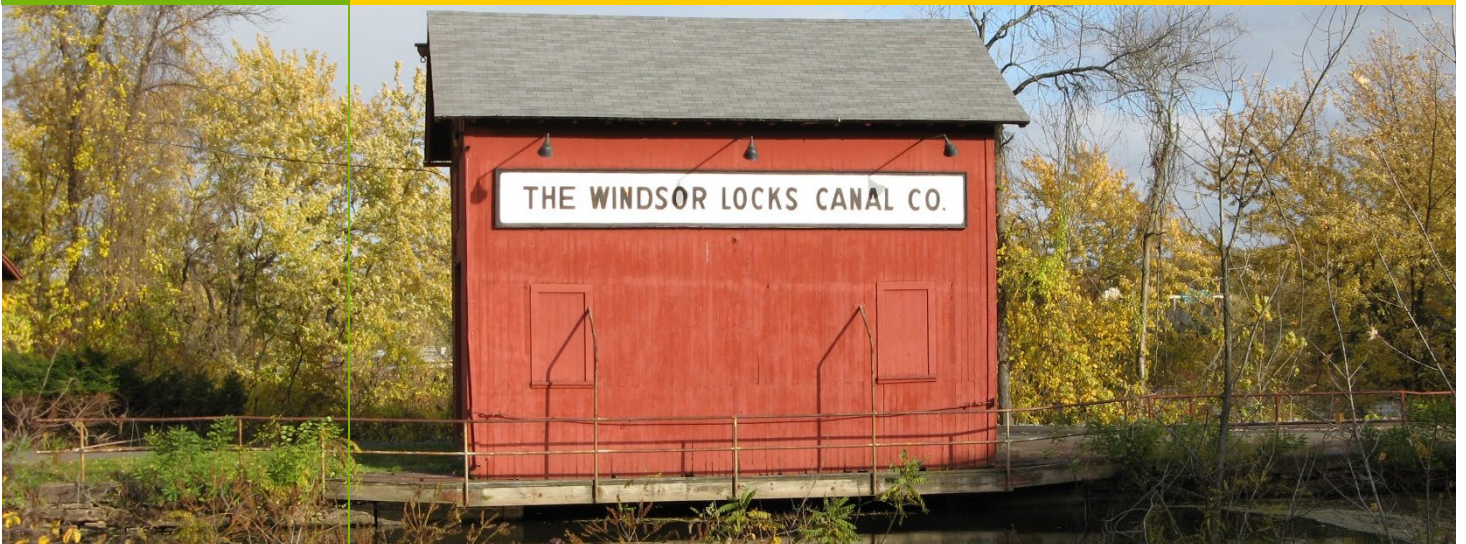




MS4 Annual Report - 2020

Town of Windsor Locks, Connecticut
Permit # GSM 000010



PREPARED FOR

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INTRODUCTION

This report documents the Town of Windsor Locks' efforts to comply with the conditions of the *General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems* (the General Permit) to the maximum extent practicable (MEP) from January 1, 2020 to December 31, 2020. The report is structured to address each minimum control measure (MCM) required by the General Permit, including the following:

- Public Education and Outreach*
- Public Involvement and Participation*
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-construction Stormwater Management
- Pollution Prevention and Good Housekeeping

*Due to the COVID-19 pandemic, public outreach and public involvement activities were more limited than planned in 2020. The Town of Windsor Locks is striving to continue to carry out its mission and provide services to the greatest extent practicable while keeping both the public and our workforce safe.



PART I: SUMMARY OF MINIMUM CONTROL MEASURE ACTIVITIES

Public Education and Outreach

A summary of the Town’s progress under this MCM is presented in the following tables:

Table 1.1 Public Education and Outreach BMP Summary

| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|--|---------|--|---|---------------------------------|-------------|---|--|
| 1-1 Implement Public Education and Outreach | Ongoing | <p>Public Works hosts a stormwater webpage that provides information specific to the MS4, as well as links to key external stormwater resources.</p> <p>Informational stormwater posters are located in public offices that are responsible for issuing permits or are otherwise involved in stormwater pollution prevention.</p> <p>A bulletin board specific to stormwater management with helpful tips, facts, and the local hotline/reporting process has been placed at Town Hall.</p> <p>A public information meeting was held on Tuesday, September 22, 2020 to review findings from the Stream Flooding & Sedimentation Evaluation Study.</p> <p>Windsor Locks partnered with UConn Stormwater Corps in November and December 2020 to identify areas of disconnect at Town and Windsor Locks Public School (WLPS) properties. Those findings were presented to staff and land use boards/commission members.</p> | Public education program is implemented and tracked | Department of Public Works | Jul 1, 2018 | Jul 1, 2017 (Ongoing) | The webpage is currently housed at the following web address: https://www.windsorlocksct.org/public-works/stormwater-management |



| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|---|---------|---|--|---------------------------------|-------------|---|---|
| | | <p>The Town Planner and local landscape architect met with High School Science Class to add greenery, native plantings, and reduce impervious surface in the school's courtyard. Project to be completed in 2021.</p> <p>Outreach to Board of Finance - Funding was secured to implement storm water measures during road rehabilitation.</p> | | | | | |
| 1-2 Address Education/ Outreach for Pollutants of Concern | Ongoing | Maintained a link to educational materials on the Town's stormwater webpage. (see BMP 1-1) | Educational materials on pollutants of concern are distributed and/or posted | Department of Public Works | Jul 1, 2018 | Jul 1, 2017 (Ongoing) | https://nemo.uconn.edu/ms4/implementation/public-education.htm |
| 1-3 Inspection and Maintenance of Watercourse Signage | Ongoing | Signage inspected for conformance and visibility. Inspection and maintenance records tracked. | Inspections and maintenance of signage are completed and tracked | Department of Public Works | Jul 1, 2017 | Jul 1, 2017 (Ongoing) | Visual inspections are part of the routine as PW employees travel routes across Town. Additionally, the Highway Foreman makes routine specific inspections at a minimum of four times per year. |

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

The Town of Windsor will continue ongoing public education and outreach activities. The Town is now a Bronze-Level Certified Sustainable CT community (awarded in 2020); through the pursuit of the accreditation there are overlapping educational components that will continue to strengthen the outreach efforts. This year we will continue working with the high school honors science class in planning, designing, and constructing one green infrastructure project at the school. On 1/28/2021, the Town of Windsor and The Nature Conservancy hosted a Community Resiliency Building workshop with 12 local stakeholders, residents, businesses, and local organizations to develop priority community resiliency action items. WLPS and Town Planner have engaged GreenSkills of New Haven



regarding creating a “green jobs” landscaping training program in 2021 for local high school students and graduates. We also had a seminar scheduled for March 11,2020 with CT NEMO on stormwater concepts and impacts, green practices that had to be cancelled per COVID-19. We hope to reschedule for this year virtually. Additionally, Oak Street reconstruction is planned to have a sediment separating device installed.

Table 1.3 Details of Activities Implemented to Educate the Community on Stormwater

| Program Element/Activity | Audience (and number of people reached) | Topic(s) covered | Pollutant of Concern addressed (If applicable) | Responsible dept. or partner org. |
|---|---|--|--|-----------------------------------|
| 1-1 Implement Public Education and Outreach: Outreach Event at Windsor Locks High School | N/A | Reduction of impervious surface in the school's courtyard. | General | Town Planner |
| 1-2 Address Education/ Outreach for Pollutants of Concern: Provide Educational Materials to General Public | N/A | Sedimentation | Suspended sediments | Town Planner |



Public Involvement/Participation

A summary of the Town’s progress under this MCM is presented in the following tables:

Table 2.1 Public Involvement/Participation BMP Summary

| BMP | Status | Activities in current reporting period | Measurable goal | Department / Person Responsible | Due | Date completed or projected completion date | Additional details |
|--|-------------------|--|---|---|-----------------------------|--|---|
| 2-1 Comply With Public Notice Requirements for the Stormwater Management Plan and Annual Reports | Complete | Stormwater Management Plan developed and posted for public review. | Public notifications are made according to required schedules | Department of Public Works | Apr 3, 2017 | Stormwater Management Plan received by DEEP on May 2, 2017 | The Stormwater Management Plan and Annual Reports are posted on the Town’s stormwater webpage: https://www.windsorlocksct.org/public-works/stormwater-management |
| | Complete for 2020 | Annual Report developed, posted for public review, and submitted to DEEP. | | | Feb 15, 2020 (Public Draft) | 2019 Report posted for public review | |
| | | | | | Apr 1, 2020 (Final) | Submitted to DEEP (Ongoing on annual basis) | |
| 2-2 Support Community Clean-Ups | Complete for 2020 | Five community clean-up events were completed in 2020 with assistance from Town offices. | Clean-up assistance provided on an annual basis and tracked | Department of Public Works/ Conservation Commission | Jun 30, 2018 | Jun 30, 2018 (Ongoing on annual basis) | |



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

| Waterway / Park Clean Up Schedule | Occurrence | Department / Person Responsible |
|-----------------------------------|----------------------------|---|
| Waterworks Brook | Annually in April/May | Scouts, Conservation Commission |
| Source to Sea – CT River Trail | Annually in September | Conservation Commission, Friends of the Canal |
| Spring Park | Annually in September | Youth Services, Scouts, Conservation Commission |
| Pesci Park | Annually in September | Youth Services, Scouts, Conservation Commission |
| Main Street | Annually May and September | First Selectman's Office and Friends |
| Public Involvement/Participation | | |
| Rain Barrel Sale | April – May 2021 | Public Works |

