



Town of Chester, Connecticut

2023 Annual Report

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

Permit Number GSM000058

MS4 General Permit
Town of Chester 2023 Annual Report
Permit Number GSM 000058
January 01, 2023 - December 31, 2023

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

This report documents the Town of Chester's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 01, 2023 to December 31, 2023.

Charlene O. Janecek replaced Lauren S. Gister as First Selectwoman effective January 05, 2022.

John Divis, Highway Foreman was out on disability leave and Bruce Sypher managed the Highway Department

Bruce Sypher, Interim Road Foreman retired and Cameron Evangelista will manage the Highway Department until John Divis, Road Foreman returns from disability leave.

Cynthia Lignar replaced Charlene O. Janecek as First Selectwoman in November 2023.

Cameron Evangelista continued as Interim Road Foreman through 2023.

Cameron Evangelista, Interim Road foreman received a CT Green Snow Pro for Parking Lots and Sidewalks Certificate on December 18, 2023.

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

| BMP | 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 |
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| 1-1 Implement public | 2017 - None 2018 - 2023 | NEMO | Town Website https://www.chesterct.org/town-government/conservation-commission/ | 100s | Public education | Conservation Commission | Additional; public education and outreach |

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| education and outreach | <p>The following links were added to the Conservation Commission webpage:</p> <p>NEMO Program Fact Sheet 2, <i>Nonpoint Source Water Pollution</i></p> <p>Clean Waters Fact Sheet 8, <i>Lawn Care the Environmentally Friendly Way</i></p> <p>Clean Water Fact Sheet 3, <i>Caring for Your Septic System</i></p> <p>Clean Waters Fact Sheet 6, Animal Waste and Water Quality</p> <p><i>Rain Recycling with Rain Barrels</i> prepared by the Connecticut River Coastal Conservation District, Inc.</p> <p><i>Riparian Corridor Plants</i>, prepare by Sea Grant Connecticut</p> <p>A link to the CT DEEP <i>Please Do Not Trash Grass</i> webpage</p> | | and | https://www.chesterct.org/?s=stormwater | | | | materials will be added when appropriate. |
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| | A link to the NEMO Rain Garden webpage | | | | | | |
| | <p>2019</p> <p>The following Conservation Commission Enviro Tips were contained in the Town of Chester Town-wide Email sent out on Friday of most weeks:</p> <p>01/18/19 Accumulation of microplastics in ocean filter feeders (oysters, clams, mussels or scallops).</p> <p>01/25/19 Accumulation of PCBs and DDT in microplastics and human consumption.</p> <p>02/01/19 Benefits of reduced plastics in the environment.</p> <p>02/08/19 Labeling of plastics as degradable and biodegradable when in fact they fragment into microplastics.</p> <p>02/15/19</p> | Conservation Commission | <p>Town Website</p> <p>https://www.chesterct.org/town-government/conservation-commission/</p> | 100s | Public education | Conservation Commission | Additional; public education and outreach materials will be added when appropriate. |

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| | <p>Recommendation to use magnesium chloride as a deicer to minimize environmental effects.</p> <p>04/05/19 The shedding of microplastics by machine washing of synthetic fleece was discussed.</p> <p>09/13/19 Notice that cigarette filters are the biggest source of litter in the U.S. and another example of single use plastic entering waterways.</p> <p>09/20/19 The commission wanted to make the general public aware of "No Dumping" stencils on catch basin heads and to make residents aware that whatever is dumped in the catch basin ends up in the local waterway.</p> <p>11/15/19 The distinction between dirt and soil was explained as soil can be</p> | | | | | | |
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| | converted to dirt ("dead soil") by excessive use of non-organic herbicides, pesticides and fertilizers. | | | | | | |
| | <p>2020</p> <p>The following Conservation Commission Enviro Tips were contained in the Town of Chester Town-wide Email sent out on Friday of most weeks:</p> <p>05/01/20 Tip giving suggestions to use less plastic.</p> <p>05/15/20 Tip to consider your choice when choosing a soft drink relative to single use plastic pollution in the environment.</p> <p>07/03/20 Tip to check floating docks to determine if the plastic foam flotation is enclosed as plastic foam degrades and pollutes waterbodies.</p> <p>09/04/20</p> | Conservation Commission | <p>Town Website</p> <p>https://www.chesterct.org/town-government/conservation-commission/</p> | 100s | Public education | Conservation Commission | Additional; public education and outreach materials will be added when appropriate. |

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| <p>Regional Household Hazardous Waste Collections and Paper Shredding Event was advertised.</p> <p>10/30/20 Tip to the general public that “Drains to Long Island Sound” and “No Dumping” was stenciled on to catch basin heads on Prospect Street, Straits Road, Maple Street, Main Street, North Main Street and Liberty Street and reminding resident that used oil, hazardous materials, dog feces, liquid herbicides, pesticides and other pollutants should not be dumped into catch basins.</p> <p>11/13/20 Conservation Commission Enviro tip regarding leaf management and the recommendation to not blow leaves into the street or</p> | | | | | | | |
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| | <p>down storm drains.</p> <p>11/20/20 Conservation Commission Enviro tip to mulch leaves with the lawn mower and leave them in place on the lawn and flower and vegetable beds.</p> | | | | | | |
| | <p>2020</p> <p>The following were contained in Chester Events Quarterly:</p> <p>Quarter 2 Information on RiverCOG Household Hazardous Waste Collection Dates in 2020</p> <p>Quarter 4 <i>What to do with All Those Leaves</i> recommended composting leaves as opposed to depositing the leaves near a stream or in a wetland</p> | | <p>Town Website</p> <p>https://www.chesterct.org/town-government/conservation-commission/</p> | 100s | Public education | Conservation Commission | Additional; public education and outreach materials will be added when appropriate. |
| | <p>2021</p> <p>The following Conservation Commission Enviro Tips were contained in the</p> | | <p>Town Website</p> <p>https://www.chesterct.org/town-government/conservation-commission/</p> | 100s | Public education | Conservation Commission | Additional; public education and outreach materials will be added |

