MS4 General Permit Town of Montville 2021 Annual Report (DRAFT)

New MS4 Permittee

Permit Number GSM 00067

January 1, 2022 – December 31, 2022

Primary MS4 Contact: Mr. John Carlson, DPW Director, (860) 848-7473 email: Jcarlson@montville-ct.org

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

Part I: Summary of Minimum Control Measure Activities

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

ВМР	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	Maintain town website with information on program and informational links		Posted on town website	General Public	Website maintained with latest documents	DPW Director	Website continues to be updated yearly
1-2 Address education/ outreach for pollutants of concern	Maintain town website with information on program and informational links appropriate to pollutants of concern		Posted on town website	General Public	Website maintained with latest documents	DPW Director	Website continues to be updated yearly

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

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

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Location Posted	Additional details
2-1 Final Stormwater Management Plan publicly available	Complete	Storm water Management Plan posted on website and filed with CTDEEP	SWMP Posted on town website	Engineering Consultant / DPW Director	April 1, 2022	Town Website	
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	Complete	Annual Report advertised, completed and posted	Annual Reports Posted on website	Engineering Consultant / DPW Director	Feb 15, 2022	Town Website	

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

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

3.1 BMP Summary

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
3-1 Develop written IDDE program (Due 7/1/19)	Complete	None	Develop written plan of IDDE program	Town's Engineering Consultant	Jul 1 2018	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20)	Complete	None	GIS Layer and Spreadsheet of MS4 Outfalls in Priority Areas	Town's Engineering Consultant	September 2019	
3-3 Implement citizen reporting program (Ongoing)	Complete	None	Establish Citizen's Reporting Program through the Town's website	DPW Director	April 1 2020	https://www.townofmontville.org/department- services/public-works/stormwater-pollution- prevention/
3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19)	In Progress	None	Revised ordinance drafted from template	DPW/Planning		
3-5 Develop record keeping system for IDDE tracking (Due 7/1/17)	Complete	None	Interactive GIS Layer	CLA Engineers	July 2019	
3-6 Address IDDE in areas with pollutants of concern	On going	Turbidity Report issued to DPW.	Investigate and begin addressing IDDE in areas with pollutants of concern	DPW Director/CLA Engineers	Ongoing through term of Permit	

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

Update the written IDD Maintain master IDDE t Begin dry and wet weat	racking spreadshe	et and ensure all en	nployees invo	olved in IDDE program un	derstand the loggir	ng process.		
occurring July 2017 th hat do not consist en	nrough end of r tirely of stormy	eporting period vater or unconta	using the formated gr	ollowing table. Illicit oundwater except th	discharges are ar ose discharges ic	ccurring during the reporting ny unpermitted discharge to dentified in Section 3(a)(2) or ge from an identified MS4.	waters	of the state
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 meas dates)	ures planned and completed (ind	clude	Sampling data (if applicable)
3.4 Provide a summa Method used to track illicit discharge reports	Location an	ken to address so d nature of structu septic systems	•	es using the table be ns taken to respond to a es		Impacted waterbody or watershed, if known		ot. / Person ponsible
3.5 Briefly describe the The illicit discharges are				used to track illicit disc		Engineers Inc.		

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	425 (Mapped)
Estimated or actual number of interconnections	6 (Estimated)
Outfall mapping complete	95%
Interconnection mapping complete	90%
System-wide mapping complete (detailed MS4 infrastructure)	100% (Priority Area)
Outfall assessment and priority ranking	100%
Dry weather screening of all High and Low priority outfalls complete	100%
Catchment investigations complete	20%
Estimated percentage of MS4 catchment area investigated	0%

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

No training performed in 2022. Training is planned for spring 2023.	

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

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit (Due 7/1/20)	Complete	None	Publish and Implement regulations	DPW Director and planning staff	May 2020	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing)	Done under 2004 permit	The town planning IW and PW staff currently perform	Maintain paper files recording actions	DPW Director and planning staff	Ongoing	
4-3 Review site plans for stormwater quality concerns (Ongoing)	Done under 2004 permit	The town planning IW and PW staff currently perform	Maintain paper files recording actions	DPW Director and planning staff	Ongoing	
4-4 Conduct site inspections (Ongoing)	Done under 2004 permit	Complete Catchment Investigation — Turbidity	Maintain paper files recording actions	DPW Director and planning staff / CLA	Ongoing	
4-5 Implement procedure to allow public comment on site development (Ongoing)	Done under 2004 permit	The town regulations currently allow	Maintain paper files recording actions	DPW Director and planning staff	Ongoing	
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	Done under 2004 permit	The town planning IW and PW staff currently perform	Maintain paper files recording actions	DPW Director and planning staff	Ongoing	

