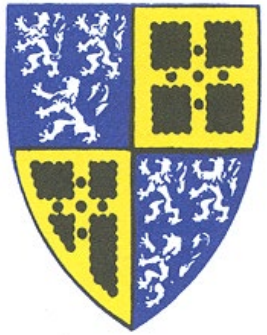

Town of Old Saybrook, Connecticut

2021 Annual Report

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

Permit Number GSM000078

MS4 General Permit
Town of Old Saybrook 2021 Annual Report
Permit Number GSM 000078
January 01, 2021 – December 31, 2021

Primary MS4 Contact: Wade M. Thomas, Nathan L. Jacobson & Associates, Inc., Stormwater Consultant, 860.526.9591, wthomas@nlja.com

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This report documents Town of Old Saybrook's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2021 to December 31, 2021.

Patrick Hegge replaced Gillian Carroll as Environmental Planner in June 2019.

Christina Costa, CZEO replaced Christine Nelson, AICP as Interim Town Planner in September 2020.

Patrick Hegge, Environmental Planner left in June 2021.

Lynette Wacker began as Environmental Planner in July 2021.

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

BMP	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	The Town of Old Saybrook website has the following resources contained in the Town Initiatives tab on the town website main page at: http://www.oldsaybrookct.org/Pages/index/ Things the Town's Doing - Stormwater Plans & Reports	Town Residents	Town Website	100s	Met	Carl Fortuna, Jr., First Selectman, Board of Selectmen	Additional materials will be added when developed

	2017 Stormwater Management Plan 2019, 2018, 2017, 2016 and 2015 MS4 Annual Reports Low Impact Development Interactive Stormwater Outfall Map Things You Can Do - Resources Backyard Water Resources Guide Pet Waste, Water Quality & Your Health Build a Rain Garden Use a Rain Barrel Don't Dump Anything into Catch Basins						
1-2 Address education/ outreach for pollutants of concern	The Town of Old Saybrook website has the following resources contained in the Town Initiatives tab on the town website main page at: http://www.oldsaybrookct.org/Pages/index/ Things You Can Do - Resources Backyard Water Resources Guide Pet Waste, Water Quality & Your Health Don't Dump Anything into Catch Basins	Town Residents	Town Website	100s	Met	Carl Fortuna, Jr., First Selectman, Board of Selectmen	Additional materials will be added when developed
1-3 WPCA Public Education and Outreach	The Town of Old Saybrook website has the following resources contained in the *Townwide Initiatives* tab at the bottom of the WPCA page at: http://www.oldsaybrookct.org/Pages/OldSaybrookCTWPCA/ The Rain Garden: A Runoff Solution Lawn Reduction Suggestions Posted 09/04/14 What is a Rain Garden? Posted 12/06/13 Long Island Sound: Impact of Septic Systems on Environment Posted 07/12/12	Town Residents	Town Website	100s	Met	Old Saybrook WPCA	Additional materials will be added when developed

1-4 Public Education and Outreach	Articles and images regarding the following were published in the Old Saybrook Events magazine: 2016 - Quarter 4 New Stormwater Actions are in the Pipeline 2017 - Quarter 1 Springtime Stormwater: Know Where It Goes April: Looking on the Bright Side of Rain and jpg image May: A Smart Look Forward to Summer Gardening and jpg image June: "Running Off" To the Beach and jpg image 2017 - Quarter 2 A Re-introduction to the Old Saybrook WPCA Septic Tank Pumpout Program Polluted Runoff Initiatives Rain Gardens 101 Free Electronics Recycling Summertime Stormwater: Know Where It Goes Parades, Pet Waste and Pollution and jpg image Give Your Water Use A Vacation, Too and jpg image It's That (Lawn Feeding) Time of Year! Once Is Enough! and jpg image 2017 - Quarter 3 Leaf Pick-up in Old Saybrook Autumn Stormwater: Know Where It Goes October: What Do Leaves and Storm Drains Have in Common and jpg image November: Don't Be A Turkey - Protect Waterways from Stormwater Pollution and jpg image December: Giving Gifts That Give Back and jpg image 2017 - Quarter 4 Public Works Snow & Ice Removal for Winter 2017-2018 Winter Stormwater: Know Where It Goes January: A Non-Toxic New Year February: Have a Heart - Keep Pavements Clean March: Spring Cleaning Sweeps In 2018 - Quarter 1	Town Residents	Hard Copy by Mail and at retailers	100s	Met	Christine Nelson, Town Planner, Land Use Department	Additional materials will be added when developed

	WPCA Update A Homeowner's Guide to Septic Systems, Protect Your Septic System and More Septic System Dos and Don'ts 2018 Quarter - 3 WPCA Update Conservation Commission - What is Plastic? 2018 - Quarter 4 Pet Waste, Water Quality & Your Health: *Why You Should Give a Bark* Old Saybrook Honored for Sustainable CT Certification 2019 - Quarter 1 WPCA Update 1,100 septic system in the Wastewater Management District (WWMD) were CT Public Health Code compliant. 66 non-compliant septic systems remain to be upgraded. Grass Clippings: Mulch, Compost & Fertilizer 2019 - Quarter 2 Ensuring Beachgoers have Safe Water Quality WPCA Update Postcard mailers reminding residents to pump out their septic tanks every 5 years. Conservation Commission Plastic Film Recycling Information. 2019 - Quarter 3 The Benefits of a Rain Garden						
1-5 Public Education and Outreach	The following are posted on the town website: **Non-Point Source Pollution is caused by Stormwater Runoff, Impervious surface, Atmospheric Deposition, Marinas & Recreational Boating, and Septic Systems.** Definition by LISS [Long Island Sound Study] Nutrient Pollution What is Stormwater Pollution? Residential Runoff - Pipeline Magazine Article What can I do for my Beach?: EPA Why is idling harmful?: CT DEEP Septic Systems and Their Impact by LISS	Town Residents	Town Website	100s	Met	Robbie Marshall, Old Saybrook WPCA Coordinator	Additional materials will be added when developed

	Residential Runoff Solutions: Suggestions for Managing Your Property and Reducing Runoff In Your Own Backyard - Soundkeeper Turfgrass Madness Reducing the Lawn Asking More of the Landscape Rain Garden Manual **Nitrogen & Pollution Reduction Projects & Studies: Ongoing Studies and Municipal Solutions** What is Pervious Surface? - EPA Bioswales: Designing for the Future - New Haven Nitrogen Removing Biofilters by SUNY Stony Brook CT DEEP 2nd Generation Nitrogen Study Emerging Contaminants: Yale OWTS Nitrogen Study: CT DEEP						

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

Additional Public Education and Outreach activities will be added to the town website and will be incorporated into the Old Saybrook Events magazine publication to educate residents on MS4 stormwater.