Table 2.3 Public Involvement/Participation reporting metrics

| Metrics | Implemented | Date | Posted |
|--|-------------|------------------------------|---|
| Availability of the Stormwater Management Plan Announced to Public | Yes | May 1, 2017 | https://www.windsorlocksct.org/public-works/stormwater-management |
| Availability of Annual Report Announced to Public | Yes | February 2020/ April 2020 | https://www.windsorlocksct.org/public-works/stormwater-management |



Illicit Discharge Detection and Elimination

A summary of the Town’s progress under this MCM is presented in the following tables:

Table 3.1 Illicit Discharge Detection and Elimination BMP Summary

| Bmp | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|--|----------|---|--|---------------------------------|-------------|---|---|
| 3-1 Develop Written IDDE Program | Complete | Draft IDDE program has been developed. | Written IDDE program developed | Department of Public Works | Jul 1, 2018 | Jun 29, 2018 (Draft) | |
| 3-2 Develop List and Maps of All MS4 Stormwater Outfalls in Priority Areas | Complete | List of stormwater outfalls in priority areas has been developed. The Town’s stormwater atlas has been updated and brought into a GIS geodatabase. Stormwater features, including catch basins, manholes, and outfalls have been assigned unique IDs. | Outfall database and maps developed | Department of Public Works | Jul 1, 2019 | May 31, 2019 | Will be updated on ongoing basis, as new priority areas or outfalls are identified. |
| 3-3 Implement Citizen Reporting Program | Complete | The Town received one citizen report and investigated one in 2020. | Citizen reporting system established. Reports investigated and tracked. | Department of Public Works | Jul 1, 2017 | Jul 1, 2017 | Citizens may report suspected illicit discharges to the MS4 by emailing the Public Works Director. Reports submitted through this system will be investigated and the outcomes of each investigation will be tracked. The program will be updated, as necessary, to facilitate citizen reporting of illicit discharges. |
| 3-4 Establish Legal Authority to Prohibit Illicit Discharges | Complete | No amendments to report in 2020 | Amended ordinance and/or regulations adopted (as needed) | Department of Public Works | Jul 1, 2018 | Jul 1, 2017 (Amendments as needed) | Illicit discharges are currently prohibited under Chapter 307 of the Windsor Locks Code of Ordinances. |



| Bmp | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|---|-----------------------------|---|---|---------------------------------|---------------|---|--|
| 3-5 Develop Record Keeping System for IDDE Tracking | Complete | No additional activities | IDDE database developed | Department of Public Works | Jul 1, 2017 | Jul 1, 2017 (Revised as needed) | IDDE database will be linked to MS4 geodatabase (BMP 3-2) |
| 3-6 Address IDDE in Areas with Pollutants of Concern | Ongoing | Outfall inspections have been conducted during dry and wet weather conditions at eight priority outfalls Video surveillance of drainage infrastructure is required prior to engineering of sanitary, drainage, or road surface to identify cross-connections | Illicit discharges screened, tracked, and eliminated in areas with pollutants of concern. | Department of Public Works | Jun 30, 2018 | Jun 30, 2018 (Ongoing thereafter) | IDDE program will be refined to focus more on priority outfalls as other IDDE BMP components are advanced and allow for more systematic investigation and tracking |
| 3-7 Support Hazardous Waste Collection and Recycling Events | Ongoing – complete for 2020 | The Town hosted the annual Hazardous Waste Collection Day event on October 10, 2020 | Hazardous waste collection event held and results tracked | Department of Public Works | June 30, 2018 | Ongoing on annual basis | Event encourages residents of the Windsor Locks MS4 and other nearby communities to properly dispose of household hazardous waste |

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

Continue to implement and track prioritized IDDE activities in the MS4.

Continue to update maps of MS4 stormwater drainage networks as changes occur or new infrastructure is added.

Dry and wet weather outfall screening will continue in 2021. Illicit discharges will continue to be investigated and eliminated, as they are discovered.

The Windsor Locks Department of Public Works, in coordination with The Metropolitan District Commission, plans to support a community Hazardous Waste Collection Day event in 2021.



Table 3.3 List of Citizen Reports Of Suspected Illicit Discharges Received During this Reporting Period

| Date of Report | Location / Suspected Source | Response Taken |
|----------------------|-----------------------------|-------------------------------|
| One received in 2020 | Church Street | Pool water redirected to lawn |

Table 3.4 Records of Illicit Discharges Occurring During the Reporting Period and SSOs July 2012 Through End of Reporting Period

| 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) |
|--|---------------------------------|-----------------------------------|-----------------------------|---|---|-------------------------------|
| Oak Street Connecticut River | Unknown duration | MS4 | Unknown | Residential sanitary connection to the MS4 | 4 Connections redirected to sanitary sewer | N/A |
| Spring Street Outfall SPR2 Discharging to Paper Mill Brook (tributary to Kettle Brook) | June 13, 2019 | Surface water via MS4 | <0.05 cfs | Unknown but residential graywater connection to the MS4 suspected | Catchment will be investigated in 2021 | See Part II |

3.5 Briefly describe the method used to track illicit discharge reports, responses to those reports, and who was responsible for tracking this information.

