CITY OF NORWICH

2024 MS4 REPORT

MS4 General Permit

Town of Norwich 2024 Annual Report

Existing MS4 Permittee

Permit Number GSM 000088

[January 1, 2024 – December 31, 2024]

This report documents the City of Norwich efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2023 to December 31, 2023.

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 March 2021. Public Works coordinated with NPU to have Illicit Discharge Brochures distributed to all Norwich residents that received their utility bills by Mail.	Number of Citizens educated about pollution and made aware of their own actions which may also contribute to the problem.	Jean-Paul Laguerre	Jul 1, 2018	Public Outreach to Continue for the life of the permit even beyond.	The Illicit discharge brochure brings awareness to residents about the rapid deterioration of our storm water due careless acts.

1-2 Address education/ outreach for pollutants of concern*		In 2021 we posted tips on the City website regarding efforts that residents can implement to reduce or eliminate pollution in our waters.		*Jean-Paul Laguerre*	Jul 1, 2018	Public education/ Outreach to Continue for the life of the permit even beyond.	*The pollutants of concern in Norwich are bacteria phosphorus, Nitrogen. Non-point sources of Nitrogen and phosphorus are responsible for the degradation of water quality.*
1-2 Education/Outreach for pollutants of concern		On October 22, We met with 42 students from the Integrated Day Charter School in Norwich to discuss Storm Water Pollution. The City of Norwich used the City website to educate the Public about Phosphorus and Nitrogen.	Number of Citizens Made Aware of storm water pollution issues	*Jean-Paul Laguerre*	Nov. 7 2018	Public Education/ outreach to Continue for the life of the permit even beyond.	

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

Every year, once we have our MS4 report posted on the City website, we usually put an ad in the paper inviting the Citizens to comment on the report. We usually take the opportunity to bring awareness to stormwater pollution and best management practices. We will continue to do so in the years to come. We welcome opportunities to educate school students about water pollution issues.

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.
We posted valuable information regarding protecting the integrity of our stormwater on the City Website.	*Approximately 10,000*	*Impact of pet waste on Rivers, lakes and streams*	*E.Coli-Bacteria*	*Public Works Engineering Department*
Posters on Fertilizer reduction, Proper disposal of Grass clipping and Pet wastes were distributed and posted in Public Spaces and City offices.	*Approximately 5000*	*Impact of Fertilizer and grass clipping on Rivers, Lakes and Streams.*	*Phosphorus, Nitrogen*	*Public Works Engineering Department*
We posted on the Public Works Facebook page February 8 2023 about how individuals can impact the environment by damaging the integrity of stormwater	*3,000*	*Impact of dumping and discharging into the storm drains – The Drain is Just for Rain!*	*N/A*	*Public Works*
We partnered with the Greeneville Storm Drain Project to host two two-hour workshops with youth aged 8 to 18 regarding storm water topics (July 13 and 14, 2023)	*30*	*Services of the Shetucket River, structure and function of a storm drain, watersheds, the water cycle, eco-infrastructure*	*Nitrogen, PFAs*	*Norwich Public Works, Greeneville Storm Drain Project by Sankofa Education and Leadership Inc.*
We gave a lecture to 6th grade students about stormwater topics and how they can be stewards to their community	*65*	*Services water provides, the water cycle, Eco infrastructure, impact of illicit discharging into the waterways*	*Nitrogen, PFAs*	*Norwich Public Works Dept.*
We gave a lecture to high school students in the Environmental Justice Club at NFA regarding stormwater and how to be a steward to your community and the environment around you.	*35*	*Services water provides, the water cycle, Eco infrastructure, impact of illicit discharging into the waterways, climate justice*	*Nitrogen, PFAs, E. Coli, Nx, Co2*	*Norwich Public Works Dept.*

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	Fertilizer Reduction and Pet waste education posters posted on City Website to educate residents.		*Public Works Engineering Department*	Apr 3, 2017		
2-2 Comply with public notice requirements for Annual Reports	*Posted*	*Notice Posted in 02/05/2021*		*Public Works Engineering Department*	Feb 14, 2020	*04/01/2020*	
2-3 Establish Stormwater Committee	*Complete*	*Quarterly Meetings to create an Illicit Discharge Ordinance*	*Establish an Illicit Discharge Ordinance*	*Public Works Engineering Department*	February 6, 2020	*Committee Still Active on an "As Needed" Basis*	*Created Low Impact Development Plan, DCIA disconnection plans, and a Stormwater Compliance Checklist*
Establish an "Adopt A Drain" Campaign	*Complete*	*Development of program that is user friendly for all ages*	*Reduce waste clogging and entering storm drains through community involvement – 56 drains adopted of goal 100 as of 7/25/23*	*Emma Robinson, Environmental Compliance Coordinator, Public Works*	April 22, 2023	*Creation of forms, maps, etc. complete 4/17/23 but program is ongoing indefinitely*	*This is a volunteer activity with suggested dates but nothing mandatory for the residents*
Strom Drain Stenciling Campaign	*Complete*	*Educate youth about stormwater and illicit discharge, then design illustrations to put on storm drains along*	*Seven painted Storm Drains*	*Emma Robinson, Environmental Compliance Coordinator, Public Works*	August 18, 2023	*Educational workshops took place July 13 and 14* *Designs created July 13 and 14*	

		Central Ave that will educate passersby		*Sankofa Education and Leadership Inc.*		*Storm Drains Painted August 18 2023*	
Storm Drain Stenciling Campaign	*Ongoing*	*Educate youth about stormwater and illicit discharge, then design illustrations to put on storm drains along Central Ave that will educate passersby*	*Three Storm Drains painted along North Main Street*	*Emma Robinson, Environmental Compliance Coordinator, Public Works* *Sankofa Education and Leadership Inc.*	Dec 31 2024	*Educational Workshops took place May 20, 2024* *Designs Created June 20, 2024* *Installation approval pending by DOT*	

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

We will contact schools in the area and offer our service to educate students about stormwater pollution issues. We believe in educating the upcoming generation to become better stewards of our community.