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| | <p>Town of Chester Town-wide Email sent out on Friday of most weeks:</p> <p>02/26/21 Buy fewer single use plastics, recycle plastic vegetable bags, make an effort to purchase items in glass as opposed to plastic and recycle plastic bags at grocery stores and not recycling containers.</p> <p>03/12/21 Keep wayward balloons out of the water and to recycle plastic grocery bags at grocery stores.</p> <p>03/26/21 Consider using alternatives to single use plastic wrap for food storage.</p> <p>04/15/21 and 04/23/21 Emails that the Chester Land Trust in conjunction with the Town of Chester will conducting a townwide clean up day on Saturday,</p> | | | | | | when appropriate. |
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| | <p>April 24th to pick up litter and other debris from town properties.</p> <p>05/21/21 Reminder to dispose of used pandemic masks and latex gloves responsibly.</p> <p>10/01/21 The 5 cent deposit on miniature bottles of alcohol (nips) effective October 1st will be use by municipalities to reduce townwide litter which the town found that nip bottles constitute a significant portion of.</p> <p>10/08/21 Reminder to residents what items belong in the single stream recycling cans and that organic materials including leaves and yard waste should be composted and not disposed of in trash or recycling bins.</p> <p>10/29/21 Provided residents with a history of</p> | | | | | | |
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| | the development of the recycling triangle and how the symbol identifies items which can be recycled. | | | | | | |
| | <p>2022</p> <p>The following Conservation Commission Enviro Tips were contained in the Town of Chester Town-wide Email sent out on Friday of most weeks:</p> <p>02/25/22 Plastics recycling awareness.</p> <p>08/19/21 Enhance public awareness of the waste associated with single use water bottles and recommended reusing the bottle for Brita filtered water.</p> <p>08/26/22 The Chester Fair was conducted as a Zero Waste event using only materials which can be composted or recycled.</p> <p>09/02/22</p> | | | | | | |

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| | <p>Promoted the use of mesh bags for produce instead of new plastic bags.</p> <p>09/16/22 Promoted the recycling of thin-film plastic.</p> <p>09/23/22 Promoted recycling of electronic devices, batteries, televisions, and fluorescent bulbs</p> <p>09/30/22 Promoted the recycling of glass bottles.</p> <p>10/07/22 Promoted the recycling of used textiles.</p> <p>11/07/22 Promoted recycling clean candy and snack wrappers.</p> <p>11/25/22 Requested that leaves not be blown into streams and waterbodies as decomposition of the leaves will reduce dissolved oxygen levels and cause algal blooms.</p> | | | | | | |
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| | <p>2023</p> <p>The Household Hazardous Waste Brochure was included with the 02/24/23 Townwide Email and continued to be included in later Townwide Emails.</p> <p>The Chester Land Trust and the Town of Chester conducted the 3rd Annual Town-Wide Cleanup on April 22, 2023.</p> <p>11/02/23 Stop the Plastic Roundtable Discussion was held at The Hive.</p> | | | | | | |
| 1-2 Address public education and outreach for pollutants of concern | <p>The following were added to the Conservation Commission webpage:</p> <p>NEMO Program Fact Sheet 2, <i>Nonpoint Source Water Pollution</i></p> <p>Clean Waters Fact Sheet 8, <i>Lawn Care the</i></p> | NEMO | <p>Town Website</p> <p>https://www.chesterct.org/town-government/conservation-commission/</p> <p>and</p> <p>https://www.chesterct.org/?s=stormwater</p> | 100s | Public education | Conservation Commission | Additional; public education and outreach materials will be added when appropriate. |

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| | <p><i>Environmentally Friendly Way</i></p> <p>Clean Water Fact Sheet 3, <i>Caring for Your Septic System</i></p> <p>Clean Waters Fact Sheet 6, Animal Waste and Water Quality</p> | | | | | | |
| | <p>2022-2023 The following were contained in the Conservation Commission section of the town website.</p> <p>Composting including CT DEEP Composting Brochure, CT DEEP Overview of Composting and UConn Composting Brochure.</p> <p>Protecting Chester's Water Resources and Water Quality including Nonpoint Source Pollution, Managing Your Lawn, Caring for your Septic System, Managing Animal Waste, Recycling Rainwater with a Rain Barrel, Riparian Buffers, Don't Trash Grass</p> | | <p>Town Website</p> <p>https://www.chesterct.org/town-government/conservation-commission/</p> | | | | |

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| | and Build a Rain Garden | | | | | | |
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1.2 Describe any Public Education and Outreach activities planned for the next year, if applicable.

It is anticipated that the Conservation Commission will continue to include Enviro tips in the weekly town Email every Friday throughout 2022.

