by July 1, 2019.	

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

BMP 1-1

Development and implementation of a public education program.

The City plans on setting up a stormwater page on their website that will include educational material on stormwater pollution prevention.

Coordination of educational outreach activities with the Boy Scouts, Watershed Committee and Wildlife Preserve.

Host a cleanup day at Sandy Point in conjunction with the Audubon Society.

BMP 1-2

The City will print brochures addressing pollutants of concern. The brochures will be made available in the City's IWWA office.

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 distributed at IWWA desk	Developers, home owners (TBD)	Impact of fertilizer use and feeding waterfowl	Bacteria and phosphorus	Public Works & IWWA
Development of Stormwater page on City's Website	Developers, home owners (N/A)	Impact of fertilizer use and feeding waterfowl	Bacteria and phosphorus	Public Works

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

2.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Comply with public notice requirements for the Stormwater Management Plan	Completed	The City posted the draft SMP on their website for public review and comment.	Make SMP available for public review and soliciting comments	Public Works and Engineering	Apr 3, 2017	April 1, 2017	No comments as of December 31, 2017.
2-2 Comply with public notice requirements for Annual Reports	Completed	The City will make the Annual Report available on their website for public review and comment.	Make Annual Report available for public review and soliciting comments	Public Works and Engineering	2018 – 2/15/18 2019 – 2/15/19	2018 – 2/15/18 2019 – Anticipate 2/15/19	2018 - No comments received

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

BMP 2-2
Post the draft Annual Report for public comment by Feb 15, 2019.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Yes	4/1/2017	https://cityofwesthaven.com/DocumentCenter/View/1281/West-Haven-Stormwater-Management-Plan-PDF?bidId=
Availability of 2017 Annual Report announced to public	Yes	2/15/2018	[Insert web page address]
Availability of 2018 Annual Report announced to public	Yes	2/15/2019	

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

3.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
3-1 Develop written IDDE program	Completed	The City obtained approval of the IDDE Program from EPA.	Develop written plan of IDDE program	Public works and Engineering	7/1/18	3/13/18	Draft IDDE Program submitted to EPA on 11/1/17 and final approved 3/13/18
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In Progress	The City has mapped all outfalls and is in the process of mapping the drainage system. All mapping is done through a GIS database.	Develop stormwater drainage map and database	Public Works and Engineering	7/1/19	Anticipate completing by 7/1/19.	
3-3 Implement citizen reporting program	Completed Upgrade In Progress	Citizen reporting program includes email and phone number for DPW and documenting the report.	Develop citizen reporting program	Public Works and Engineering	7/1/17	Completed by 7/1/18 Anticipate website link by 7/1/19	The City plans to update reporting program to include a hotline link on their stormwater page.
3-4 Establish legal authority to prohibit illicit discharges	Completed	The City developed and approved legal authority to eliminate illicit discharges through an Illicit Discharge Ordinance	Establish legal authority	City Council	7/1/18	Completed on 2/13/17	The Illicit Discharge Ordinance was approved by City Council on 2/13/17

3-5 Develop record keeping system for IDDE tracking	In Progress	The City developed a Geo-spatial database system to record and report IDDE complaints, investigations, and remedial measures	Develop IDDE tracking system	Engineering	7/1/17	Anticipate completing in accordance with deadlines set by EPA following the review process	The IDDE tracking system was submitted to EPA for review on 10/1/17.
3-5 Track IDDE	On-going				7/1/19		IDDE tracking is done within the GIS data collector application
3-6 Address IDDE in areas with pollutants of concern	Completed On-going	The City has reviewed impaired water guidance and TMDLs. Evaluate/ track progress of BMP's for impaired waters	Review impaired water guidance and TMDLs	Engineering	7/1/18 7/1/19		Outfalls in areas with POCs will be prioritized for IDDE investigations.
3-7 Outfall and interconnection dry weather screening and sampling	Completed	The City developed an outfall screening procedure as part of the IDDE Program	Develop outfall screening procedure	Engineering	7/1/18	7/1/18	
3-8 Sanitary Sewer Overflows (SSOs) Inventory	Completed On-going	The City developed an existing SSO inventory. The City continues to notify CT DEEP of new SSO occurrences within 5 days.	Develop existing SSO inventory and notify CT DEEP after each SSO	Engineering	11/1/17 Report SSO's	10/29/17	West Haven reports SSOs to DEEP and EPA as required by the Consent Decree, which is within the 5 days required by the MS4 permit