We will continue to work with Sankofa Education and Leadership Inc. to paint more storm drains within Norwich CT.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	YES	02/15/2019	Norwichct.org/Stormwater
Availability of Annual Report announced to public	YES	02/05/2022	Norwichct.org/Stormwater

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*	*100% Completed*	*Develop written plan of IDDE program*	*Public works Engineering/Jean-Paul Laguerre*	Jul 1, 2018	*Completed December 2018*	http://www.norwichct.org/738/Stormwater-Information
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	*Completed*	*100% Completed*		*Public Works Engineering/ Jean-Paul Laguerre*	Jul 1, 2019	*Completed* *October 2019*	
3-3 Implement citizen reporting program	*Completed*	*Residents have been calling to report dumping and/or accidental spills.*		*Public Works Engineering/ Jean-Paul Laguerre*	Jul 1, 2017	*Completed*	
3-4 Establish legal authority to prohibit illicit discharges	*Completed*	*Ordinance has been approved. Legal Authority is now established.*		*Public Works Engineering/ Jean-Paul Laguerre*	Jul 1, 2018	*Completed*	

3-5 Develop record keeping system for IDDE tracking.	*Completed*	*Record Keeping System is set-up.*		*Public Works Engineering/ Jean-Paul Laguerre*	Jul 1, 2017	*Completed*	
3-6 Address IDDE in areas with pollutants of concern	*always Progress*	*We have been posting "No-Dumping" Stickers on Catch basins where illicit dumping was discovered or reported.*	*Ongoing*	*Public Works Engineering/ Jean-Paul Laguerre*	Not specified	*Ongoing*	
3-7 Consolidate IDDE tracking spreadsheets	*In Place* *Operational*	*Compile all the IDDE tracking requirements into one spreadsheet*		*Public Works Engineering/ Jean-Paul Laguerre*	-	*Jul 1, 2018*	*This is a good tool for us as it allows us to identify the areas of the City with the Most illicit discharges. These areas will eventually become our main target in outreach.*

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

The Environmental Compliance officer will continue to visit schools and teach students about stormwater issues. They will also continue to promote the Adopt a Drain Program.

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

Date of Report	Location / suspected source	Response taken
06/17/2021	A resident called us with an anonymous tip regarding dumping of paint in a catch basin near 54 Maple Street. I quickly went to the address. There were 2 Contractors repairing a house. They were outside at the time of my unannounced visit. I approached them and explained to them the reason for my visit. They denied dumping paint in the catch basins. However they admitted to washing the paint containers near the catch basins after the work day.	I inspected the nearby catch basins. One of them looks dirty with faint paint residue. I educated the Contractors about the challenges that the City is facing regarding impaired water, illicit dumping etc.. and left them with a stern warning of potential fines if they continue to dump anything in or near the City catch basins.
06/19/2020	While Marking Catch basins for Call before you dig. I came across two catch basins on Fairmount CT. with fresh motor oil residue on them.	I posted a “No Dumping-Drain To River” decal on each catch basin. We will follow up with a heavy distribution of illicit discharge brochure to all adjacent houses.
11/15/2022	We received a notice from a maintenance worker that there may be suspected dumping of oil in a catch basin in an apartment complex called Rosewood Manor at 335 Hamilton Avenue.	I Inspected the 8 storm drains and found residue of oil on three of the grates. I posted curb markers that said “No Dumping! Drains to River” on all 8 storm drains. I then spoke to six residents of the complex about dumping policies and the possible impacts illicit discharging has on the environment. I then put an informative brochure in every mailbox in the complex, which totaled about 104 households.
11/15/2022	We received a call from an anonymous person stating they suspected illicit discharging was taking place at an apartment complex called Westwood Park.	I inspected the 6 storm drains on the lot and found no signs of residue or dumping on any of the storm drains. I still put curb markers that said “No dumping! Drains to river” on all 6 storm drains. I also spoke to the building manager about the report and the possible impacts of illicit discharging on the environment. He issued a statement to all of his tenants and posted an informational brochure in the common room.
11/28/2022	While putting educational stickers on recycling bins on Melrose Park Road, I noticed what appeared to be paint dried on the sewer grate	I inspected the catch basin and saw that the water was oleaginous. I reported this to dispatch so they could service the catch basin. I also placed a “No dumping! Drains to River” curb marker on the

		storm drain, as well as the storm drain nearby. I then placed informative brochures about illicit discharging in the mailboxes of the adjacent houses, which was about four households.
1/27/23	We received a report that paint was visible on the grate of a storm drain near 520 Canterbury Turnpike	I inspected the storm drain and saw that there was dried white paint which was undeniably a result of dumping into the basin. I placed educational brochures in all nearby mailboxes and secured a "No dumping! Drains to River" curb marker on the storm drain
1/30/23	We received a call that a storm drain has been used for dumping around 53 Merchants Avenue	I inspected all nearby drains and found that one of the five I inspected had signs of illicit discharging. I put a "No dumping! Drains to River" curb marker on the storm drain, and put educational brochures in all nearby mailboxes. Because this was by multi-family residences, about 35 brochures were distributed.
2/9/23	We received a report that a storm drain on Beech Street needed maintenance	After inspection, it had signs of illicit discharge, curb marker, brochures to nearby addresses (4) spoke to closest resident about the issue and what to look out for on storm drains and during neighborhood watch regarding illicit discharging
2/17/23	We received a call that dumping was taking place on 575 Boswell Avenue	After inspection I found that two of the storm drains on the lot had signs of illicit discharging. I put a "No dumping! Drains to River" curb marker on the storm drains and spoke to two of the nearby residents.
4/21/23	One of the city workers noticed paint marks on the grate at the end of Trading Cove Road while paving	After inspection, one drain had signs of illicit discharge. Informational brochures were given to two of the nearby residences.
4/23/23	A resident called in to report that a rope with an absorbent pig was hanging in the basin at 79 Mohegan Park Road	We sent a crew to retrieve the absorbent pig. Upon further investigation, there was no oil or signs of illicit discharge within or near the drain. We confirmed that the absorbent pig was not placed there by NPW and there were no recent projects in that area. No further action was taken.
5/15/23	We received a citizen report that illegal dumping was occurring at 78 Town Street	I inspected the address and saw that contracted workers for the business at 78 Town Street were repeatedly cleaning their supplies in a bucket and dumping the water into the storm drain inlet after grouting the drive-thru. I spoke to the manager of the business and the contractor about illicit discharging, where the