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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 | None | Compliance 2017 A hard copy of the Draft 2017 Stormwater Management Plan (SMP) was made available to the public for review and comment on the town website. | Lauren Gister, First Selectwoman, Board of Selectmen | April 03, 2017 | https://www.chesterct.org/?s=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 made available for public review and comment. | Substantial Compliance | Lauren Gister, First Selectwoman, Board of Selectmen | March 2018 | https://www.chesterct.org/?s=stormwater | No public comments were received by the Office of the First Selectwoman |
| | Complete | 2019 The Draft 2018 MS4 Annual Report was made available for public review and comment. | Substantial Compliance | Lauren Gister, First Selectwoman, Board of Selectmen | February 28, 2019 | https://www.chesterct.org/?s=stormwater | No public comments were received by the Office of the First Selectwoman |
| | Complete | 2020 The Draft 2019 MS4 Annual Report was made available for public review and comment. | Substantial Compliance | Lauren Gister, First Selectwoman, Board of Selectmen | May 01, 2020 | https://www.chesterct.org/?s=stormwater | No public comments were received by the Office of the First Selectwoman |

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| | Complete | 2021 The Draft 2020 MS4 Annual Report was made available for public review and comment. | Substantial Compliance | Lauren Gister, First Selectwoman, Board of Selectmen | March 26, 2021 | https://www.chesterct.org/?s=stormwater | No public comments were received by Wade M. Thomas of Nathan L. Jacobson & Associates, Inc. |
| | Complete | 2022 Posting of 2021 Draft MS4 Annual Report for public review and comment. | Substantial Compliance | Charlene Janecek, First Selectwoman, Board of Selectmen | March 30, 2022 | https://www.chesterct.org/?s=stormwater | No public comments were received by Wade M. Thomas of Nathan L. Jacobson & Associates, Inc. |
| | In Progress | 2023 Posting of 2022 Draft MS4 Annual Report for public review and comment. | Compliance | Charlene Janecek, First Selectwoman, Board of Selectmen | February 14, 2023 | https://www.chesterct.org/?s=stormwater | No public comments were received by Wade M. Thomas of Nathan L. Jacobson & Associates, Inc. |
| | In Progress | 2024 Posting of 2023 Draft MS4 Annual Report for public review and comment. | Compliance | Cynthia Lignar, First Selectwoman, Board of Selectmen | March 20, 2023 | https://www.chesterct.org/?s=stormwater | Public comments are to be sent to Wade M. Thomas of Nathan L. Jacobson & Associates, Inc. |
| | Complete | The Household Hazardous Waste Dropoff Schedule was published in Chester Events magazine a quarterly print magazine. | Public Notice and Involvement | Lauren Gister, First Selectwoman, Board of Selectmen and Charlene Janecek, First Selectwoman, Board of Selectmen | Annually 2018 - Quarter 2 2019 - Quarter 2 2020 - Quarter 2 2021 - Quarter 2 | Magazine Hard Copy | |
| | Complete | An announcement indicating that Chester joined the | Public Notice | CRAHD | 2018 - Quarter 4 | Not Applicable | |

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| | | CT River Area Health District (CRAHD) was contained in Chester Events magazine a quarterly print magazine. | | | | | |
| | Complete | 2019 Chester/Deep River Boy Scout Troop 13 conducted a Clean Up Campout on Selden's Island. | Public Involvement | Boy Scout Leader | May 2019 | Not Applicable | |
| | Complete | 2021 The Chester Land Trust in conjunction with the Town of Chester will conducting a townwide clean up day to pick up litter and other debris from town properties. | Public Involvement | Town Residents | April 24, 2021 | Not Applicable | |

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

2024 - Consider forming a Stormwater Management Plan Committee and holding semi-annual stormwater committee meetings to review the 2017 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 | Department / Person Responsible | Date completed or projected completion date (include the start date for anything that is 'in progress') | Additional details |
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| 3-1 Develop written IDDE program (Due 7/1/19) | In progress | Town is in process of completing written IDDE program using the CT IDDE program template | Develop written plan of IDDE program | Nathan L. Jacobson & Associates, Inc., Town Engineers and Board of Selectmen | Anticipate completing by July 01, 2024. | The Department of Public Works will most likely be the listed contact. |
| 3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 07/01/20) | In Progress | Working to completion | MS4 stormwater outfall mapping was conducted in the Urbanized Area in 2005. The stormwater outfall mapping was compiled on a ESRI GIS layer. The MS4 stormwater outfall mapping will be updated to include impaired waters as contained in the State of Connecticut, Department of | Nathan L. Jacobson & Associates, Inc., Town Engineers | Completed July 01, 2020. | |

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| | | | Energy and Environmental Protection 2020 Integrated Water Quality Report. The stormwater outfalls in the impaired waters will be identified. The MS4 stormwater outfall mapping was completed town wide in 2018. | | | |
| 3-3 Implement citizen reporting program (Ongoing) | In Progress | Working to completion | 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 be the contact to accept citizen reporting of suspected illicit discharges. | Nathan L. Jacobson & Associates, Inc., Town Engineers | Anticipate completing by July 01, 2024. | |
| 3-4 Establish legal authority to prohibit illicit discharges (Due 07/01/19) | Complete | Ordinance Adoption | Adoption of the IDDE Ordinance and amended the Citation Hearing | Lauren Gister, First Selectwoman, Board of Selectmen | Adopted February 07, 2019 | |

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| | | | Procedure at the Special Town Meeting of February 07, 2019 | | | |
| 3-5 Develop record keeping system for IDDE tracking (Due 07/01/17) | In Progress | 2017 through 2023 - None | Develop Microsoft Excel spreadsheets for IDDE Tracking | Board of Selectmen and Nathan L. Jacobson & Associates, Inc., Town Engineer | Anticipate completing by July 01, 2024. | |
| 3-6 Address IDDE in areas with pollutants of concern | In Progress | 2017 through 2023 - None | | Board of Selectmen and Nathan L. Jacobson & Associates, Inc., Town Engineer | Anticipate completing by July 01, 2024. | |
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3.2 Describe any IDDE activities planned for the next year, if applicable.