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

- BMP 3-2 Continue stormwater drainage mapping
- BMP 3-3 Include a hotline link on the stormwater page for citizen reporting. Investigate Citizen Reports
- BMP 3-4 Enforce legal authority to eliminate illicit discharges
- BMP 3-5 Finalize the IDDE tracking system
- BMP 3-6 Evaluate/track progress of BMPs for impaired waters.
- BMP 3-7 Finalize dry weather screening procedures.
- BMP 3-8 Continue to notify CT DEEP after each SSO.

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

Date of Report	Location / suspected source	Response taken
July 2017	Peabody St. / Sewer Discharge	Removed sewer discharge to Cove River.
March 2017	Honey Pot Rd. / Sidewalk Discoloration	Investigated source of discoloration. Determined to be ferrous bacteria.
August 2017	Fresh Meadow Rd. / Tires dumped in wooded area behind vacant property.	The City has plans to remove the tires dependent on gaining ownership of the property.
February 2017	Callegari Dr. / Water Discoloration in Oyster River	Investigated source of discoloration. Determined to be food dye from Cosmo Food Products.

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)
A record of SSOs occurring July 2012 through December 2018 is included as part of Attachment A.						

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

The Engineering Department is responsible for tracking illicit discharges. The City has developed a Geo-spatial database system to record and report IDDE complaints, investigations, and remedial measures. This application is based on Esri’s ArcGIS Online technology using Esri’s “Collector” product. All data collected in the field is instantaneously stored in a cloud-based database that allows users to view and access data as it is being collected. Additionally, a dashboard application allows the City to visualize and report on progress.

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
No septic failures to report on.		

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	303
Estimated or actual number of interconnections	≈ 10

Outfall mapping complete	95%
Interconnection mapping complete	0%
System-wide mapping complete (detailed MS4 infrastructure)	50%
Outfall assessment and priority ranking	86%
Dry weather screening of all High and Low priority outfalls complete	261
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	0%

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

The City included information on the IDDE Program as part of their pollution prevention training for employees. The training was provided to employees October 2017 and will be provided annually.

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	The City has reviewed their current Construction Runoff Program. They have updated and approved a stronger set of regulations for enforcement.	Establish legal authority	Planning & Zoning and Engineering	7/1/19	Completed Fall 2017	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Completed	Developed and implemented interdepartmental coordination plan	Develop and implement interdepartmental coordination plan	Planning & Zoning and Engineering	7/1/18	Year 1 – 7/1/18 Year 2 – on-going	The City has developed a flowchart to clearly layout the interdepartmental coordination in site plan review and approval.

4-3 Review site plans for stormwater quality concerns	Completed	Engineering reviewed all development projects with greater than one acre of soil disturbance for stormwater quality concerns	Perform site plan reviews	Engineering	7/1/18	Year 1 – 7/1/18 Year 2 – 7/1/19	
4-4 Conduct site inspections	Completed	The City conducted site inspections to enforce the requirements determined during site plan reviews.	Perform site inspections	Building and Engineering	7/1/18	Year 1 - 7/1/18 Year 2 – 7/1/19	
4-5 Implement procedure to allow public comment on site development	Completed	The City allows for public comment on site development during public meetings.	Implement procedure to receive public comments on site development	Planning & Zoning	7/1/18	7/1/18	The City includes a list of site development projects currently under review on the City's webpage.
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	In Progress	The City plans on including information on their website regarding requirements of the construction general permit.	Implement procedure to notify developers of DEEP construction stormwater permit	Planning & Zoning	7/1/18	Anticipate Completing by 7/1/19	

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

BMP 4-2 Implement interdepartmental coordination plan
 BMP 4-3 Perform sit plan reviews
 BMP 4-4 Perform site inspections
 BMP 4-5 Update City website to include list of site developments accepted by the City for review; allow public comment at public meetings
 BMP 4-6 Update City website to include requirements of the construction general permit

