Town of Old Lyme, Connecticut

2022 Annual Report

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

Permit Number GSM000032

MS4 General Permit
Town of Old Lyme 2022 Annual Report
Permit Number GSM 000032
January 01, 2022 - December 31, 2022

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

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This report documents Town of Old Lyme's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 01, 2022 to December 31, 2022.

Timothy Griswold, First Selectman replaced Bonnie Reemsnyder, First Selectwoman in November 2019.

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	Person Responsible, Department	Additional details
1-1 Implement public education and outreach	2017 MS4 General Permit Registration Form MS4 Town Map MS4 General Permit Registration Attachment B 2018 - None 2019 The following Clean Waters Starting in Your Home and Yard Fact Sheets were made available to the	NEMO Fact Sheets	Town Website Public Works Page https://www.oldlyme-ct.gov/public-works/pages/stormwater	100s	Met	Bonnie Reemsnyder, First Selectwoman and Timothy Griswold, First Selectman, Board of Selectmen	Additional public education resources may be added to the Department of Public Works website.

	public on the Department of Public Works page on the town website: Fact Sheet 2 - Managing Your Household Chemicals Fact Sheet 3 - Caring for Your Septic System Fact Sheet 4 - Integrated Pest Management and Biological Controls for the Homeowner Fact Sheet 5 - Conservation Landscaping for Water Quality Fact Sheet 6 - Animal Waste and Water Quality Fact Sheet 8 - Lawn Care the Environmentally Friendly Way.						
	The following information was posted on the town website under the Water Pollution Control Authority 2017 April Coastal Wastewater Management Plan Sewer Project Updates						

	Hawk's Nest Beach Testing Results Map of Hawk's Nest Groundwater Monitoring Wells 2018 July, September and November Test Results 2019 January, March, June, July, August, September and November Test Results Hawk's Nest Groundwater Quality Data from September 8, 2000 to October 03, 2013 Sound View Groundwater Quality Data from June 5, 1998 to October 03, 2013 2022 Draft Copy of the Municipal Sewer Ordinance						
	The following information was posted on the town website Trash & Single Stream Recycling Recyclable Waste Reduction Mathods Beyond the Green Bin						

	Including: Trex Recycling Challenge Sheet Textile Transfer Statuion Collection Bin Unwanted Medicines and Medical Waste Disposal Yard Waste Composting Ideas Interactive Tool: Can I Recucle It? Interactive Tool: What Do I Do With?						
	Trash and Recycling Information, including a list of recyclable products, was published in Old Lyme Events magazine.	Quarterly Magazine	Old Lyme Events magazine: 2017 - Quarters 1 - 4 2018 - Quarters 1 - 4 2019 - Quarters 1 - 4 2020 - Quarters 1 - 4	100s	Met	Bonnie Reemsnyder, First Selectwoman, Board of Selectmen and Timothy Griswold, First Selectman, Board of Selectmen	
	Water Pollution Control Authority (WPCA) Updates were published in the Old Lyme Events magazine.	Quarterly Magazine	Old Lyme Events magazine: 2017 - Quarter 1 2018 - Quarters 1 & 4	100s	Met	Water Pollution Control Authority	
	An article indicating new Aquifer Protection Regulations were enacted by the Zoning Commission	Quarterly Magazine	Old Lyme Events magazine: 2017 - Quarter 2	100s	Met	Zoning Commission	

	was published in the Old Lyme Events magazine.						
	An article indicating that new trash and recycling containers were installed at White Sands Beach and Hains Park in early April, 2017 was in the Old Lyme Events magazine.	Quarterly Magazine	Old Lyme Events magazine: 2017 - Quarter 2	100s	Met	Bonnie Reemsnyder, First Selectwoman	
	Transfer Station Information was contained in Old Lyme Events magazine. Electronics began to be accepted at the Transfer Station and a list of accepted items was contained in Old Lyme Events magazine.	Quarterly Magazine	Old Lyme Events magazine: 2017 - Quarters 3 & 4 2018 - Quarters 1 - 4 2019 - Quarters 1 - 4 2020 - Quarters 1 - 4	100s	Met	Bonnie Reemsnyder, First Selectwoman	
	A reminder to town residents that grass clippings should be composted on resident's property was contained in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2017 - Quarter 3 & 4, 2018 - Quarters 1 - 4, 2019 - Quarters 1, 2 & 4, 2020 - Quarters 1 - 4	100s	Met	Ed Adanti, Director, Department of Public Works	
	The Old Lyme Conservation Commission published *Herbicide-Free Weed Management* in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2018 - Quarter 2	100s	Met	Conservation Commission	
	The Public Works Director published advice on leaf management in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2018 - Quarter 3	100s	Met	Ed Adanti, Director, Department of Public Works	

	Rogers Lake Authority cited *Connecticut State Law 12-155* prohibiting the use of fertilizer containing phosphorous less than 20 feet from any body of water was contained in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2018 - Quarter 3 & 4, 2019 - Quarter 1 2020 - Quarter 4	100s	Met	Rogers Lake Authority	
	The Old Lyme Conservation Commission published *Proper Recycling is Good! - Both for the Environment and for Old Lyme's Budget* in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2018 - Quarter 4	100s	Met	Conservation Commission	
	The Old Lyme Conservation Commission published *Report from the Old Lyme Conservation Commission, Suggestions to Reduce-Reuse-Recycle* in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2018 - Quarter 4	100s	Met	Conservation Commission	
	The Rogers Lake Authority included a reminder to the public "Do Not Feed the Waterfowl" in the Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2019 - Quarter 1	100s	Met	Rogers Lake Authority	
	Information on the Hazardous Waste & Paper Shredding was contained in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2019 - Quarter 1 & 2			Bonnie Reemsnyder, First Selectwoman	
	A new trash and recycling contractor was contracted by the Town of Old Lyme	Quarterly Magazine	Old Lyme Events magazine: 2019 - Quarters 2 & 4	100s	Met	Bonnie Reemsnyder, First Selectwoman and Timothy	

	Effective July 01, 2019. The new Trash and Recycling Information was published in the Old Lyme Events magazine					Griswold, First Selectman, Board of Selectmen	
	The Old Lyme Conservation Commission reminder *Conservation Commission Reminds Us: Know Your Plastics, One Thing You Can Do: Know Your Plastics* was contained in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2019 - Quarter 2	100s	Met	Conservation Commission	
	A reminder to town residents that septic tanks must be pumped out at least once every 7 years was contained in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2019 - Quarter 3	100s	Met	Water Pollution Control Authority	
1-2 Address education/ outreach for pollutants of concern	2017 - None 2018 - None The following Clean Waters Starting in Your Home and Yard Fact Sheets were made available to the public: Fact Sheet 3 - Caring for Your Septic System Fact Sheet 6 - Animal Waste and Water Quality	NEMO Fact Sheets	Town Website Public Works Page https://www.oldlyme-ct.gov/public-works/pages/stormwater	100s	Met	Bonnie Reemsnyder, First Selectwoman and Timothy Griswold, First Selectman, Board of Selectmen	Additional public education resources may be added to the Department of Public Works website.

