

# TOWN OF MANSFIELD, CONNECTICUT



**2021 ANNUAL REPORT**

**PERMIT NUMBER: GSM000116**

**January 31, 2022**

# CONTENTS

<b>1.0</b>	<b>Introduction</b>	<b>3</b>
<b>2.0</b>	<b>Part I - Summary of Minimum Control Measure Activities</b>	<b>4</b>
2.1	MCM #1 - Public Education and Outreach	5
2.1.1	MCM #1 - BMP Summary	5
2.1.2	Public Education Activities	6
2.2	MCM #2 – Public Involvement / Participation	7
2.2.1	MCM #2 - BMP Summary	7
2.2.2	Public Involvement / Participation Activities	7
2.3	MCM #3 – Illicit Discharge Detection and Elimination	8
2.3.1	MCM #3 – BMP Summary	8
2.3.2	List of Citizen Reports	9
2.3.3	Summary of Illicit Discharges and SSOs	9
2.3.4	Tracking Methodology	10
2.3.5	Failing Septic Systems	10
2.3.6	IDDE Reporting Metrics	10
2.3.7	IDDE Training	10
2.4	MCM #4 – Construction Site Stormwater Runoff Control	11
2.4.1	MCM #4 – BMP Summary	11
2.5	MCM #5 – Post-Construction Stormwater Management	12
2.5.1	MCM #5 – BMP Summary	12
2.5.2	Post-Construction Stormwater Management Reporting Metrics	13
2.5.3	DCIA Baseline	13
2.6	MCM #6 – Pollution Prevention / Good Housekeeping	14
2.6.1	MCM #6 – BMP Summary	14
2.6.2	Pollution Prevention / Good Housekeeping Metrics	15
2.6.3	Catch Basin Cleaning Program	16
2.6.4	Retrofit Program	16
<b>3.0</b>	<b>Impaired Waters Investigation and Monitoring</b>	<b>17</b>
3.1	Impaired Waters Investigation and Monitoring Program	17
3.2	Screening Data for Outfalls to Impaired Waterbodies	18
3.3	Follow-up Investigations	19
3.4	Prioritized Outfall Monitoring	19

4.1	Assessment and Priority Ranking of Catchments .....	20
4.2	Outfall and Interconnection Screening and Sampling Data.....	22
4.2.1	Dry Weather Screening and Sampling Data from Outfalls and Interconnections .....	22
4.2.2	Wet Weather Sample and Inspection Data .....	22
4.3	Catchment Investigation Data .....	22
4.3.1	System Vulnerability Factor Summary.....	22
<b>4.0</b>	<b>Certification .....</b>	<b>23</b>

## 1.0 Introduction

This Annual Report provides the public and regulators with the Town’s efforts to comply with the conditions of the Connecticut Department of Energy and Environmental Protection’s General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems (General Permit). In the following sections the Town will provide updates on activities performed associated with the 6 Minimum Control Measures (MCM).

Stormwater Program Permit Information	
1. Permitting Authority: State of CT Department of Energy & Environmental Protection	
2. Permit Number: GSM000116	3. Permit Type: General
4. Permit Name: General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems	
5. Date Issue: January 20, 2016	6. Date Expire: June 30, 2022

General Information for MS4 Operator	
1. Operator Name:	Town of Mansfield Department of Public Works
2. Represented Entity:	
3. Mailing Address:	4 South Eagleville Road
4. Mail City, State, Zip:	Mansfield, CT 06268
5. Phone Number:	(860)-429-3331
6. Email Address:	PublicWorks@mansfieldct.org
7. Population: 26,009	8. Area (sq. mi): 45.5
9. Official Website:	<a href="http://www.mansfieldct.gov">http://www.mansfieldct.gov</a>

General Information for Primary Contact Person	
1. Name:	Derek M. Dilaj, P.E.
2. Title:	Assistant Town Engineer
3. Phone Number:	860-429-3334
4. E-Mail Address:	<a href="mailto:Derek.Dilaj@mansfieldct.org">Derek.Dilaj@mansfieldct.org</a>

General Information for Secondary Contact Person	
1. Name:	John C. Carrington, P.E.
2. Title:	Public Works Director
3. Phone Number:	860-429-3332
4. E-Mail Address:	<a href="mailto:John.Carrington@mansfieldct.org">John.Carrington@mansfieldct.org</a>

## **2.0 Part I - Summary of Minimum Control Measure Activities**

The Town currently has many practices and programs in place relating to stormwater management and pollution prevention. This annual report provides an update on the program outlined in the Stormwater Management Plan (Plan) drafted by the Town in March 2017. The Plan identified best management practices (BMPs) and measurable goals for the following six minimum control measures:

- Public education and outreach
- Public involvement / participation
- Illicit discharge detection and elimination
- Construction site stormwater runoff control
- Post-construction stormwater management
- Pollution prevention/good housekeeping

For each minimum control measure, the Town will define appropriate BMP's, designate a person(s) and job title responsible for each BMP, define a time frame for implementation for each BMP, and define measurable goals for each BMP.