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

Continue to implement Town Ordinances and Regulations that control Construction Site Run-off

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

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning (Due 7/1/22)	In progress	Regulations under development	Written legal authority in place.	DPW Director and planning staff	Jul 1, 2023	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22)	In progress	Regulations under development	Written regulations in place	DPW Director and planning staff	Jul 1, 2023	
5-3 Identify retention and detention ponds in priority areas (Due 7/1/20)	In progress	Town wide identification under way. 10 Basins identified.	GIS layer completed	CLA/DPW Director	Summer 2023	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing)	In progress		Plans and BMPS on file	CLA/DPW Director	Jul 1, 2023	
5-5 DCIA mapping (Due 7/1/20)	Complete	Baseline DCIA GIS Map completed.	GIS layer complete	CLA/DPW Director	Jul 1, 2020	

5-6 Address post- construction issues in areas with pollutants of concern	Record if CLA/DPW Issues Director Addressed
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5.2 Describe any Post-Construction Stormwater Management activities planned for the next year, if applicable.

- Implement long-term maintenance plan for stormwater basins and treatment structures
- Address post-construction issues in areas with pollutants of concern

5.3 Post-Construction Stormwater Management reporting metrics

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

Metrics					
Baseline (2012) Directly Connected Impervious Area (DCIA)	1,137 Acres				
DCIA disconnected (redevelopment plus retrofits)	0				
Retrofit projects completed	0				
DCIA disconnected	0				
Estimated cost of retrofits	\$				
Detention or retention ponds identified	10				

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

The baseline DCIA for each watershed has been determined using the Sutherland Equations as presented in the Small MS4 Permit Technical Support Document, Revised April 2014 (Original Document, April 2011).

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

ВМР	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
6-1 Develop/implement formal employee training program (Ongoing)	Ongoing		Annual training for staff	CLA/DPW Director	Spring 2023	
6-2 Implement MS4 property and operations maintenance (Ongoing)	In progress	Execute Existing SWPPS for town properties	Document Execution	DPW Director	April 2017	
6-3 Implement coordination with interconnected MS4s	On going	Continue to work to identify	Document to file as needed	CLA/DPW Director		
6-4 Develop/implement program to control other sources of pollutants to the MS4	Not begun			CLA/DPW Director		
6-5 Evaluate additional measures for discharges to impaired waters*	Not begun			CLA/DPW Director		
6-6 Track projects that disconnect DCIA (Ongoing)	Not begun			CLA/DPW Director		

6-7 Implement infrastructure repair/rehab program (Due 7/1/21)	Not begun			DPW Director		
6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/20)	Commenced	Students from UCONN Water Corps investigated municipal sites for disconnection potential and produced presentation and report of findings (11/08/22)	Development of Plan	DPW Director	Spring 2023	
6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22)	Not begun			DPW Director		
6-10 Develop/implement street sweeping program (Ongoing)	Complete	Annual sweeping	Document to file	DPW Director		
6-11 Develop/implement catch basin cleaning program (Ongoing)	Complete	Cleaned 40-50% of basins, GPS location and volumes	GIS layer developed	DPW Director		
6-12 Develop/implement snow management practices (Due 7/1/18)	Complete			DPW Director		

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

In addition to those site identified by the UCONN Water Corps, municipal stormwater detention basins will be reviewed for their potential to be converted to retention basins.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes
Street sweeping	
Curb miles swept	240 miles
Volume (or mass) of material collected	1,128 tons
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins	2,030 (Mapped)
town or institution-wide)	
Total catch basins town- (or institution-) wide	2,553 (Mapped)
Catch basins inspected	2,553
Catch basins cleaned	1,400 (Est)
Volume (or mass) of material removed from all catch basins	500 TONS est
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Treated Salt/Sand &
	Salt
Total amount of each deicing material applied	Sand & Salt 1,200
	tons est, TREATED
	1000 TONS- EST.
Type(s) of deicing equipment used	CIRUS w/ Electronic
	S
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	240
Snow disposal location	
Staff training provided on application methods & equipment	NONE
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	5%
Reduction in turf area (since start of permit)	NONE
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	\$0

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program.