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

2.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Location Posted**	**Additional details**
2-1 Final Stormwater Management Plan publicly available	Completed	2017 A copy of the 2017 Stormwater Management Plan (SMP) was added to The Town of Old Saybrook website as a resource contained in the *Town Initiatives* tab on the town website.	Complied with requirements	Carl Fortuna, Jr., First Selectman, Board of Selectmen	The 2017 SMP was available to the public on April 12, 2017.	http://www.oldsaybrookct.org/Pages/OldSaybrookCTLandUseDept/MS4	No public comments were received by the Office of the First Selectman
2-2 Comply with public notice requirements for Annual Reports (annually by 2/15)	Completed	2018 The Draft 2017 MS4 Annual Report was made available for public review and comment on the Town Initiatives tab on the town website The Draft 2017 MS4 Annual Report was also made available for public review and comment at the Office of the First Selectman	Substantially Complied with Requirements	Carl Fortuna, Jr., First Selectman, Board of Selectmen	February 20, 2018	http://www.oldsaybrookct.org/Pages/OldSaybrookCTLandUseDept/MS4	No public comments were received by the Office of the First Selectman

	Completed	2019 The Draft 2018 MS4 Annual Report was made available for public review and comment on the Town Initiatives tab on the town website The Draft 2018 MS4 Annual Report was also made available for public review and comment at the Office of the First Selectman	Substantially Complied with Requirements	Carl Fortuna, Jr., First Selectman, Board of Selectmen	March 07, 2019	http://www.oldsaybrookct.org/Pages/OldSaybrookCTLandUseDept/MS4	No public comments were received by the Office of the First Selectman
	Completed	2020 The Draft 2019 MS4 Annual Report was made available for public review and comment on the Town Initiatives tab on the town website The Draft 2019 MS4 Annual Report was also made available for public review and comment at the Office of the First Selectman	Substantially Complied with Requirements	Carl Fortuna, Jr., First Selectman, Board of Selectmen	March 12, 2020	http://www.oldsaybrookct.org/Pages/OldSaybrookCTLandUseDept/MS4	No public comments were received by the Office of the First Selectman
	Completed	2021 The Draft 2020 MS4 Annual Report was made available for public review and	Substantially Complied with Requirements	Carl Fortuna, Jr., First Selectman, Board of Selectmen	March 09, 2021	http://www.oldsaybrookct.org/Pages/OldSaybrookCTLandUseDept/MS4	

		comment on the Town Initiatives tab on the town website main page at: The Draft 2020 MS4 Annual Report was also made available for public review and comment at the Office of the First Selectman					
	Completed	2022 The Draft 2021 MS4 Annual Report was made available for public review and comment on the Town Initiatives tab on the town website main page at: The Draft 2021 MS4 Annual Report was also made available for public review and comment at the Office of the First Selectman	Substantially Complied with Requirements	Lynette Wacker, Environmental Planner	March 07, 2022	http://www.oldsaybrookct.org/Pages/OldSaybrookCTLandUseDept/MS4	The public is urged to contact Wade Thomas at wthomas@nlja.com regarding any comments or concerns.
2-3 Community Volunteer Clean Up	Completed	2017 - 2021 The general public participates in annual Town Beach, Town Park and Town Hall clean-ups of man-made debris. 40 cubic yard roll-off containers	Public Involvement	Larry Bonin, Director, Department of Public Works	Annually		

		(dumpsters) are provided by the Department of Public Works.					
	Completed	2017 - 2021 The Kiwanis Club conducts an annual clean-up of the Causeway over South Cove to remove man-made debris. 40 cubic yard roll-off containers (dumpsters) are provided by the Department of Public Works.	Public Involvement	Larry Bonin, Director, Department of Public Works	Annually		
	Completed	Coastal Cleanups were held on 09/21/19, 09/26/20 and 09/25/21.	Public Involvement Participants included Conservation Commission members, area beach associations, the Chamber of Commerce, the Old Saybrook High School Ecology Club, Girl Scouts and town residents	Carl Fortuna, Jr., First Selectman, Board of Selectmen	09/21/19, 09/26/20 and 09/25/21		
	Completed	Old Saybrook Green Up Days were held on 04/27/19, 04/25/20 and 04/24/21.	Public Involvement Prticipants included town residents, students, civic groups, Girl Scouts and Conservation Commission members	Carl Fortuna, Jr., First Selectman, Board of Selectmen	04/27/19, 04/25/20 and 04/24/21		

2-4 Student Participation	In Process	2019 – 2020 A Old Saybrook High School Student began work on evaluating Directly Connected Impervious Area (DCIA) disconnection on the Elementary School, Middle School and High School properties as part of the University of Connecticut Natural Resources and the Environment Conservation Ambassador Program (CAP) poster presentation.	Student Participation in DCIA Issues	Christine Nelson, AICP, Town Planner, Land Use Department.	March 2020 CCNR Conference		To be provided upon completion.
2-5 Establish stormwater committee	In progress	In process of identifying committee members	Provide forum to coordinate SWMP implementation across depts. and commissions	Christina M. Costa, CZEO and Town Planner, Land Use Department	Winter 2022		Reason for addition: Committee will represent town departments & commissions with stake in stormwater mgmt.