Illicit discharges are reported directly to the Director of Public Works, who coordinates the investigation, response, and tracking of each incident. Additional details on means and methods are available in the IDDE Plan.



Table 3.6 Summary of Actions Taken to Address Septic Failures

| Location and nature of structure with failing septic systems | Actions taken to respond to and address the failures | Impacted waterbody or watershed, if known |
|--|--|---|
| No septic failures identified in 2020 | | |

Table 3.7 IDDE Reporting Metrics

| Metrics | Value |
|--|---------------------------|
| Estimated or actual number of MS4 outfalls | 91 |
| Estimated or actual number of interconnections | Determination in progress |
| Outfall mapping complete | 100% |
| Interconnection mapping complete | Determination in progress |
| System-wide mapping complete (detailed MS4 infrastructure) | Determination in progress |
| Outfall assessment and priority ranking | 15% |
| Dry weather screening of all High and Low priority outfalls complete | 2 outfalls screened |
| Catchment investigations complete | 0 |
| Estimated percentage of MS4 catchment area investigated | 0% |

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

IDDE training for employees is provided on an ongoing basis and annual basis. Training has included the following topics: general goals and objectives of the Stormwater Management Plan, identification and reporting of illicit discharges and improper waste disposal, spill response protocols and respective responsibilities of involved personnel, street sweeping, green infrastructure, and revegetation of erosion-prone areas. Continuous discussions with staff pertaining to storm water and pollutants occurs on an ad hoc and on the job basis.



Construction Site Runoff Control

A summary of the Town’s progress under this MCM is presented in the following tables:

Table 4.1 Construction Site Runoff Control BMP Summary

| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|--|----------|--|--|---|-------------|---|---|
| <p>4-1 Implement, Upgrade, and Enforce Land Use Regulations or Other Legal Authority to Meet Requirements of MS4 General Permit</p> | Ongoing | <p>Existing zoning and inland wetlands and watercourses regulations were enforced.</p> <p>LID Wetlands Regulations amendment adopted by IWW Commission on February 6, 2019. <i>Section 7.5 e. and f. and PZC Section 404 g. MFSD regulation amendments approved on 2/1/2020.</i></p> | Amended ordinance and/or regulations adopted | Department of Public Works, Planning and Zoning Commission Inland Wetland and Watercourses Commission | Jul 1, 2019 | Ongoing | Chapters IX, X, and XI of the Windsor Locks zoning regulations and Chapter 7 of the IWW regulations require plans acceptable to staff including the engineering consultant which provide measures for controlling erosion and sediment control. |
| <p>4-2 Develop/Implement Plan for Interdepartmental Coordination in Site Plan Review and Approval</p> | Complete | Process exists for interdepartmental coordination in site plan review and approval. Plans are submitted to several Departments for comment including Public Works. | Plan developed and implemented by coordinating departments and commissions | Department of Public Works, Planning and Zoning Commission, Town Engineer, Building Department, Inland Wetlands and Watercourses Commission | Jul 1, 2017 | Jul 1, 2017 | Coordination procedures to be improved as needed |



| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|---|---------|---|---|--|-------------|---|--------------------|
| 4-3 Review Site Plans for Stormwater Quality Concerns | Ongoing | 21 proposals were reviewed by staff during the year; five of which were also reviewed by the Inland Wetlands and Watercourses Commission. | Site plans reviewed and tracked | Planning and Zoning Commission, Town Engineer, Building Department, Inland Wetlands and Watercourses Commission | Jul 1, 2017 | Jul 1, 2017 (Ongoing) | |
| 4-4 Conduct Site Inspections | Ongoing | 53 inspections were conducted for 21 projects. | Site inspections conducted and documented | Department of Public Works, Planning and Zoning Commission, Town Engineer, Inland Wetlands and Watercourses Commission | Jul 1, 2017 | Jul 1, 2017 (Ongoing) | |



| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|--|----------|--|--|---------------------------------|-------------|---|--|
| <p>4-5 Implement Procedure to Allow Public Comment on Site Development</p> | Complete | A public comment procedure is in place. | Public comment procedure implemented for site development proposals and ongoing activities | Planning and Zoning Commission | Jul 1, 2017 | Jul 1, 2017 (Ongoing) | The public may provide comment on site development, including proposed and ongoing site development and land disturbance activities at Planning and Zoning Commission meetings. Meetings are held by zoom, Town Hall is open for in person by appointment, process for comment not impacted per COVID. Public comment is allowed during virtual public meetings. |
| <p>4-6 Implement Procedure to Notify Developers About DEEP Construction Stormwater Permit</p> | Ongoing | Developers notified about need to comply with DEEP construction stormwater permit. | Incorporate written notification procedure into site development review process | Planning and Zoning Commission | Jul 1, 2017 | Ongoing | This was incorporated in the application packet and is discussed with applicants during review process. |

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

Ongoing implementation and/or updates of BMPs 4-1, 4-3, 4-4, and 4-6.