## 2.1 MCM #1 - Public Education and Outreach

The Town initiated a program for educating a wide range of individuals, from elementary school children to developers. Programs included a tabletop demonstration for elementary school children to see how rainfall collects pollutants through various land uses and how it impacts the water bodies. This program is completed each year by the Town Sustainability Coordinator.

### 2.1.1 MCM #1 - BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date
1-1 Launch of Webpage	Complete	Initial Launch of Webpage	Completion	Asst. Town Engineer/ IT	April 1, 2017	April 1, 2017
1-2 Update Website as Appropriate	On-Going	Updated Website to include Septic System Guidelines & Pet Waste	Update twice per year	Asst. Town Engineer/ IT	July 1, 2019	Continuous
1-3 Accumulate Educational Materials	On-Going	Identified potential ordinance for LID Maintenance	Accumulate 5 materials per year	Asst. Town Engineer / Inland Wetlands Agent	July 1, 2019	Continuous
1-4 Begin Public Education Program	On-Going	Accumulation of Educational Materials and presented through website	Complete 2 Educational Programs per Year	Asst. Town Engineer / Inland Wetlands Agent / EHHD Outreach	June 30, 2019	Continuous
1-5 Address Education for Pollutants of Special Concern	On-Going	None	At each educational program highlight pollutants of concern	Asst. Town Engineer / Sustainability Coordinator / Inland Wetlands Agent	July 1, 2019	Continuous

## 2.1.2 Public Education Activities

<b>Activity</b>	<b>Audience (and # of people reached)</b>	<b>Topic(s) Covered</b>	<b>Pollutant of Concern Addressed</b>	<b>Department / Person Responsible</b>
<i>Stormwater Education Program for School Children</i>	<i>Public School Students (30+)</i>	<i>Pathways of Storm water, ways Storm water can become affected</i>	<i>Bacteria, Nitrogen,</i>	<i>Sustainability Coordinator</i>
<i>Launch Webpage</i>	<i>Residents and Students with Web Access (13,000+)</i>	<i>Septic Systems</i>	<i>Bacteria, Impervious Cover</i>	<i>Asst. Town Engineer/ IT</i>
<i>Rain Garden Installation App Brochure</i>	<i>P&amp;Z Applicants (100+)</i>	<i>Use of Low Impact Development Opportunities on Residential Properties</i>	<i>Impervious Cover</i>	<i>Zoning Agent / Asst. Town Engineer</i>
<i>Rain Garden Demonstrations Projects</i>	<i>Visitors of Bicentennial Pond Dam &amp; Lenard Hall (1,000+)</i>	<i>Pathways of Stormwater, Use of Low Impact Development Opportunities within Landscaping</i>	<i>Impervious Cover, Bacteria</i>	<i>Senior Planner</i>
<i>Trail Clean Ups</i>	<i>UConn Service Students, Town Employees, Volunteers (40+)</i>	<i>Removing debris and trash from Town Parks</i>	<i>Bacteria</i>	<i>Senior Planner</i>

## 2.2 MCM #2 – Public Involvement / Participation

The Town posted the Plan by March 31, 2017 for public comment and this annual report on January 31, 2022 to provide adequate time for public comment. The Plan was presented to various commissions and committees for feedback. The annual report was made available through the Town’s website and Town Hall. This year due to COVID-19 many organized activities depending on the time of year were cancelled because of social distancing requirements however, the Town saw increased use of its trails and outdoor spaces.