	Fact Sheet 3 and Fact Sheet 6 educate the public about bacteria impacts on water quality Fact Sheet 8 - Lawn Care the Environmentally Friendly Way Fact Sheet 8 educates the public about nutrient impacts on water quality.						
	A reminder to town residents that grass clippings should be composted on resident's property was contained in Old Lyme Events magazine.	Quarterly Magazine	Old Lyme Events magazine: 2017 - Quarters 3 & 4 2018 - Quarters 1 - 4 2019 - Quarters 1, 2 & 4 2020 - Quarters 2 & 4	100s	Met	Ed Adanti, Director, Department of Public Works	
	Rogers Lake Authority cited *Connecticut State Law 12-155* prohibiting the use of fertilizer containing phosphorous less than 20 feet from any body of water was contained in Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2018 - Quarters 3 & 4 2019 - Quarter 1 2020 - Quarter 4	100s	Met	Rogers Lake Authority	
	The Rogers Lake Authority included a reminder to the public "Do Not Feed the Waterfowl" in the Old Lyme Events magazine	Quarterly Magazine	Old Lyme Events magazine: 2019 - Quarter 1	100s	Met	Rogers Lake Authority	
	A reminder to town residents that septic tanks must be pumped out at least once every 7 years was contained in Old	Quarterly Magazine	Old Lyme Events magazine: 2019 - Quarter 3	100s	Met	Water Pollution Control Authority	

	Lyme Events magazine						

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

2023 - It is anticipated that public education resources will continue to be contained in the Old Lyme Events magazine and added to the town website.

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**	**Person Responsible, Department**	**Date completed or projected completion date** (include the start date for anything that is 'in progress')	**Location Posted**	**Additional details**
2-1 Final Stormwater Management Plan publicly available	Complete	2017 A hard copy of the Draft 2017 Stormwater Management Plan (SMP) was available to the public for review and comment at the Town Library.	Substantial Compliance	Bonnie Reemsnyder, First Selectwoman, Board of Selectmen	The 2017 SMP was available to the public on April 12, 2017.	https://www.oldlyme-ct.gov/public-works/pages/stormwater	No public comments were received by the Office of the First Selectwoman
2-2 Comply with public notice requirements for Annual Reports (Annually by 02/15)	Complete	2018 The Draft 2017 MS4 Annual Report was available to the public for review and comment on the town website and at the Town Library.	Substantial Compliance	Bonnie Reemsnyder, First Selectwoman, Board of Selectmen	February 15, 2018	https://www.oldlyme-ct.gov/public-works/pages/stormwater	No public comments were received by the Office of the First Selectwoman
2-2 Comply with public notice requirements for 2017 Annual Report	Complete	2019 The Draft 2018 MS4 Annual Report was available to the public for review and comment on the town website and at the Town Library.	Substantial Compliance	Bonnie Reemsnyder, First Selectwoman, Board of Selectmen	February 28, 2019	https://www.oldlyme-ct.gov/public-works/pages/stormwater	No public comments were received by the Office of the First Selectwoman
2-2 Comply with public notice requirements for 2019 Annual Report	Complete	2020 The Draft 2019 MS4 Annual Report was	Substantial Compliance	Timothy Griswold, First Selectman,	March 05, 2020	https://www.oldlyme-ct.gov/public-	No public comments were received by the Office of

		available to the public for review and comment on the town website and at the Town Library.		Board of Selectmen		works/pages/stormwater	the First Selectman
2-2 Comply with public notice requirements for 2020 Annual Report	Complete	2021 The Draft 2020 MS4 Annual Report was available to the public for review and comment on the town website and at the Town Library.	Substantial Compliance	Timothy Griswold, First Selectman, Board of Selectmen	February 22, 2021	https://www.oldlyme-ct.gov/public-works/pages/stormwater	No public comments were received by the Office of the First Selectman
2-2 Comply with public notice requirements for 2021 Annual Report	Complete	2022 The Draft 2021 MS4 Annual Report was available to the public for review and comment on the town website and at the Town Library.	Substantial Compliance	Timothy Griswold, First Selectman, Board of Selectmen	March 29, 2022	https://www.oldlyme-ct.gov/public-works/pages/stormwater	No public comments were received by the Office of the First Selectman
2-2 Comply with public notice requirements for 2022 Annual Report	Complete	2023 The Draft 2022 MS4 Annual Report was available to the public for review and comment on the town website and at the Town Library.	Substantial Compliance	Timothy Griswold, First Selectman, Board of Selectmen	February 21, 2023	https://www.oldlyme-ct.gov/public-works/pages/stormwater	No public comments were received by Wade Thomas.
2-3 Consider establishing a stormwater committee	In progress	In process of identifying committee members	Provide forum to coordinate SWMP implementation across departments and commissions	Timothy Griswold, First Selectman, Board of Selectmen	Summer 2023		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.

2023 - If a stormwater committee is established hold semi-annual stormwater committee meetings to review Stormwater Management Plan 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**	**Person Responsible, Department**	**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	The Town of Old Lyme is in the process of completing a written IDDE program using the IDDE program template available from the CT DEEP.	Develop written plan of IDDE program	Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant and Board of Selectmen	Anticipate completing by December 01, 2023.	An attempt was made to have the Ledge Light Health District be the central reporting agency for citizen illicit discharge complaint filings as seven of the eight member municipalities are MS4 municipalities.
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 07/01/20)	Complete	MS4 stormwater outfall mapping was conducted in 2014 and 2015. The stormwater outfall mapping was compiled on a ESRI GIS layer. The GIS mapping will be updated to include impaired waters as contained in the State of Connecticut, Department of Energy and Environmental Protection 2022 Integrated Water Quality Report. The stormwater outfalls in the impaired waters will be identified.	Development of an ESRI GIS map layer with MS4 stormwater outfalls.	Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant	December 2022	
3-3 Implement citizen reporting program (Ongoing)	In Progress	A program to allow the general public to report suspected illicit discharges is in the process of being set up. It is anticipated that the Department of Public Works will accept citizen reporting of suspected illicit discharges.	A form and program will be developed in 2022	Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant and Board of Selectmen	Anticipate completing by December 01, 2023.	An attempt was made to have the Ledge Light Health District be the central reporting agency for citizen illicit discharge complaint filings as seven of the eight member municipalities are MS4 municipalities. It was decided that the