Post-construction Stormwater Management

A summary of the Town’s progress under this MCM is presented in the following tables:

Table 5.1 Post-construction Stormwater Management BMP Summary

| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|--|---------------------------------------|---|---|--|-------------|---|---|
| 5-1 Establish and/or Update Legal Authority and Guidelines Regarding LID and Runoff Reduction in Site Development Planning | Complete – ongoing updates, as needed | IWWC Section 7.5 e. and f. and PZC Section 404 g. MFSD regulation amendments were completed in 2020. | Amended ordinance and/or regulations adopted | Department of Public Works, Planning and Zoning Commission | Jul 1, 2021 | February 6, 2019 (Ongoing, as needed) | Seeking funding to pay consultant to assist with town-wide LID regulations in 2021. |
| 5-2 Enforce LID/Runoff Reduction Requirements for Development and Redevelopment Projects | Ongoing | Staff and Planning and Zoning Commission require consideration of reduction of pavement and disconnect. Preliminary discussions with applicants now include LID and runoff reduction opportunities. | Compliance with requirements enforced and tracked | Department of Public Works, Planning and Zoning Commission, Town Engineer, Inland Wetlands and Watercourses Commission | Jul 1, 2019 | Ongoing | |
| 5-3 Implement Long-Term Maintenance Plan for Stormwater Basins and Treatment Structures | Not started | No activities to report | Written plan developed and implemented | Department of Public Works, Planning and Zoning Commission, Town Engineer, Inland Wetlands and Watercourses Commission | Jul 1, 2019 | Anticipated by 2022 | |



| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|---|----------|--|--|---------------------------------|-------------|---|--------------------|
| 5-4 DCIA Mapping | Complete | Town-wide map of directly connected areas has been developed. | DCIA calculated for drainage areas associated with each outfall | Department of Public Works | Jul 1, 2020 | Dec 19, 2019 (Draft) | |
| 5-5 Address Post-Construction Issues in Areas with Pollutants of Concern | Ongoing | Initial assessment of retrofit options in Kettle Brook watershed has been developed. | Retrofits identified and tracked for discharges to impaired waters | Department of Public Works | Jul 1, 2018 | June 29, 2019 (Ongoing) | |

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

- 5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects and track enforcement actions.
- 5-3 Write and implement long-term maintenance plan for stormwater basins and treatment structures.
- 5-4 Adjust DCIA mapping, if needed.
- 5-5 Continue to address post-construction issues in priority catchments.

Table 5.3 Post-Construction Stormwater Management reporting metrics

| Metrics | |
|---|---------------------------------------|
| Baseline (2012) Directly Connected Impervious Area (DCIA) | 467.9 Acres* |
| DCIA disconnected (redevelopment plus retrofits) | 0 / 467.9 acres |
| Retrofits completed | 1 |
| DCIA disconnected | 0 % this year / 0 % total since 2012 |
| Estimated cost of retrofits | \$ to be determined |
| Detention or retention ponds identified | # this year /# total to be determined |

*Based on draft DCIA assessment calculations



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

The Town has calculated the baseline (2012) DCIA contributing stormwater runoff to each of its MS4 outfalls. The DCIA calculations were made according to a protocol that is consistent with guidance available from the DEEP stormwater webpage (www.ct.gov/deep/municipalstormwater). See the Town's Stormwater Management Plan for more details.



Pollution Prevention/Good Housekeeping

A summary of the Town’s progress under this MCM is presented in the following tables:

Table 6.1 Pollution Prevention/Good Housekeeping BMP Summary

| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|--|---------|--|-----------------------------|---------------------------------|-------------|---|--|
| <p>6-1 Develop/Implement Formal Employee Training Program</p> | Ongoing | PW Employees were trained on an ongoing basis. | Employee training continued | Department of Public Works | Jul 1, 2017 | Jul 1, 2017 (Ongoing) | <p>Training has included the following topics:</p> <p>General goals and objectives of the Stormwater Management Plan</p> <p>Identification and reporting of illicit discharges and improper waste disposal</p> <p>Spill response protocols and respective responsibilities of involved personnel</p> <p>Street sweeping</p> <p>Green infrastructure</p> <p>Revegetation of erosion prone areas</p> |



| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|---|-------------|---|---|---------------------------------|-------------|---|--|
| 6-2 Implement MS4 Property and Operations Maintenance | Ongoing | Property and operations maintenance activities improved to minimize the discharge of pollutants to the MS4. | Property and operations maintenance is conducted and tracked | Department of Public Works | Jul 1, 2018 | Ongoing | Intense overseeding program of sports turf |
| 6-3 Implement Coordination with Interconnected MS4s | In progress | The Town has had an initial discussion with CAA regarding connections to Windsor Locks MS4. | Coordination of permit responsibilities implemented and documented | Department of Public Works | Jul 1, 2017 | Ongoing | |
| 6-4 Develop/Implement Program to Control Other Sources of Pollutants to the MS4 | Not started | No activities to report. | Program to control pollutants from other facilities (commercial, industrial, and other non-permitted facilities) implemented and documented | Department of Public Works | Jul 1, 2017 | Ongoing | |
| 6-5 Evaluate Additional Measures for Discharges to Impaired Waters | Not started | No activities to report. | Additional measures to control discharges to impaired waters implemented, as feasible, and documented | Department of Public Works | Jul 1, 2017 | Ongoing | |



| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|---|---------|---|--|---------------------------------|--------------|---|---|
| 6-6 Track Projects that Disconnect DCIA | Ongoing | One project has been tracked to date. | Disconnections tracked and mapped | Department of Public Works | Jul 1, 2017 | Ongoing | |
| 6-7 Implement Infrastructure Repair/Rehab Program | Ongoing | 105 structural elements were repaired or rehabilitated | Infrastructure repair and rehabilitation work is completed and documented | Department of Public Works | Jul 1, 2021 | Ongoing | |
| 6-8 Develop/Implement Plan to Identify/Prioritize Retrofit Projects | Ongoing | No additional planning activities to report for 2020. | As roads are selected for rehabilitation, potential retrofits are explored | Department of Public Works | Jul 1, 2020 | Ongoing | |
| Implement Retrofit Projects to Disconnect 2% Of DCIA | Ongoing | Tree box filter retrofit has been installed on Bel Aire Circle | 2% of DCIA disconnected by 2022 | Department of Public Works | July 1, 2022 | Ongoing | |
| 6-9 Develop/Implement Street Sweeping Program | Ongoing | Town-wide road sweeping completed. Some roadways or parking areas swept more than once, as needed. | Street sweeping program developed and implemented | Department of Public Works | Jul 1, 2017 | Jul 1, 2017 (Ongoing) | Municipal parking lots and roadway intersections showing signs of excess winter sand are periodically swept during winter months. |
| 6-10 Develop/Implement Catch Basin Cleaning Program | Ongoing | Within the MS4, 100 catch basins were inspected and cleaned using Vacall machine. | Catch basin cleaning program developed and implemented | Department of Public Works | Jul 1, 2020 | Jul 1, 2017 (Ongoing) | |



| BMP | Status | Activities in Current Reporting Period | Measurable Goal | Department / Person Responsible | Due | Date Completed or Projected Completion Date | Additional Details |
|--|---------|---|---|---------------------------------|-------------|---|----------------------------------|
| 6-11 Develop/Implement Snow Management Practices | Ongoing | The Town applied the following de-icing agents to manage snow and ice: sodium chloride. Sodium chloride brine being applied to reduce quantity of salt application. | Snow management practices developed and implemented | Department of Public Works | Jul 1, 2018 | Jul 1, 2017 (Ongoing) | No sand used for snow management |

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

Employee training on pollution prevention/good housekeeping activities will continue in 2021. Implementation and tracking of street sweeping, catch basin cleaning, and snow management practices will continue in 2021 as well.

Table 6.3 Pollution Prevention/ Good Housekeeping Reporting Metrics

| Metrics | |
|--|--|
| Employee Training Provided for Key Staff | Yes |
| Street Sweeping | |
| Curb Miles Swept | 200 Miles |
| Volume (Or Mass) Of Material Collected | 150 Cubic Yards |
| Catch Basin Cleaning | |
| Total Catch Basins in Priority Areas | # To Be Determined |
| Total Catch Basins in MS4 | 1,800 |
| Catch Basins Inspected | 1,800 |
| Catch Basins Cleaned | 100 |
| Volume (Or Mass) Of Material Removed from All Catch Basins | 20 Cubic Yards |
| Volume Removed from Catch Basins to Impaired Waters (If Known) | Separate Volume Data Not Currently Available |
| Snow Management | |
| Type(S) Of Deicing Material Used | Sodium Chloride |
| Total Amount of Each Deicing Material Applied | 900 Tons |
| Type(S) Of Deicing Equipment Used | Spreader Body |



| | |
|---|---------------|
| Lane-Miles Treated | 100 Miles |
| Snow Disposal Location | No Relocation |
| Staff Training Provided on Application Methods & Equipment | Pre-Storm |
| Municipal Turf Management Program Actions (For Permittee Properties In Basins With N/P Impairments) | |
| Reduction in Application of Fertilizers (Since Start Of Permit) | 0 Lbs. |
| Reduction in Turf Area (Since Start of Permit) | <0.1 Acre |
| Lands With High Potential To Contribute Bacteria (Dog Parks, Parks With Open Water, & Sites With Failing Septic Systems) | |
| Cost of Mitigation Actions/Retrofits | \$0 |

Catch Basin Cleaning Program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule.