		water goes after it enters a storm drain, and how they can remain compliant. I gave them educational brochures and my card so they can contact me should they have any questions.
8/29/23	We received a citizen report that leaves were being purposefully stuffed into a storm drain by uniformed workers of an unknown company	I investigated the area and found Asplundh was contracted by NPU to do tree work including cleanup in the area. I contacted the general manager of NPU to inform him what constitutes illicit dumping and he notified his staff and reached out to Asplundh about BMPs for their project.
9/26/24	We received a citizen report that someone was dumping used motor oil into the soil on their own property on Coit Lane	I inspected the area and found one oil puddle in the soil, and one in the street. We contacted the police, who not only made a case number, but allowed us to investigate further on the property. We spoke to the tenant of the property and informed them that oil in the soil is a very outdated technique, and we gave them the proper strategies for oil disposal.
10/10/24	We received a citizen report that oil was being dumped into a catch basin at the corner of Chestnut Street and Willow Street	I inspected the area and found numerous dried puddles as well as a wet storm drain grate in dry weather. Closer visual inspection and olfactory inspection led to the conclusion that oil was dumped into the catch basin. I placed a "No Dumping! Drains to River!" placard by the drain and spoke to the adjacent property owner about illicit discharge and to report if signs were to occur again.
10/30/24	We received a citizen report that a resident was dumping oil into the street on Boswell Avenue	I inspected the area and found that the resident's car had a small leak. I made the resident aware of the issue and gave them an educational brochure.

3.4 Provide a record of illicit discharges occurring during the reporting period and SSOs occurring July 2021 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)

Regulator Name :23	Duration 0.08	07/01/2020		51-500 Gallons	Flood Water		
Regulator Name: 25	Duration 0.08	7/01/2020		51-500 Gallons	Flood Water		
Regulator Name:24	Duration 0.25	6/30/2020		51-500 Gallons	Flood Water		
Regulator Name: 23	Duration 0.58	7/3/2020		5001-20,000 gallons	Flood Water		
Regulator Name:19	Duration 0.33	7/3/2020		5001-20,000 gallons	Flood Water		
Regulator name:25	Duration 0.17	7/3/2020		501-1000	Flood Water		

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 City of Norwich strongly encourages citizens to report illicit discharges. The Engineering office ensures that an Engineer is dispatched immediately to the reported location. The Engineer is responsible to look for any evidence of illicit discharge and to call the Street Department if immediate help is required to remove the pollutant. Once the pollutant is removed, the Engineer is responsible to conduct a full investigation and to assess the damage. The Engineer is responsible to educate the responsible party to ensure that such discharge never repeats.

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 tank failures reported per Uncas Health Department.	N/A	N/A

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	450
Estimated or actual number of interconnections	43
Outfall mapping complete	100%
Interconnection mapping complete	100%
System-wide mapping complete (detailed MS4 infrastructure)	100%
Outfall assessment and priority ranking	100%
Dry weather screening of all High and Low priority outfalls complete	90%
Catchment investigations complete	Behind schedule due Covid
Estimated percentage of MS4 catchment area investigated	Behind schedule due to Covid

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).

JP Laguerre, Engineer with Public works in charge of MS4 attends Webinars and pre-recorded classes of diverse MS4 topics. In turn once a year JP conducts staff training to help our employees to use best housekeeping practices and to identify illicit discharges.

Emma Robinson, Environmental Compliance Coordinator for Norwich Public Works, has read a myriad of textbooks and guides regarding IDDE, BMPs, outreach and education, etc. Every winter, she conducts staff training to ensure staff can identify signs of illicit discharges and best management practices to prevent them.

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	Active	The City of Norwich has updated City regulation to conform to MS4 regulation.		Deanna Rhodes and Brian Long, P.E.	Jul 1, 2019	The City has issued a low impact development Policy that can be found on the City Website.	http://norwichct.org/DocumentCenter/View/6536/LID-BMPs-OFFICIAL
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Active			Deanna Rhodes and Brian Long, P.E.	Jul 1, 2017		*The City of Norwich already has an effective system in place. Developers First point of contact is Deanna Rhodes at the office of Planning and Zoning. Deanna is responsible to acquaint developers with City LID Requirements. Preliminary plans are shared with Engineering Department for initial and final review.*
4-3 Review site plans for stormwater quality concerns	*Active*			Deanna Rhodes and Brian Long, P.E.	Jul 1, 2017		*The Office of Planning and Zoning and the Engineering office are responsible to review site Plans for Stormwater quality concerns.*
4-4 Conduct site inspections	*Active*			Deanna Rhodes and Brian Long, P.E.	Jul 1, 2017		*The Office of planning and Zoning and the Engineering office are both responsible to conduct site Inspections.*
4-5 Implement procedure to allow public comment on site development	*Active*			Deanna Rhodes and Brian Long, P.E.	Jul 1, 2017		*Citizens can report and comment on the City Website.*

4-6 Implement procedure to notify developers about DEEP construction stormwater permit	*Active*	*Developers are directed to our MS4 Webpage where our LID Policy is posted.*		Deanna Rhodes and Brian Long, P.E.	Jul 1, 2017		*Deanna Rhodes of the office of Planning and Zoning is responsible to notify developers about DEEP constructition Stormwater service.*

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

All site disturbances and construction must be approved by the office 3 day notice to be given before the start of Construction. (These 3 days do not include plan reviews by planning and zoning and Engineering office) Silt bags, Silt fences and haybales must be installed as needed before the beginning of each project.

