TOWN OF
PUTNAM
200 SCHOOL STREET
PUTNAM, CONNECTICUT 06260

# Town of Putnam 2024 Annual Report Municipal Separate Storm Sewer System (MS4) General Permit

## Existing MS4 Permittee
## Permit Number GSM 000025

## Report Period:
## January 1, 2024 – December 31, 2024

Submittal Date to DEEP:

March 31, 2025

860-963-6800 WWW.PUTNAMCT.US

MS4 General Permit
Town of Putnam 2022 Annual Report
Existing MS4 Permittee
Permit Number GSM 000025
January 1, 2024 – December 31, 2024
Primary MS4 Contact: Bruce Fitzback, Land Use Agent, bruce.fitzback@putnamct.us, 860-963-6800 x114

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This report documents the Town of Putnam efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2024 to December 31, 2024.

**Part I: Summary of Minimum Control Measure Activities**

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

### 1.1 BMP Summary

| BMP | Activities in current reporting period | Sources Used (if applicable) | Method of Distribution | Audience (and number of people reached) | Measurable Goal | Department / Person Responsible | Additional details |
|---|---|---|---|---|---|---|---|
| 1-1 Implement public education and outreach | Printed materials and Links made available at Town Municipal Complex | River Smart CT, Neponset Stormwater, NEMO Library | Maintain 20 copies available | Info available to 900 people per week | Update Fact Sheet available to the general public | Land Use Agent | Continuing efforts |
| 1-2 Address education/ outreach for pollutants of concern | Include specifics about phosphorus and topics from NEMO Library | CT DOT, Clean Water Campaign UCONN CLEAR NEMO | Maintain 20 copies available | Info available to 900 people per week | Incorporate Additional pollution reduction practices in documentation | Land Use Agent | Continuing efforts |
| 1-3 Public Outreach efforts | Educational material added to Town Website | UCONN Eastern CT Stormwater Collaborative | Town Website | 12± visits to Plannng – Land Use page | Educate Public on common stormwater topics | Land Use Agent | https://www.putnamct.us/departments/planning-and-land-use/stormwater<br><br>Visits Planning - Land Use per month |

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

| |
|---|
| -- Publish advertisement on Stormwater quality as a biannually topic in a local newspaper, which could increase awareness of BMP in future years.<br>--Plans to coordinate with the school's science educators to integrate stormwater education as a special component of curriculum.<br>--Stormwater educational material can be found on the Town Website and will be updated regularly. |

**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. |
|---|---|---|---|---|
| Educational stormwater printouts displayed and available at Town Municipal Complex and Library informational board | Visitors to Town , including community members (1100+ people reached) weekly | Impact of pollutants to stormwater | Phosphorus, Bacteria, Nitrogen, Lawn care produces, Construction Run Off, Mercury … | Land Use Agent |
| Installation of stormwater educational sign at the parking area Rain Gerden New Municipal Complex | Visitors to Municipal Complex including Office visits, library, community rooms (900+ people reached) per week | Treatment of stormwater collected from impervious surfaces | Sediment, other pollutants | Land Use Agent |
| Created the Stormwater pages on the Town Website | General public, Town Leaders, Commissions, Boards Members | All topics found at the UCONN CLEAR website | Sediment, other pollutants | Land Use Agent |
| Rain Garden education and instruction | General public | Function and Construction | Sediment, other pollutants | Land Use and Library |

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

### 2.1 BMP Summary

| **BMP** | **Status** (Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date** (include the start date for anything that is 'in progress') | **Location Posted** | **Additional details** |
|---|---|---|---|---|---|---|---|
| 2-1 Continue availability of the Final Stormwater Management Plan to the Public. | Ongoing | Place an advertisement in a local newspaper. | Compliance with Section 4(d)(2) and Section 6(a)(2)(A) of the General Permit | Land Use Agent | Jan. 2023 | Town Website/ https://resources.finalsite.net/images/v1643724658/putnamctus/cvte1vltyssjcnuid9za/Stormwater_Managemenet_Plan.pdf | |
| 2-2 Comply with public notice requirements for Annual Reports | Complete | This Annual Report was publicly noticed and posted to the website as per current DEEP requirements. | Compliance with Section 4(d)(2) and Section 6(a)(2)(A) of the General Permit | Land Use Agent | Feb, 15, 2024 | Town Website | |
| | | | | | | | |