Inspections and cleanings are completed more often in locations that are known to collect debris at a faster rate. For instance, catch basins in low-lying areas may require more frequent cleanings. Particularly in fall, catchbasin tops are cleaned of leaves and observations are made of the catchbasins.

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.

As roads are rehabilitated, the drainage structures are evaluated for potential retrofits.

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years.

The Town of Windsor Locks is highly urbanized, and opportunities for retrofitting are anticipated to be limited in scope. However, the Town will evaluate retrofitting possibilities at Town facilities and also as part of upcoming public road, sidewalk, sewer, or other infrastructure improvement projects. Additional DCIA disconnection may be achievable through redevelopment projects.

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years.

Not applicable at this time.



PART II: IMPAIRED WATERS INVESTIGATION AND MONITORING

Impaired Waters Investigation and Monitoring Program

Stormwater pollutants of concern occurring in the Town of Windsor Locks are as follows:

- Nitrogen/Phosphorus
- Bacteria
- Mercury
- Other (Ethylene/Propylene Glycol)

Status of Windsor Locks' impaired waters investigation and monitoring program:

Currently, the only state-listed impairment in waters receiving discharge from the Windsor Locks MS4 area is bacteria. As a result, Windsor Locks' impaired waters investigation and monitoring program has focused on monitoring bacteria levels, specifically *Escherichia coli*, which is the preferred indicator for assessment of bodies of freshwater.

Six stormwater outfalls that discharge to impaired receiving waterbodies (or have otherwise been prioritized by the Town) have been monitored to date. Screening and monitoring results suggest follow-up investigations may be necessary; however, no additional changes have been made to the Stormwater Management Plan at this time.



Screening Data for Outfalls to Impaired Waterbodies

Table 2.1 Screening Data Collected Under 2017 Permit

| Outfall ID | Sample Date | Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern) | Results | Name of Laboratory | Follow-up Required? |
|------------|-------------|---|-------------------|-----------------------|------------------------|
| SMI1* | 6/28/2018 | Bacteria – <i>E. coli</i> | 697 MPN/100 mL | Phoenix | Yes |
| SEY1* | 6/28/2018 | Bacteria – <i>E. coli</i> | 3,450 MPN/100 mL | Phoenix | Yes |
| | 11/23/2020 | Bacteria – <i>E. coli</i> | 473 MPN/100 mL | Phoenix | Yes |
| SOU1* | 6/28/2018 | Bacteria – <i>E. coli</i> | 1,220 MPN/100 mL | Phoenix | Yes |
| | 11/23/2020 | Bacteria – <i>E. coli</i> | No Flow | Phoenix | Yes |
| FAI1* | 6/13/2019 | Bacteria – <i>E. coli</i> | 17,300 MPN/100 mL | Phoenix | Yes |
| | 11/23/2020 | Bacteria – <i>E. coli</i> | 471 MPN/100 mL | Phoenix | Yes |
| SPR2* | 6/13/2019 | Bacteria – <i>E. coli</i> | 1,150 MPN/100 mL | Phoenix | Yes |
| | 11/23/2020 | Bacteria – <i>E. coli</i> | 2,100 MPN/100 mL | Phoenix | Yes |
| VOL1* | 6/13/2019 | Bacteria – <i>E. coli</i> | 97 MPN/100 mL | Phoenix | Yes** |
| WES2* | 6/13/2019 | Bacteria – <i>E. coli</i> | 1,940 MPN/100 mL | Phoenix | Yes |
| | 11/23/2020 | Bacteria – <i>E. coli</i> | 1,550 MPN/100 mL | Phoenix | Yes |
| WES1* | 6/13/2019 | Bacteria – <i>E. coli</i> | 3,260 MPN/100 mL | Phoenix | Yes |
| | 11/23/2020 | Bacteria – <i>E. coli</i> | 3,080 MPN/100 mL | Phoenix | Yes |
| CEN1* | 6/13/2019 | Bacteria – <i>E. coli</i> | 906 MPN/100 mL | Phoenix | Yes |

*Outfall does not discharge directly to an impaired water body. However, the Town has elected to include these outfalls as priority, due to downstream flooding issues and/or other water quality considerations.

**Based on total coliform exceeding 500/100 mL. *E. coli* was below threshold for follow-up.



Follow-up Investigations

Outside of field observations in the SPR2 catchment, the Town has not yet completed formal follow-up investigations for outfalls exceeding the pollutant threshold.