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	The City has reviewed their current Post-Construction Stormwater Management Program. Update and approve stronger regulations for enforcement.	Evaluate current regulations to identify status of legal authority and which regulations require revisions.	Planning & Zoning	7/1/21	Completed Fall 2017 Anticipate completion by 7/1/21	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	In Progress	The City enforces the new Post-Construction Stormwater Management regulations.	Enforce regulations; Issue notice to inform developers of regulation changes	Planning & Zoning	7/1/19	Fall 2017	
5-3 Implement long-term maintenance plan for stormwater basins and treatment structures	In Progress	The City is in the process of determining ownership of stormwater basins and treatment structures within the City.	Develop and implement long term maintenance plan	Public Works	7/1/19	Anticipate completing by the deadline of 7/1/19	
5-4 DCIA mapping	In Progress	The City has developed a DCIA computation sheet for developers to submit as part of the site plan application process.	Develop methodology for DCIA calculation Determine baseline DCIA	Engineering	7/1/18 7/1/19	Fall 2018 Anticipate completing by 7/1/19	City now requires developers to submit DCIA computations as part of the application process.
5-5 Address post-construction issues in areas with pollutants of concern	In Progress	The City did not identify any projects in catchments that discharge to impaired waters.	Identify projects in catchments that discharge to impaired waters.	Engineering	Not specified	Ongoing	

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

- BMP 5-1 Finalize regulations for legal authority and adopt regulations
- BMP 5-2 Enforce new regulations
- BMP 5-3 Develop long-term maintenance plan
- BMP 5-4 Begin calculating baseline DCIA and DCIA for each catchment
- BMP 5-5 Identify projects in catchments that discharge to impaired waters.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	Unknown
DCIA disconnected (redevelopment plus retrofits)	Unknown
Retrofits completed	0
DCIA disconnected	0
Estimated cost of retrofits	0
Detention or retention ponds identified	N/A (The City does not own any detention or retention ponds.)

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

The City plans to use guidelines provided by the NEMO MS4 support program.
 The City has developed a spreadsheet to track DCIA disconnection and has been tracking disconnections the past 6 months.

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	The City developed a pollution prevention PowerPoint presentation for employee training.	Perform annual training	Public Works and Engineering	7/1/18	10/18/17	An employee training was held on 10/18/17 for applicable City personnel.

6-2 Implement MS4 property and operations maintenance	Complete On-going	The City developed SOPs for City operations. The City is in the process of determining if they own any MS4 property that would require maintenance.	Evaluate and implement maintenance procedures for City owned properties and equipment.	Public Works	7/1/18	10/18/17 Anticipate completing list of MS4 properties by the deadline of 7/1/19	City has developed and distributed SOP's to appropriate City departments
6-3 Implement coordination with interconnected MS4s	On-going	The City is in the process of establishing point of contacts for interconnections with New Haven, Milford, Orange, CT DOT, Yale New Haven (West Campus), UNH, and VA CT West Haven.	Identify all interconnected MS4s and coordinate with interconnected MS4s.	Engineering	7/1/18	Year 1 – Fall 2017 Year 2 – Summer 2018 Anticipate annual coordination	
6-4 Develop/implement program to control other sources of pollutants to the MS4	Not Started	The City has not completed any activities in the current reporting period.	Develop and implement pollutant source control program	Engineering	7/1/18	Anticipate completing by 7/1/19	
6-5 Evaluate additional measures for discharges to impaired waters*	In Progress	The City is in the process of developing procedures for reducing discharges to impaired waters.	Develop and implement procedures for reducing discharges to impaired waters.	Public Works and Engineering	7/1/18	Anticipate completing by 7/1/19	
6-6 Track projects that disconnect DCIA.	In Progress	The City developed a spreadsheet to track DCIA disconnections.	Track DCIA percentage. Removal of 1% of DCIA annually in Years 4 and 5	Engineering	7/1/18 7/1/22	Anticipate completing by 7/1/19 Anticipate completing by the deadline of 7/1/22	
6-7 Implement infrastructure repair/rehab program	Not Started	The City did not complete any activities during the current reporting period.	Evaluate MS4 infrastructure and develop a repair/rehab program and repair and rehabilitate MS4 infrastructure.	Public Works and Engineering	Evaluate by 7/1/18 Implement Annually	Anticipate completing by 7/1/21	