### 2.2.1 MCM #2 - BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date
2-1 Provide Notification and Obtain Public Comment for SWMP	Complete	Provide a Minimum 60 day Notice to the Public and Obtain Public Comment for SWMP	Completion	Public Works Specialist	April 3, 2017	March 31, 2017
2-2 Provide Notification and Obtain Public Comment for Annual Reports	In progress	Noticed	Completion	Public Works Specialist	February 15, 2022	January 31, 2022

### 2.2.2 Public Involvement / Participation Activities

Activity	Implemented	Date	Posted
<i>Availability of Annual Report announced to public</i>	Yes	January 31, 2022	<a href="#">MS4 Annual Reports   Mansfield, CT</a>



## 2.3 MCM #3 – Illicit Discharge Detection and Elimination

This minimum control measure is critical to the success of the stormwater management program as it will identify and reduce untreated discharges that contribute high levels of pollutants, including heavy metals, toxic materials, oil and grease, solvents, nutrients, viruses and bacteria to receiving water bodies and prevent further illicit discharges in the future. The Town has initiated an IDDE tracking system to receive Citizen Concerns and monitor the status of known illicit discharges. For the upcoming year, the Town will be reviewing existing ordinances to verify that legal authority has been established over illicit discharges and utilize the IDDE plan template provided by CTDEEP to draft a written IDDE plan. In addition, the Town has initiated a program to map the MS4.

### 2.3.1 MCM #3 – BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date
3-1 Develop record keeping system for IDDE tracking	Complete	Utilizing Mobile311	-	Asst. Town Engineer / EHHD Director of Health	July 1, 2017	April 25, 2017
3-2 Develop Citizen Reporting Program	Complete	Mobile 311 has now taken place of Q-Notify allowing for Public Works to be directly notified	Initiate response to citizen concerns within 72 hours 95% of the time.	Department of Public Works	July 1, 2017	June 30, 2018
3-3 Develop written IDDE	Complete	Plan is in use and being refined	Completion	Asst. Town Engineer / EHHD Director of Health	July 1, 2019	June 30, 2019
3-4 Establish legal authority to prohibit illicit discharges	Complete	Public Hearing and Approval at June 10, 2019	Completion	Town Council / Town Manager / Public Works Department	July 1, 2019	June 30, 2019
3-5 Initial Illicit Discharge Assessment and Prioritization	In Progress	ArcGIS desktop study is nearly complete with Land Use, Utilities, Construction Date, Lot Size	Completion	Asst. Town Engineer / EHHD Director of Health	June 30, 2019	June 30, 2019
3-6 Address IDDE in areas with pollutants of concern	Ongoing	Sampling is being conducted with priority to Impacted Water Bodies	Completion	Asst. Town Engineer / EHHD Director of Health	Not specified	June 30, 2019
3-7 Develop list and maps of all MS4 stormwater outfalls in priority areas	Complete	Town has completed mapping	Completion	Department of Public Works	Jul 1, 2020	June 30, 2020

3-8 Complete MS4 Mapping	In Progress	Town has mapped approximately 90% of the stormwater system	Inspect 30 miles of road per year	Department of Public Works	Not specified	June 20, 2022
--------------------------	-------------	--	-----------------------------------	----------------------------	---------------	---------------

### 2.3.2 List of Citizen Reports

Date of Report	Location / suspected source	Response taken
10/25/2017	24" RCP outfall on eastern edge of Cedar Swamp Brook at Route 44	Requested photo from citizen, Citizen indicated cloudy appearance, conducted field visit (water running clear), discussed with UConn since this outfall was replaced under the Discovery Drive Construction.
3/26/2018	18" CMP outfall to unnamed stream to Sawmill Brook	A white discharge was observed by a resident. The Town investigated upstream and noted a white discharge from a hose that was laid into a Town catch basin. The hose conveyed wash water from the milking parlor of the dairy farm. This was due to a collapsed pipe in their system which was subsequently repaired.
10/14/2018	6" PVC Pipe Discharging to Eagleville Brook adjacent to North Eagleville Road on UConn Property	UConn was contacted for an odor complaint. UConn contacted the Town indicating they obtained samples from a 6" PVC pipe that discharges to a headwall with positive results of E-Coli and Coliform. Upon recommendation from EHHD samples for Phosphorous, Ammonia, and Surfactants were to be obtained however, when sample was attempted flow had ceased from the pipe. Follow ups by UConn will occur.

### 2.3.3 Summary of Illicit Discharges and SSOs

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)
74°14'16"/41°48'16"	Identified 4/18/15 (7 Days)	MS4	Unknown	Plumbing Contractor	Ceased use of station and completed re-plumbing of hand wash station.	
72°12'08"/41°44'10"	Identified 7/25/17	Private	Unknown	Property Owner	Ceased use of facilities and replaced failed pump	
72°13'55"/41°45'01"	Identified 3/26/2018 (1 Day)	MS4	Unknown	Property Owner	Repaired failed facility	

### 2.3.4 Tracking Methodology

The Town utilizes the Mobile 311 application to provide a mechanism to track IDDE based on location and eventual outfall location. Citizens are able to add specific work items (or requests) that specifically get routed to the Engineering Division. This allows for that division to coordinate with Eastern Highlands Health District and if necessary, the Building Department.