						Department of Public Works would accept citizen reporting of suspected illicit discharges.
3-4 Establish legal authority to prohibit illicit discharges (Due 07/01/19)	Complete	An Illicit Discharge Detection and Elimination Ordinance was enacted at a Town Meeting on January 22, 2007	IDDE Ordinance Enactment	Timothy Griswold, First Selectman, Board of Selectmen	January 22, 2007	
3-5 Develop record keeping system for IDDE tracking (Due 07/01/17)	In Progress	2017 through 2021 - None	In Progress	Department of Public Works	Anticipate completing by December 01, 2023.	An attempt was made to have the Ledge Light Health District be the central reporting agency for citizen illicit discharge complaint filings as seven of the eight member municipalities are MS4 municipalities.
3-6 Address IDDE in areas with pollutants of concern	In Progress	2017 through 2021 - None	Met	Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant	See Below	
	Complete	The passing of Aquifer Protection Area Regulations by the Zoning Commission was included in the Old Lyme Events magazine.	Public Involvement	Zoning Commission	Old Lyme Events magazine 2017 - Quarter 2	
	Complete	Water Pollution Control Authority (WPCA) Updates were included in the Old Lyme Events magazine.	Public Education	Water Pollution Control Authority	Old Lyme Events magazine 2018 - Quarter 1	
	Complete	Connecticut State Law 12-155 which prohibits application of fertilizer containing phosphorous less than 20 feet from water bodies was included in the Old Lyme Events magazine.	Public Education	Rogers Lake Authority	Old Lyme Events magazine 2018 - Quarters 3 & 4 2019 - Quarter 1 2020 - Quarter 4	

	Complete	The Town Septic Tank Pump Out Ordinance reminder was included in the Old Lyme Events magazine.	Public Education	Water Pollution Control Authority (WPCA)	Old Lyme Events magazine 2019 - Quarter 3	
	Ongoing	Sanitary sewer installations and a pump station are proposed for Sound View, Miscellaneous Town Area B north of Shore Road, Old Lyme Shores Chartered Beach Association, Old Colony Chartered Beach Association and Miami Beach Charted Beach Association.	Working toward final design and approval by the CT DEEP. When constructed the project will reduce mass loadings of nutrients to Long island Sound	Water Pollution Control Authority (WPCA)	Final design was completed in 2020. It is anticipated that construction will begin in 2021 and completed in 2022.	

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

The written program will be posted to the Department of Public Works webpage.

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

The Water Pollution Control Authority will continue to include WPCA updates in Old Lyme Events magazine.

2021 - Sanitary sewer installations and a pump station are proposed for Sound View, Miscellaneous Town Area B north of Shore Road, Old Lyme Shores (Chartered) Beach Association, Old Colony (Chartered) Beach Association and Miami Beach (Chartered) Beach Association. Construction is anticipated to begin in 2021 with completion in 2022.

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)
Wildwood Drive A suspected illicit discharge was identified during MS4 stormwater outfall mapping proximal to Wildwood Drive which is the outlet for the Wildwood Drive storm drainage system. The discharge consisted of what appeared to be a greywater (possible washing machine) discharge to the MS4					Individual catch basins will be inspected during dry weather conditions to isolate the possible source of the potential illicit discharge if the pipe discharge was connected directly to the catch basin during the home construction activities. If the method does not satisfactorily identify the pipe run to which the possible illicit discharge is connected optical brightener testing methods will be utilized.	
8 Hartford Avenue A sump pump discharge from a crawl space was directed to the easterly gutterline of Hartford Avenue and flow from the discharge was conveyed to the catch basin system. Concern was the sump pump could capture diluted wastewater.					The sump pump discharge was sampled on May 22, 2019. While Chlorides, ammonia, nitrite, nitrate, total Kjeldahl nitrogen and phosphorus were elevated, enterococci bacteria and fecal coliforms were below the detection limit of 10 MPN/100 mls.	

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
Homeowner or public reporting	2017 The following subsurface sewage disposal system repairs were made: 2 Browns Lane			Ledge Light Health District
	4 Littlefield Drive	Septic Repair (Not Described)	4021-02-1-L	
	23-1 Briar Hill Drive	Septic Repair (Not Described)	4021-00-2-R2	
	243 Mile Creek Road	Septic Repair (Not Described)	4021-02-1-L1	
	2 Katherine Road	Septic Repair (Not Described)	2000-51-1	
	35 Sill Lane	Septic Repair (Not Described)	4000-00-6+R50	
	37 White Sands Beach Road	Septic Repair (Not Described)	4020-00-1	
	16 Sea Spray Road	Septic Repair (Not Described)	2000-55-1	
	13 Meetinghouse Lane	Septic Repair (Not Described)	2000-51-1	
	11 Ferry Road	Septic Repair (Not Described)	4000-65-1	
	45 Gorton Avenue	Septic Repair (Not Described)	4020-00-1	
	19 West End Drive	Septic Repair (Not Described)	2000-51-1	
	51-1 Mile Creek Road	Septic Repair (Not Described)	2000-53-1	
	51 Saltaire Drive	Septic Repair (Not Described)	4021-00-2-R2	
	4 Cobblers Lane	Septic Repair (Not Described)	2000-51-1	
	13 Beechwood Lane	Septic Repair (Not Described)	2000-52-1	
	7 Nottingham Lane	Septic Repair (Not Described)	2000-54-1	
	19 Edge Lea Road	Septic Repair (Not Described)	2000-52-1	
	98 Boston Post Road	Septic Repair (Not Described)	2000-51-1	
	5 Browns Lane	Septic Repair (Not Described)	4020-06-1-L3	
	1 long Acre Lane	Septic Repair (Not Described)	4021-02-1-L1	
	22 Library Lane	Septic Repair (Not Described)	4020-00-1*	
	22 Buttonball Road	Septic Repair (Not Described)	4000-65-1	
	10 Hillwood Road East	Septic Repair (Not Described)	4021-00-2-R2	
	12 Knutson Road	Septic Repair (Not Described)	4020-07-1	
	11 7 11.5 Knutson Road	Septic Repair (Not Described)	4020-06-1-L2	
	15 Wood Ridge Hills	Septic Repair (Not Described)	4020-06-1-L2	
	51 Shore Drive	Septic Repair (Not Described)	2000-47-1-L1	
	128 Boston Post Road	Septic Repair (Not Described)	4000-00-6+R50	
	178-5 Boston Post Road	Septic Repair (Not Described)	4020-06-1-L2	
	9 Sands Drive	Septic Repair (Not Described)	4020-06-1-L1	
	3 Sandalwood Lane	Septic Repair (Not Described)	4020-00-1*	
	27 Lyme Street	Septic Repair (Not Described)	2000-54-1	
	60 Center Beach Road	Septic Repair (Not Described)	4020-00-18	
	6 Talcott Farm Road	Septic Repair (Not Described)	2000-54-1	
	6 Littlefield Drive	Septic Repair (Not Described)	4020-00-1*	