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	Deanna Rhodes is the Legal Authority	A LID Policy was issued by the City and is being used to acquaint developers of City LID requirements.		Deanna Rhodes and Brian Long, P.E.	Jul 1, 2021		
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	*In Place*	The office of planning and Zoning and the Engineering office of public Works are responsible to enforce the City LID/Runoff reduction.		Deanna Rhodes and Brian Long, P.E.	Jul 1, 2019		

5-3 Identify retention and detention ponds in priority areas	*Completed*	*Retention and detention ponds have been identified.*		Jean-Paul Laguerre/ Public Works Dispatch	Jul 1, 2019		
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	*In Place*	*Our stormwater catch basins are cleaned every year. DPW acquired a Vac-All in 2021.*		Brian Long, P.E.	Jul 1, 2019		
5-5 DCIA mapping		*80% completed*		*Jean-Paul Laguerre*	Jul 1, 2020		
5-6 Address post-construction issues in areas with pollutants of concern		*In Progress*		Deanna Rhodes and Brian Long, P.E.	Not specified		

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

We will continue our policy to follow up with at least 2 site visits after the project is completed. One of these visits to be done during a rain event to ensure that all sediment control measures are working and there is no migration of sedimentation.

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	1,566 Acres
DCIA disconnected (redevelopment plus retrofits)	0.303 acre disconnected in 2021

Retrofits completed	N/A
DCIA disconnected	0.303 this year
Estimated cost of retrofits	$ 500,000
Detention or retention ponds identified	6

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

The baseline DCIA was determined by using the MS4 map on the NEMO Website. Turning on the impervious cover layers by basin and tabulating the percentage of each basin that is directly connected. We determined what land use corresponds to each basin. Based on the land use and our knowledge of the City we used the appropriate multiplying factor to determine the percentage of the basin that is connected. We were able to determine a total DCIA of 1566 Acres. Approximately 8.3 % of the City area.

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	10/23/2019		JP Laguerre	Jul 1, 2017		
6-2 Implement MS4 property and operations maintenance	Completed	*In October 2021. We conducted staff training for our Stormwater Pollution Prevention plan.*		JP Laguerre			
6-3 Implement coordination with interconnected MS4s	*Completed*	*I have made contact with Mr. Imig Daniel and Jeremy Willcox of DOT. We have traded interconnections Testing results.*		*JP Laguerre*	Not specified		
6-4 Develop/implement program to control other sources of pollutants to the MS4	*Ongoing*	*-Reduction of* *-Fertilizers* *Silt fences before* *Construction to prevent migration of sedimentation.* *- Do not feed Ducks and Geese Campaign.*	*Reduction of pollutants of concern. Phosphorus and Nitrogen and Bacteria.*	*JP Laguerre*	Not specified		

6-5 Evaluate additional measures for discharges to impaired waters*	*N/A*			*JP Laguerre*	Not specified		
6-6 Track projects that disconnect DCIA	*Established*	*In September 2021 the City completed the construction of a roundabout in Downtown Norwich thereby creating 560 SY of green space.*		*Engineering Department*	September 2021		
6-7 Implement infrastructure repair/rehab program	*Ongoing*			*Engineering Department*	Jul 1, 2021		
6-8 Develop/implement plan to identify/prioritize retrofit projects		*Ongoing*			Jul 1, 2020		*We have identified and prioritized retrofit Projects.*
6-9 Implement retrofit projects to disconnect 2% of DCIA	*We disconnected 2 acres in 2019*	*The City is striving to implement retrofit projects to disconnect Impervious areas however budget is an issue.*			Jul 1, 2022		*Funding Issue*
6-10 Develop/implement street sweeping program	*Already in Place*	*City streets are swept at least twice in a year. Downtown Norwich a high priority area is swept once a week.*	*Cleaner catch basins.*		Jul 1, 2017		

6-11 Develop/implement catch basin cleaning program	*Already in Place*	*Catch basins are cleaned at least once a year by a hired Contractor. This year the City has invested in a new Vac-All in order to do the cleaning.*			Jul 1, 2020		*Successfully implemented.*
6-11 Develop/implement catch basin cleaning program	*Already in Place*	*Although we still have a contractor that does cleaning, we are implementing a scheduled program to service storm drains with our Vac-All.*	*20 catch basins per week*	*Public Works Department*	N/A		
6-12 Develop/implement snow management practices	*Already In Place*	*The City switched to a salt mix eliminating the sand that would end up into our catch basins.*	*Less sand in the Catch basins.*		Jul 1, 2018		*Successfully implemented.*