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

Hold semi-annual stormwater committee meetings to review SMP implementation progress.

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

3.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
3-1 Develop written IDDE program (Due 07/01/19)	In progress	Town is in process of completing written IDDE program using the CT IDDE program template	Develop written plan of IDDE program	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer Public works/ M. Scott	Anticipate completing by July 01, 2022.	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 07/01/20)	In Progress	The list has been developed and it is anticipated that a GIS layer will be created from the data.	List Development	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer	Anticipate completing by December 31, 2022	
3-3 Implement citizen reporting program (Ongoing)	In Progress	A citizen possible illicit discharge reporting form was developed	Develop the citizen reporting form.	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer	Anticipate completing by December 31, 2022	
3-4 Establish legal authority to prohibit illicit discharges (Due 07/01/19)	Complete	None Required	Adopt Stormwater Ordinance	Carl Fortuna, Jr., First Selectman, Board of Selectmen	June 26, 2012	Adopted at Special Town Meeting

3-5 Develop record keeping system for IDDE tracking (Due 07/01/17)	In Progress	None	None	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer	June 30, 2022	
3-6 Address IDDE in areas with pollutants of concern	In Progress	None	None	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer	December 31, 2022	
3-7 Consolidate IDDE tracking spreadsheets	Not started	None	None	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer	December 31, 2022	Reason for addition: Make it easier to track all IDDE activities

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

The written IDDE Program will be developed in 2022. The written IDDE Program will be posted on the town stormwater webpage at http://www.oldsaybrookct.org/Pages/OldSaybrookCT_LandUseDept/MS4.

The MS4 Annual Reports will update the written IDDE program as needed throughout the permit term.

The Office of the First Selectman will maintain master IDDE tracking spreadsheet and ensure all employees involved in IDDE program understand the logging process.

The written program will be posted to the Dept of Public Works webpage and a link listed in next year's Annual Report; will update the written IDDE program as needed throughout the permit term.

Maintain master IDDE tracking spreadsheet and ensure all employees involved in IDDE program understand the logging process

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

Location (Lat long/ street crossing /address and receiving water)	**Date and duration of occurrence**	**Discharge to MS4 or surface water**	**Estimated volume discharged**	**Known or suspected cause / Responsible party**	**Corrective measures planned and completed** (include dates)	**Sampling data** (if applicable)

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

Method used to track illicit discharge reports	**Location and nature of structure with failing septic systems**	**Actions taken to respond to and address the failures**	**Impacted waterbody or watershed, if known**	**Dept. / Person responsible**
2011 No illicit discharges were known to have flowed to the town drainage system.	Saybrook Acres-Bid Package 1 (SA-1) The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75.	Bids for provision of CT Public Health Code complying septic systems for residential structures was put out to bid and constructed	5000-02-1	Old Saybrook WPCA
2012 No illicit discharges to were known to have flowed to the town drainage system.	Saybrook Acres - Bid Package 2 (SA-2) Saybrook Acres - Bid Package 3 (SA-3) Saybrook Acres - Bid Package 4 (SA-4) Oyster River East - Bid Package 1 (OR-1) Thompson & Saybrook Point - Bid Package 1 (TH-1 & SP-1) The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75	Bids for provision of CT Public Health Code complying septic systems for residential structures was put out to bid and constructed.	5000-02-1 5000-02-1 5000-02-1 5000-02-1 5000-04-1 & 4000-00-6+R50, Respectively	Old Saybrook WPCA

2013 No illicit discharges were known to have flowed to the town drainage system.	Cornfield Park - Bid Package 1 (CPK-1) Cornfield Park - Bid Package 2 (CPK-2) Cornfield Park - Bid Package 3 (CPK-3) Oyster River East - Bid Package 1 (OR-2) Oyster River East - Bid Package 1 (OR-3) The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75	Bids for provision of CT Public Health Code complying septic systems for residential structures was put out to bid and constructed.	5000-02-1 5000-02-1 5000-02-1 5000-02-1 5000-02-1	Old Saybrook WPCA
2014 No illicit discharges were known to have flowed to the town drainage system. As of November 01, 2014, a total of 314 conventional Subsurface Sewage Disposal System were upgraded to be Public Health Code compliant	Fenwood - Bid Package 1 (FW-1) Fenwood - Bid Package 1 (FW-2) The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75	Bids for provision of CT Public Health Code complying septic systems for residential structures was put out to bid and constructed.	4000-00-6+R50 & 5000-01-1 4000-00-6+R50 & 5000-01-1	Old Saybrook WPCA
2015 No illicit discharges were known to have flowed to the town drainage system. 200± conventional Subsurface Sewage Disposal System upgrades were scheduled in 2015.	Ingham Hill & Meadowood - Bid Package No. 1 (IH-MW-1) Maple Avenue North - Bid Package 1 (MAN-1) Maple Avenue North - Bid Package 3 (MAN-3) Maple Avenue North - Bid Package 2 (MAN-2) The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75	Bids for provision of CT Public Health Code complying septic systems for residential structures was put out to bid and constructed.	5000-02-1 & 4000-00-6+R50 5000-02-1 & 4000-00-6+R50 5000-02-1 & 4000-00-6+R50	Old Saybrook WPCA
2016 No illicit discharges were known to have	Maple Avenue North - Bid Package 4 (MAN-4)	Bids for provision of CT Public Health Code complying septic systems for residential structures was put out to bid and constructed.	5000-02-1 & 4000-00-6+R50	Old Saybrook WPCA