	29 Center Beach Road 109-1 Boston Post Road	Septic Repair (Not Described) Septic Repair (Not Described) Septic Repair (Not Described)	4021-00-2-R2 2000-54-1 4021-00-1	
Homeowner or public reporting	2018 The following subsurface sewage disposal system repairs were made: 40 McCurdy Road 15 Billow Road 23 New Britain Road 106 Boston Post Road 19 Meriden Lane 20 Oakridge Road 40 Pond Road 110 Lyme Street 57 Hartford Avenue Ext. 2 Bailey Road 9 Lee Drive 247 Shore Road 19 Halls Road 42 Swan Avenue 3 Stonewood Road 10 Noyes Road 42 Hatchetts Point Road 20 Hefflon Farm Road 16 Portland Avenue 281 Shore Road 19 Flat Rock Hill Road 11 Kelsey Avenue 78 West End Drive 83 Halls Road 89 Hawks Nest Road 10 Otter Rock Road 64 Columbus Avenue	Septic Repair (Not Described) Septic Repair (Not Described)	4000-65-1 2000-65-1 2000-51-1 4020-06-1-L3 2000-55-1 2000-47-1 2000-52-1 4020-00-1* 2000-51-1 4021-03-1 2000-51-1 2000-52-1 4020-00-1* 2000-51-1 2000-50-1 4000-00-6+R50 4021-00-2-R2 2000-52-1 2000-52-1 4021-02-1-L1 4020-06-1-L1 2000-53-1 4020-00-1* 2000-53-1 2000-54-1 2000-52-1	Ledge Light Health District
Homeowner or public reporting	2019 The following subsurface sewage disposal system repairs were made: 12 Grassy Hill Road 14 Lee Drive 42 Biscayne Boulevard	Septic Tank Replacement Septic Tank Replacement System Replacement (high groundwater)	4020-06-1-L1 2000-50-1 2000-52-1	Ledge Light Health District

	7 Jean Drive	Septic Tank Repair	2000-47-1-L1	
	19 Old Colony Road	Septic Tank Repair	2000-51-1	
	21 Saltaire Drive	System Replacement	2000-51-1	
	67 Saltaire Drive	System Replacement	2000-51-1	
	3 Griswold Avenue	Septic Tank and Leaching System Replacement		
	43 Rogers Lake Trail	System Replacement	4020-07-1	
	1 Academy Lane	System Replacement	4020-06-1-L1	
	5 Hefflon Farm Road	Septic Tank and Leaching System Repair	4020-00-2-R2	
	17 McCurdy Road	Replacement System	4000-65-1	
	25-1 Rowland Road	Septic Tank	4020-00-2-R2	
	14 Boggy Hole Road	Septic Tank	4000-65-1	
	28 Champlain Drive	Septic Tank		
	147 Mile Creek Road	Septic Tank		
	23 Howard Road	Septic Tank		
	10 Victoria Lane	System Replacement	2000-54-1	
	39-1 Mile Creek Road	Septic Tank		
	18 Pond Road	System Replacement	2000-51-1	
	34 Mile Creek Road	Septic Tank Replacement	4021-03-1	
	26 Bailey Road	System Replacement	2000-52-1	
	9 Jadon Drive	System Replacement (Conversion)	4021-03-1	
	25 Moore Avenue	System Replacement	4021-03-1	
	4 Fifth Avenue	Leaching System Replacement	4021-00-2-R2	
	11 Breen Avenue	Septic Tank Replacement	4020-06-1-L1	
	8 Somerset Lane	Septic Tank	2000-52-1	
	34 Johnnycake Hill Road	Septic Tank		
	45 Seaside Lane	Septic Tank		
Homeowner or public reporting	2020 The following subsurface sewage disposal system repairs were made:			Ledge Light Health District
	26 Springfield Road	System Replacement	2000-55-1	
	6 Kinner Avenue	Septic Tank		
	88 Hartford Avenue	Piping Rerouting		
	35 Mile Creek Road	Septic Tank Replacement	4021-00-2-R2	
	5 Springfield Avenue	System Replacement	2000-55-1	
	22 Hartung Place	Replace Sewer		
	10 Chadwick Drive	Septic Tank		
	21 Townwoods Road	System Replacement	4020-06-1-L1	
	11 Academy Lane	System Replacement	4020-00-1	
	62 West End Drive	Septic Tank Replacement		
	4 Hefflon Farm Road	Septic Tank		
	2 Browns Lane	Septic Tank Moved		
	31 New Britain Road	System Replacement	2000-55-1	
	15 New Britain Road	System Replacement		

	8 Stoneleigh Knoll 5 Pyrus Court 14 Rogers Lake Trail 4 Pyrus Court 3 Pyrus Court 11 Champlain Drive 12 Beechwood Lane 9-1 Littlefield Lane 20 Homestead Circle 35-1 Rowland Road 42 Breen Avenue 1 Vaccinum Way 30 Homestead Circle 6 Tantummaheag Road 427 Shore Road 23 Boston Post Road 135 Four Mile River Road 7 Old Post Road 5 Epsilon Drive 23 Town Woods Road 4 Homestead Circle 30 Homestead Circle 248 Mile Creek Road 2 Elm Street 44 Breen Avenue 4 Old Post Road 1 Moss Point Trail 5 Kelsey Avenue 223 Mile Creek Road 111 Boston Post Road 36 White Sand Beach Road 24 Wildwood Drive 7 Avon Street 11 Stonewood Drive 28 Oakridge Drive	System Replacement Leaching and WTW Failing System Replacement Failed Leaching System Replacement Leaching System Replacement Septic Tank System Replacement D-Box Replacement and Pipe Replacement Septic Tank Replacement System Replacement System Replacement System Replacement System Replacement D-Box Replacement Septic Tank Failed Leaching System Replacement Septic Tank System Replacement Septic Tank Septic Tank Septic Tank Connection Pipe Septic Tank System Replacement System Replacement No Information System Replacement D-Box Replacement System Replacement Leaching System Replacement Septic Tank and D-Box Septic Tank Replacement No information D-Box Replacement Septic Tank	4020-07-1 2000-50-1 4020-06-1-L1 2000-50-1 2000-50-1 2000-54-1 2000-54-1 2000-51-1 2000-50-1 4021-00-2-R2 2000-47-1-L1 4020-07-1 4020-04-1 4000-65-1 2000-51-1 4020-06-1-L1 2000-52-1 4021-00-1	
Homeowner or public reporting	2021 The following subsurface sewage disposal system repairs were made: 54 Lyme Street 5-2 Binney Road 27 New Britain Road 8 Osceola Trail 40 Seaside Lane	 System Replacement System Replacement Full System Replacement Septic Tank Replacement System Replacement	 4020-00-1* 4000-00-6+R49 2000-55-1 2000-55-1	Ledge Light Health District