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

Consider the establishment of a Stormwater Committee within the wetland's agency,
Public forum & discussion with Planning and Zoning Commissions and Board of Selectmen on the financing of stormwater requirements. On going

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

### 3.1 BMP Summary

| **BMP** | **Status** (Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date** (include the start date for anything that is 'in progress') | **Additional details** |
|---|---|---|---|---|---|---|
| 3-1 Develop written IDDE program (Due 7/1/19) | Complete | Final Report prepared dated June 29, 2018 | Develop written plan of IDDE program | Town Administrator / Town Engineer | June 29, 2018 | Note our Stormwater Management Plan BMP "Training" is tracked under this BMP. IDDE program includes training. |
| 3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas (Due 7/1/20) | Complete | None, completed prior to reporting period Contracted CDM Smith to review | Ordinance effective date | Town Administrator / Town Engineer | November 20, 2013 | Consultant draft review includes recommendation for timeline for illicit discharge elimination |
| 3-3 Implement citizen reporting program (Ongoing) | Complete | Catchment Plans finalized | Develop and update list and maps | Town Administrator / Town Engineer | March 2018 | |
| 3-4 Establish legal authority to prohibit illicit discharges (Due 7/1/19) | Ongoing | Contact information updated for Highway Superintendent | Maintain website | Highway Superintendent / Town Engineer | Updated July 2018 | |
| 3-5 Develop record keeping system for IDDE tracking (Due 7/1/17) | Ongoing | Updated contact information | Tracking System finalized | Town Administrator / Town Engineer | Completed 2017, future review and updating planned | |
| 3-6 Address IDDE in areas with pollutants of concern | Ongoing | Stormwater Sampling and the identification of IDDE Dry weather complete Wet weather continues | Identification of illicit discharges | Land Use Agent | Ongoing | CDM Smith contracted for Stormwater sampling. Working with WPCA on CCTV survey of IDDE |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3-7 IDDE Program posted on Town Website | Complete | Website posting | Public awareness | Land Use Agent | Dec. 2021 | https://resources.finalsite.net/images/v1643724659/putnamctus/maxee7yadprvlgawlyhe/IDDEProgramMaster2018-5-29.pdf |

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

Maintain master IDDE tracking spreadsheet and ensure all employees involved in IDDE program understand the logging process
Plan for continued and/or additional detection program work
CDM Smith contracted to continue stormwater sampling and mapping
Plan to work with the Northeast District Department of Health to implement reporting standards of septic failures to the municipalities.

**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) |
|---|---|---|---|---|---|---|
| N/A | No Date | N/A | | The Town of Putnam had no Reported discharges in 2024 | | |
| N/A | No Date | N/A | | The Town of Putnam had no Reported discharges in 2023 | | |
| 83 Park Rd | 1/3/2022 120 Min. | No | 50-100 gal | Force Sewer Main Break | Repaired | No |
| 180 Recreation Park Rd | 3/11/2021 70 min. | No | 0-50 gal | Blockage - other | Cleared | No |
| 68 Florence St | 8/12/2021 62 min. | No | 1-50 gal | Blockage - Grease | Cleared | No |
| 37 Flagg St | 10/31/2021 60 min. | No | 1-50 gal | Blockage – Roots | Cleared | No |
| 126 Quinebaug Ave | 5/26/2020 40 min. | No | 501-1000 gal | Blockage – Grease | Cleared | No |