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) |
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2017-2023 - There have been no Sanitary Sewer Overflows (SSOs) in Chester.

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 |
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| 2017 - No failing septic systems were a source of an illicit discharge to the Town of Chester MS4. | | | | |
| 2018 - No failing septic systems were a source of an illicit discharge to the Town of Chester MS4. | | | | |
| 2019 - No failing septic systems were a source of an illicit discharge to the Town of Chester MS4. | | | | |
| 2019 64 Cedar Lake Road | Septic Tank and Leaching System Repairs | Modify septic tank and install a new leaching system | | Connecticut River Area Health District (CRAHD) |
| 2020 - The following subsurface sewage disposal repairs were conducted: No failing septic systems were a source of an illicit discharge to the Town of Chester MS4. | 72 Railroad Avenue 226-8 Middlesex Avenue 38 Railroad Avenue 14 Hazen Street 27 Winthrop Road 24 Old Depot Road 3 Bates Lane 16 Ridge Road 35 Middlesex Avenue 3 Lake View Avenue 5 Lake View Avenue 17 Cedar Lake Road 14 Straits Road 36 Bokum Road | Septic Tank and Leaching System Repairs Pipe Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Leaching System Repair Septic Tank Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Leaching System Repair Leaching System Repair Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank Repair | 4000-00-6+R45 4000-58-1 4018-00-2-R1 4017-00-2-R1 4017-01-2-R1 4018-00-2-R1 4017-04-1 4017-03-1-L5 4018-00-2-R1 4017-03-1-L4 4017-03-1-L4 4017-03-1-L4 4017-03-1-L5 4018-00-2-L6 | Connecticut River Area Health District (CRAHD) |

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| <p>2021 - The following subsurface sewage disposal repairs were conducted:</p> <p>No failing septic systems were a source of an illicit discharge to the Town of Chester MS4.</p> | <p>44 Bokum Road 18 Straits Road 3 Story Hill Road 5 Waterhouse Lane 25 East Liberty Street 45 Maple Street 8 Prospect Street 18 Pleasant Street 26 Bokum Road 81 Turkey Hill Road 7 Castle View Drive 15 Sunset Avenue 289 Middlesex Turnpike 28 Old Depot Road 254 West Main Street 22 East Liberty Street</p> | <p>Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Pipe and Distribution Box Repairs Pipe Repairs Septic Tank and Leaching System Repairs Distribution Box and Pipe Repairs Septic Tank and Leaching System Repairs Septic Tank Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs WTW Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Leaching System Repairs Leaching System Repairs Septic Tank Repairs</p> | <p>4018-00-2-L6 4017-03-1-L5 4017-04-1 4017-00-2-R1 4017-00-2-R1 4017-00-2-R1 4017-03-1-L5 4017-03-1-L5 4017-03-1-L5 4017-04-1-L2 4000-58-1 4017-03-1-L5 4017-00-2-R1 4018-00-2-R1 4017-01-1 4017-00-2-R1</p> | <p>Connecticut River Area Health District (CRAHD)</p> |
| <p>2022 - The following subsurface sewage disposal repairs were conducted:</p> <p>No failing septic systems were a source of an illicit discharge to the Town of Chester MS4.</p> | <p>5 Meadow Lane 81 Turkey Hill Road 65 Goose Hill 56 Goose Hill 9 Railroad Avenue 3 Brookside Road 7 Lakeview Avenue 32 Straits Road 3 Turkey Hill Road 119 Main Street 15 South Wig Hill Road 15 South Wig Hill Road 7 Meadow Lane 23 Old Depot Road 126 Middlesex Avenue 96 Middlesex Avenue 66 Cedar Lake Road 66 Cedar Lake Road 223 West Main Street 54 Bokum Road 671-1 Wig Hill Road</p> | <p>Septic Tank Repairs Distribution Box Repairs Septic Tank Repairs Septic Tank Repairs Septic Tank Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Distribution Box Repairs Line and Riser Repairs Septic Tank and Leaching System Repairs WTW Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Distribution Box Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs WTW Septic Tank and Leaching System Repairs Distribution Box and Pipe Repairs Distribution Box Repairs</p> | <p>4000-58-1 4017-04-1-L2 4000-57-1/4000-58-1 4000-58-1 4018-00-2-R1/4017-00-2-R1 4017-03-1-L4 4017-03-1-L4 4017-03-1-L5 4017-04-1-L2 4017-00-2-R1 4017-03-1-L5 4017-03-1-L5 4000-58-1 4018-00-2-R1 4017-00-2-R1 4017-00-2-R1 4017-03-1-L4 4017-03-1-L4 4017-01-2-R1 4018-00-2-L6 4017-03-1-L5</p> | <p>Connecticut River Area Health District (CRAHD)</p> |
| <p>2023 - The following subsurface sewage disposal repairs were conducted:</p> <p>No failing septic systems were a source</p> | <p>68 Wig Hill Road 42 Railroad Avenue 5 Waterhouse Lane 36 Turkey Hill Road 67 West Main Street 24 Ridge Road 54 Castle View Drive</p> | <p>Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank and Leaching System Repairs Septic Tank Repairs Septic Tank and Leaching System Repairs Septic Tank Repairs</p> | <p>4017-03-1-L5 4017-00-2-R1 4000-57-1 4017-04-1-L2 4017-03-1-L5 4017-04-1 4000-57-2-R1</p> | <p>Connecticut River Area Health District (CRAHD)</p> |