### 2.3.5 Failing Septic Systems

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
Not aware of currently failing septic systems		

### 2.3.6 IDDE Reporting Metrics

Metrics	
Estimated number of MS4 outfalls	254
Estimated number of interconnections	26
Outfall mapping complete	100%
Interconnection mapping complete	100%
System-wide mapping complete (detailed MS4 infrastructure)	95%
Outfall assessment and priority ranking	100%
Dry weather screening of all High and Low priority outfalls complete	0
Catchment investigations complete	0
Estimated percentage of MS4 catchment area investigated	15%

### 2.3.7 IDDE Training

The Town conducts regular training of Facilities crews on a yearly basis about safe handling and disposal of materials, which could lead to illicit discharges. The Department of Public Works provided training for the Operations Division to identify and report illicit

discharges and operating procedures for activities at parks, buildings, and roadways. Further, the Department continuously trains employees on the objectives of the Stormwater Management Plan including catch basin cleaning, sweeping, green infrastructure, spill response protocols, and addressing erosion prone areas.

## 2.4 MCM #4 – Construction Site Stormwater Runoff Control

This minimum control measure is a component of this SWMP because stormwater runoff from construction sites often flows to storm sewer systems and ultimately is discharged into local rivers and streams. Sediment is typically the main pollutant of concern but other pollutants include solid and sanitary wastes, phosphorous (fertilizer), pesticides, nitrogen (fertilizer), oil and grease, concrete truck washout, construction chemicals and construction debris. The goal of this minimum control measure is to reduce pollutants in stormwater runoff from construction activities. The Town has integrated four of the five BMPs this year. The remaining BMP is being introduced into the Town’s Zoning Regulations and Engineering Standards.

### 2.4.1 MCM #4 – BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date
4-1 State Permit Notification	Ongoing	Working with Permitting Vendor to add this as standard condition as required.	Inform 100% of Permits with Greater than 1.0 acre of requirements	Zoning Enforcement Officer	July 1, 2017	July 1, 2017
4-2 Public Involvement	Ongoing	Zoning Enforcement Officer investigates or involves individuals necessary to address public concerns.	Respond to public comment within 72 hours 95% of the time	Zoning Enforcement Officer	July 1, 2017	July 1, 2017
4-3 Conduct Site Inspections	Ongoing	Zoning Enforcement Officer conducts site visits as required.	Inspect all sites that meet applicable threshold	Zoning Enforcement Officer	July 1, 2017	July 1, 2017
4-4 Site Plan Review/Interdepartmental Coordination	Ongoing	The review team meets during the application process.	Complete update to zoning permit	Public Works Director / Director of Planning	July 1, 2017	July 1, 2017
4-5 Legal Authority	Complete	Reviewing Zoning regulations and Engineering Standards as necessary.	Completion	Planning and Zoning Commission / Director of Planning	July 1, 2020	June 30, 2020

## 2.5 MCM #5 – Post-Construction Stormwater Management

Stormwater runoff from developed sites often flows to stormwater management systems, to MS4s, and ultimately is discharged into local rivers and streams. Runoff from these developments and/or redevelopment areas have been shown to significantly affect receiving water bodies. In accordance with the Plan, the Town updated its Zoning regulations to require LID be used a preferred means to address stormwater quality and quantity. This year, the Town through the mapping program identified additional stormwater management features. Operation and Maintenance plans are being developed and implemented for the bio-swales, wet-detention basins and bio-filters.

### 2.5.1 MCM #5 – BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date
5-1 Enforce LID/runoff reduction requirements for development and redevelopment projects	On-Going	LID is considered in all permit reviews.	Completion	Director of Planning / Department of Public Works	July 1, 2022	June 30, 2020
5-2 Implement long-term maintenance plan for stormwater basins and treatment structures	On-Going	Consolidating Operation & Maintenance Plans for Publically Owned Facilities & Evaluating Use of Private Service Agreements	Complete routine maintenance on 3 stormwater basins	Department of Public Works	July 1, 2020	June 30, 2020
5-3 DCIA mapping	Complete	DCIA is mapped for the smallest HUC publically available	Completion	Department of Public Works	July 1, 2020	June 30, 2020
5-4 Address post-construction issues in areas with pollutants of concern.	On-Going	Revised intersections of minor roadways to reduce impervious coverage when resurfacing	Complete at least 1 retrofit of issue areas per year	Department of Public Works	July 1, 2020	June 30, 2020
5-5 Update legal authority and guidelines regarding LID and runoff reduction in site development planning	Complete	LID measures are required for most projects and encouraged for small scale projects	Completion	Planning & Zoning Commission	July 1, 2022	June 15, 2020