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

We will aggressively pursue our street sweeping services as sweeping prevents trash from getting into the City MS4s. We have started the planning process with the Building Department to design and install build some tree wells and rain gardens, possibly in collaboration with the local schools so it is both educational and preventative. We will continue to offer guidance to school and other public lots that want to install eco-friendly landscaping. We will continue to encourage residents to participate in Neighborhood efforts to clean priority areas of the City.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff on 09/24/21	11/18/2020
Street sweeping	
Curb miles swept	163 miles swept twice a year. Spring and Fall or as required.
Volume (or mass) of material collected	At least 20 tons a year. Fewer now since the City switched to a salt mix instead of sand.
Catch basin cleaning	
Total catch basins in priority areas	2800
Total catch basins in MS4	3500
Catch basins inspected	3500
Catch basins cleaned in 2024	2000
Volume (or mass) of material removed from all catch basins	50-60 tons
Volume removed from catch basins to impaired waters (if known)	Unknown
Snow management	
Type(s) of deicing material used	Treated Salt
Total amount of each deicing material applied	1170 tons
Type(s) of deicing equipment used	Trucks-Spreader
Lane-miles treated	163 miles

Snow disposal location	Aqueduct Parking Lot/Downtown
Staff training provided on application methods & equipment	December 2024
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	2000 lbs
Reduction in turf area (since start of permit)	acres
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	The Dog Park at 261 Asylum Street
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 of Norwich has always had a catch basin cleaning schedule. At least every other year the city hires a company to vacuum the city catch basins. The work includes removing the catch basin grates and vacuuming the sumps to remove sedimentations and debris. Catch basins found in a state of disrepair are usually reported. In 2021 Shaw Vac cleaned 442 Catch basins in high priority areas of the City adding to the list of 2891 catch basins cleaned in 2020. The City of Norwich recently purchased a new Vacall so we can clean our basins as needed.

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.
We are contemplating the disconnection of the outfalls at Spaulding pond (Mohegan Park) and create a detention basin instead. A Total DCIA of 9 acres would be disconnected. This project would be however very costly. This project is selected because Spaulding Pond beach has to be closed some year due to a high level of bacteria. We have tested the outfalls that discharge in the pond and have found a very high level of bacteria. These outfalls are now part of the 6 worst outfalls. We will continue to keep them on our radar until we have enough fund to implement a retrofit project.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years.
The city has issued a LID Policy in 2020 that developers must adhere to. The City is partnering with residents and developers to help achieve the 1% annual disconnection goal.

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 will work with council to create an incentive program for creating more green space within the City and to reward home owners who disconnect their Directly Connected Impervious Areas (DCIA)

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 ☐
E-coli ☒

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.
Monitoring work was completed in 2020 by CLA Engineer testing was done by Phoenix Lab. The pollutants of concern are Phosphorus Nitrogen and e-coli. Norwich Public Works is reducing the amount of fertilizer used each year, we have switched to an organic fertilizer while reducing the total amount used.

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

2.1 Screening data collected under 2017 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.

Sampling by CLA Engineers											
Testing by Phoenix Lab											
MS4 Coordinator: JP Laguerre											
BASIN	**POLLUTANT OF CONCERN**	**IDENTIFIER ID**	**DATE**	**WET WEATHER**	**E-COLI**	**TOTAL COLIFORMS**	**PHOSPHOROUS**	**TOTAL NITROGEN**	**TURBIDITY**	**LAB USED**	**FOLLOW UP REQUIRED ?**
Shetucket	Bacteria	3800-00-6+R4-000079	12/21/2018	YES	218	>24,200	0.102	0.87	32.8	Phoenix	No
Shetucket	Bacteria	3800-00-6+R4-0000179	12/28/2018	YES	1920	14100	0.027	0.83	1.78	Phoenix	Yes
Shetucket	Bacteria	3800-00-6+R4-000040	12/28/2018	YES	201	17300	0.087	0.48	18.5	Phoenix	No
Shetucket	Bacteria	3800-00-6+R4-000071	12/28/2018	YES	>24200	>24200	0.38	6.57	5.22	Phoenix	Yes
Shetucket	Bacteria	3800-00-6-R4-000233	1/28/2019	YES	259	>24,200	0.166	1.12	21.3	Phoenix	No
Shetucket	Bacteria	3800-20-1-000179	1/28/2019	YES	<10	11,200	0.349	2.43	31	Phoenix	No
Shetucket	Bacteria	3800-00-6-R4-000056	1/28/2019	YES	235	>24200	0.255	1.16	15.4	Phoenix	No
Shetucket	Bacteria	3800-00-6-R4-000055	1/28/2019	YES	73	>24200	0.345	0.78	57.4	Phoenix	No
Shetucket	Bacteria	3800-00-R4-000054	1/28/2019	YES	<10	>24200	0.211	0.9	17.9	Phoenix	No
Shetucket	Bacteria	3800-00-R4-000042	1/28/2019	YES	305	>24,200	0.184	0.73	34.6	Phoenix	No
Shetucket	Bacteria	3800-00-6-R4-000177	1/28/2019	YES	75	>24,200	0.223	2.66	17.6	Phoenix	No
Shetucket	Bacteria	3800-20-1-000178	1/28/2019	YES	10	>24200	0.259	1.92	31.1	Phoenix	No
Shetucket	Bacteria	3800-00-6-R4-000057	1/28/2019	YES	132	24200	0.303	1.36	28.7	Phoenix	No
Spaulding Pond	Bacteria	3600-00-6+L3-000060	4/11/2019	YES	6130	>24,200	0.511	2.83	32.2	Phoenix	Yes
Spaulding Pond	Bacteria	3800-00+L3-000061	4/11/2019	YES	1190	>24,200	0.305	1.16	29.8	Phoenix	Yes
Spaulding Pond	Bacteria	3800-00-6+L3-000060	4/11/2019	YES	>24,200	>24,200	0.221	1.11	53.8	Phoenix	Yes
Spaulding Pond	Bacteria	3800-00-6+L3-000066	4/11/2019	YES	313	5480	0.027	0.2	3.92	Phoenix	No
Spaulding Pond	Bacteria	3800-00-6+L3-000065	4/11/2019	YES	249	5170	0.012	0.34	2.49	Phoenix	No
Spaulding Pond	Bacteria	3800-00-6+L3 000059	6/13/2019	YES	355	>24,200	0.898	2.26	89.1	Phoenix	No
Spaulding Pond	Bacteria	3800-00-62+L3-000059	6/17/2019	YES	6490	>24,200	0.614	2.06	26.9	Phoenix	Yes
Spaulding Pond	Bacteria	3600-00-6+L3-000061	6/18/2019	YES	5170	>24,200	0.412	2.24	10.4	Phoenix	Yes
Thames	Phosphorus, Nitrogen, Bacte	3000-00-6-R1-0000217	7/31/2019	YES	288	>24,200	0.027	0.42	3.34	Phoenix	No
Thames	Phosphorus, Nitrogen, Bacte	3000-00-6-R1-0000218	7/31/2019	YES	6870	>24,200	0.052	0.46	2.98	Phoenix	Yes
Shetucket	Bacteria	3800-00-6+R4-000039	12/28/2019	YES	>24,000	>24,000	0.195	2.02	7.53	Phoenix	Yes
Yantic	Phosphorus, Nitrogen	3900-00-4-R8-00198	1/7/2020	YES	97	5790	0.036	1.59	11.5	Phoenix	No
Yantic	Phosphorus, Nitrogen	3000-00-6+R1-000104	1/7/2020	YES	638	6490	0.03	0.95	4.05	Phoenix	Yes
Yantic	Phosphorus, Nitrogen	3000-00-4-R8-000123	1/7/2020	YES	169	19900	0.06	1.27	6.11	Phoenix	No
Yantic	Phosphorus, Nitrogen	3900-00-4-R8-000127	1/7/2020	YES	187	15500	0.035	1.79	2.91	Phoenix	No