| | | | | | | |
|---|---|---|---|---|---|---|
| 70 Livery St | 10/23/2020 | MS4 | 1-50 gal | Blockage – Grease | Cleared | No |
| 209 Recreation Park Rd | 10/24/2019<br>90 min. | No | 51-500 gal | Blockage – Roots | Cleared | No |
| Int. King & Chapman St | 10/24/2019<br>60 min. | No | 51-500 gal | Blockage – Grease | Cleared | No |
| 147 Kennedy Dr | 10/24/2019<br>75 min. | No | 1-50 gal | Blockage – Grease | Cleared | No |
| 5-23 Grove St | 6/29/2018<br>8:30Am<br>7/172021 | Catch Basin | 1-50 gal | Workers found 6" Clay pipe discharging into a Catch Basin. Owner notified | Die test conducted.<br>No completion doc. found<br>Follow up needed | No |
| 202 Pomfret St | 10/24/2018<br>83 min. | No | 1-50 gal | Blockage – other | Cleared | No |
| | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 189 Walnut St | 2/7/17 60m | No | 0-50 gals | Roots | Cleared - Repaired | | No | |
| Pomfret/<br>Sabin St | 7/8/17<br>30 min. | No | 0-50 gals | Blockage - other | Cleared | | No | |
| 93 Sabin Street | 11/23/17<br>40 min. | No | 0-50 gals | Roots | Cleared - Repaired | | No | |
| 71 Laurel St | 12/22/17<br>45 min. | No | 1-50 gals | Blockage | Cleared | | No | |

**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 |
|---|---|---|---|---|
| None identified this period (most higher density areas in Town are served by municipal sewers). | | The NDDH does not report to the Town on septic failures. NDDH does not keep septic failure records, only application for constructions & repairs. | | |
| | | | | |
| | | | | |

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

The tracking of IDDE is done using the Excel document Entitled Catchments and Outfalls Table (attached below) and corresponding e-files by street address.
Initial formatting and use ongoing.

**3.6 IDDE reporting metrics**

| Metrics | |
|---|---|
| Estimated or actual number of MS4 outfalls | 171 |
| Estimated or actual number of interconnections | 33 |
| Outfall mapping complete | 100% |
| Interconnection mapping complete | 100% |
| System-wide mapping complete (detailed MS4 infrastructure) corrections needed | 98% |
| Outfall assessment and priority ranking | 100% |
| Dry weather screening of all High and Low priority outfalls complete | 100% |
| Catchment investigations complete | 20 |
| Estimated percentage of MS4 catchment area investigated | 0.1% |

**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 IDDE tasks are being completed by professionally trained personnel from CSM Smith. Municipal personal training includes instruction on how to recognize and report a potential illicit discharge as part of other maintenance efforts.
- Staff training is done once per year

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

### 4.1 BMP Summary

| **BMP** | **Status** (Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date** (include the start date for anything that is 'in progress') | **Additional details** |
|---|---|---|---|---|---|---|
| 4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit (Due 7/1/20) | Ongoing | Review existing | Maintain Log of retention/detention and stormwater basins | Town Planner | July 1, 2019 | During CY2020, the Town hired a consultant to review local regulations – in CY2021 memo prepared and initial steps expected in CY2024. |
| 4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval (Ongoing) | Complete | Coordination and updating to reflect new personnel | Department meetings | Town Planner | July 1, 2017 | During CY2023 the Land Use Dept. started using Permit link software with the Building Dept. All agencies see site comments. |
| 4-3 Review site plans for stormwater quality concerns (Ongoing) | Complete | Review subdivision plans as part of Planning Applications; review Building Permits as part of Building Department. Conduct site visits on active construction. | Review of site plans and completed inspections | Town Planner | July 1, 2017 / ongoing to maintain | Zoning is First step for applications prior to building permit application. |
| 4-4 Conduct site inspections (Ongoing) | Ongoing | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4-5 Implement procedure to allow public comment on site development (Ongoing) | Complete | The Planning and Zoning commission's holds public hearings on every application. | Procedure in place | Land Use Agent Building Department | July 1, 2017 | As applicable revisions to other types of site development outside of Planning & Zoning Commission reviews. |
| 4-6 Implement procedure to notify developers about DEEP construction stormwater permit (Ongoing) | Complete | As part of subdivision or site plan review; provide comments on other permitting applicability (DEEP) | Procedure in place | Town Planner | July 1, 2017 | As applicable revisions to other types of site development outside of Planning Commission reviews. |