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| of an illicit discharge to the Town of Chester MS4. | 66 Winthrop Road 8 School Lane 19 Parkers Point Road 37 Castle View Drive 7 Johnson Road 7 Pine Knoll 62 Spring Street 54 Straits Road 28 Deep Hollow Road 6 Middlesex Avenue 21 Castle View Drive 17 Prospect Street | Septic Tank and Leaching System Repairs Septic Tank and Distribution Box Repairs Leaching System Repairs Septic Tank Repairs Septic Tank and Leaching System Repairs Outlet Pipe Repairs Outlet Pipe Repairs Effluent Pipe Repairs Septic Tank and Leaching System Repairs Septic Tank Repairs Septic Tank and Leaching System Repairs New Septic Tank | 4017-01-1 4017-00-2-R1 4000-00-6+R42 4000-00-6+R42 4017-04-1 4017-03-1-L5 4017-03-1-L5 4018-00-2-L8 4017-04-1 4018-00-2-R1 4000-00-6+R42 4017-03-1-L5 | |
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3.5 Briefly describe the method and effectiveness of said method used to track illicit discharge reports.

The method and effectiveness of the illicit discharge tracking system will be reviewed in the 2024 MS4 Annual Report after development and implementation.

3.6 IDDE reporting metrics

| Metrics | |
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| Estimated or actual number of MS4 outfalls | To Be Determined |
| Estimated or actual number of interconnections | To Be Determined |
| Outfall mapping complete | 95% |
| Interconnection mapping complete | 95% |
| System-wide mapping complete (detailed MS4 infrastructure) | 95% |
| 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 | 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.

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 | 2017 through 2023 - In place | Compliance | Board of Selectmen and Land Use Commission Members | July 01, 2017 | It is anticipated that UConn CLEAR or a Regional Planning Agency will develop template guidelines for use by all MS4 municipalities. |
| 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 | Land Use Commission Members | July 01, 2017 | 2017 through 2021 No significant land use applications were received. |
| 4-3 Review site plans for stormwater quality concerns (Ongoing) | Ongoing | Nathan L. Jacobson & Associates, Inc., Town Engineer, encourages the use of LID BMPs as contained in the 2004 Connecticut Stormwater Quality Manual. | Compliance | Nathan L. Jacobson & Associates, Inc., Town Engineer | July 01, 2017 | 2017 through 2023 No significant land use applications were received. |
| 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 | Nathan L. Jacobson & Associates, Inc., Town Engineer | July 01, 2017 | 2017 through 2023 No significant land use applications were received. |

| | | | | | | |
|--|-------------|---|----------------------------|--|---------------|--|
| 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 and the Planning & Zoning Commission during the Public Hearing Process when applicable. | Compliance when applicable | Land Use Department | July 01, 2017 | 2017 through 2023 No significant land use applications were received. |
| 4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing) | Ongoing | Since the inception of the MS4 program Nathan L. Jacobson & Associates, Inc., Town Engineer, has made developers and engineers aware of the need to register for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities in engineering review letters which are typically prepared as part of the land use application process. | Compliance | Land Use Department and 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 management compliance requirements | Compliance | Land Use Department and Nathan L. Jacobson & Associates, Inc., Town Engineer | July 01, 2018 | Ensure compliance with stormwater regulations |

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

2017 through 2023 - No significant land use applications were received. No significant land use applications are anticipated in 2022.

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) | Ongoing | The current land use regulations encourage the utilization of LID and Green Infrastructure. | The land use regulations will be revised to incorporate the requirements contained in Minimum Control Measure No. 5 - Post-Construction Runoff Control. | Board of Selectmen and Town Land Use Attorney | | |
| 5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 07/01/22) | Ongoing | 2004 through 2023 Nathan L. Jacobson & Associates, Inc., Town Engineer, encourages the use of LID BMPs as contained in the 2004 Connecticut Stormwater Quality Manual. 2024 Nathan L. Jacobson & Associates, Inc. will encourage the use of LID BMPs as contained in the 2023 Connecticut Stormwater Quality Manual. | Nathan L. Jacobson & Associates, Inc., Town Engineer, encourages the use of LID BMPs as contained in the 2023 Connecticut Stormwater Quality Manual. | Land Use Department and Nathan L. Jacobson & Associates, Inc., Town Engineer | July 01, 2017 | |