flowed to the town drainage system. 130± conventional Subsurface Sewage Disposal System upgrades were scheduled in 2016	Maple Avenue North - Bid Package 5 (MAN-5) Cornfield Point - Bid Package 1 (CPT-1) The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75		5000-02-1 & 4000-00-6+R50 5000-02-1	
2017 No illicit discharges were known to have flowed to the town drainage system. As of late 2017, a total of 950+ conventional Subsurface Sewage Disposal System were upgraded to be Public Health Code compliant.	Cornfield Point - Bid Package 2 (CPT-2) Cornfield Point - Bid Package 3 (CPT-3) Cornfield Point - Bid Package 4 (CPT-4) Cornfield Point - Bid Package 5 (CPT-5) Cornfield Point - Bid Package 6 (CPT-6) The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75	Bids for provision of CT Public Health Code complying septic systems for residential structures was put out to bid and constructed.	5000-02-1 5000-02-1 5000-02-1 5000-02-1 5000-02-1	Old Saybrook WPCA
2018 No illicit discharges were known to have flowed to the town drainage system. As of late 2018, a total of 1,050± conventional Subsurface Sewage Disposal System were upgraded to be Public Health Code compliant.	Cornfield Point - Bid Package 7 (CPT-7) Cornfield Point - Bid Package 8 (CPT-8) The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75	Bids for provision of CT Public Health Code complying septic systems for residential structures was put out to bid and constructed.	5000-02-1 5000-02-1	Old Saybrook WPCA
2019 No illicit discharges were known to have flowed to the town drainage system	As of January 2019, a total of 1,100± conventional Subsurface Sewage Disposal System were upgraded to be Public Health Code compliant.	The WPCA continued mailing of quarterly postcard reminders to residents to pump out their septic tanks every five years per Ordinance #75		Old Saybrook WPCA
2020	9 Waterbury Avenue 13 Woodland Drive	Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs		Old Saybrook WPCA

No illicit discharges were known to have flowed to the town drainage system. The following subsurface sewage disposal system repairs were conducted:	16 Wild Apple 12 Old Post Road 4 Captains Lane 8 Meadow Road 14 Dogwood Lane 89 & 93 Nehantic Trail 5 Rockridge Drive 881 Middlesex Turnpike 96 Nehantic Trail 469 Main Street 100 Sequassen Avenue 50 Cypress Road 42 Vincent Avenue 2 Trolley Crossing 6 London Court 13 Sunset Road 6 Arrowhead Lane 10 Woodpond 1 Anchorage Lane 27 Sunset Avenue 455 Boston Post Road 475 Main Street 84 Ayers Point Road 32 Fenbrook Road 120 Sea Lane 32 Sea Lane 5 Tudor Court East 46 Knollwood Drive 88-1 Boston Post Road 15 Beach View 57 Coulter Street 35 Sunset Avenue 5 Cedar Lane 247 Elm Street 9 Briarwood Drive 93 Old Post Road 43 Fenwood Grove Road 9 Willard Avenue Extension 33 Cromwell Place 15 Denmore Lane 10 Great Hammock Road 38 Cedarwood Lane 482 Main Street 21 Cricket Court 12 Sea Crest Road 39 Maple Avenue	Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank Repair Septic Tank Repair Septic Tank and Leaching System Repairs Septic Tank Repair Septic Tank Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank Repair Leaching System Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Leaching System Repair Leaching System Repair Septic Tank Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Leaching System Repair Septic Tank Repair Distribution-Box Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Leaching System Repair Septic Tank and Leaching System Repairs Leaching System Repair Septic Tank Repair Septic Tank and Distribution-Box Repairs Leaching System Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Leaching System Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Distribution-Box and Pipe Repairs Septic Tank Repair Septic Tank and Leaching System Repairs Septic Tank Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank Repair Pipe Repair		

	26 Beaver Dam Trail	Septic Tank and Leaching System Repairs		
	92 Ayers Point Road	Septic Tank Repair		
	1550 Boston Post Road	Leaching System Repair		
	2 Davies Circle	Septic Tank and Leaching System Repairs		
	87 Church Street	Septic Tank and Leaching System Repairs		
	33 Saltaire Drive	Septic Tank and Leaching System Repairs		
	247 Main Street	Pipe Repair		
	424 Main Street	Leaching System Repair		
	40 Sea Lane	Leaching System Repair		
	500 Main Street	Pipe Repair		
	4 London Court	Septic Tank Repair		
	41 Coulter Street	Septic Tank Repair		
	36 Pennywise Lane	Septic Tank and Leaching System Repairs		
	9 Osprey Road	Septic Tank and Leaching System Repairs		
	3 Nutmeg Circle	Septic Tank and Leaching System Repairs		
2021 No illicit discharges were known to have flowed to the town drainage system. The following subsurface sewage disposal system repairs were conducted:	23 Vincent Avenue	Septic Tank and Leaching System Repairs	5000-01-1	Old Saybrook WPCA
	360 Maple Avenue	Septic Tank Repairs	4000-00-6+R50	
	3A James Court	D-Box Repairs	4000-00-6+R50	
	38 Watrous Point Road	Leaching System Repairs	4000-00-6+R49	
	38 Seacrest Road	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	514 Main Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	22 Maplewood Road	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	55 Sheffield Street	Septic Tank Repairs	4000-00-6+R50	
	2 Seacrest Road	Leaching System Repairs	5000-01-1	
	10 James Court	D-Box Repairs	4000-00-6+R50	
	23 River Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	16 Half Penny Lane	Septic Tank Repairs	5101-01-1	
	44 Willard Avenue	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	10 Fox Hill Road	Septic Tank and Leaching System Repairs	5101-02-1-L1	
	13 George Drive	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	57 Coulter Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	4 Pelton Avenue	Septic Tank and Leaching System Repairs	5000-03-1	
	4 Windsor Court	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	64 Bokum Road	Septic Tank and Leaching System Repairs	5101-04-1-L2	
	6 Howard Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	9 South View Circle	Pipe Repairs	5000-02-1	
	20 Fenwick Avenue	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	53 Ragged Rock Road	Septic Tank and Leaching System Repairs	4000-64-1	
	10 Dwayne Road	D-Box and Outlet Pipe Repairs	5101-02-1-L1	
	3 Stone Boat Road	Septic Tank Repairs	5101-02-1	
	11 Pettipaug Avenue	Septic Tank and Leaching System Repairs	5000-01-1	
	540 Main Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	115 College Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	226 Schoolhouse Road	Septic Tank and Leaching System Repairs	5101-01-1	
	7 Lords Place	Septic Tank and Leaching System Repairs	5000-02-1	
	9 Day Drive	Septic Tank and Leaching System Repairs	5101-03-1	