Prioritized Outfall Monitoring

The Town identified six outfalls for ongoing prioritized outfall monitoring in 2020. The outfalls selected were determined to have the highest Bacteria – *E. coli* concentrations in 2018 and 2019. The results of the prioritized outfall monitoring conducted in 2020 are presented in the table below.

| Outfall ID | Sample Date | Parameter | Results (2020) | Name of Laboratory |
|------------|-------------|---|--------------------|--------------------|
| | | (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern) | | |
| SEY1 | 11/23/2020 | Bacteria – <i>E. coli</i> | 473 MPN/100 mL | Phoenix |
| | | Total Coliforms | >24,200 MPN/100 mL | Phoenix |
| SOU1 | 11/23/2020 | Bacteria – <i>E. coli</i> | No Flow | N/A |
| | | Total Coliforms | No Flow | N/A |
| FAI1 | 11/23/2020 | Bacteria – <i>E. coli</i> | 471 MPN/100 mL | Phoenix |
| | | Total Coliforms | >24,200 MPN/100 mL | Phoenix |
| SPR2 | 11/23/2020 | Bacteria – <i>E. coli</i> | 2,100 MPN/100 mL | Phoenix |
| | | Total Coliforms | >24,200 MPN/100 mL | Phoenix |
| WES2 | 11/23/2020 | Bacteria – <i>E. coli</i> | 1,550 MPN/100 mL | Phoenix |
| | | Total Coliforms | >24,200 MPN/100 mL | Phoenix |
| WES1 | 11/23/2020 | Bacteria – <i>E. coli</i> | 3,080 MPN/100 mL | Phoenix |
| | | Total Coliforms | >24,200 MPN/100 mL | Phoenix |



PART III: ADDITIONAL IDDE PROGRAM DATA

Assessment and Priority Ranking of Catchments Data

The Town has not yet assigned final IDDE priority rankings to catchments.

Outfall and Interconnection Screening and Sampling Data

The Town conducted dry weather outfall screening at two outfalls in 2019. One outfall (RIV1) was not observed to produce dry weather discharge, while minimal discharge was noted at the other outfall (TOW1). Monitoring results are provided Table 3.1. The extremely low discharge rate provided insufficient volume for laboratory analysis of all analytes at TOW1. However, the results obtained do not appear to be suggestive of an illicit discharge from TOW1.

Table 3.1 Dry Weather Outfall Screening Data

| Site | Date | Ammonia (mg/L) | Chlorine (mg/L) | Conductivity (µmhos/cm) | Salinity (ppt) | Surfactants (mg/L) | <i>E. coli</i> (MPN/100 mL) |
|-------|----------|---------------------|---------------------|-------------------------|----------------|---------------------|-----------------------------|
| RIV1 | 06/13/19 | Dry | Dry | Dry | Dry | Dry | Dry |
| TOW1* | 06/13/19 | Insufficient volume | Insufficient volume | 392 | 0.2 | Insufficient volume | 30 |

*Observations of this outfall and surroundings suggest that groundwater infiltration may be a seasonal source of dry weather flow

The Town also conducted wet weather IDDE outfall screening for outfalls that discharge to priority waters in 2019. Monitoring results are provided in Table 3.2.

Five of the six locations exceeded at least one benchmark for the tested analytes (primarily *E. coli*). However, of the outfalls sampled, SPR2 was the only location that exceeded more than one benchmark (surfactants and *E. coli*). Additionally, a flow of foam with a soapy odor was observed discharging into Paper Mill Brook from this outfall. Therefore, SPR2 is likely to be source of illicit discharge from the MS4. Initial visual investigations of the SPR2 catchment on the date of sampling were unable to identify a source of the foamy discharge.



Table 3.2 Wet Weather Outfall Screening Data

| Site | Date | Ammonia (mg/L) | Chlorine (mg/L) | Conductivity (μ mhos/cm) | Salinity (ppt) | Surfactants (mg/L) | <i>E. coli</i> (MPN) |
|------|----------|----------------|-----------------|-------------------------------|----------------|--------------------|----------------------|
| FAI1 | 06/13/19 | 0.38 | <0.02 | 84 | 0.1 | 0.19 | 17,300 |
| SPR2 | 06/13/19 | 0.33 | <0.02 | 81 | 0.1 | 15.8 | 1,150 |
| VOL1 | 06/13/19 | 0.13 | <0.02 | 1,220 | <2 | 0.07 | 97 |
| WES2 | 06/13/19 | 0.34 | <0.02 | 117 | 0.1 | 0.21 | 1,940 |
| WES1 | 06/13/19 | 0.22 | 0.02 | 107 | 0.1 | 0.14 | 3,260 |
| CEN1 | 06/13/19 | 0.12 | <0.02 | 517 | 0.3 | 0.13 | 906 |

Catchment Investigation Data

The Town has not yet initiated formal catchment investigations for IDDE. However, initial visual field investigations were conducted in the catchment for outfall SPR2 on June 13, 2019 to ascertain whether a source of the observed soapy discharge could be located. No sources were observed.



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: J. Christopher Kervick, First Selectman | Print name: Philip J. Sissick, Director of Public Works |
| Signature / Date: | Signature / Date: |