### 2.5.2 Post-Construction Stormwater Management Reporting Metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	286.1 ac / 1.08%
DCIA disconnected (redevelopment plus retrofits)	0.05 acres this year / 4.7 acres total
Retrofits completed (since 2012)	15
DCIA disconnected	0.02% this year / 1.6% total since 2012
Estimated cost of retrofits	\$15,000 / Town
Detention or retention ponds identified	1 this year /16 total

### 2.5.3 DCIA Baseline

The Town utilized the Connecticut Watershed Response Plan for Impervious Cover Appendix 3 referenced on the CTDEEP Municipal Stormwater Page. This document further references the USEPA document “Estimating Change in Impervious Area (IA) and Directly Connected Impervious Areas (DCIA) for Massachusetts Small MS4 Permit. (updated April 2014).” The Town’s newer roadways are a combination of curb and gutter and sheet flow from the roadway. Several curb and gutter subdivisions constructed after 2004 were constructed with water quality components, namely retention basins, filtration basins, and bio-filters. Older roadways drain with sheet flow to the road edges. Lot sizes in the Town are mostly over 2 acres in size resulting in setbacks that minimize the number of roofs directly connected to the MS4. As a result, the DCIA is estimated utilizing Option 2 with a designation of “Average”. Where “Average” is mostly storm sewered with curb and gutter, no dry wells or infiltration, residential rooftops not directly connected.

The Town area without the area associated with the UConn MS4 is 26,540 acres. Based upon the 2012 Impervious area layer provided by CT Eco, within the Town MS4 borders and Connecticut DOT MS4, there are 1,295 acres of impervious area resulting in 4.88% impervious area. Utilizing the “partially connected” equation from UConn CLEAR the Directly connected percentage is 0.59% or 286.1 acres of directly connected impervious area.

## 2.6 MCM #6 – Pollution Prevention / Good Housekeeping

This measure requires the Town to examine and subsequently alter its own actions to help ensure a reduction in the amount and type of pollution that collects on roadways, parking lots, open spaces, storage and vehicle maintenance areas, and all Town maintained facilities, and any other Town owned or leased operation which ultimately discharge into local waterways. The Town conducted several activities this year including a tracking system for DCIA and implementing a street sweeping program. In 2017, the Town and the Eastern Conservation District applied for and were notified of an award for the project located in the Saw Mill Brook Watershed.

This year the Department was able to begin sweeping earlier in the year and after several wind storms that left material on the roadways increasing the quantity of material picked up by the sweeping program.

### 2.6.1 MCM #6 – BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date
6-1 Track projects that disconnect DCIA	Complete	Spreadsheet developed identifying project and methods	Completion	Asst. Town Engineer	July 1, 2017	July 1, 2017
6-2 Develop/implement street sweeping program	Complete	Implemented Standard Operating Procedure	Completion	Operations Manager	July 1, 2018	July 1, 2017
6-3 MS4 property and operations maintenance	Complete	Reviewing draft Standard Operating Procedure	Completion	Operations Manager	July 1, 2018	June 30, 2018
6-4 Employee training program	Complete	Investigating alternatives for providing training in concurrence with IDDE	Completion	Public Works Director / Facilities Director	July 1, 2019	June 30, 2019
6-5 Develop/implement plan to identify/prioritize retrofit projects	In Progress	Applying for 319 grant funding for retrofit projects	Completion	Public Works Director	July 1, 2020	April 1, 2020
6-6 Develop/implement catch basin cleaning program	Complete	Reviewing SOPs from Central Massachusetts Regional Stormwater Coalition	Inspect all Catch Basins within UA	Operations Manager	July 1, 2020	June 30, 2020

6-7 Implement coordination with interconnected MS4s	In Progress	The Town meets with UConn periodically to discuss stormwater	Completion	Public Works Director	Not specified	June 30, 2020
6-8 Develop/implement program to control other sources of pollutants to the MS4	In Progress		Completion	Public Works Director	Not specified	June 30, 2022
6-9 Evaluate additional measures for discharges to impaired waters	In Progress		Completion	Public Works Director	Not specified	June 30, 2022
6-10 Develop/implement snow management practices	In Progress	Continually monitoring application rates from each plow route	Reduce Salt Usage (Ton per Lane-Mile per Storm) by 1% by end of permit	Operations Manager	July 1, 2022	June 30, 2022

## 2.6.2 Pollution Prevention / Good Housekeeping Metrics

Metrics	
Employee Training Provided for Key Staff	FY 2020/2021
<b>Street Sweeping</b>	
Curb Miles Swept	232
Volume (or mass) of material collected	690 cy
<b>Catch Basin Cleaning</b>	
Total catch basins in priority areas	420
Total catch basins in MS4	1,325
Catch Basins Inspected	1,254
Catch Basins Cleaned	1,254
Volume (or mass) of material removed from all catch basins	158 cy
Volume removed from catch basins to impaired waters (if known)	27 cy
<b>Snow Management</b>	
Type(s) of deicing material used	Treated Salt
Total Amount of each deicing material applied	1,817 tons
Type(s) of deicing equipment used	Sander Spreader
Lane-miles treated	228 (14 Lane-Miles Gravel)
Snow disposal location	Transfer Station



Staff training provided on application methods & equipment	Yes – 2021
<b>Lands with high potential to contribute bacteria (dog parks, parks with open water, &amp; sites with failing septics)</b>	
Cost of mitigation actions / retrofits	\$2,000

### 2.6.3 Catch Basin Cleaning Program

The Town has routinely cleaned catch basins throughout Town for several years because the Town historically has utilized sand/salt mix for snow removal operations on the Town’s right-of-way. The Town in 2016 moved to a treated salt only method of snow management. The DPW has continued a catch basin cleaning program that has identified several locations in Town that require increased cleaning frequency. As the detailed inspections are completed as required by the Permit, the Town will be able to identify higher priority catch basins that may require increased frequencies of cleaning. Once identified, the Town will conduct a review of the contributing watershed to identify the source. There are approximately 1,580 catch basins in the Town of Mansfield. To date, 986 catch basins have been identified through GIS mapping. This year the Town utilized its own forces and a subcontractor to clean these basins.

### 2.6.4 Retrofit Program

The Town has begun planning for the Retrofit Program by inventorying Town properties that currently do not have disconnected stormwater components. Through this inventory data is being collected on total impervious area, total connected impervious area, available on-site soils, and expected long term use of the facility. Concurrently with the inventory of Town facilities, grant funding opportunities that allow for stormwater and/or water quality improvements to be made are investigated.

The Town has completed two stormwater retrofits at the Bicentennial Pond Park. These retrofits were two Rain Gardens partially funded with the Eastern Conservation District and Town resources. The Town routinely utilizes a strobe system to disturb waterfowl that sleep on the pond surface to discourage their presence with moderate luck.

The Southeast Elementary School is being razed in 2022 for a new Net-Zero Elementary School that will feature stormwater management features meeting Water Quality Guidelines. The existing stormwater system is being removed to allow for the new collection system. In addition an expansion of the Mansfield Public Library Parking Lot in 2022 will allow for the stormwater treatment of the existing impervious cover and additional coverage.

The Retrofit program will continue by identifying specific Municipal Properties that are currently discharging without treating the Water Quality Volume. As these are completed additional sites along the Town’s Right-of-Way will be identified by overlaying

Year	Project Description	DCIA Disconnected (ac)
2023	Mansfield Middle School Water Quality	~2.90
2024	Mansfield Discovery Depot	~2.65
2025	Thomas Drive Outfall Retrofit	~
2026		
2027		

### 3.0 Impaired Waters Investigation and Monitoring

#### 3.1 Impaired Waters Investigation and Monitoring Program

Indicate which stormwater pollutants (s) of concern occur(s) in your municipality of institution

Nitrogen/ Phosphorus  Bacteria  Mercury  Other Pollutant of Concern

Program Status:

The Town is comprised of five sub-regional watersheds, the Willimantic River, Fenton River, Mount Hope River, Natchaug River and Sawmill Brook. The Fenton River, Mount Hope River and portions of the Natchaug River are Surface Water Classification A and the remaining being Classification AA. For waterbodies impaired by Bacteria screening was conducted for E.Coli and Total Coliforms with Classification AA and only E.Coli for waterbodies with Surface Water Classification A.

Follow-up investigation is required if the following pollutant thresholds are exceeded:

- E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others
- Total Coliform > 500 col/100ml

### 3.2 Screening Data for Outfalls to Impaired Waterbodies

Outfall ID	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other Pollutant of concern)	Results	Name of Laboratory	Follow-up required?
NEAGLERD-OT-001	4/26/19	Bacteria, Other Pollutant of Concern	E. coli 213 col /100 ml	Phoenix Environmental	No
SEPARTSTRD-OT-002	4/26/19	Bacteria, Other Pollutant of Concern	E. coli 256 col /100 ml	Phoenix Environmental	No
HILLYNRD-OT-007	4/26/19	Bacteria, Other Pollutant of Concern	E. coli 63 col /100 ml	Phoenix Environmental	No
HILLYNRD-OT-001	6/13/19	Bacteria, Other Pollutant of Concern	E. coli 279 col /100 ml	Phoenix Environmental	No
HILLYNRD-OT-002	6/13/19	Bacteria, Other Pollutant of Concern	E. coli 1,350 col /100 ml	Phoenix Environmental	Yes
HILLYNRD-OT-004	6/13/19	Bacteria, Other Pollutant of Concern	E. coli 3,450 col /100 ml	Phoenix Environmental	Yes
HILLYNRD-OT-005	6/13/19	Bacteria, Other Pollutant of Concern	E. coli 794 col /100 ml	Phoenix Environmental	Yes
HILLYNRD-OT-006	6/13/19	Bacteria, Other Pollutant of Concern	E. coli <10 col /100 ml	Phoenix Environmental	No
HUNTINGRD-OT-001	6/13/19	Bacteria, Other Pollutant of Concern	E. coli 17,300 col /100 ml	Phoenix Environmental	Yes
CONTVILLRD-OT-001	11/23/20	Bacteria	E. coli 10 col /100 ml	Phoenix Environmental	No
TIMBERDR-OT-001	11/23/20	Bacteria	E. coli 85 col /100 ml	Phoenix Environmental	No
THOMASDR-OT-002	11/23/20	Bacteria	E. coli 153 col /100 ml	Phoenix Environmental	No
BIRCHRD-OT-001	6/14/21	Bacteria	E. Coli 456 col / 100 ml	Phoenix Environmental	Yes
MANSFLD-OT-003	9/1/21	Bacteria	E. Coli 906 col / 100 ml	Phoenix Environmental	Yes
DAVISRD-OT-004	9/1/21	Bacteria	E. Coli 11,200 col / 100 ml	Phoenix Environmental	Yes
SPRINGRD-OT-001	9/1/21	Bacteria	E. Coli >24,200 col / 100 ml	Phoenix Environmental	Yes
SPRINGRD-OT-002	9/1/21	Bacteria	E. Coli 1,040 col / 100 ml	Phoenix Environmental	Yes

### 3.3 Follow-up Investigations

Outfall ID	Status of drainage area investigation	Control measure implementation to address impairment
HILLYNRD-OT-002	Single Family Homes on Septic Systems with significant infestation of Gypsy Moths, Stormwater System was replaced in 2020	Follow up testing in 2021
HILLYNRD-OT-004	Single Family Homes on Septic Systems with significant infestation of Gypsy Moths, Stormwater System was replaced in 2020	Follow up testing in 2021
HILLYNRD-OT-005	Single Family Homes on Septic Systems with significant infestation of Gypsy Moths, Stormwater System was replaced in 2020	Follow up testing in 2021
HUNTINGRD-OT-001	Single Family Homes on Septic Systems, Sanitary Sewer Force Main and Gravity Wastewater Treatment Facility Discharge	Follow up testing in 2021
BIRCHRD-OT-001		Follow up testing in 2022
MANSFLD-OT-003		Follow up testing in 2022
DAVISRD-OT-004		Follow up testing in 2022
SPRINGRD-OT-001		Follow up testing in 2022
SPRINGRD-OT-002		Follow up testing in 2022

### 3.4 Prioritized Outfall Monitoring

Once outfall screening 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 July 1, 2021.

Outfall ID	Sample date	Parameter(s)	Results	Name of Laboratory (if used)
<i>To begin in Spring 2022.</i>				

### Additional IDDE Program Data

Following a public hearing on June 10, 2019, the town enacted a MS4 IDDE ordinance on July 11, 2019. This ordinance allows the Town to regulate the introduction of pollutants into the storm drainage system through stormwater by any user, as well as prohibit illicit connections and discharges to the storm drainage system. The town is legally authorized to carry out inspection, surveillance, and monitoring procedures in compliance with this ordinance.

#### 4.1 Assessment and Priority Ranking of Catchments

Provide a list of all catchments with ranking results (DEEP basins may be used instead of manual catchment delineations). The Town has not identified any problematic watersheds or excluded watersheds to date. As additional data is aggregated from testing it will be applied against existing GIS data identifying land use and infrastructure to assess and rank catchments.

Catchment ID (DEEP Basin ID)	Category	Rank	Catchment ID (DEEP Basin ID)	Category	Rank
3207-12-1	High Priority	1	3206-12-1-L2	High Priority	27
3208-01-1	High Priority	2	3206-13-1	High Priority	28
3208-00-1	High Priority	3	3206-13-1-L1	High Priority	29
3207-09-1	High Priority	4	3207-00-2-L4	High Priority	30
3207-10-1	High Priority	5	3207-00-2-L5	High Priority	31
3100-17-1	High Priority	6	3207-00-2-R10	High Priority	32
3200-00-4-L3	High Priority	7	3207-00-2-R11	High Priority	33
3206-00-3-R8	High Priority	8	3207-00-2-R12	High Priority	34
3208-03-1	High Priority	9	3207-00-2-R13	High Priority	35
3206-00-3-R7	High Priority	10	3207-00-2-R14	High Priority	36
3207-12-1-L1	High Priority	11	3207-00-2-R6	High Priority	37
3207-13-1	High Priority	12	3207-00-2-R7	High Priority	38
3208-02-2-R1	High Priority	13	3207-00-2-R8	High Priority	39
3206-11-1	High Priority	14	3207-00-2-R9	High Priority	40
3206-12-1	High Priority	15	3207-14-1	High Priority	41
3207-11-1	High Priority	16	3207-14-1-L1	High Priority	42

Catchment ID (DEEP Basin ID)	Category	Rank	Catchment ID (DEEP Basin ID)	Category	Rank
3100-18-1-L1	High Priority	17	3207-15-1	High Priority	43
3200-00-4-L1	High Priority	18	3207-15-1-L1	High Priority	44
3200-00-4-L2	High Priority	19	3100-16-1-L1	High Priority	45
3200-00-4-R11	High Priority	20	3100-19-1	High Priority	46
3200-00-4-R12	High Priority	21	3100-26-1	High Priority	47
3204-00-2-R1	High Priority	22	3208-00-2-R1	High Priority	48
3206-00-3-L3	High Priority	23	3208-02-1*	High Priority	49
3206-00-3-R6	High Priority	24	3208-02-1-L1	High Priority	50
3206-00-3-R9	High Priority	25	3100-00-3-R15	Low Priority	51
3206-12-1-L1	High Priority	26	3100-00-3-R16	Low Priority	52
3100-00-3-R17	Low Priority	53	3100-22-1	Low Priority	66
3100-00-3-R19	Low Priority	54	3100-22-1-L1	Low Priority	67
3100-00-3-R2	Low Priority	55	3100-23-1	Low Priority	68
3100-00-3-R20	Low Priority	56	3100-24-1	Low Priority	69
3100-00-3-R3	Low Priority	57	3100-26-1-L1	Low Priority	70
3100-00-3-R4	Low Priority	58	3200-00-4-R13	Low Priority	71
3100-00-3-R5	Low Priority	59	3100-19-1-L1	Low Priority	72
3100-00-3-R6	Low Priority	60	3100-19-2-R1	Low Priority	73
3100-00-3-R7	Low Priority	61	3100-16-1	Low Priority	74
3100-17-1-L1	Low Priority	62	3207-16-1	Low Priority	75
3100-18-1	Low Priority	63	3100-00-3-R18	Low Priority	76
3100-20-1	Low Priority	64	3100-17-2-R1	Low Priority	77
3100-20-1-L1	Low Priority	65			

## 4.2 Outfall and Interconnection Screening and Sampling Data

### 4.2.1 Dry Weather Screening and Sampling Data from Outfalls and Interconnections

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	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. Coli or enterococcus	Surfactants	Water Temp	Pollutant of Concern	If required, follow-up actions taken
None										

### 4.2.2 Wet Weather Sample and Inspection Data

Provide sample data for outfalls and key junction manholes of any catchment area with at least one System Vulnerability Factor.

Outfall / Interconnection ID	Screening / sample date	Ammonia	Chlorine	Conductivity	Salinity	E. Coli or enterococcus	Surfactants	Water Temp	Pollutant of Concern	If required, follow-up actions taken
None										


## 4.3 Catchment Investigation Data

### 4.3.1 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
None		

## 4.0 Certification

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: Ryan J. Aylesworth	Print name: Derek M Dilaj, PE
Signature / Date:  3/28/2022	Signature / Date: 