	15 Main Street	Pipe and Riser Repairs	4000-00-6+R50	
	51 Atlantic Drive	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	229 Schoolhouse Road	WTW Disposal System	5101-03-1	
	8 Day Drive	WTW Disposal System	5101-03-1	
	35 Seacrest Road	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	263 Schoolhouse Road	Septic Tank and Leaching System Repairs	5101-01-1	
	1 Cedarwood Lane	Septic Tank and Leaching System Repairs	5000-02-1	
	5 Patterson Place	Pipe Repairs	4000-64-1	
	5 Thomas Lane	Leaching System Repairs		
	29 Knollwood Drive	Septic Tank Repairs	4000-00-6+R50	
	86 Fenwood Grove Road	Septic Tank Repairs	4000-00-6+R50	
	3 Christy Heights	Leaching System Repairs	5101-04-1-L1	
	745 Boston Post Road	Leaching System Repairs	4000-00-6+R50	
	5 Chelsea Lane	Leaching System Repairs	5101-01-1	
	351 Boston Post Road	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	463 Main Street	Septic Tank and Pipe Repairs	4000-00-6+R50	
	67 Cypress Road	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	229 Schoolhouse Road	Septic Tank Repairs	5101-03-1	
	15 Second Avenue	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	263 Schoolhouse Road	Septic Tank and Leaching System Repairs	5101-01-1	
	129 Bokum Road	D-Box and Outlet Pipe Repairs	5101-04-1-L2	
	6 Pettipaug Avenue	Leaching System Repairs	5000-01-1	
	24 Sea Lane	Septic Tank and Leaching System Repairs	5000-01-1	
	11 Essex Road	Septic Tank Repairs	4000-00-6+R50	
	83 Maple Avenue	Septic Tank Repairs	4000-00-6+R50	
	28 Seacrest Road	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	81 Obed Heights	Septic Tank Repairs	5101-04-1-L1	
	40 Pepperidge Trail	D-Box Repairs	5101-01-1	
	27 Lynde Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	247 Main Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	19 Birch Street	Pipe and Septic Tank Baffle Repairs	4000-00-6+R50	
	1 Fox Hill Road	Septic Tank Repairs	5101-02-1-L1	
	43 Maynard Road	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	8 Laurel Way	Leaching System Repairs	4000-62-1	
	149 Ingham Hill Road	Septic Tank Repairs	5101-02-2-L2	
	52 Cromwell Place	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	17 Fenwick Street	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	115 Maple Avenue	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	24 Beechwood Road	Septic Tank Repairs	4000-00-6+R50	
	5 Barnes Road	Septic Tank and Leaching System Repairs	5000-02-1	
	288 Main Street	Septic Tank Repairs	4000-00-6+R50	
	6 Fengrove Court	Septic Tank and D-Box Repairs	4000-00-6+R50	
	35 Seacrest Road	Septic Tank and Leaching System Repairs	4000-00-6+R50	
	92 Bokum Road	Septic Tank Repairs	5101-04-1-L2	
	6 Church Street	Septic Tank Repairs	4000-00-6+R50	
	118 Kitteridge Hill	Septic Tank and Leaching System Repairs	5101-01-1	

	39 Briarwood Drive 8 Wild Apple Lane	Septic Tank Repairs WTW Disposal System	5000-02-1 5101-02-1-L1	

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

To be developed and implemented in 2022.

The Town of Old Saybrook has implemented a Decentralized Wastewater Management District encompassing 15 focus areas of approximately 2,000 properties. The adoption of the WWMD Ordinance and Upgrade Standards was the result of an effort to develop the Legal Documents and a Facilities Plan, hold Public Informational Sessions, and educated town residents about the WWMD Program.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	223
Estimated or actual number of interconnections	TBD
Outfall mapping complete	95%
Interconnection mapping complete	25%
System-wide mapping complete (detailed MS4 infrastructure)	70%
Outfall assessment and priority ranking	10%
Dry weather screening of all High and Low priority outfalls complete	2017 through 2021 - 0% It was anticipated to conduct dry weather screening during the Fall of 2017, 2018, and 2019. However, unseasonably high precipitation precluded dry weather screening. 2022 - It is anticipated that the dry weather screening of all outfalls will be completed in the late Spring and early Summer.
Catchment investigations complete	10%
Estimated percentage of MS4 catchment area investigated	10%

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).

The Department of Public Works will be provided with a copy of the publication entitled *Illicit Discharge Detection and Elimination Manual, A Handbook for Municipalities*, Published January 2003 by the New England Interstate Water Pollution Control Commission.

It is anticipated that an illicit discharge education presentation will be provided to DPW employees with the presentation prepared by Nathan L. Jacobson & Associates, Inc.

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

4.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit (Due 7/1/20)	Completed	The required elements of Minimum Control Measure No. 4 - Construction Site Runoff Control was incorporated into the town land use regulations.	Compliance	Christina M. Costa, CZEO and Town Planner, Land Use Department	July 01, 2017	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing)	Ongoing	Nathan L. Jacobson & Associates, Inc., Town Engineer prepares land use review letters for most applications for the Inland Wetlands Commission, Planning Commission and Zoning Commission.	Interdepartmental Coordination	Christina M. Costa, CZEO and Town Planner, Land Use Department	July 01, 2017	
4-3 Review site plans for stormwater quality concerns (Ongoing)	Ongoing	Nathan L. Jacobson & Associates, Inc., Town Engineer encourages the use of LID and Stormwater BMPs practices as contained in the 2004 Connecticut Stormwater Quality Manual and new stormwater management technologies as they are developed.	Compliance	Christina M. Costa, CZEO and Town Planner, Land Use Department	July 01, 2017	
4-4 Conduct site inspections (Ongoing)	Ongoing	The town conducts construction site inspections for proper implementation and maintenance of soil erosion and sediment control measures.	Compliance with Approved Plans	Christina M. Costa, CZEO and Town Planner, Land Use Department	July 01, 2017	