| | | | | | | |
|---|-------------|--|--|---|---|--|
| 5-3 Identify retention and detention ponds in priority areas (Due 07/01/20) | In Progress | Retention Ponds, Detention Ponds and Hydrodynamic Separators will be inventoried. A GIS Map Layer will be created after the inventory. Part of the inventory process will be facility maintenance requirements. | Retention Ponds, Detention Ponds and Hydrodynamic Separators will be inventoried. A GIS Map Layer will be created after the inventory. Part of the inventory process will be facility maintenance requirements. | Nathan L. Jacobson & Associates, Inc., Town Engineer | Anticipated Completion Date: December 31, 2024. | |
| 5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing) | In Progress | Implementation of the Post-Construction Stormwater Management Facility Operation & Maintenance Plan Manual is anticipated to begin in 2022. | A Post-Construction Stormwater Management Facility Operation & Maintenance Plan Manual was prepared. | John Divis, Road Foreman, Department of Public Works and Nathan L. Jacobson & Associates, Inc., Town Engineer | Anticipated initiating by December 31, 2024. | |
| 5-5 DCIA mapping (Due 07/01/20) | Complete | Completed the process of DCIA Mapping from base mapping prepared by UConn CLEAR. | Compliance | Nathan L. Jacobson & Associates, Inc., Town Engineer | 2018 and revised in 2019. | |
| 5-6 Address post-construction issues in areas with pollutants of concern | In Process | | | Nathan L. Jacobson & Associates, Inc., Town Engineer | | |
| | | | | | | |

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 will continue to be implemented in 2024.

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) | 11.89 acres 2% Reduction = 0.238 Acre |
| DCIA disconnected (redevelopment plus retrofits) | 2012 through 2016 - 0 acres 2017 through 2022 - 0 acres total |
| Retrofit projects completed | Main Street Reconstruction A Hydrodynamic Separator was installed as part of the project which reduced sediment loads to Pattaconk Brook. |
| DCIA disconnected | 2012 through 2016 - 0% 2017 through 2022 - 0% |
| Estimated cost of retrofits | \$39,000 - Hydrodynamic Separator |
| Detention or retention ponds identified | 2022 - 5 Detention Ponds |

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

Based on information contained in the Factsheet: *Town of Chester Water Quality and Stormwater Summary*, prepared by the CT DEEP, 633.67 acres of the town has an impervious area exceeding 12% which is approximately 5.90% of the town. 185.65 acres have an impervious cover of ranging from 12% to 25%, 289.68 acres have an impervious cover ranging from 26% to 50%, 121.65 acres have an impervious cover ranging from 51% to 75% and 36.69 acres have an impervious cover ranging from 76% to 100%.

Based on information contained in the MS4 mapping tab of Connecticut Environmental Conditions Online (CT ECO) The impervious surface area consists of 105.95 acres of buildings, 182.31 acres of roads and 221.28 acres of other impervious surfaces for a total impervious surface area of 509.54 acres.

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, *2018 Integrated Water Quality Report*, dated August 01, 2019, *2020 Integrated Water Quality Report*, dated October 15, 2022 and *2022 Integrated Water Quality Report*, dated September 26, 2022 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 CT DOT 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 CT DOT state highway, parking lot and facility impervious road areas were then determined for each CT DEEP drainage basin.

The CT DOT 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 $DCIA\% = 0.01 \cdot (IA\%)^{2.0}$

For an impervious area between 6% and 12 %:

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

For an impervious area between 12% and 18 %:

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

For an impervious area of greater than 18 %:

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

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.

DRAFT

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 and implement formal employee training program (Ongoing) | In Progress | 2017 through 2022 – None 2023 Cameron Evangelista, Interim Road Foreman participated in employee training. | | John Divis, Road Foreman, Department of Public Works and Board of Selectmen | | It is anticipated that formal employee training will be conducted in 2024. |
| 6-2 Implement MS4 property and operations maintenance (Ongoing) | Ongoing | Continue to maintain town owned equipment and properties in an environmentally responsible manner. | Reduction in environmental degradation. | John Divis, Road Foreman, Department of Public Works | July 01, 2017 | |
| 6-3 Implement coordination with interconnected MS4s | Ongoing | The Town of Chester continued to coordinate MS4 responsibilities with the Towns of Haddam, Killingworth and Deep River | Compliance | John Divis, Road Foreman, Department of Public Works | July 01, 2017 | |
| 6-4 Develop and implement program to control other sources of pollutants to the MS4 | In Progress | None | Not Applicable | Board of Selectmen and Nathan L. Jacobson & Associates, Inc., Town Engineer | Anticipated to be developed in 2024. | |
| 6-5 Evaluate additional measures for discharges to impaired waters* | In Progress | None | Not Applicable | Board of Selectmen and Nathan L. Jacobson & Associates, Inc., Town Engineer | Anticipated to be developed in 2024. | |