6-8 Develop/implement plan to identify & prioritize retrofit projects	In Progress	The City developed a plan for identifying & prioritizing retrofit projects. The plan is included as part of the Construction Stormwater Management Program.	Develop and implement a retrofit plan to include tracking of DCIA.	Public Works and Engineering	7/1/20	Anticipate completing by 7/1/20	
6-9 Develop/implement street sweeping program	Completed On-going	The City has developed a street sweeping program in compliance with Section 6(a)(6)(D) of the MS4 Permit. Annual sweeping	Implement, document and track street sweeping.	Public Works	Year 1: 7/1/18 Year 2: 7/1/19	Program developed: 10/1/17 Annual Sweeping Year 1: Spring 2018 Year 2: Anticipated Spring 2019	Implemented the record keeping procedures for the street sweeping program
6-10 Develop/implement catch basin cleaning program	Completed On-going	The City has developed a catch basin cleaning program in compliance with Section 6(a)(6)(D) of the MS4 Permit.	Implement, document and track catch basin cleaning.	Public Works	Year 1: 7/1/18 Year 2: 7/1/19	Program developed: 10/1/17	Implemented the record keeping procedures for the catch basin cleaning program
6-11 Develop/implement snow management practices	Completed On-going	The City has written procedures in place for snow management.	Develop, update and implement snow management measures and practices.	Public Works	7/1/18	2004	Staff is trained at the beginning of each winter in snow management.

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

- BMP 6-1 Perform employee training
- BMP 6-2 Develop/update maintenance procedures for City owned properties and equipment
- BMP 6-3 Coordinate with interconnected MS4
- BMP 6-4 Finalize and implement pollutant source control program
- BMP 6-5 Finalize and implement procedures for reducing discharges to impaired waters
- BMP 6-6 Track DCIA percentage
- BMP 6-7 Repair and rehabilitate MS4 infrastructure
- BMP 6-8 Implement plan to identify/prioritize retrofit projects
- BMP 6-9 Continue annual street sweeping and implement new tracking system
- BMP 6-10 Continue annual catch basin cleaning and implement new tracking system
- BMP 6-12 Implement snow management practices

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes - 10/18/17, No - 2018
Street sweeping	
Curb miles swept	130 miles
Volume (or mass) of material collected	N/A
Catch basin cleaning	
Total catch basins in priority areas	#
Total catch basins in MS4	≈ 5,000 - The City is currently updating their mapping. This number is an approximate based on the percentage of mapping completed.
Catch basins inspected	#
Catch basins cleaned	#
Volume (or mass) of material removed from all catch basins	TBD
Volume removed from catch basins to impaired waters (if known)	TBD
Snow management	
Type(s) of deicing material used	Salt only
Total amount of each deicing material applied	TBD
Type(s) of deicing equipment used	Sander
Lane-miles treated	130 miles
Snow disposal location	N/A
Staff training provided on application methods & equipment	Yes - 10/18/17
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)	N/A
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	N/A

6.4 Catch basin cleaning program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule.

The City has developed Standard Operating Procedures (SOPs) for Catch Basin Inspection and Cleaning. This SOP includes prioritization of catch basins based on proximity to impaired waters and the requirement to track sediment volume within catch basins to ensure that no catch basin shall at any time be more than 50% full. Once the City completes their MS4 mapping, the catch basin cleaning activities will be tied to the GIS database to better track catch basin cleaning activities.

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.

The City has not yet initiated a retrofit program.

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

The City has not yet initiated a retrofit program.

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

The City has not yet initiated a retrofit program.

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Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution. 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.

The City has completed dry weather outfall screening of the City's MS4 outfalls. Of the City's 310 MS4 outfalls, 5 outfalls were eliminated from the City's outfall investigations based on ownership, 169 outfalls were dry, 40 outfalls had dry weather flow, and 96 outfalls could not be accessed or found. The City has developed and began implementation of a plan to access and locate the 96 outfalls that still need to be dry weather screened. Only one of the outfalls with dry weather flow discharged to an approved TMDL and two of the outfalls with flow discharged to an impaired waterbody. All three outfalls exceeded one or more of the water quality thresholds sampled for. No changes have been made to the Stormwater Management Plan.