4-5 Implement procedure to allow public comment on site development (Ongoing)	Ongoing	The land use application process allows for public comment on land use applications which are submitted to the Inland Wetlands Agency, Planning Commission, Zoning Commission during the Public Hearing Process when applicable.	Compliance	Christina M. Costa, CZEO and Town Planner, Land Use Department	July 01, 2017	
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	Ongoing	Since the inception of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities Nathan L. Jacobson & Associates, Inc., Town Engineer has made developer's engineers aware of the need to register for the Construction Stormwater General Permit in engineering review letters which are typically prepared as part of the land use application process.	Awareness of the need to register for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2017	
4-7 Develop stormwater compliance checklist	In progress	Developing checklist to provide developers on stormwater mgmt compliance requirements	Standardize plan review	Christina M. Costa, CZEO and Town Planner, Land Use Department	July 01, 2022	Reason for addition: Make it easier to ensure compliance with stormwater regulations

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

Integrate stormwater compliance checklist into review process once completed.

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

5.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning (Due 07/01/22)	In Place	The land use regulations were revised to incorporate the Minimum Control Measure No. 5 - Post Construction Runoff Control.	Compliance	Christina M. Costa, CZEO and Town Planner, Land Use Department Land Use Commissions Land Use Attorney	Anticipate completing by July 01, 2021	It is anticipated that UConn CLEAR and/or a Regional Planning Agency will provide a Post-construction Stormwater Management template for use by all MS4 Towns.
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 07/01/22)	In Place	The town encourages the use of LID and Stormwater BMPs practices as contained in the 2004 Connecticut Stormwater Quality Manual and new stormwater management technologies as they are developed.	Compliance	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer	July 01, 2017 Completed and ongoing.	The town has been very proactive with respect to encouraging devlopers to utilize Low Impact Development LIDs whenever practicable.
5-3 Identify retention and detention ponds in priority areas (Due 07/01/20)	Partially Developed	Retention Ponds, Detention Ponds and Hydrodynamic Separators will be inventoried. A GIS Map Layer will be created after the inventory.	The stormwater management basin inventory is largely completed and will be updated.	Larry Bonin, Director, Department of Public Works and Nathan L. Jacobson & Associates, Inc., Town Engineer	2020	

5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing)	To Be Developed and Implemented	After the Retention Ponds, Detention Ponds and Hydrodynamic Separators have been inventoried a Long-Term Operation and Maintenance Plan will be implemented.	Under Development	Larry Bonin, Director, Department of Public Works and Nathan L. Jacobson & Associates, Inc., Town Engineer	2020	
5-5 DCIA mapping (Due 07/01/20)	Starting	Begin the process of DCIA Mapping from base mapping prepared by UConn CLEAR.	The DCIA to MS4 stormwater outfalls discharging to waters identified as impaired in the 2016 Integrated Water Quality Report and in watersheds with a DCIA of greater than 11 percent will be completed in 2018.	Nathan L. Jacobson & Associates, Inc., Town Engineer	Prior to July 01, 2020	
5-6 Address post-construction issues in areas with pollutants of concern	To Be Addressed	Based on a review of sampling conducted from 2004 to 2016, the town will encourage utilization of new stormwater management technologies to reduce bacteria loading to the Connecticut River and LIS as they are developed.	Stormwater outfalls discharging to waters identified as impaired in the 2016 Integrated Water Quality Report will be subject to enhanced	Land Use Department Nathan L. Jacobson & Associates, Inc., Town Engineer	To be developed and implemented as stormwater quality treatment methods for bacteria emerge.	

			water quality treatment.			

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

Procedures outlined in the Post-Construction Stormwater Management Facility Operation & Maintenance Plan Manual, implemented in 2020 will continue to be implemented in 2022.

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)	69.75 Acres
DCIA disconnected (redevelopment plus retrofits)	2012 to 2016 - To Be Determined 2017 0.670 Acre - Road Reconstruction 0.490 Acre - Municipal Redevelopment 2018 - 1.349 Acres - Private Redevelopment 2019 2021 0 Acre Total - 2.509 Acres
Retrofit projects completed	2012 to 2021 - To Be Determined Total - To Be Determined
DCIA disconnected	2012 to 2016 - To Be Determined 2017 through 2021 - 0 Acre Total - 0 Acre
Estimated cost of retrofits	2012 to 2016 - To Be Determined 2017 through 2021 - $0 Total - $0
Detention or retention ponds identified	0 this year /0 total

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

Based on information contained in the Factsheet: *Town of Old Saybrook Water Quality and Stormwater Summary,* prepared by the CT DEEP, 2,743.16 acres of the town has an impervious area exceeding 12% which is approximately 27.34% of the town. 576.59 acres have an impervious cover of ranging from 12% to 25%, 1,070.94 acres have an impervious cover ranging from 26% to 50%, 770.86 acres have an impervious cover ranging from 51% to 75% and 324.77 acres have an impervious cover ranging from 76% to 100%.

Based on information contained in the MS4 mapping tab of Connecticut Environmental Conditions Online the impervious surface area consists of 338.67 acres of buildings, 393.58 acres of roads and 639.34 acres of other impervious surfaces for a total impervious surface area of 1,371.59 acres.

Based on 2019 revised CT ECO MS4 Mapping, the road impervious area was determined to be 161.03 acres of State roads, Conn DOT Maintenance Facility and State Boat Launch Ramp and 232.55 acres of Town roads. The state road impervious area constituted approximately 40.9% of town-wide road impervious area.