6.5 Retrofit program

Briefly describe the Retrofit Program identification and prioritization process, the projects selected for implementation, the rationale for the selection of those projects and the total DCIA to be disconnected upon completion of each project. (Due 7/1/20)

Meeting convened on 10/19/21 to discuss potential sites for DCIA retrofit projects. It was agreed that municipal school sites be investigated as potential candidates for retrofit projects. Engineering consultant to initiate coordination and determine potential for disconnect project(s).

Students from UCONN Water Corps investigated municipal sites for disconnection potential and produced presentation and report of findings Sudents from UCONN (11/08/22). Locations included:

- 1. Leonard J Tyl Middle School
- 2. 2. Oakdale Elementary School
- 3. 3. The Montville Senior Center
- 4. 4. Montville Parks and Recreation
- 5. 5. Montville Town Hall/Emergency Management
- 6. 6. Montville Volunteer Fire Department #1

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

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

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

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

Nitrogen/ Phosphorus 🛛	Bacteria 🔀	Mercury	Other	Pollutant	of
Concern 🕅					

1.2 Describe program status

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

Field investigations identified 12 outfalls directly connected to impaired waters in Montville. Between August and October 2019, these outfalls were sampled during wet weather conditions. Follow up monitoring of the 6 worst outfalls contributing to pollution was performed in November 2020 and September 2021. Catchment investigation commenced in October 2021. Five outfalls were observed during wet weather conditions. Investigations concluded with Turbidity Report which determined followup measures be performed for one cvatchment (Outfall #108).

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

2.1 Screening data

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

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

See over

Screening Data for Outfalls to Impaired Waterbodies

2019 Sampling Results (100% of Outfalls Discharging to Impaired Waters)

Outfall ID	Date Sampled	Flow	Pollutants of Concern Required	Water Class	Fecal Coliform (<260 col/100mls)	Enterococcus (<500 col/100mls)	(<410	Total Coliforms (<500 col/100mls)	Chlorine (<0.02 mg/l)	Conductivity (umhos cm)	Surfactants (<0.25 mg/I)	Ammonia (<0.5 mg/l)	Nitrogen (<2.5 mg/l)	Salinity (PPT)	Phosphorus (<0.3 mg/l)	Turbidity Diff (<5 NTU)	Catchment Ranking
108	10/9/2019	Moderate	Yes	В			2850	24200	0.019	46	0.09	0.15		< 0.5		179.73	1
181	8/13/2019	Moderate	Yes	SB	52	4350			0.019	35	0.39	0.39	1.00	<0.5	0.177	-9.45	2
330	10/9/2019	Moderate	Yes	В			19900	24200	0.019	45	0.05	0.07		<0.5		34.43	3
153	10/9/2019	Heavy	Yes	В			2480	24200	0.019	36	0.05	0.06		< 0.5		26.09	4
182	8/13/2019	Moderate	Yes	SB	24200	2490			0.019	164	0.17	0.13	0.72	<0.5	0.086	-10.17	5
233	8/13/2019	Moderate	Yes	SB	602	272			0.019	19	0.34	0.42	1.70	<0.5	0.136	4.2	6
106	10/9/2019	Trickling	Yes	В	N/A		1140	24200	0.019	20	0.07	0.13		< 0.5		7.58	7
421	8/13/2019	Moderate	Yes	В			1380	24200	0.02	16	0.32	0.18		<0.5		0.1	8
117	10/9/2019		Yes	В			1440	24200	0.02	32	0.06	0.06		< 0.5			9
118	8/13/2019	Moderate	Yes	В			24200	24200	0.03	22	0.25	0.24		< 0.5		-6.78	10
331	10/9/2019	Moderate	Yes	В			173	24200	0.019	11	0.05	0.12		<0.5		60.93	11

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

Pollutant of concern	Pollutant threshold							
Nitrogen	Total N > 2.5 mg/l							
Phosphorus	Total P > 0.3 mg/l							
Bacteria (fresh waterbody)	 E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others Total Coliform > 500 col/100ml 							
Bacteria (salt waterbody)	 Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others 							
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample							

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

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall ID	Status of drainage area investigation	Control measure to address impairment
108	Visited site during rain event to determine origins of turbidity	Install E&S control measures
106	Visited site during rain event to determine origins of turbidity	No further investigations necessary for turbidity
330	Visited site during rain event to determine origins of turbidity	Clean pipes
331	Visited site during rain event to determine origins of turbidity	No further investigations necessary for turbidity
153	Visited site during rain event to determine origins of turbidity	No further investigations necessary for turbidity