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

2.1 Screening data collected under 2017 permit

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

Outfall ID	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required?
NHH 2	8/11/17	Bacteria Oil and Grease PCBs	- Enterococcus 90.7 cfu/100 mL - Oil and Grease N/A - PCBs <0.00022 mg/L	RWA	Yes (The sample came back with high results for Ammonia and Surfactants.)
WS 3	7/31/17	Bacteria Oil and Grease PCBs	- Enterococcus 680 cfu/100 mL - Fecal Coliform 680 cfu/100 mL - Oil and Grease <4.0 mg/L - PCBs <0.00022 mg/L	RWA	Yes
WR 34	8/3/17	Bacteria Oil and Grease PCBs	- Enterococcus 1466 cfu/100 mL - Fecal Coliform 1360 cfu/100 mL - Oil and Grease <4.0 mg/L - PCBs <0.00022 mg/L	RWA	Yes

2.2 Credit for screening data collected under 2004 permit

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

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

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

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall	Status of drainage area investigation	Control measure implementation to address impairment
NHH 2	IDDE Investigations will begin upon completion of MS4 mapping.	NA
WS 8	IDDE Investigations will begin upon completion of MS4 mapping.	NA
CR 6	IDDE Investigations will begin upon completion of MS4 mapping.	NA
CR 5	IDDE Investigations will begin upon completion of MS4 mapping.	NA
WR 4	IDDE Investigations will begin upon completion of MS4 mapping.	NA
WR 45	IDDE Investigations will begin upon completion of MS4 mapping.	NA
WS 9	IDDE Investigations will begin upon completion of MS4 mapping.	NA
CR 24	IDDE Investigations will begin upon completion of MS4 mapping.	NA
RB 1	IDDE Investigations will begin upon completion of MS4 mapping.	NA
OR 83	IDDE Investigations will begin upon completion of MS4 mapping.	NA
OR 20	IDDE Investigations will begin upon completion of MS4 mapping.	NA
OR 53	IDDE Investigations will begin upon completion of MS4 mapping.	NA
CR 63	IDDE Investigations will begin upon completion of MS4 mapping.	NA
CR 7	IDDE Investigations will begin upon completion of MS4 mapping.	NA
WR 23	IDDE Investigations will begin upon completion of MS4 mapping.	NA
WS 3	IDDE Investigations will begin upon completion of MS4 mapping.	NA
WR 56	IDDE Investigations will begin upon completion of MS4 mapping.	NA
WR 34	IDDE Investigations will begin upon completion of MS4 mapping.	NA
CR 64	IDDE Investigations will begin upon completion of MS4 mapping.	NA

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

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

Outfall	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)

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

2. Outfall and Interconnection Screening and Sampling data (Appendix B (A)(7)(d) / page 7)

2.1 Dry weather screening and sampling data from outfalls and interconnections

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies.

Outfall / Interconnection ID	Screening / sample date	Water Temp (deg C)	Conductivity (uS/cm)	Salinity (ppt)	Chlorine (mg/L)	Ammonia (mg/L)	Surfactants (mg/L)	E. Coli (cfu/100mL)	Enterococcus (cfu/100mL)	Pollutant of concern	If required, follow- up actions taken
CR 24	8/2/17	24.2	304	0.44	0.00	0.10	0.10	410.6	-	n/a	
CR 25	8/2/17	25.8	916	0.44	0.00	0.10	0.10	21.1	-	n/a	
CR 5	8/3/17	24.3	860	0.42	0.00	0.40	0.10	>2419.6	-	n/a	
CR 6	8/3/17	24.8	935	0.56	0.00	0.10	0.10	>2419.6	-	n/a	
CR 63	8/3/17	23.7	1263	0.61	0.00	0.60	0.10	387.3	-	n/a	
CR 64	8/2/17	24.1	958	0.49	0.00	0.00	0.10	>2419.6	-	n/a	
CR 7	8/2/17	26.4	870	0.43	0.00	0.10	0.10	727	-	n/a	
CR 70	8/2/17	26	1402	0.68	0.00	0.20	0.10	10.8	-	n/a	
CR 76	8/11/17	23.9	809	0.4	0.00	0.00	0.10	187.2	-	n/a	
CR 80	8/2/17	26.2	829	0.4	0.00	0.00	0.10	87.8	-	n/a	