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

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

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

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

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

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

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

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

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

For impervious percentage less than 6%:

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

For an impervious area between 6% and 12 %:

50% of the area was assigned to the partial connectivity Sutherland Equation where $DCIA\% = 0.04*(IA\%)^{1.7}$
and
50% was assigned to the average connectivity Sutherland Equation where $DCIA\% = 0.10*(IA\%)^{1.5}$

For an impervious area between 12% and 18 %:

50% of the area was assigned to the average connectivity Sutherland Equation where $DCIA\% = 0.10*(IA\%)^{1.5}$
and
50% was assigned to the high connectivity Sutherland Equation where $DCIA\% = 0.40*(IA\%)^{1.2}$

For an impervious area of greater than 18 %:

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

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

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

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

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

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

6.1 BMP Summary

BMP	**Status** (Complete, Ongoing, In Progress, or Not started)	**Activities in current reporting period**	**Measurable Goal**	**Department / Person Responsible**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Additional details**
6-1 Develop/implement formal employee training program (Ongoing)	Ongoing	DPW facility BMPs were presented to the DPW staff.	Continuing	Larry Bonin, Director, Department of Public Works	Continuing	
6-2 Implement MS4 property and operations maintenance (Ongoing)	Ongoing	2017-2021 The Park & Recreation Department continues to utilize BMPs in MS4 property operations and maintenance. 2020 All detention basins were cleared of trees and brush by the DPW.	Continuing	Larry Bonin, Director, Department of Public Works	Continuing	
6-3 Implement coordination with interconnected MS4s	Not Applicable	No interconnection coordination was required	Not Applicable	Larry Bonin, Director, Department of Public Works	Not Applicable	
6-4 Develop/implement program to control other sources of pollutants to the MS4	To Be Developed	None	Educate the General Public on bacteria impairment of waterbodies by pet waste and waterfowl waste.	Nathan L. Jacobson & Associates, Inc., Town Engineer and Town MS4 Consultant	Calendar Year 2022	
6-5 Evaluate additional measures for discharges to impaired waters*	To Be Developed	None	Educate the General Public on bacteria impairment of waterbodies by	Nathan L. Jacobson & Associates, Inc., Town Engineer and	Calendar Year 2022	

			pet waste and waterfowl waste.	Town MS4 Consultant		
6-6 Track projects that disconnect DCIA (Ongoing)	Ongoing	Ongoing	Review projects constructed since July 01, 2012 to determine if there was a reduction in DCIA on any of the projects.	Nathan L. Jacobson & Associates, Inc., Town Engineer and Town MS4 Consultant	Ongoing	DCIA reductions will be computed as redevelopment projects are constructed.
6-7 Implement infrastructure repair/rehab program (Due 07/01/21)	To Be Developed	None	Begin development of the program.	Larry Bonin, Director, Department of Public Works	Prior to July 01, 2022	
6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 07/01/20)	To Be Developed	None	Retrofit Plan Development	Larry Bonin, Director, Department of Public Works and Nathan L. Jacobson & Associates, Inc.	Prior to July 01, 2022	
6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 07/01/22)	Completed	None	Review projects constructed since July 01, 2012 to determine if there was a reduction in DCIA on any of the projects.	Nathan L. Jacobson & Associates, Inc.	Prior to July 01, 2023	
6-10 Develop/implement street sweeping program (Ongoing)	Ongoing	The Town of Old Saybrook currently implements a road sweeping program whereby all town roads are swept at least one time per year.	Compliance	Larry Bonin, Director, Department of Public Works	Continuing	
6-11 Develop/implement catch basin cleaning program (Ongoing)	Ongoing	The Town of Old Saybrook currently implements a catch basin cleaning program whereby at least 75% of the catch basins are cleaned every year.	Compliance	Larry Bonin, Director, Department of Public Works	Continuing	

6-12 Develop/implement snow management practices (Due 07/01/18)	Ongoing	Continue the existing program and modify as needed.	Ongoing Review	Larry Bonin, Director, Department of Public Works	Continuing	
6-13 Map & Inventory highly erosive areas in town ROW	Not started	Collect information on eroding areas in ROW from highway maintenance personnel over course of normal operations	Identify areas contributing large volume of sediment to town waterbodies	Larry Bonin, Director, Department of Public Works	July 01, 2022	Reason for addition: Reduce sedimentation of waterways near town ROWs

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

Storm Drainage Retrofit prioritization will be given to stormwater outfalls that are known to result in soil erosion and sedimentation. Prioritization will be given to the outfalls within the impaired water drainage basins with particular emphasis placed on stormwater outfalls which are located on fine grained glacial till soils.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	DPW Employees are encouraged to attend classes at the CT Technology Transfer Center or Connecticut Interlocal Risk Management Agency (CIRMA). 2017 - None 2018 - American Public Works Association (APWA) Snow Plowing E Learning. 2019 - None 2020 - No in-person training was attended due to the COVID-19 pandemic. In-person training will be pursued when it becomes available after the pandemic subsides. 2021 - No in-person training was attended due to the COVID-19 pandemic. In-person training will be pursued when it becomes available after the pandemic subsides.
Street sweeping	
Curb miles swept	149.88 Curb Miles (74.94 Road Miles)
Volume (or mass) of material collected	2017 - Undetermined 2018 - 450± C.Y. 2019 - 450± C.Y. 2020 - 450± C.Y. 2021 - 450± C.Y.
Catch basin cleaning	

Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	To Be Determined
Total catch basins town- (or institution-) wide	850±
Catch basins inspected	2017 - 850± 2018 - 640± 2019 - 640± 2020 - 280± (Number reduced due to COVID-19 pandemic) 2021 - 280± (Number reduced due to COVID-19 pandemic)
Catch basins cleaned	2017 - 640± 2018 - 640± 2019 - 640± 2020 - 280± (Number reduced due to COVID pandemic) 2021 - 280± (Number reduced due to COVID pandemic)
Volume (or mass) of material removed from all catch basins	2017 - Not determined. Will be estimated in 2018. 2018 - 100±C.Y. 2019 - 285±C.Y. 2020 - 50±C.Y. 2021 - 50±C.Y.
Volume removed from catch basins to impaired waters (if known)	2017 - Not determined. Will be estimated in 2018. 2018 - 50±C.Y. 2019 - 140±C.Y. 2020 - 25±C.Y. 2020 - 25±C.Y.
Snow management	
Type(s) of deicing material used	Deicing Mix Comprised of 3 Parts Sand to 1 Part Salt
Total amount of each deicing material applied	Winter 2017 to 2018 - 196± Tons NaCl Salt and 588± Tons Sand Winter 2018 to 2019 - 120± Tons NaCl Salt and 330± C.Y. Sand Winter 2019 to 2020 - 120± Tons NaCl Salt and 330± C.Y. Sand Winter 2020 to 2021 - 120± Tons NaCl Salt and 270± C.Y. Sand Winter 2021 to 2022 - 120± Tons NaCl Salt and 270± C.Y. Sand (Estimated)
Type(s) of deicing equipment used	9 Snow Plows/Spreaders. 4 Snow Plows/Spreaders were purchased new with Ground Speed Controlled Spreaders. The remaining 5 Snow Plows/Spreaders were retrofitted with Ground Speed Controlled Spreaders. The deicing mix is applied at a rate ranging from 150-300 pounds per lane (curb) mile depending on the storm type.
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	2017 through 2020 - 149.88 (74.94 Road Miles)
Snow disposal location	Along the road shoulders. In extreme snowstorms snow is removed and stockpiled at the Town Hall lawn and the old Police Department parking lot.

Staff training provided on application methods & equipment	Larry Bonin is a 2014 graduate of the CT Technology Transfer Center Connecticut Transportation Leadership Program.
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	0 Pounds
Reduction in turf area (since start of permit)	0 acres
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.
It is estimated that there are approximately 850 catch basins in the Town of Old Saybrook. 2017 - All catch basins were cleaned with a DPW Employee witnessing all catch basin structure cleaning. 2018 - Approximately 75% catch basins were cleaned with a DPW Employee witnessing all catch basin structure cleaning. 2019 - Approximately 75% catch basins were cleaned with a DPW Employee witnessing all catch basin structure cleaning. 2020 - Approximately 33% catch basins were cleaned with a DPW Employee witnessing all catch basin structure cleaning. 2021 - Approximately 33% catch basins were cleaned with a DPW Employee witnessing all catch basin structure cleaning.

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)
Storm Drainage Retrofit prioritization will be given to stormwater outfalls that are known to result in soil erosion and sedimentation. Prioritization will be given to the outfalls within the impaired water drainage basins with particular emphasis placed on stormwater outfalls which are located on fine grained glacial till soils. Based on the 2012 Baseline DCIA of 69.75 acres, 1.40 acres of DCIA will need to be disconnected by July 01, 2022 to meet the CT DEEP goal of a 2% disconnection. It is anticipated that the DCIA disconnection goal will be met with a combination of municipal and private commercial redevelopment. 2017 - The Reconstruction of North Main Street project was completed in 2017. The project incorporated stormwater infiltration of the entire pavement area for all design storms up to and including a 25-year design storm. 0.670 Acre of DCIA was disconnected through this reconstruction. 2017 - The Main Street Connector Park construction was completed in 2018. The project consisted of demolition of the police department building and parking lot with conventional catch basin and storm drainage system and construction of a recreational park which incorporated bio-retention and stormwater infiltration. The project incorporated stormwater infiltration of the entire pavement area for up to a 10-year design storm. 0.490 Acre of DCIA was disconnected by this redevelopment. 2018 - Redevelopment of a 3.34 acre commercial property incorporated treatment of the Water Quality Volume (WQV) by new pavement stormwater infiltration in a detention basin and roof area stormwater retention via subsurface infiltration. 1.349 Acres of DCIA was disconnected by this redevelopment.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection annually in future years. (Due 07/01/22)
While the goal of a 2% DCIA disconnection was obtained by the end of 2018 the town will continue to work internally and with private property redevelopment to optimize the DCIA disconnection.

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.
2017 through 2021 - No field investigations or stormwater sampling to impaired waters was conducted. 2022 - It is anticipated that impaired water investigations and stormwater sampling of at least half of the stormwater outfalls which discharge directly to impaired water (Connecticut River and Long Island Sound) will be completed in 2022.

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

2.1 Screening data

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

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data.

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

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

2017 through 2021 - No MS4 stormwater outfalls to impaired waters were screened.

It is anticipated that wet weather screening and sampling to impaired waters will be conducted in 2022.

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

To be listed in the 2022 MS4 Annual Report.

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 01, 2021.

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

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

It is anticipated that prioritized outfall monitoring will be conducted in 2022.

Part III: Additional IDDE Program Data

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

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

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
5101-00-2-R1 25.11% Impervious	High Priority	1
5000-03-1 22.02% impervious	High Priority	2
5000-02-1 14.50% Impervious	High Priority	3
4000-64-1 13.03% Impervious	High Priority	4
5000-01-1 22.69% Impervious	High Priority	5
5101-00-2-LI 16.16% Impervious	High Priority	6

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 / Interconnection ID	Latitude / Longitude	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or enterococcus	Surfactants	Water Temp	Pollutant of concern	If required, follow-up actions taken

2017 through 2021 - No dry weather screening or sampling of MS4 stormwater outfallsand interconnections were conducted.

It is anticipated that dry weather screening of all MS4 stormwater outfalls and interconnections, and dry weather samping will be conducted in 2022. Dry weather sampling will only be conducted if there is reason to belive the discharge may contain an illicit discharge component.

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

2018 through 2021 - No wet weather inspections or wet weather sampling was conducted.
2022 - It is anticipated that wet weather inspections and sampling will be conducted in the late Spring and early Summer.

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

2022 - It is anticipated that key junction manholes will be screened during dry weather conditions and sampled where appropriate.

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

2022 - It is anticipated that wet weather investigations and wet weather sampling, where appropriate, will be conducted.

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

2022 - It is anticipated that catchment investigations based on wet weather sampling results will be conducted.

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: Carl P. Fortuna, Jr., First Selectman	Print Name: Wade M. Thomas, CPMSM
Signature:	Signature:
Date: May 4, 2022	Date: May 12, 2022