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

Once outfall sampling has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

2020 Sampling Results (Six Worst Polluting Outfalls)

Outfall ID	Date Sampled	Flow	Temp.	Water Classification	Fecal Coliform Enterococcus (<260 (<500 col/100mls) (E Coli (<410 col/mls)	Turbidity Difference (<5 NTU)
108	11/30/2020	Heavy	55.2	В			384	140
118	11/30/2020	Moderate	55.9	В			1110	
153	11/30/2020	Heavy	61.5	В			31	29
182	11/30/2020	Heavy	54.6	SB	13000	9210		
330	11/30/2020	Heavy	58.1	В			63	16
181	11/30/2020	Moderate	59.0	SB		5480		

2021 Sampling Results (Six Worst Polluting Outfalls)

Outfall ID	Lattitude	Longitude	Date Sampled	Water Classification	Fecal Coliform (<260 col/100mls)	Enterococcus (<500 col/100mls)	E Coli (<410 col/mls)	Turbidity (NTU)	Turbidity Difference (<5 NTU)
108	41.45375981	-72.14121604	9/9/2021	В				4.66	3.26
118	41.43659459	-72.10619359	9/9/2021	В			1860	15.70	14.34
118 US	41.43659459	-72.10619359	9/9/2021	В				1.36	
153	41.43677295	-72.10973664	9/9/2021	В				30.10	28.82
153 US	41.43677295	-72.10973664	9/9/2021	В				1.28	
182	41.44927665	-72.10059225	9/9/2021	SB	24200	15500		60.40	58.62
330	41.45533385	-72.14318206	9/9/2021	В				8.32	6.92
330/108 US	41.45533385	-72.14318206	9/9/2021					1.40	
181	41.45006236	-72.10101147	9/9/2021	SB		24200		14.90	13.12
181/182 US	41.45006236	-72.10101147	9/9/2021					1.78	

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).

Outfall ID	Waterbody	DEEP Basin	Category	Ranking
4	Oxoboxo Lake	CT3004-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
48	Latimer Brook	CT2202-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
114	Shantok Brook	CT-E1_016-SB	Low Priority	No Information on Screening Factors Available to Perform Ranking
122	Stony Brook	CT3005-01_01	Low Priority	No Information on Screening Factors Available to Perform Ranking
125	Trading Cove Brook	CT3001-00_01	Low Priority	No Information on Screening Factors Available to Perform Ranking
148	Fox Brook	CT3004-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
164	Hunts Brook	CT3006-00_03	Low Priority	No Information on Screening Factors Available to Perform Ranking
174	Oxoboxo Brook	CT3004-00_01	Low Priority	No Information on Screening Factors Available to Perform Ranking
176	Fox Brook	CT3004-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
177	Oxoboxo Lake	CT3004-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
182	Thames River (Middle)	CT-E1_015-SB	Low Priority	No Information on Screening Factors Available to Perform Ranking
192	Sandy Brook	CT3006-00_03	Low Priority	No Information on Screening Factors Available to Perform Ranking
198	Oxoboxo Brook	CT3004-00_01	Low Priority	No Information on Screening Factors Available to Perform Ranking
215	Shantok Brook	CT-E1_016-SB	Low Priority	No Information on Screening Factors Available to Perform Ranking
220	Shantok Brook	CT-E1_016-SB	Low Priority	No Information on Screening Factors Available to Perform Ranking
228	Shantok Brook	CT-E1_016-SB	Low Priority	No Information on Screening Factors Available to Perform Ranking
243	Oxoboxo Lake	CT3004-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
245	Oxoboxo Brook	CT3004-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
247	Fox Brook	CT3004-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
254	Bogue Brook Reservoir	CT2202-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
255	Bogue Brook Reservoir	CT2202-00_02	Low Priority	No Information on Screening Factors Available to Perform Ranking
279	Shantok Brook	CT-E1_016-SB	Low Priority	No Information on Screening Factors Available to Perform Ranking
283	Shantok Brook	CT-E1_016-SB	Low Priority	No Information on Screening Factors Available to Perform Ranking
285	Shantok Brook	CT-E1_016-SB	Low Priority	No Information on Screening Factors Available to Perform Ranking
331	Oxoboxo Brook	CT3004-00_01	Low Priority	No Information on Screening Factors Available to Perform Ranking
378	Oxoboxo Brook	CT3004-00_01	Low Priority	No Information on Screening Factors Available to Perform Ranking
380	Oxoboxo Brook	CT3004-00_01	Low Priority	No Information on Screening Factors Available to Perform Ranking
397	Oxoboxo Brook	CT3006-00_03	Low Priority	No Information on Screening Factors Available to Perform Ranking

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

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

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall ID	Date Sampled	Flow	Pollutants of Concern Required	Water Class	Enterococci (<500 col/100ml)	E Coli (<410 mg/l)	Total Coliforms (< 500 col/ml)	Chlorine (<0.02 mg/l)	Conductivity (umhos cm)	Surfactants (<0.25 mg/l)	Ammonia (<0.5 mg/l)	Nitrogen (<2.5 mg/l)	Salinity (PPT)	Phosphorus (<0.3 mg/l)	Turbidity Diff Recorded	Catchment Priority
4	8/9/2019	Trickling	No	Α		86	13000	0.019	311	0.05	0.05		<0.5			High Priority
48	8/9/2019	Trickling	No	Α		20	24200	0.019	177	0.05	0.05		<0.5			High Priority
114	7/16/2019	Heavy	No	Α		10	24200	0.019	205	0.05	0.05		<0.5			High Priority
122	7/16/2019	Trickling	No	Α		31	24200	0.019	345	0.05	0.05		<0.5			High Priority
125	7/16/2019	Moderate	No	Α		10	24200	0.019	83	0.05	0.05		<0.5			High Priority
148	8/12/2015	Trickling	No	Α		63	15500	0.019	177	0.05	0.05		< 0.5			High Priority
164	9/30/2019	Trickling	No	AA		958	24200	0.019	234	0.61	0.35		<0.5			High Priority
174	7/17/2019	Trickling	No	В		10	24200	0.019	710	0.05	0.05		<0.5			High Priority
176	8/9/2019	Trickling	No	Α		10	17300	0.019	315	0.05	0.05		<0.5			High Priority
177	8/9/2019	Trickling	No	Α		602	19900	0.019	361	0.05	0.05		<0.5			High Priority
182	8/12/2019	Trickling	Yes	SB	31			0.019	508	0.05	0.05	4.25	< 0.5	0.022	Not Tested	High Priority
192	7/16/2019	Moderate	No	Α		10	5170	0.019	166	0.05	0.05		<0.5			High Priority
198	9/30/2019	Moderate	No	В		85	4610	0.019	119	0.2	0.05		<0.5			High Priority
215	7/17/2019	Trickling	No	Α		31	19900	0.019	206	0.05	0.05		<0.5			High Priority
220	7/16/2019	Trickling	No	Α		20	19900	0.13	469	0.08	0.06		<0.5			High Priority
228	7/16/2019	Heavy	No	Α		10	3260	0.03	375	0.05	0.05		<0.5			High Priority
243	8/9/2019	Trickling	No	Α		10	13000	0.019	292	0.05	0.05		<0.5			High Priority
245	8/9/2019	Trickling	No	Α		1450	24200	0.019	657	0.05	0.05		<0.5			High Priority
247	8/9/2019	Trickling	No	Α		31	9800	0.019	362	0.05	0.05		<0.5			High Priority
254	9/30/2019	Trickling	No	AA		31	24200	0.019	67	0.05	0.05		<0.5			High Priority
255	8/9/2019	Trickling	No	AA		189	24200	0.019	368	0.05	0.05		<0.5			High Priority
279	7/16/2019	Moderate	No	Α		253	24200	0.03	391	0.05	0.25		<0.5			High Priority
283	7/17/2019	Trickling	No	Α		272	17300	0.03	274	0.05	0.05		<0.5			High Priority
285	7/16/2019	Trickling	No	Α		20	8660	0.019	96	0.05	0.05		<0.5			High Priority
331	8/9/2019	Trickling	Yes	В		199	24200	0.05	67	0.05	0.08	0.28	<0.5	0.019	Not Tested	High Priority
378	9/17/2019	Trickling		Α		8160	24200	0.019	237	0.05	0.08		<0.5			High Priority
380	7/17/2019	Moderate	No	В		10	345	0.019	665	0.05	0.05		<0.5			High Priority
397	7/16/2019	Trickling	No	Α		20	5480	0.03	218	0.05	0.05		<0.5			High Priority

2.2 Wet weather sample and inspection data

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

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. **You may also attach** an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

Outfall / Interconnection ID	Latitude / Longitude	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)

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

3.1 System Vulnerability Factor Summary

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

Outfall ID	Receiving Water	System Vulnerability Factors

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 that 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 that poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

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

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

3.3 Wet weather investigation outfall sampling data

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

Outfall ID	Latitude / Longitude	Sample date	Ammonia	Chlorine	Surfactants

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: Darren Hayward, P.E.
Signature / Date:	Signature / Date:
Email:	Email:
	dhayward@claengineers.com