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?**
3900-00-4-R7-000004	*07/07/17*	*Nitrogen , Phosphorus*	*0.46, N/A*	*Phoenix*	*No-Not discharging to impaired water*
3900-00-4-R6-000003	*07/07/17*	*Nitrogen, Phosphorus*	*0.41, N/A*	*Phoenix*	*No-Not discharging to impaired water*
3900-00-4-R6-000001	07/07/17	Nitrogen, Phosphorus	0.57, N/A	Phoenix	No-Not discharging to impaired water
3001-00-3-R3-000002	07/07/2017	Phosphorus, Nitrogen,Bacteria	N/A, 1.97, 2140	Phoenix	Yes. Low for Nitrogen but Over limit for Bacteria.
3900-00-4-R6-000075	07/07/17	Nitrogen, Phosphorus	1.06, N/A	Phoenix	No-Not Discharging to impaired water.
3001-00-3-R3-000011	07/07/17	Phosphorus, Nitrogen,bacteria	N/A, 1.02, 9800	Phoenix	Yes-Bacteria level higher than acceptable level .

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
	Drainage areas to be investigated in 2021.	
3800-00-6+R4-0000179	3800-20-1 Bacteria	
3800-00-6+R4-000071	3800-00-6+R4 Bacteria	
3600-00-6+L3-00060	3800-00-6+L3 Bacteria	
3800-00+L3-000061	3800-00-6+L3 Bacteria	
3800-00-6+L3-000060	3800-00-6+L3 Bacteria	
3800-00-62+L3-000059	3800-00-6+L3 Bacteria	
3000-00-6-R1-0000218	3000-00-6+R1 Phosphorus-Nitrogen-Bacteria	
3800-00-6-R4-000039	3800-00-6+R4 Bacteria	
3000-00-6+R1-000104	3800-00-6+R4 – Phosphorus-Nitrogen	

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.

2021 Worst Outfalls

Outfall ID	Location	Latitude	Longitude	Sample Date	E. Coli (MPN/100 mls)	Enterococcus (MPN/100 mls)	Fecal Coliform (MPN/100 mls)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Lab
OF-59	Spaulding Pond	41.5474225	-72.0710005	7/9/2021	51700	n/a	n/a	n/a	n/a	Phoenix
OF-61	Spaulding Pond	41.5470023	-72.0708738	7/9/2021	5170	n/a	n/a	n/a	n/a	Phoenix
OF-60		41.5478408	-72.0709962	7/9/2021	>24,200	n/a	n/a	n/a	n/a	Phoenix
OF-39		41.5266648	-72.0655944	7/9/2021	n/a	>24,000	n/a	n/a	n/a	Phoenix
OF-104	Thames River	41.5227136	-72.0783616	7/9/2021	n/a	2910	n/a	n/a	n/a	Phoenix
OF-218	Thames River			7/9/2021	n/a	15,500	n/a	n/a	n/a	Phoenix

2022 Worst Outfalls

Outfall ID	Location	Latitude	Longitude	Sample Date	E. Coli (MPN/100 mls)	Enterococcus (MPN/100 mls)	Fecal Coliform (MPN/100 mls)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Lab
OF-59	Spaulding Pond	41.5474225	-72.0710005	12/16/2022	10	n/a	n/a	n/a	n/a	Phoenix
OF-61	Spaulding Pond	41.5470023	-72.0708738	12/16/2022	20	n/a	n/a	n/a	n/a	Phoenix
OF-60		41.5478408	-72.0709962	12/16/2022	855	n/a	n/a	n/a	n/a	Phoenix
OF-39		41.5266648	-72.0655944	12/16/2022	168	n/a	n/a	n/a	n/a	Phoenix
OF-104	Thames River	41.5227136	-72.0783616	12/16/2022	n/a	52	74	1.05	0.040	Phoenix
OF-217		41.51931897	-72.07952067	9/18/2023	n/a	373	1720	0.67	0.040	Phoenix