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

- Continue site visits related to private development and gravel excavation on various parcels within Town. Significant ongoing or upcoming planned projects include: (1) Town of Putnam project on Sabin Street (~20 acres disturbance); (2) Strategic Realty gravel excavation and subdivision on Town Farm Road / Technology Park Drive (~65 acre disturbance).
- Establish a Stormwater Site Plan Review process in conjunction with Town Departments and Commissions.
- Develop a Stormwater compliance Check list for the Site Plan Review process

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

### 5.1 BMP Summary

| **BMP** | **Status** (Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date** (include the start date for anything that is 'in progress') | **Additional details** |
|---|---|---|---|---|---|---|
| 5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning (Due 7/1/22) | In progress | Review existing regulations related to LID (including Quinebaug Technology Park Zoning section) | Contracted CDM Smith to confirm to review Town Code | Town Administrator / coordinate with Zoning | July 1, 2021/ In progress<br><br>Start 11/2021 | CDM Smith completed review.<br>Making corrections – additions to Town regulations |
| 5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects (Due 7/1/22) | Ongoing | Review site plans submitted to Building Department | Number of site plans reviewed for stormwater handling | Town Engineer / Land Use Agent, coordinate with Zoning | July 1, 2019 / ongoing | Weekly site inspections. |

| | | | | | | |
|---|---|---|---|---|---|---|
| 5-3 Identify retention and detention ponds in priority areas (Due 7/1/20) | Complete – On going | Finalized list of Retention and detention ponds/basins<br>Need to add info to Town GIS | Ability to record site inspections | Land Use Agent | Completed Nov. 2021 | Updates to be added as Stormwater Site Plan review dictates |
| 5-4 Implement long-term maintenance plan for stormwater basins and treatment structures (Ongoing) | Ongoing | No formal Maintenance Plan developed. Maintenance conducted as annual inspections deemed necessary. | Basins being maintained | Land Use Agent | Inspection began Nov. 2021 | We currently have 11 Basins in Town |
| 5-5 DCIA mapping (Due 7/1/20) | In progress | Gather background information and previous related efforts. | DCIA calculations complete | Town Administrator | July 1, 2020 | Area calculations have been completed for catchments. Estimating impervious cover and connectivity level are not completed. |
| 5-6 Address post-construction issues in areas with pollutants of concern | No issues evident to date | None<br>Weekly Inspection of active construction sites | Site monitoring | Land Use Agent | On going | Coordinates with next Section 6, including BMP 6-5. |

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

5-1 Continue review of legal authority and other updates to current regulations to meet LID and runoff reductions practices as required by this permit.
5-2 Continue enforcement of LID / runoff reductions and water quality treatment on all active sites.
5-3 Continue with field inspections and maintenance of all municipality owned retention and detention basins.
5-4 Continue with inspections for long term maintenance plan for stormwater basins.
5-5 Continue confirmation of interconnections.

**5.3 Post-Construction Stormwater Management reporting metrics**

For details on this requirement, visit https://nemo.uconn.edu/stormwater-basics/construction-permit/ . Scroll down to the DCIA section.

| **Metrics** | |
|---|---|
| Baseline (2012) Directly Connected Impervious Area (DCIA) | Approximated 1,700 acres (to be confirmed) |
| DCIA disconnected (redevelopment plus retrofits) | 1.9 acres total |
| Retrofit projects completed | 0.0 acres |
| DCIA disconnected | 0.14% |
| Estimated cost of retrofits | Nothing this year |
| Detention or retention ponds identified | 11 total to date |

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

- Expect to confirm use of Option 1 of Appendix 3 "Impervious Cover in CT Municipalities", including within the document *Connecticut Watershed Response Plan for Impervious Cover*