NHH 2	8/11/17	24.7	NA	NA	0.00	0.70	1.50	-	90.7	PCBs, Oil & Grease	- Oil and Grease N/A - PCBs <0.00022 mg/L
OR 20	8/1/17	31.6	640	0.6	0.00	0.10	0.10	275.5	-	n/a	
OR 24	8/1/17	24	4.2	0	0.00	0.30	0.00	2	-	n/a	
OR 26	8/1/17	27.6	330	0.2	0.00	0.10	0.00	224.7	-	n/a	
OR 3	8/1/17	24.3	875	0.49	0.00	0.00	0.10	76.3	-	n/a	
OR 33	8/2/17	22.3	442	0.36	0.00	0.00	0.10	18.1	-	n/a	
OR 49	8/2/17	25	978	0.49	0.00	0.00	0.10	24.6	-	n/a	
OR 53	8/11/17	25.6	457	0.22	0.00	0.00	0.10	275.5	-	n/a	
OR 7	8/1/17	23	440	-	0.00	0.00	0.10	28.6	-	n/a	
OR 83	8/1/17	22.8	750	-	0.10	0.00	0.10	23.8	-	n/a	
ORB 1	8/1/17	24.2	1280	0.66	0.00	0.05	0.10	-	40	n/a	
RB 1	7/31/17	25.1	847	0.39	0.00	0.10	1.50	-	270	n/a	
RB 2	7/31/17	23	694	0.34	0.00	0.10	0.10	-	62	n/a	
WR 23	8/3/17	25.7	893	0.54	0.00	0.00	0.10	1986.3	-	n/a	
WR 34	8/3/17	22.6	443	0.21	0.00	0.00	0.10	-	1466	PCBs, Oil & Grease	- Oil and Grease <4.0 mg/L - PCBs <0.00022 mg/L
WR 4	8/3/17	26.2	497	0.1	0.00	0.00	0.00	579.4	-	n/a	
WR 45	8/3/17	26.3	350	0.36	0.00	0.10	0.00	686.7	-	n/a	
WR 48	8/11/17	21.8	333	0.17	0.00	0.20	0.10	30.5	-	n/a	
WR 50	8/11/17	22.8	233	0.1	0.00	0.00	0.10	52.9	-	n/a	
WR 56	8/3/17	26.6	339	0.16	0.00	0.00	0.00	648.8	-	n/a	
WS 10E	7/31/17	24.1	648	0.54	0.00	0.00	0.10	186	-	n/a	
WS 10W	7/31/17	23.8	788	0.39	0.00	0.00	0.10	10.9	-	n/a	
WS 3	7/31/17	22.5	700	0.34	0.00	0.20	0.10	-	680	PCBs, Oil & Grease	- Oil and Grease <4.0 mg/L - PCBs <0.00022 mg/L
WS 8	7/31/17	25.4	1183	0.62	0.00	0.50	0.15	>48392	-	n/a	
WS 9	8/1/17	24	943	0.4	0.00	0.00	0.10	648.8	-	n/a	

CR 65	11/28/17	9.89	1163	0.43	0.00	0.50	0.10	1	-	n/a
ORB 3	11/29/17	14.4	422	0.28	0.00	0.00	0.00	1	-	n/a
OR 14	11/29/17	16	600	0.3	0.00	0.10	0.00	3	-	n/a
WR 58	11/29/17	15.6	448	0.22	0.00	0.00	0.05	21.6	-	n/a
WR 54	11/29/17	12.8	232	0.11	0.00	0.10	0.00	7.5	-	n/a

2.2 Wet weather sample and inspection data

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor.

Outfall / Interconnection ID	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern

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

3.1 System Vulnerability Factor Summary

For those catchments being investigated for illicit discharges (i.e. categorized as high priority, low priority, or problem) document the presence or absence of System Vulnerability Factors (SVF). If present, report which SVF's were identified. An example is provided below.

Outfall ID	Receiving Water	System Vulnerability Factors

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.

7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

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

3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants

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

Discharge location	Source location	Discharge description	Method of discovery	Date of discovery	Date of elimination	Mitigation or enforcement action	Estimated volume of flow removed

Part IV: Certification

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name:	Print name:
Signature / Date:	Signature / Date:

DRAFT