2023 Worst Outfalls

Outfall ID	Location	Latitude	Longitude	Sample Date	E. Coli (MPN/100 mls)	Enterococcus (MPN/100 mls)	Fecal Coliform (MPN/100 mls)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Lab
OF-59	Spaulding Pond	41.5474225	-72.0710005	12/13/2023	10	n/a	n/a	n/a	n/a	Phoenix
OF-61	Spaulding Pond	41.5470023	-72.0708738	12/13/2023	10	n/a	n/a	0.10	0.098	Phoenix
OF-60		41.5478408	-72.0709962	12/13/2023	414	n/a	n/a	n/a	n/a	Phoenix
OF-39		41.5266648	-72.0655944	12/13/2023	31	n/a	n/a	n/a	n/a	Phoenix
OF-104	Thames River	41.5227136	-72.0783616	NO FLOW						
OF-217		41.51931897	-72.07952067	9/18/2023	n/a	373	1720	0.67	0.040	Phoenix

2024 Worst Outfalls

Outfall ID	Location	Latitude	Longitude	Sample Date	E. Coli (MPN/100 mls)	Enterococcus (MPN/100 mls)	Fecal Coliform (MPN/100 mls)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Lab
OF-55	Shetucket River	41.5474225	-72.057210	11/21/2024	359	613	171	0.89	0.039	Phoenix
OF-124	Yantic River	41.525753	-72.083382	11/21/2024	2280	727	n/a	1.01	0.088	Phoenix
OF-60	Spaulding Pond	41.5478408	-72.0709962	11/21/2024	988	n/a	n/a	4.17	0.969	Phoenix
OF-159	Yantic River	41.550151	-72.111011	11/21/2024	399	n/a	n/a	1.77	0.253	Phoenix
OF-104	Thames River	41.5227136	-72.0783616	11/21/2024	n/a	3650	243	1.42	0.211	Phoenix
OF-217	Thames River	41.51931897	-72.07952067	11/21/2024	n/a	n/a	546	1.33	0.103	Phoenix

Note:

n/a- Not Applicable

Phoenix - Phoenix Environmental Laboratories, 587 Middle Turnpike E, Manchester, Connecticut 06040