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

### 6.1 BMP Summary

| **BMP** | **Status** (Complete, Ongoing, In Progress, or Not started) | **Activities in current reporting period** | **Measurable Goal** | **Department / Person Responsible** | **Date completed or projected completion date** (include the start date for anything that is 'in progress') | **Additional details** |
|---|---|---|---|---|---|---|
| 6-1 Develop/implement formal employee training program (Ongoing) | Complete / ongoing | Annual training for Highway/DPW personnel | Training dates held | Highway Superintendent | July 1, 2017 | |
| 6-2 Implement MS4 property and operations maintenance (Ongoing) | Ongoing | Discussions between Town Departments | Number of management areas addressed | Town Administrator, Recreation/Parks, Highway Superintendent | Expect ongoing effort | Recreation Department employee personnel changes and startup training for field maintenance. |
| 6-3 Implement coordination with interconnected MS4s | In progress | Completed Interconnection survey and identification, see Attachment Task 5 Interconnections | | Land Use Agent | | The majority of interconnections are to CT-DOT owned roads |
| 6-4 Develop/implement program to control other sources of pollutants to the MS4 | Not started | | | Land Use Agent | | |
| 6-5 Evaluate additional measures for discharges to impaired waters* | On going | Dry Stormwater sampling is complete, wet weather sampling near completion. Working on a case-by-case basis | Additional measures considered Tracking the source | Land Use Agent<br><br>Highway Superintendent | Not specified at this time | This BMP will coordinate with the prioritized dry and wet weather sampling. |
| 6-6 Track projects that disconnect DCIA (Ongoing) | On going | We currently have no DCIA disconnect project underway. | Ready to tract | Land Use Agent | Not specified at this time | Ready for DCIA Projects |

| | | | | | | |
|---|---|---|---|---|---|---|
| 6-7 Implement infrastructure repair/rehab program (Due 7/1/21) | Not started | DCIA planning and catch basin removal<br>A 1.58 acre municipal parking lot redesign has been approved and a contractor under contract, stormwater treatment is being added. | Amount of DCIA disconnected | Town Administrator, Highway Superintendent, Town Engineer | July 1, 2021 | Bridge improvements projects, adjacent catch basins were removed and stormwater measures included sheet flow over grasses areas and swales. |
| 6-8 Develop/implement plan to identify/prioritize retrofit projects (Due 7/1/20) | Not started | | | | | Retrofit projects are currently on a as needed/possible to be completed status |
| 6-9 Implement retrofit projects to disconnect 2% of DCIA (Due 7/1/22) | Ongoing | Approval of municipal parking lot redesign will disconnect 1.29 acres. Construction planned for fall of 2024 | Improved water quality | Land Use Agent | Efforts continue | |
| 6-10 Develop/implement street sweeping program (Ongoing) | Complete / ongoing | Street sweeping, snow treatment practices | 1,036 basins cleaned, miles of curbs swept, amount of de-icing | Town Administrator, Highway Superintendent, Town Engineer | Expect ongoing effort | |
| 6-11 Develop/implement catch basin cleaning program (Ongoing) | Complete / ongoing | Cleaned all catch basins | 1,036 basins cleaned, miles of curbs swept, amount of de-icing | Town Administrator, Highway Superintendent, Town Engineer | Expect ongoing effort | |
| 6-12 Develop/implement snow management practices (Due 7/1/18) | Complete / ongoing | Snow treatment practices | 1,036 basins cleaned, miles of curbs swept, amount of de-icing | Town Administrator, Highway Superintendent, Town Engineer | Expect ongoing effort | The town is using wood mulch to mix with road salt |

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

- annual training for all highway department employees
- continued street sweeping, catch basin cleaning and appropriate snow management practices
- for catch basin cleaning, use vacuum trucks for sediment removal in our Special Services District (which is the higher DCIA)

**6.3 Pollution Prevention/ Good Housekeeping reporting metrics**

| **Metrics** | |
|---|---|
| Employee training provided for key staff | Yes, July 2024 |
| Street sweeping | |
| | |
| Curb miles swept | 130 miles |
| Volume (or mass) of material collected | Est. 50 tons |
| Catch basin cleaning | |
| Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide) | 747 |
| Total catch basins town- (or institution-) wide | 1051 |
| Catch basins inspected | 1051 |
| Catch basins cleaned | 1051 |
| Volume (or mass) of material removed from all catch basins | Est. 150 tons |
| Volume removed from catch basins to impaired waters (if known) | unknown |
| Snow management | |
| Type(s) of deicing material used | salt |
| Total amount of each deicing material applied | 1,600 tons |
| Type(s) of deicing equipment used | Snow plows |
| Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane) | 130 miles |
| Snow disposal location | Localized to area plowed |
| Staff training provided on application methods & equipment | Yes / November 2024) |
| 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 or % |
| 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) | 0.5 Acres |
| Cost of mitigation actions/retrofits | $0 |

### 6.4 Catch basin cleaning program

| **Provide any updates or modifications to your catch basin cleaning program.** |
|---|
| No modifications. Catch basins throughout the town are cleaned at least annually. |

### 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.** |
|---|
| Expect to base retrofit program on the downtown area of Putnam, which has significant impervious cover that discharges to the Quinebaug River via catch basin and piping stormwater collection system. The Quinebaug River is an impaired water quality river, and<br>DCIA to be disconnected will be calculated in future years as projects are realized.<br>The Town has completed the design approval and funding stages of a 1.29 Acre municipal parking lot redesign and disconnect by various water quality measures. Contractor under contract for the project. |

| **Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection annually in future years.** |
|---|
| Encourage development and maintenance projects to consider pervious surfaces.<br>Coordinating with the site plan review efforts by land use commissions, consider regulations for review of stormwater directed connected impervious areas. |

## 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/. Refer to the yellow column of the Monitoring comparison chart and the Impaired waters monitoring flowchart.

**1.1 Indicate which stormwater pollutant(s) of concern occur(s) in your municipality or institution.** This data is available on the MS4 map viewer: http://s.uconn.edu/ctms4map.

Nitrogen/ Phosphorus ☒ Bacteria ☒ Mercury Other Pollutant of Concern ☐

**1.2 Describe program status**

| **Discuss 1) the status of monitoring work completed, 2) a summary of the results and any notable findings, and 3) any changes to the Stormwater Management Plan based on monitoring results.** |
|---|
| Per previous reporting period, records show that six outfalls were sampled during wet weather in 2012, and twenty outfalls were sampled and/or screened during dry weather in 2019.<br>In **2020**, the Town contracted with CDM Smith (CDM) to conduct permittee staff training for dry weather outfall and interconnection screening and sampling for dry weather flow based on the outfall inventory and the Catchment Assessment and Priority Ranking Matrix. According to the Matrix, Section 14, 15,41, 42, 48, and Section 55 on the Index Map Putnam MS4 Catchment Plan contain the highest ranked priority areas. The receiving water for 8 outfalls is the Quinebaug River, 7 outfalls is the Little River, 4 outfalls is the Wheaton Brook all of which are designated as an impaired water body. CDM and permittee staff screened outfalls in accordance with the procedures outlined in Putnam's IDDE Program. A sample was collected and analyzed from one outfall observed to have dry weather flow. There was no visual or olfactory evidence of an illicit discharge observed at any of the outfalls and analysis did not indicate that the catchments are considered highly likely to contain illicit discharges from sanitary sources.<br>In **2021**, the Town contracted with CDM Smith to continue dry weather stormwater sampling. The receiving water for 22 outfalls is the Quinebaug River, 4 outfalls is Weaton Brook, 5 outfalls is Little River, 15 Outfalls is Perry Brook, 6 outfalls is Little Dam Tavern Brook. CDM and permittee staff screened outfalls in accordance with the procedures outlined in Putnam's IDDE Program. A sample was collected and analyzed from one outfall observed to have dry weather flow. A sample was collected and analyzed from 7 outfalls observed to have dry weather flow 6 of which are likely from sanitary sources, all require further investigation. 2 other outfalls (42-9,42-10) had flow but were out of reach and need further investigation, up stream structures were sampled.<br>In **2022**, The Town contracted with CDM Smith to develop detailed drainage mapping and perform Illicit Discharge Detection and Elimination (IDDE) investigations of high priority outfalls. From May through December 2022, CDM Smith performed IDDE catchment investigations of 158 outfalls in accordance with the MS4 Permit IDDE Program Protocol.<br>For each IDDE investigation, CDM Smith Mapped drainage networks for outfalls in the target areas and conducted dry weather surveys fo drainage structures upstream of each outfall. Structures were inspected to trace and eventually isolate where the ilicit discharge(S) enter the drainage system. Samples were systematically taken from structures with dry weather flow and tested in the field.<br>Summary, Out of 158 outfalls inspected, 22 systems had dry weather flow that was sampled at the outflall or an upstream structure. In those systems, 25 pipe segments has exceedance of the testing parameters. The outfall and system sampling results are summarized in **TABLE 2.** For those outfalls with dry weather flow, 15 of 22 systems are recommended for additional field sampling, CCTV inspection, and / or dye testing.<br>Cont. |