	47 Seaside Lane	System Replacement	2000-55-1	
	7 Hillwood Road East	No Information		
	1 Lyme Street	Septic Tank		
	5A Huntley Road	System Replacement	4020-00-1*	
	21 Lone Pine Trail	Septic Tank		
	4 gamma Lane	Septic Tank		
	27 Oakridge Drive	Leaching System Replacement	2207-00-1	
	10 Kelsey Avenue	System Replacement	4020-06-1-L1	
	7 Moss Point Trail	Septic Tank		
	70 Mile Creek Road	Septic Tank		
	6 Noyes Road	Septic Tank Replacement		
	6 Littlefield Lane	Septic Tank		
	3 Maple Lane	System Replacement	4020-00-1*	
	2 Dogwood Drive	Full Repair	2000-54-1	
	59 Whippoorwill Road	Septic Tank Replacement		
	10 Saltaire Drive	System Replacement	2000-51-1	
	96 Lyme Street	Grease Trap Pipe/Grease Tank Baffle Repair		
	59 Neck Road	D-Box		
	7 Victoria Lane	D-Box		
	48 Coult Lane	System Replacement	4000-63-1	
	1 Laurel Drive	Pipe Replacement		
	33 Smith Neck Road	Pump Install/Leaching System Replacement	4021-03-1	
	22-2 Edge Lea Road	System Replacement	2000-51-1	
	14 Library Lane	System Replacement	4020-00-1*	
	2 Noyes Road	System Replacement	4000-00-6+R50	
	73 Neck Road	Leaching System Replacement	4000-00-6+R50	
	305 Ferry Road	Leaching System Replacement	4020-00-1*	
	12 Swan Lane	Cesspool Replacement	2000-51-1	
	15 Sill Lane	Pump Install/ System Replacement	4020-07-1	
	22 Riverview Drive	System Replacement	4020-00-1*	
	47 Brighton Road	Septic Tank Replacement	2000-55-1	
	10 Broughel Avenue	Leaching System Replacement	2000-51-1	
	28 Old Shore Road	System Replacement	2000-55-1	
	7 Lyme Street	Pipe Replacement	4020-00-1*	
	14 Flagler Avenue	System Replacement	2000-52-1	
	23 Binney Road	Central System	4000-63-1	
Homeowner or public reporting	2022 The following subsurface sewage disposal system repairs were made:			Ledge Light Health District
	15 Neck Rd	Replacement System	4020-00-1*	
	87 Rogers Lake Trail	Full Replacement System	4020-06-1-L1	
	292 Mile Creek Road	Tank Replacement – exg. Tank Collapsed	2000-47-1-L1	
	8 Pine Road	Tank Only	4021-00-2-R2	
	32 Noyes Road	System Replacement; Well Exception	4000-00-6+R50	

	58 Gorton Avenue	Holding Tank – DPH Approved	2000-51-1	
	88 West End Drive	Repair – Non Code Complying	2000-53-1	
	23 Browns Lane	Tank and D-box	2000-52-1	
	12 Lee Drive	Tank Only	2000-50-1	
	6 Center Beach Road	Tank Only	2000-54-1	
	11 Wildwood Drive	Tank Only	2000-47-1/2207-00-1	
	27 Meriden Road	Replacement System, Non Code Complying	2000-55-1	
	115 Sill Lane	Replacement System	4020-06-1-L2	
	33 Old Stagecoach Road	Replacement System	4020-06-1-L1	
	4 Whippletree Lane	Tank and D-box Replacement	4021-00-1	
	17 Cottage Road	System Replacement, Non Code Complying	2000-55-1	
	10 Jericho Drive	System Replacement	4021-00-1	
	131 Shore Road	Replacement System	4021-00-2-R2	
	1 Parsons Farm Lane	Full System Replacement with Pump Chamber	4020-07-1	
	9 Wood Crest Drive	Replace Septic Tank Only	2000-47-1-L1/2000-47-1	
	321 Shore Road	Full System Replacement	2000-51-1	
	50 West End Drive	Tank Only	2000-53-1	
	44 Hatchetts Point Road	System Replacement, Building addition	2000-48-1	
	3 Beckwith Lane	Replacement System	4020-00-1*	
	29 Brookside Drive	Replacing Pipe in trench	2000-51-1	
	30 Billow Road	Minor Repair	2000-51-1	
	62 White Sand Beach Road	System Replacement	2000-55-1	
	50 Browns Lane	Tank Only	2000-50-1	
	43 Coult Lane	Replacement System	4000-63-1	
	28 Mile Creek Road	Tank Replacement	4021-03-1	
	376 Shore Road	Replacement System	2000-47-1	
	9 Lady Slipper Lane	Tank and D-box	4021-01-1-L1	
	14 Duchess Drive	Leaching Only Replacement	4020-04-1	
	130 Boston Post Road	Tank Only	4020-06-1-L2	
	285 Mile Creek Road	Replacement System	2000-47-1-L1	
	7 Mile Creek Road	Replacement System	4021-03-1	
	4 Joel Drive	Teardown Rebuild; Replacement System	4000-00-6+R50	
	8 Homestead Circle	Tank Only	4021-00-2-R2	
	5 Wychwood Drive	Full System Replacement	2000-51-1	
	7 Dunns Lane	Replacement System, Building addition	4000-65-1	
	178 Four Mile River Road	Tank Only	2207-00-1-L3	
	5 Lieutenant River Lane	Replacement System, Well Exception	4020-00-1*	
	150 Mile Creek Road	HS, Tank, D-box	2000-54-1	
	30 Hatchetts Point Road	System Replacement	2000-47-1-L2	
	194 Mile Creek Road	System Replacement	2000-54-1	
	4 Berberis Drive	System Replacement	2000-50-1/2000-52-1	
	119 Boston Post Road	Tank Replacement	4020-06-1-L2	
	22 Hartung Place	Seasonal House Non-code Complying Repair	2000-51-1	
	15 Lieutenant River Lane	System Replacement	4020-00-1*	
	46 White Sand Beach Road	System Replacement	2000-55-1	
	1 Clifton Street	Tank Only	2000-54-1	

	5 Sunset Drive 74 Mile Creek Road 58 Shore Road 21 Shore Road 24 Nottingham Drive	Replace D-box Tank Only System Replacement System Replacement Tank and D-box Only	4020-06-1-L2 4021-00-2-R2 4000-00-6+R50 4020-06-1-L1 2000-52-1	

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

Any potential illicit discharges were noted during field mapping of all MS4 stormwater outfalls and were followed up on at a later date. One potential gray water discharge was noted and followed up on by the Town MS4 Consultant.

Potential illicit discharges reported to the Department of Public Works are followed up by the department or the Town MS4 Consultant.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	312
Estimated or actual number of interconnections	2
Outfall mapping complete	95
Interconnection mapping complete	100%
System-wide mapping complete (detailed MS4 infrastructure)	25%
Outfall assessment and priority ranking	25%
Dry weather screening of all High and Low priority outfalls complete	20%
Catchment investigations complete	10%
Estimated percentage of MS4 catchment area investigated	40%

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

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**	**Person Responsible, Department**	**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 07/01/20)	Ongoing	The required elements of Minimum Control Measure No. 4 - Construction Site Runoff Control have been incorporated into the land use regulations or are required as a standard condition of approval.	Compliance	Land Use Department and Land Use Commission Members		
4-2 Develop and Implement a plan for interdepartmental coordination in site plan review and approval (Ongoing)	Ongoing	Thomas E. Metcalf, P.E., L.S., Town Engineer prepares land use review letters for most applications for the Inland Wetlands Commission, Planning Commission and Zoning Commission.	Interdepartmental Coordination	Land Use Commission Members	Ongoing	
4-3 Review site plans for stormwater quality concerns (Ongoing)	Ongoing	Thomas E. Metcalf, P.E., L.S., Town Engineer encourages the use of LID and Stormwater BMPs practices as contained in the 2004 Connecticut Stormwater Quality Manual.	Compliance	Thomas E. Metcalf, P.E., L.S., Town Engineer	Ongoing	
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	Keith Rosenfeld, Inland Wetlands Enforcement Officer, Land Use Office	Ongoing	
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	The public can submit comments on land use applications at Public Hearings when held.	Land Use Department and Land Use Commissions	Ongoing	

		Hearing Process when applicable.				
4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing)	Ongoing	Since the inception of the CT DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities Thomas E. Metcalf, P.E., L.S., Town Engineer has made developer's engineers aware of the need to register for the CT DEEP 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 Thomas E. Metcalf, P.E., L.S., Town Engineer	Ongoing	

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**	**Person Responsible, Department**	**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 Progress	2017 - 2022 None The required elements of Minimum Control Measure No. 5 - Post-Construction Runoff Control to be incorporated into the land use regulations were provided to the town.	There has not been significant new development. In town. Whenever new development is proposed the Town Engineer encourages the utilization of LID measures.	Land Use Department, Land Use Commissions and Town Land Use Attorney	Anticipated to be completed by July 01, 2022.	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)	Ongoing	Compliance	There has not been significant new development. In town. Whenever new development is proposed the Town Engineer encourages the utilization of LID measures.	Land Use Department Thomas E. Metcalf, P.E., L.S., Town Engineer	Continuing	

5-3 Identify retention and detention ponds in priority areas (Due 07/01/20)	In Progress	2017 - 2022 None Retention Ponds, Detention Ponds and Hydrodynamic Separators will be inventoried in 2023. A GIS Map Layer will be created after the inventory.		Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant	December 01, 2023	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing)	Complete To be implemented in 2023.	A Post-Construction Stormwater Management Facility Operation and Maintenance Plan Manual was completed with an Effective Date of July 01, 2019. It is anticipated that measures contained in the manual will be implemented in 2022.		Ed Adanti, Director, Department of Public Works, and Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant	December 01, 2023	
5-5 DCIA mapping (Due 07/01/20)	Complete	Completed 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 start in 2018.	Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant	2018 - Complete 2019 - Revised	The Baseline 2012 DCIA was determined to be 34.16 Acres.
5-6 Address post-construction issues in areas with pollutants of concern	To Be Developed	2017 - 2022 None	Stormwater outfalls discharging to waters identified as impaired in the 2016 and	Land Use Department and Thomas E. Metcalf, P.E., L.S., Town Engineer	December 01, 2023	

			2018 Integrated Water Quality Reports and in watersheds with a DCIA of greater than 11 percent will be subject to enhanced water quality treatment.			

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

Implement long-term maintenance plan for stormwater basins and treatment structures.

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)	34.16 Acres
DCIA disconnected (redevelopment plus retrofits)	2012 to 2016 - To Be Determined 2017 through 2022 - 0 Acres Total - To Be Determined
Retrofit projects completed	2017 through 2022 - 0
DCIA disconnected	2012 to 2016 - % To Be Determined 2017 through 2022 - 0 % Total - To Be Determined
Estimated cost of retrofits	$0
Detention or retention ponds identified	2014 to 2015 - 5 Detention Basins, 9 Water Quality Basins and 2 Water Quality Units

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

Based on information contained in the Factsheet: *Town of Old Lyme Water Quality and Stormwater Summary,* prepared by the CT DEEP, 1,420.21 acres of the town has an impervious area exceeding 12% which is approximately 9.14% of the town. 372.89 acres have an impervious cover of ranging from 12% to 25%, 616.25 acres have an impervious cover ranging from 26% to 50%, 371.85 acres have an impervious cover ranging from 51% to 75% and 59.22 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 243.15 acres of buildings, 323.82 acres of roads and 455.04.28 acres of other impervious surfaces for a total impervious surface area of 1,022.01 acres. Of the 323.82 acres of road impervious area, 210.93 acres are town roads and 112.89 acres are state roads.

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 reports entitled *2016 Integrated Water Quality Report*, dated April 2017, and *2018 Integrated Water Quality Report*, dated August 01, 2019, prepared by the State of Connecticut Department of Energy and Environmental Protection (CT DEEP).