| | | | | | | |
|--|-------------|--|--|---|--|--|
| 6-6 Track projects that disconnect DCIA (Ongoing) | Ongoing | 2017 through 2023 - None Projects approved to date consists predominantly of new single family homes on approved lots. | Compliance | Nathan L. Jacobson & Associates, Inc., Town Engineer | Will be tracked whenever possible. No large projects which could result in DCIA disconnection have been constructed. | |
| 6-7 Implement infrastructure repair/rehab program (Due 07/01/21) | In Progress | 2017 through 2023 - None | Working to compliance in 2024 | John Divis, Road Foreman, Department of Public Works | Anticipated to be developed in 2024. | |
| 6-8 Develop and implement plan to identify/prioritize retrofit projects (Due 07/01/20) | In Progress | 2017 through 2023 - None | Working to compliance in 2024 | Nathan L. Jacobson & Associates, Inc., Town Engineer and John Divis, Road Foreman, Department of Public Works | Anticipated to be developed in 2024. | |
| 6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 07/01/22) | In Progress | 2017 through 2023 - None Projects approved to date consists predominantly of new single family homes on approved lots. DCIA disconnection opportunities are rare. | Will be implemented when applicable projects are reviewed. | John Divis, Road Foreman, Department of Public Works and Nathan L. Jacobson & Associates, Inc., Town Engineer And | | |
| 6-10 Develop and implement street sweeping program (Ongoing) | Ongoing | The Town of Chester currently implements a street sweeping program that conforms to CT DEEP guidance. | Compliance | John Divis, Road Foreman, Department of Public Works | July 01, 2017 | |
| 6-11 Develop and implement catch basin cleaning program (Ongoing) | Ongoing | The Town of Chester currently implements a catch basin cleaning program that conforms to CT DEEP guidance. | Compliance | John Divis, Road Foreman, Department of Public Works | July 01, 2017 | |

| | | | | | | |
|--|-------------|---|--|--|-------------------|--|
| 6-12 Develop and implement snow management practices (Due 07/01/18) | Ongoing | The Town of Chester currently implements snow management practices that conforms to CT DEEP guidance. | Compliance | John Divis, Road Foreman, Department of Public Works | July 01, 2017 | |
| 6-13 Map & Inventory highly erosive areas in town road right-of-ways | Not started | 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 waterbodies | John Divis, Road Foreman, Department of Public Works | December 01, 2023 | Reduce sedimentation of waterways near town ROWs |

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

It is anticipated that all town roads will be swept at least one time and all catch basins and headwalls will be vactored in 2024.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

| Metrics | |
|--|--|
| Employee training provided for key staff | <p>2017 through 2022 - No Employee Training Conducted</p> <p>2023 - Cameron Evangelista, Interim Road Foreman, indicated training will be provided by CIRMA, JJ Keller or the UConn Technology Transfer Program</p> <p>Cameron Evangelista obtained CT Green Snow Pro Best Practices for Municipalities training at the Connecticut Training and Technical Assistance Center (T2 Center)</p> |
| Street sweeping | |
| Curb miles swept | <p>31.01 miles</p> <p>Downtown street and parking lots are swept monthly from May to October</p> |
| Volume (or mass) of material collected | <p>2017 - Not Measured</p> <p>2018 - 180-200 C.Y.</p> <p>2019 - 165± C.Y.</p> <p>2020 - 190± C.Y.</p> <p>2021 - 170± C.Y.</p> <p>2022 - 210± C.Y.</p> <p>2023 - 180± C.Y.</p> |
| 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-wide | 500± |

| | |
|--|--|
| Catch basins inspected | 2017 through 2023 - 500± (All Catch Basins) and 100+ Headwalls |
| Catch basins cleaned | 2017 through 2023 - 500± (All Catch Basins) and 100+ Headwalls |
| Volume (or mass) of material removed from all catch basins | 2017 - Not Measured 2018 - 300 to 350 C.Y. 2019 - 355± C.Y. 2020 - 250± C.Y. 2021 - 350± C.Y. to 400± C.Y. 2022 - 350± C.Y. to 400± C.Y. 2023 - 220± C.Y. to 280± C.Y. |
| Volume removed from catch basins to impaired waters (if known) | 2017 - Not Measured 2018 - Not Measured 2019 - Not Measured 2020 - Not Measured 2021 - Not Measured 2022 - Not Measured 2023 - Not Measured 2024 - Will be estimated |
| Snow management | |
| Type(s) of deicing material used | Deicing Mix 2017 through 2021 Majority of Town - 4 Parts Sand to 1 Part NaCl Salt 2022 Majority of Town - 2 Parts Sand to 1 Part NaCl Salt 2023 Majority of Town - 3 Parts Sand to 1 Part NaCl Salt 2017 through 2023 Downtown Area - Ice B'Gone Pretreated NaCl |
| Total amount of each deicing material applied | Winter 2017 to 2018 - Not Determined Winter 2018 to 2019 - Not Determined Winter 2019 to 2020 - Not Determined Winter 2020 to 2021 - 700± C.Y. to 850± C.Y. Winter 2021 to 2022 - 700± C.Y. to 850± C.Y. Winter 2022 to 2023 - 358± C.Y. Winter 2023 to 2024 - 360± C.Y. to 02/13/23 |
| Type(s) of deicing equipment used | Two Large Snow Plow/Spreaders One Medium Snow Plow/Spreader Three Small Snow Plow/Spreaders All Spreaders are manually controlled at an estimated application rate 150-200 pounds per lane (curb) mile at the beginning of the plowing season. |
| Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane) | 2017 through 2023 - 62.02 Lane-Miles |
| Snow disposal location | Roadside |
| Staff training provided on application methods & equipment | 2017 through 2023 - None |

| | |
|--|---------|
| Municipal turf management program actions (for permittee properties in basins with N/P impairments) | |
| Reduction in application of fertilizers (since start of permit) | 0% |
| 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 500 catch basins and more than 100 headwalls in the Town of Chester. All catch basins and headwalls were cleaned from 2017 through 2023. Consequently, no updates or modifications are required.

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. The retrofit program will be prioritized based on setback distance from watercourse and/or waterbodies.