Within the 22 systems, 56 pipes were sampled, and 25 pipes exceeded at least one water quality threshold, with 20 having one parameter with an exceedance and 5 having two parameters with exceedances. **Figure 1 (**attached) shows pipes sampled by number of parameters exceeded. Of 56 sampled pipes, none of the pipes sampled had exceedances for all three field tests.
**2023** The Town renewed the CDM Smith contract, with the completion of dry weather sampling on outfalls, Interconnection identification mapping was completed with 53 interconnection and 23 of which required sampling by the Town. CDM Smith preformed screening and sampling of the 23, details may be found as an attachment hereto entitled "Task 5 Interconnections."
**2024** The Town renewed the contract with CDM Smith, of the 204 total Town-owned outfalls and interconnections, 100 were visited during wet weather, and 66 were sampled. The other 34 outfalls that were visited were either dry, inaccessible, or in need of maintenance to sample.

No changes to the Stormwater Management Plan based on results to date.

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

**2.1 Screening data**

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

Each Annual Report will add on to the previous year's data showing a cumulative list of sampling data. **You may also attach an excel spreadsheet with the same data rather than copying it into this table**. If you do attach a spreadsheet, please write "See Attachment" below.

| **Outfall ID** | **Latitude / Longitude** | **Sample date** | **Parameter** (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern) | **Results** | **Name of Laboratory (if used)** | **Follow-up required? *** |
|---|---|---|---|---|---|---|
| See Attachment: **ATTACHMENT A** Summary of field investigations | | | | | | |
| | | | | | | |

Follow-up investigation required (last column) if the following pollutant thresholds are exceeded:

| **Pollutant of concern** | **Pollutant threshold** |
|---|---|
| Nitrogen | Total N > 2.5 mg/l |
| Phosphorus | Total P > 0.3 mg/l |
| Bacteria (fresh waterbody) | • E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others<br>• Total Coliform > 500 col/100ml |
| Bacteria (salt waterbody) | • Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB<br>• 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 |
| Ammonia | ≥ 0.5 mg/L |

| | |
|---|---|
| Chlorine | Detectable levels |

## 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 |
|---|---|---|
| 1-01 | Waiting for follow up | |
| 1-02 | Waiting for follow up | |
| 2-04 | " | |
| 2-06 | " | |
| 3-03 | Waiting for follow up | |
| 3-04 | Waiting for follow up | |
| 3-07 | Waiting for follow up | |
| 15-09 | Waiting for follow up | |
| 42-9 | Waiting for follow up | |
| 42-10 | Waiting for follow up | |
| 42-13 | Waiting for follow up | |
| 42-13A | Waiting for follow up | |
| 55-06 | Waiting for follow up | |
| 55-10 | Waiting for follow up | |
| IC-125 | " | |
| IC-140 | " | |

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

Once outfall sampling has been completed for at least 50% of outfalls to impaired waters, identify 6 of the highest contributors of any pollutants of concern. Begin monitoring these outfalls on an annual basis by July 1, 2021. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

| Outfall | Latitude / Longitude | Sample Date | Parameter(s) | Results | Name of Laboratory (if used) |
|---|---|---|---|---|---|
| [Future results will determine prioritization] | | | | See CDM Smith 2024 Memorandum attached | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**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 |
|---|---|---|
| See attachment: Catchment Assessment & Priority Ranking Matrix | | |
| | | |
| | | |

## 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/ Refer to the blue column of the Monitoring comparison chart and the IDDE baseline monitoring flowchart.