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**	**Person Responsible, Department**	**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	2017 - None 2018 - All snow plow/spreader drivers attended a Snow Plow Safety course provided by Connecticut Interlocal Risk Management Agency (CIRMA) 2019 through 2022 - None	Developing	Ed Adanti, Director, Department of Public Works	2023 Start Date	While training was anticipated to occur in 2020 and 2021 the COVID-19 pandemic precluded this option. It is anticipated training will be implemented in 2023.
6-2 Implement MS4 property and operations maintenance (Ongoing)	Ongoing	The Town of Old Lyme and the Town of Lyme is committed to implement an organic based Integrated Pest Management Plan at the Town Woods Athletic Fields and School Grounds which was developed by Dr. Jerry Silbert of the Watershed Partnership.	Contine to utilize an organic based IPM Plan.	Ed Adanti, Director, Department of Public Works	July 01, 2017	
6-3 Implement coordination with interconnected MS4s	Ongoing	The Town of Old Lyme continued to coordinate MS4 responsibilities with the Town of East Lyme and the Town of Lyme	Continuing	Ed Adanti, Director, Department of Public Works	July 01, 2017	
6-4 Develop/implement program to control other sources of pollutants to the MS4	In Progress	2017 through 2022 None	Developing	Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant	December 01, 2023	

6-5 Evaluate additional measures for discharges to impaired waters*	In Progress	2017 through 2022 None	Developing	Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant	December 01, 2023 Start Date	
6-6 Track projects that disconnect DCIA (Ongoing)	Ongoing	2017 through 2022 None Will be implemented in 2023, if an appropriate project is constructed.	Developing	Nathan L. Jacobson & Associates, Inc., Town MS4 Consultant	July 01, 2017	
6-7 Implement infrastructure repair/rehab program (Due 07/01/21)	In Progress	2017 through 2022 None Will be implemented in 2023.	Developing	Ed Adanti, Director, Department of Public Works	December 01, 2023 Start Date	
6-8 Develop and implement plan to identify/prioritize retrofit projects (Due 07/01/20)	In Progress	2017 through 2022 None Will be implemented in 2023.		Ed Adanti, Director, Department of Public Works	December 01, 2023 Start Date	
6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 07/01/22)	In Progress	2017 through 2022 None Will be implemented in 2023, if an appropriate project is constructed.		Ed Adanti, Director, Department of Public Works and Nathan L. Jacobson & Associates, Inc.	December 01, 2023 Start Date	DCIA disconnection opportunities in the town are rare as most development consist of construction of single family homes.
6-10 Develop and implement street sweeping program (Ongoing)	Ongoing	The Town of Old Lyme currently implements a road sweeping program whereby all town roads are swept at one time per year.	Compliance	Ed Adanti, Director, Department of Public Works	July 01, 2017	
6-11 Develop and implement catch basin cleaning program (Ongoing)	Ongoing	The Town of Old Lyme currently implements a catch basin cleaning program whereby all catch basins south of I-95 and north of I-95 are cleaned in alternate years.	Substantial Compliance	Ed Adanti, Director, Department of Public Works	July 01, 2017	

6-12 Develop and implement snow management practices (Due 07/01/18)	Ongoing	See employee training.	Substantial Compliance	Ed Adanti, Director, Department of Public Works	July 01, 2017	
6-13 Map and inventory highly erosive areas in town road right-of-ways	In Progress	Collect information on eroding areas in town road right-of-ways from highway maintenance personnel over course of normal operations	Identify areas contributing large volume of sediment to town watercourses and/or waterbodies	Ed Adanti, Director, Department of Public Works	December 01, 2023	Reduce sedimentation of waterways near town road right-of-ways.

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

2023 - It is anticipated that the road sweeping program, where all town roads are swept at least once per year, and the catch basin cleaning program, where catch basins are cleaned at least once every two years will continue. All catch basins are visually inspected every year to determine if the catch basin cleaning frequency is adequate.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	2017 - None 2018 - All snow plow/spreader drivers attended a Snow Plow Safety course provided by Connecticut Interlocal Risk Management Agency (CIRMA) 2019 through 2022 None
Street sweeping	
Curb miles swept	2017 through 2022 - 119.04
Volume (or mass) of material collected	2017 - Undetermined 2018 - 120± C.Y. 2019 - 120± C.Y. 2020 - 100± C.Y. 2021 - 100± C.Y. 2022 - 100± C.Y.
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town-wide)	TBD
Total catch basins town-wide	650±
Catch basins inspected	2017 - 100± Located North of I-95 on a monthly basis 2018 - 100± Located South of I-95 on a monthly basis 2019 - 100± Located North of I-95 on a monthly basis

	2020 - 100± Located South of I-95 on a monthly basis 2021 - 100± Located North of I-95 on a monthly basis 2022 - 100± Located South of I-95 on a monthly basis
Catch basins cleaned	2017 - 300± Located South of I-95 2018 - 300± Located North of I-95 2019 - 300± Located South of I-95 2020 - 300± Located North of I-95 2021 - 300± Located South of I-95 2022 - 300± Located South of I-95
Volume (or mass) of material removed from all catch basins	2017 - Undetermined 2018 - 100± C.Y. 2019 - 100± C.Y. 2020 - 100± C.Y. 2021 - 100± C.Y. 2022 - 100± C.Y.
Volume removed from catch basins to impaired waters (if known)	2017 through 2022 - Undetermined 2023 - Will Be Determined
Snow management	
Type(s) of deicing material used	Deicing Mix Comprised of 3 Parts Sand to 1 Part Salt by Volume
Total amount of each deicing material applied	Winter 2017 to 2018 - 400± Tons Sand and 250± Tons NaCl Winter 2018 to 2019 - 300± Tons Sand and 150± to 200± Tons NaCl Winter 2019 to 2020 - 250± Tons Sand and 150± Tons NaCl Winter 2020 to 2021 - 250± Tons Sand and 150± Tons NaCl Winter 2021 to 2022 - 250± Tons Sand and 150± Tons NaCl Winter 2022 to 2023 - 100± Tons Sand and 60± Tons NaCl (Estimated)
Type(s) of deicing equipment used	5 Snow Plows/Spreaders with Manually Controlled Spreaders 4 Snow Plows/Spreaders with Ground Speed Controlled Spreaders Application rate 150-200 pounds per lane (curb) mile
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	2017 through 2022 - 119.04
Snow disposal location	Road shoulders
Staff training provided on application methods & equipment	2017 - None 2018 - All snow plow/spreader drivers attended a Snow Plow Safety course provided by Connecticut Interlocal Risk Management Agency (CIRMA). Topics included Spreading Operations, New Anti-Icing Techniques and Cleanup and Recordkeeping. 2019 through 2022 - None
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	

Reduction in application of fertilizers (since start of permit)	2017 - None 2018 - All snow plow/spreader drivers attended a Snow Plow Safety course provided by Connecticut Interlocal Risk Management Agency (CIRMA). Topics included Spreading Operations, New Anti-Icing Techniques and Cleanup and Recordkeeping. 2019 through 2022 None
Reduction in turf area (since start of permit)	
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	2017 through 2022 - $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 650 catch basins in the Town of Old Lyme. A DPW Employee witnesses all catch basin structure cleaning. 2017, 2019 and 2021 - 300± catch basins and storm manholes located south of I-95 are cleaned. 100± random catch basins on the north side of I-95 are inspected for sediment accumulation. 2018, 2020 and 2022 - 300± catch basins and storm manholes located north of I-95 are cleaned. 100± random catch basins on the south side of I-95 are inspected for sediment accumulation.

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.