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)

Based on the 2012 Baseline DCIA mapping, which was completed in February 2019, the 2012 Baseline DCIA was determined to be 11.89 acres. To meet the CT DEEP goal of a 2% DCIA disconnect by 2022 will require disconnection of 0.238 acre of DCIA.

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, 2023.

A downtown sidewalk project was designed in 2019 for the 2020 construction season. The design incorporated a hydrodynamic separator which will result in reduction of sediment and pollutant loads from a direct discharge to Pattaconk Brook.

The Town of Chester is a small rural town with limited opportunities for DCIA disconnection both municipal and private. Consequently, DCIA disconnection will most likely be accomplished by small reconstruction projects. The town intends to implement DCIA Disconnection whenever possible.

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 ☐

The Connecticut River is the only impaired water in Chester

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 2023 - No impaired water investigations or monitoring was conducted.

2024 - Town-wide MS4 stormwater outfall mapping was completed in 2018. All MS4 stormwater outfalls that were field located and discharge directly to the Connecticut River within the limits of the impaired waters of the Connecticut River (northern portion of Chester) will be sampled.

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? * |
|------------|--------------------------|-------------|---|---------------|---|-----------------------|
| I-1 | N 41.40717 E 72.43158 | 12/07/04 | E. coli (#/100 ml) | >60 | Phoenix Environmental Laboratories, Inc. (PELI) | |
| I-1 | N 41.40717 E 72.43158 | 11/30/05 | E. coli | 140 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 12/01/06 | E. coli | 360 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 09/11/07 | E. coli | 360 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 06/09/09 | E coli | 14,140 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 10/07/09 | E coli | 14,140 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 11/04/10 | E coli | 2,720 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 10/19/11 | E coli | 590 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 11/13/12 | E coli | 7,700 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 12/23/13 | E coli | 3,450 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 08/13/14 | E coli | 13,000 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 08/11/15 | E coli | 13,000 | PELI | |
| I-1 | N 41.40717 E 72.43158 | 11/15/16 | E coli | 504 | PELI | |
| | | | | | | |

2017 through 2023 - No impaired waters outfall screening was conducted.

2024 - It is anticipated that impaired waters outfall screening will be conducted.

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) | <ul style="list-style-type: none"> • E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others • Total Coliform > 500 col/100ml |
| Bacteria (salt waterbody) | <ul style="list-style-type: none"> • 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 |

Follow up investigation and sampling will be conducted based screening results and analyses.

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 |
|------------|---------------------------------------|---------------------------------------|
| | | |
| | | |
| | | |

2024 - Follow up investigations will be conducted after the initial rounds of screening and sampling.

DRAFT

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.

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

2017 through 2023 - No prioritized outfall screening or sampling was conducted.

2024 - It is anticipated that prioritized outfall screening or sampling will be conducted.

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 |
|---|-------------|---------|
| 4017-01-2-R1 15.8% Imp. 14.2% Imp. | | 1 |
| 4017-00-2-R1 11.8% Imp. 10.5% Imp. | | 2 |
| 4000-57-2-R1 11.9% Imp. 10.0% Imp. | | 3 |
| 4017-03-1* 20.9% Imp. 18.8% Imp. | | 4 |
| | | |

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 2023 - No dry weather outfall screening or dry weather outfall sampling was conducted.

2024 - It is anticipated that dry weather outfall screening and dry weather outfall sampling, where appropriate, will be conducted.

2.2 Wet Weather Inspection and Sample 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 or Interconnection ID | Latitude & Longitude | Sample Date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or Enterococcus | Surfactants | Water Temp | Pollutant of Concern |
|-------------------------------|----------------------|-------------|---------|----------|--------------|----------|-------------------------|-------------|------------|----------------------|
| | | | | | | | | | | |
| | | | | | | | | | | |

2017 through 2023 - No wet weather outfall screening or dry weather outfall sampling was conducted.

2024 - It is anticipated that wet weather outfall screening and wet weather outfall sampling, where appropriate, will be conducted.

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 than poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).

3.2 Key Junction Manhole Dry Weather Screening and Sampling Data

| Key Junction Manhole ID | Latitude & Longitude | Screening Sample Date | Visual/Olfactory Evidence of Illicit Discharge | Ammonia | Chlorine | Surfactants |
|-------------------------|----------------------|-----------------------|--|---------|----------|-------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |

2017 through 2023 - No junction manhole dry weather outfall screening or dry weather outfall sampling was conducted.

2024 - It is anticipated that junction manhole dry weather outfall screening and dry weather outfall sampling, where appropriate, will be conducted

3.3 Wet Weather Investigation Outfall Sampling Data

| Outfall ID | Latitude & Longitude | Sample Date | Ammonia | Chlorine | Surfactants |
|------------|----------------------|-------------|---------|----------|-------------|
| | | | | | |
| | | | | | |

2017 through 2023 - No wet weather outfall screening or wet weather outfall sampling was conducted.

2024 - It is anticipated that wet weather outfall screening and wet weather outfall 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 |
|--------------------|-----------------|-----------------------|---------------------|-------------------|---------------------|----------------------------------|----------------------------------|
| | | | | | | | |
| | | | | | | | |

2017 through 2023 - No illicit discharges have been identified.

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: Cynthia Lignar, First Selectwoman | Print Name: Wade M. Thomas, CPESC, CPSWQ, CPMSM |
| Signature: | Signature: |
| Date: May , 2024 | Date: May , 2024 |
| Email: firstselectman@chesterct.org | Email: wthomas@nlja.com |