Provide sample data for outfalls where flow is observed. Only include Pollutant of concern data for outfalls that discharge into stormwater impaired waterbodies. **You may also attach an excel spreadsheet with the same data rather than copying it to this table.** If you do attach a spreadsheet, please write "See Attachment" below.

| Outfall / Interconnection ID | Latitude / Longitude | Screening / sample date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or enterococcus | Surfactants | Water Temp | Pollutant of concern | If required, follow-up actions taken |
|---|---|---|---|---|---|---|---|---|---|---|---|
| See Attachment Below: Outfalls and Catchments Table | | | | | | | | | | | |
| See attachment "Task 5 interco.." | | | | | | | | | | | |

### 2.2 Wet weather sample and inspection data

For details on this requirement, visit https://nemo.uconn.edu/ms4/tasks/monitoring/ Refer to the green column of the Monitoring comparison chart and the IDDE catchment investigation flowchart.

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor. You may also attach an excel spreadsheet with the same data rather than copying it to this table. If you do attach a spreadsheet, please write "See Attachment" below.

| Outfall / Interconnection ID | Latitude / Longitude | Sample date | Ammonia | Chlorine | Conductivity | Salinity | E. coli or Enterococcus | Surfactants | Water Temp | Pollutant of concern |
|---|---|---|---|---|---|---|---|---|---|---|
| See Attachment: Outfalls and Catchments Table | | | | | | | | | | |
| | | | | | | | | | | |

## 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 |
|---|---|---|
| To Be Determined | | |
| | | |

Where SVFs are:

1. History of SSOs, including, but not limited to, those resulting from wet weather, high water table, or fat/oil/grease blockages.
2. Sewer pump/lift stations, siphons, or known sanitary sewer restrictions where power/equipment failures or blockages could readily result in SSOs.
3. Inadequate sanitary sewer level of service (LOS) resulting in regular surcharging, customer back-ups, or frequent customer complaints.
4. Common or twin-invert manholes serving storm and sanitary sewer alignments.
5. Common trench construction serving both storm and sanitary sewer alignments.
6. Crossings of storm and sanitary sewer alignments.
7. Sanitary sewer alignments known or suspected to have been constructed with an underdrain system;
8. Sanitary sewer infrastructure defects such as leaking service laterals, cracked, broken, or offset sanitary infrastructure, directly piped connections between storm drain and sanitary sewer infrastructure, or other vulnerability factors identified through Inflow/Infiltration Analyses, Sanitary Sewer Evaluation Surveys, or other infrastructure investigations.
9. Areas formerly served by combined sewer systems.
10. Any sanitary sewer and storm drain infrastructure greater than 40 years old in medium and densely developed areas.
11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).
12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather that poor owner maintenance).

### 3.2 Key junction manhole dry weather screening and sampling data

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

| Key Junction Manhole ID | Latitude / Longitude | Screening / Sample date | Visual/ olfactory evidence of illicit discharge | Ammonia | Chlorine | Surfactants |
|---|---|---|---|---|---|---|
| See Attachment Outfalls and Catchments Table | | | | | | |
| | | | | | | |

### 3.3 Wet weather investigation outfall sampling data

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

| Outfall ID | Latitude / Longitude | Sample date | Ammonia | Chlorine | Surfactants |
|---|---|---|---|---|---|
| See CDM Smith 2024 Memo atteched | | | | | |

### 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 |
|---|---|---|---|---|---|---|---|
| 2023-None identified/ not yet applicable See CDM Smith 2024 memo attached | | | | | | | |

## 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

Print name:
Norman Seney, Mayor

Signature / Date:
3-25-25

Email: Barney.Seney@putnamct.us

Document Prepared by

Print name:
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