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)
The 2012 Baseline DCIA was determined to be 34.16 acres The CT DEEP goal of 2% disconnection of the 2012 Baseline DCIA will mean the town will have to disconnect 0.683 acres of DCIA by June 30, 2022.

The town has low DCIA disconnection potential Due to the low level of new development in the town. DCIA disconnection will be pursued whenever possible on both municipal retrofits and new development.

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 Pollutant of Concern	Bacteria	Mercury	Other
☒	☒		

Long Island Sound - Nitrogen, Phosphorus and Bacteria

Connecticut River - Bacteria

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 - It was anticipated that dry weather screening and sampling, where applicable, would be conducted in Fall. However due to unseasonably heavy precipitation and associated high groundwater conditions no dry weather screening was conducted. 2022 - Dry weather screening was conducted on approximately 10 percent of the outfalls in early Spring. 2023 - It is anticipated that dry weather screening of all town MS4 stormwater outfalls will be conducted.

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.

Outfall ID	**Latitude & Longitude**	**Sample Date**	**Parameter** (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	**Results**	**Name of Laboratory (if used)**	**Follow-up required? ***
1 Commercial		12/06/04	Bacteria - E.coli	>60	Phoenix Environmental	No
1 Commercial		11/17/05	Bacteria - E.coli	210	Phoenix Environmental	No
1 Commercial		11/16/06	Bacteria - E. coli Total Coliform	20 >2,000	Phoenix Environmental	No
1 Commercial		01/11/08	Bacteria - E. coli	200	Phoenix Environmental	No
1 Commercial		03/19/08	Bacteria - E. coli Total Coliform	90 100	Phoenix Environmental	No
1 Commercial		08/16/10	Bacteria - E. coli	2,480	Phoenix Environmental	No
4 Industrial		12/06/04	Bacteria - E. coli	12	Phoenix Environmental	No
4 Industrial		11/17/05	Bacteria - E. coli	60	Phoenix Environmental	No
4 Industrial		11/16/06	Bacteria - E. coli Total Coliform	10 100	Phoenix Environmental	No
4 Industrial		01/11/08	Bacteria - E. coli	20	Phoenix Environmental	No
4 Industrial		03/19/08	Bacteria - E. coli Total Coliform	20 30	Phoenix Environmental	No
4 Industrial		08/16/10	Bacteria - E. coli	810	Phoenix Environmental	No
3 - R15		11/06/14	Bacteria - E-coli Total Coliform	150 >24,200	Phoenix Environmental	No
3 - R15		11/17/14	Bacteria - E-coli Total Coliform	460 >24,200	Phoenix Environmental	No
3 - R15		08/11/15	Bacteria - E-coli Total Coliform	1,670 >24,200	Phoenix Environmental	No
3 - R15		10/28/15	Bacteria - E-coli Total Coliform	10,460 >24,200	Phoenix Environmental	No
3 - R15		09/19/16	Bacteria - E-coli Total Coliform	14,100 >24,200	Phoenix Environmental	No
3 - R15		11/15/16	Bacteria - E-coli Total Coliform	1,780 >24,200	Phoenix Environmental	No
3 - R15		11/29/16	Bacteria - E-coli Total Coliform	1,310 >24,200	Phoenix Environmental	No
4 - R-20		11/06/14	Bacteria - E-coli Total Coliform	80 >24,200	Phoenix Environmental	No

4 - R-20		11/17/14	Bacteria - E-coli Total Coliform	1,850 >24,200	Phoenix Environmental	No
4 - R-20		08/11/15	Bacteria - E-coli Total Coliform	3,650 >24,200	Phoenix Environmental	No
4 - R-20		10/28/15	Bacteria - E-coli Total Coliform	130 >24,200	Phoenix Environmental	No
4 - R-20		09/19/16	Bacteria - E-coli Total Coliform	2,600 >24,200	Phoenix Environmental	No
4 - R-20		11/15/16	Bacteria - E-coli Total Coliform	107 >24,200	Phoenix Environmental	No
4 - R-20		11/29/16	Bacteria - E-coli Total Coliform	1,210 17,300	Phoenix Environmental	No
5 - RU-80		11/06/14	Bacteria - E-coli Total Coliform	680 >24,200	Phoenix Environmental	No
5 - RU-80		11/17/14	Bacteria - E-coli Total Coliform	2,480 >24,200	Phoenix Environmental	No
5 - RU-80		08/11/15	Bacteria - E-coli Total Coliform	1,150 >24,200	Phoenix Environmental	No
5 - RU-80		10/28/15	Bacteria - E-coli Total Coliform	2,760 >24,200	Phoenix Environmental	No
5 - RU-80		09/19/16	Bacteria - E-coli Total Coliform	>24,200 >24,200	Phoenix Environmental	No
5 - RU-80		11/15/16	Bacteria - E-coli Total Coliform	2,600 >24,200	Phoenix Environmental	No
5 - RU-80		11/29/16	Bacteria - E-coli Total Coliform	1,010 >24,200	Phoenix Environmental	No

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

2017 through 2022 - None
2023 - It is anticipated that follow-up investigations will be conducted after dry weather screening of all MS4 stormwater outfalls is completed.

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

Once outfall sampling has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021.

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

Part III: Additional IDDE Program Data

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

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

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank
CT-E1_024-SB	High Priority	1
CT-E1_026-SB	High Priority	2
CT-E1_023	High Priority	3
CT-E1_017	High Priority	4
CT-E3_008	High Priority	5
CT-E3_007	High Priority	6
CT-E1_028-SB	Low Priority	7

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.

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 2022 - No dry weather screening or sampling was conducted.
2023 - It is anticipated that dry weather screening will be conducted in late Spring and early Summer.

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.

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

2017 through 2022 - No wet weather inspection or sampling was conducted.
2023 - It is anticipated that wet weather inspections and sampling will be conducted in late Spring and early Summer if observations warrant sampling. If there is any uncertainty in potential for an illicit discharge, the outfall will be sampled.

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

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

2017 through 2022 - No junction manhole dry weather screening or sampling was conducted.
2023 - It is anticipated that dry weather screening will be conducted in late Spring and early Summer.

3.3 Wet Weather Investigation Outfall Sampling Data

Outfall ID	Latitude & Longitude	Sample date	Ammonia	Chlorine	Surfactants

2017 through 2022 - No outfall wet weather screening or wet weather sampling was conducted.
2023 - It is anticipated that outfall wet weather screening and wet weather sampling will be conducted in late Spring and early Summer.

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

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

Part IV: Certification

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

Chief Elected Official or Principal Executive Officer	Document Prepared by
Print Name: Timothy Griswold, First Selectman	Print Name: Wade M. Thomas, CPMSM
Signature: T Griswold	Signature: Wade M. Thomas
Date: May 01, 2023	Date: May 01, 2023