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)	*Subregion/ Regional Basin Name/ Major Basin Name*	2. Category	3. Rank	Total Acreage	% IC	Connection Type	Real IC% based on	Total DCIA
3800-00-6+R4	Shetucket River/ Shetucket/Thames	Critical-Highest Priority	1	1764.3	23.46	1	23.5	413.9
3000-00-6+R1	Thames River/Thames Main Stem/Thames	Critical-Highest Priority	1	1263.3	16.19	1	16.2	204.5
3900-00-4-R8	Regional name: Yantic River/Yantic/ Thames	Critical-Highest Priority	1	1162.4	26.54	1	26.5	308.5
3800-00-6+L3	Shetucket River/Shetucket/Thames *(Spaulding Pond basin)*	Critical-Highest Priority	1	272.8	8.56	1	8.6	23.4
3001-00-3-R3	Trading Cove Brook/Thames Main Stem/Thames	High Priority	1	291.9	18.71	2	13.4	39.2
3800-00-6+R2	Shetucket River/Shetucket/Thames	High Priority	1	72	12	2	7.9	5.7
3800-00-6+R3	Shetucket River/Shetucket/Thames	High Priority	1	8.9	12.24	2	8.1	0.7
3800-20-1	Shetucket River/Shetucket/Thames	High Priority	1	96	3	2	1.5	1.4
3800-00-6+L4	Shetucket River/Shetucket/Thames	Priority	2	125.9	5	2	2.8	3.5
3900-00-4-R6	Regional name: Yantic River/Yantic/ Thames	Priority	2	125.9	5.12	2	2.8	3.6
3800-19-1	Shetucket River/Shetucket/Thames	Priority	2	340.1	12.58	2	8.3	28.4
3001-09-1	Trading Cove Brook/Thames Main Stem/ Thames	Normal Priority	2	96.14	29.86	3	16.3	15.7
3900-00-4-R6	Yantic River/Yantic/Thames	High priority	2	1563.1	15.5	2	10.7	167.7
3001-07-1-L1	Trading Cove/Thames Main Stem/Thames	High Priority	2	111.21	11.51	2	7.5	8.3
3900-13-2-R1	Yantic River/Yantic/Thames	High Priority	2	49.3	21.19	2	15.6	7.7
3900-13-1	Yantic River/Yantic/Thames	High Priority	2	272.6	11.54	2	7.5	20.5
3800-18-1	Shetucket River/Shetucket/Thames	Priority	3	461.5	12.09	2	8.0	36.7
3800-00-5-R17	Shetucket River/Shetucket/Thames	Priority	3	536	8.5	2	5.2	28.0
3900-00-4-R7	Yantic River/Yantic/Thames	Normal priority	3	324.5	15.74	3	6.2	20.3
3001-00-3-L1	Trading Cove Brook/Thames Main Stem/Thames	Normal Priority	4	301.1	18.24	3	7.8	23.5
3001-00-3-R1	Trading Cove Brook/Thames Main Stem/Thames	Normal Priority	4	400	11.29	3	3.8	15.2
3900-11-1	Yantic River/Yantic/Thames	Normal Priority	4	267.5	13.87	3	5.2	13.8
3800-00-6+R1	Shetucket River/Shetucket/Thames	Normal Priority	4	29	5	3	1.1	0.3
3001-07-1	Trading Cove Brook/Thames Main Stem/Thames	Normal Priority	5	182.2	32.43	3	18.5	33.6
3800-00-5-R17	Shetucket River/Shetucket/Thames	Normal Priority	5	536	9	3	2.7	14.5
3900-11-2-R1	Yantic River/Yantic/Thames	Normal Priority	5	111.4	34.73	3	20.5	22.8
3900-12-1	Yantic River/Yantic/Thames	Normal Priority	5	441.3	13.62	3	5.0	22.2
3001-05-1	Trading cove brook/Thames Main Stem/ Thames	Normal Priority	5	596.6	3.33	3	0.6	3.6
3900-10-1	Yantic River/Yantic/Thames	Low Priority	5	286	16.43	4	4.7	13.3
3900-14-1	Yantic River/Yantic/Thames	Low Priority	6	339.8	9.9	4	2.0	6.7
3800-18-1-L1	Shetucket	Low Priority	6	177.6	9.17	4	1.7	3.1
3003-04-1	Poquetanuck Brook/Thames Main Stem/Thames	Normal Priority	6	112	6.03	3	1.5	1.7
3003-03-1	Poquetanuck Brook/Thames Main Stem/Thames	Normal Priority	6	10	2.95	3	0.5	0.1
3001-08-1	Thames Main Stem	Normal Priority	7	765.4	12.71	3	4.5	34.7
3900-13-1-L1	Yantic River/Yantic/Thames	Low Priority	7	483.4	5.25	4	0.7	3.2
3800-13-1-L1	Yantic River/Yantic/Thames	Normal priority	7	67.8	6.47	3	1.6	1.1
3800-15-1-L1	Shetucket River/ Shetucket/Thames	Low Priority	7	55.5	3.69	5	0.1	0.1
3800-15-1-L2	Shetucket River/Shetucket/Thames	Low Priority	7	87.5	0.54	5	0.0	0.0
3800-15-1	Shetucket River/Shetucket/Thames	Low Priority	7	440.9	8.13	5	0.7	2.9
3899-00-6+R1	Shetucket River/Shetucket/Thames	Low Priority	8	36.5	6	5	0.4	0.1
3800-00-5-R18	Shetucket River/Shetucket/Thames	Low Priority	8	57.9	26	5	6.8	3.9
3001-05-2-R1	Thames Main Stem	Low Priority	8	156	7.28	5	0.5	0.8
3804-04-1	Beaver Brook/Shetucket/Thames	Low priority	8	345	2.9	5	0.1	0.3
3900-11-1-L1	Yantic River/Yantic/Thames	Low Priority	8	746.8	1.13	5	0.0	0.1
3001-07-2-R1	Trading Cove Brook/Thames Main Stem/Thames	Normal Priority	9	65.5	11.38	5	1.3	0.8
3800-14-1	Shetucket River/ Shetucket/Thames	Low Priority	10	970.8	6.08	5	0.4	3.6
3804-05-1	Beaver Brook/Shetucket/Thames	Very Low Priority	10	125	2.66	5	0.1	0.1
3800-13-1	Shetucket River/Shetucket/Thames	Low Priority	10	1178	2	5	0.0	0.5
3804-00-2-R5	Beaver Brook/Shetucket/Thames	Very Low Priority	10	55	7.41	5	0.5	0.3
3800-00-5-R16	Shetucket River/Shetucket/Thames	Very Low Priority	10	168	6.87	5	0.5	0.8
3800-00-5-R15	Shetucket River/ Shetucket/Thames	Very Low Priority	10	327	3.71	5	0.1	0.5
3800-00-5-R14	Shetucket River/Shetucket/Thames	Very Low Priority	10	35	4.65	5	0.2	0.1
				18,895				**1,566**
Connection Type Symbols								
1-Fully Connected	*100% Storm sewered with all IC*	*DCIA%= IC*						
2-Wicked Connected	*Mostly Storm Sewered with Curb and gutter-residential*	*DCIA%=0.4(%IC)^1.2*						
	rooftops Connected to MS4.							
3-Moderately Connected	*Mostly Storm Sewered with Curb and gutter, Residential*	*DCIA%=0.1(%IC)^1.5*						
	Rooftops not Connected to MS4.							
4-Sorta Connected	*50% Storm sewered with some infiltration and*	*DCIA%=0.04(%IC)^1.7*						
	residential rooftops not connected to MS4.							
5-Slighly Connected	*Small % of urban area storm sewered or mostly infiltration*	*DCIA=0.01(%IC)^2*						

Summary:

Total Area= 18,895 Acres

Baseline DCIA =**1566 Acre**s in 2019

Pervious Cover Created in 2020 through building demolitions.

1 Lake Street- 1209 SF

46 Sunnyside-1015 SF

504 East Main Street -2016 SF

Total Area= 4240 SF or 471 SY or

Revised Baseline DCIA= 1566-0.130=**1565.86 Acres**

Pervious Cover Created in 2021 through building demolitions and added green Spaces.

Martin Luther king building demolition

21 Fairmount Street. 253 SY

270 West Thames Street Building Demolition - 285 SY

Construction of a green Roundabout in Franklin Square -560 SY

Total 253+285+560=1098 SY

Revised Baseline DCIA=1565.86- 0.303=**1565.55 Acres**

1. 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	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken
Dry weather screening was conducted in 2023 for the interconnections. There was no flow. Wet weather screening to be conducted in 2024.										

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

2. 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

3800-00-6+R4-000179	*Shetucket River*	*None*
3800-00-6+R4-000071	Shetucket River	Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas
3600-00-6+L3-00060	Spaulding Pond	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.
3800-00+L3-000061	Spaulding pond	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.
3800-00-62+L3-000059	Spaulding Pond	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.
3000-00-6-R1-0000218	Thames River	Areas formerly served by combined sewer systems.
3800-00-6-R4-000039	Shetucket River	Areas formerly served by combined sewer systems.
3000-00-6+R1-000104	Shetucket 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 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

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
Spaulding Pond	Catch Basin	High E-coli	Site investigation	2021	2021	We recommended not washing portable johns near catch basins that drains in the pond	

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: **John Salomone, City Manager**	Print name: **Emma Robinson**
Signature / Date:	Signature / Date: