

TOWN OF EAST HAVEN, CONNECTICUT



STORMWATER MANAGEMENT PLAN

February 2024

MS4 General Permit
Town of East Haven 2021 Annual Report
Existing MS4 Permittee
Permit Number GSM000093
[January 1, 2022 – December 31, 2022]

This report documents East Haven's efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2022 to December 31, 2022.

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

BMP	Status	Activities in current reporting period (if needed, more space available after this table)	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-1 Implement public education and outreach	incomplete	Keep MS4 informational available for interested parties	none	Engineering	Ongoing	Ongoing	This one is to always benefit the public and provide understanding
1-2 Address education/ outreach for pollutants of concern*	Ongoing	Keep MS4 informational available for interested parties	Have educational material available	Engineering	Ongoing	Ongoing program	This information is used to provide answers to the public

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

This year the Town will work on distributing more information about common sources of pollutants which include phosphorus, nitrogen, and bacteria pollution and ways to help prevent or reduce the amounts causing harm to the waterways. Also, the town will provide information on how we can all make a difference and continuously update the website for our MS4 outreach.

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.
Educate our citizens about the impacts of Stormwater on waterways	Fall Festival Attendees	Controlling groundwater pollution at the private residence and ways to eliminate and help maintain our waterways	Oils, household chemicals, lawn chemicals and pesticides, and rainwater runoff	Engineering
	All traffic through Town Offices	Readily available copies of "Integrated Pest Management and Biological Controls for the Homeowner" at the Zoning Department	Predators, parasites, and pathogens	Planning & Zoning
Educate residents on proper septic system maintenance	All residents- Info is available to all and also given to residents with septic.	Safe Septic Care/ working with East Shore Health District (ESHD)	Septic Overflows	Planning and Zoning and Health Department
Encourage groups to participate in the Stormwater Management Plan	RWA customers	"We Can Make a Difference" and explanation of plan.	Household Chemicals	Regional Wates Authority (RWA)
Educate industrial and commercial entities and municipal officials and land use commissions of the need for proper Stormwater Management	Commercial and Municipal- On going effort to meet with owners on site while work is in progress	Minimizing groundwater pollution on commercial property and a Flyers sent out to all municipal employees.		
Allow public participation in developing and implementing the SMP	All residents doing business with the Town	Place draft copy of Stormwater Management Plan in		

	Town Engineer's and Zoning offices	
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2. Public Involvement/Participation (Section 6(a)(2) / page 21)

2.1 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 Final Stormwater Management Plan publicly available	Complete	"No Dumping" Seals around the waterbodies	Seals around town	Planning and Zoning and Engineering	Ongoing		This will allow residents to know exactly where the drainages are
2-2 Comply with public notice requirements for Annual Reports	In Progress	TBD	Publish on Town website for Town input	Finance/ Jim Keeley	ongoing		
2-3 Stormwater committee engagement	In progress	Engaging residents to continue meeting and working with other committees	Provide information regarding SWMP implementation	Engineering			This will allow residents and other committee members to meet and discuss any issues with the SWMP
2-4 Involve the public in watershed activities	On going	Coordinate Scout Storm Drain stenciling program- Annual Brook and Shoreline Clean-up Sponsor stream and river clean-ups with particular attention on the Farm River and Tuttle Brook	Label the Storm Drains- "No Dumping"	Engineering	Ongoing		Residents will know the areas of high priority.

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

Continue to involve the community in planning and implementing the Town's stormwater management activities. The Engineering office will also provide an updated flyer specific to the Town's pollution control.

Best Management Practices: To protect the health of the watercourses within the Farm River Watershed, best management practices (BMPs) are implemented at various sites in the area. The goal of BMPs is to reduce the amount of stormwater runoff from entering the streams, and thus, reduce the amount of polluted material from entering the streams. Some examples of general BMPs implementations are bioretention areas, vegetated swales, and permeable pavements. Some examples of agricultural-related BMPs include cover cropping, nutrient load management, and irrigation management.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to public	Links on the Town website and also on the Town's Social Media Accounts	7/2023	https://www.townofeasthavenct.org/sites/easthavenct/files/uploads/east_haven_stormwater_management_plan_final_08092017_3.pdf
Availability of Annual Report announced to public	Links on the Town website and also on the Town's Social Media Accounts	7/2023	https://www.townofeasthavenct.org/sites/easthavenct/files/uploads/east_haven_stormwater_management_plan_final_08092017_3.pdf

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

3.1 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 Prohibit non-stormwater discharge to the storm drainage system	Planning and Zoning Regulations §48 Stormwater management	Continue following the Town's ordinance regarding stormwater and maintain a firm stance with imposing sanctions for noncompliance	Enforce Regulations- Section 48: Stormwater Management §48.9 Enforcement and Penalties	Town Planner and Town Attorney	Ongoing		
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In progress	The Town has been working to continue mapping the areas of outfalls	Mapping with GIS	Engineering	Jul 1, 2025		
3-3 Implement citizen reporting program	In Progress	Citizens are able to call the Engineering department and report any acts that are in violation	Keep records of phone calls and letters of reports	Engineering	Ongoing		
3-4 Establish legal authority to prohibit illicit discharges	In Progress	The Town continues to implement this in to its regulations.	Add language to control illicit discharge	Planning and Zoning	Nov. 2024		

3-5 Develop record keeping system for IDDE tracking		Continue to update the database annually with progress, findings, recommendations, and revisions		Ongoing	
3-6 Address IDDE in areas with pollutants of concern		We have performed the required testing and will continue to do so		Not specified	

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

We plan on keeping proper records of resident concerns and addressing the situations with the correct sanctions according to Planning and Zoning Regulations §48.8 and §48.9.

3.3 List of citizen reports of suspected illicit discharges received during this reporting period.

Date of Report	Location / suspected source	Response taken
November 2019	Farm River- tree in the Farm River	Our Tree Foreman went down and was able to retrieve the tree from the river that was causing obstruction to the flow
August 2022	Farm River – trees in the Farm River	Town work force removed trees from the river that were causing flooding.

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

Public Works response and reports to the Town Engineer. Town Engineer directs corrective action. Town Engineer office logs information.

3.6 Provide a summary of actions taken to address septic failures using the table below.

Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known
None reported from ESDH in 2023		

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	
Estimated or actual number of interconnections	None
Outfall mapping complete	No
Interconnection mapping complete	N.A.
System-wide mapping complete (detailed MS4 infrastructure)	No
Outfall assessment and priority ranking	Ongoing
Dry weather screening of all High and Low priority outfalls complete	No
Catchment investigations complete	Ongoing
Estimated percentage of MS4 catchment area investigated	10%

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).

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

4.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Approved in 2018	Language changed	Improved regulations to best meet MS4 requirements	Planning & Zoning and Engineering	Jul 1, 2019	On going	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Ongoing	Engineering and Planning & Zoning continue to work with each other to ensure that all site plans are in accordance	Compliant site plans	Engineering and Planning and Zoning	Ongoing	Continuing	
4-3 Review site plans for stormwater quality concerns	Ongoing	All plans are vetted according to drainage and stormwater quality	Reduce runoff pollutants	Engineering and Planning and Zoning	Ongoing	Continuing	
4-4 Conduct site inspections	Ongoing	Engineering and Zoning perform on site building inspections to ensure compliance	Reduce/mitigate runoff pollutants	Engineering and Planning and Zoning	Ongoing	Continuing	
4-5 Implement procedure to allow public comment on site development	Ongoing	All plans for development are open to the public for review and comment	Public involvement		Ongoing	On going	Town Council Meetings

4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Ongoing					Ongoing	
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4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable.

The Town with Southwest Conservation District obtained a grant to help abate and prevent nonpoint source pollution at the Vetetans Memorial Hockey Rink on the Farm River. Work to be done in 2024.

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

5.1 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	In progress	Studying the language to implement stronger controls	Strengthen enforceable actions	Planning and Zoning	Fall 2024	Anticipate meeting deadline	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	TBA	Dependent upon above entry	Step up enforcement		Ongoing beginning Jul 1, 2019	Anticipate meeting deadline	
5-3 Identify retention and detention ponds in priority areas	Ongoing	All such structures are already under review	Monitor ponds	Engineering	Ongoing	Ongoing	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	Town has already implemented prioritized plan of maintenance and repair			Ongoing beginning Jul 1, 2019	Complete	

5-5 DCIA mapping	<i>Not Started</i>					TBD	
5-6 Address post-construction issues in areas with pollutants of concern	<i>Not Started</i>					Not specified	

Extra space for describing above BMP activities, if needed:

BMP	
	Working with Southwest Conservation District to implement BMPs on the Fram River and apply for grants. Working with State and Federal legislators to acquire a grant to clean up Tuttle Brook.

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

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5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	
DCIA disconnected (redevelopment plus retrofits)	
Retrofits completed	
DCIA disconnected	

Estimated cost of retrofits	
Detention or retention ponds identified	

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

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

6.1 BMP Summary

BMP	Status	Activities in current reporting period	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-1 Develop/implement formal employee training program	Ongoing	Maintain training records to show compliance	Meet all compliance goals	Public Service-Charlie Coyle	Ongoing	Ongoing	
6-2 Implement MS4 property and operations maintenance	Ongoing	Inspections and maintenance is being performed already on our industrial site and landfill	Proper maintenance	Public Service-Anthony Defala	Ongoing beginning Jul 1, 2018		
6-3 Implement coordination with interconnected MS4s	Not Started				Not specified		
6-4 Develop/implement program to control other sources of pollutants to the MS4	Not Started				Not specified		
6-5 Evaluate additional measures for discharges to impaired waters*	Not Started				Not specified		
6-6 Track projects that disconnect DCIA	Not Started				Ongoing		
6-7 Implement infrastructure repair/rehab program	Ongoing	Town consistently repairs any damaged infrastructure and rehabs same when budgeted		Engineer	Jul 1, 2024		

6-8 Develop/implement plan to identify/prioritize retrofit projects						Jul 1, 2024		
6-9 Implement retrofit projects to disconnect 2% of DCIA	Not Started					Jul 1, 2024		
6-10 Develop/implement street sweeping program	Ongoing	The Town has had a comprehensive sweeping/cleaning program in place for more than 5 years	Reduce pollutants in Runoff	Public Service-Charlie Coyle	Ongoing beginning Jul 1, 2017	ongoing		
6-11 Develop/implement catch basin cleaning program	Ongoing	Town has comprehensive CB cleaning program	Ensure proper drainage		Ongoing beginning Jul 1, 2020	ongoing		
6-12 Develop/implement snow management practices	Ongoing	The Town designs yearly plow routes to address changes in the roadway system.	Reduce pollutants in the melted snow	Public Service-Charlie Coyle	Ongoing beginning Jul 1, 2018	Ongoing		Snow is hauled when necessary

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

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	On going
Street sweeping	
Curb miles swept	140 miles
Volume (or mass) of material collected	420 ton
Catch basin cleaning	
Total catch basins in priority areas	70
Total catch basins in MS4	50
Catch basins inspected	75
Catch basins cleaned	65
Volume (or mass) of material removed from all catch basins	2 tons +/-
Volume removed from catch basins to impaired waters (if known)	2 tons +/-
Snow management	
Type(s) of deicing material used	Morton Salt
Total amount of each deicing material applied	150 tons (per storm for 100 miles of road)
Type(s) of deicing equipment used	Spreaders on trucks
Lane-miles treated	180
Snow disposal location	None
Staff training provided on application methods & equipment	
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	
Reduction in turf area (since start of permit)	
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	N.A.
Cost of mitigation actions/retrofits	

6.4 Catch basin cleaning program

Provide any updates or modifications to your catch basin cleaning program

Because we haven't been using sand to melt the snow or to treat roads, the volume of what was removed from catch basins decreased on average. The numbers were generally the same. Our cleanup is still based on the same factors-first, we treat the "slow drainage" ones, then inspection is done by the Road Foreman, and then the whole Town is cleaned. The cleaning is done by Vac-Truck, Loader and Dump Trucks.

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.

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

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

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

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.

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

2.1 Screening data

Complete the table below for any outfalls screened during the reporting period. Each Annual Report will add on to the previous year's screening data showing a cumulative list of outfall screening data.

Outfall ID	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required? *

2.2 Credit for screening data collected under 2004 permit

If any outfalls to impaired waters were sampled under the 2004 MS4 permit, that data can count towards the monitoring requirements under the modified 2017 MS4 permit. Complete the table below to record sampling data for any outfalls to impaired waters under the 2004 MS4 permit.

Outfall	Sample date	Parameter (Nitrogen, Phosphorus, Bacteria, or Other pollutant of concern)	Results	Name of Laboratory (if used)	Follow-up required? *

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

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others - Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	- Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB - Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample

3. Follow-up investigations (Section 6(i)(1)(D) / page 43)

Provide the following information for outfalls exceeding the pollutant threshold.

Outfall	Status of drainage area investigation	Control measure implementation to address impairment

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

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 by July 1, 2020.

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

Part III: Additional IDDE Program Data

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

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

1. Catchment ID (DEEP Basin ID)	2. Category	3. Rank

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

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

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	Sample date	Ammonia	Chlorine	Conductivity	Salinity	E. coli or Enterococcus	Surfactants	Water Temp	Pollutant of concern
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3. Catchment Investigation data (Appendix B (A)(7)(e) / page 9)

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
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Where SVFs are:

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

- 11. Widespread code-required septic system upgrades required at property transfers (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).
- 12. History of multiple local health department or sanitarian actions addressing widespread septic system failures (indicative of inadequate soils, water table separation, or other physical constraints of the area rather than poor owner maintenance).

3.2 Key junction manhole dry weather screening and sampling data

Key Junction Manhole ID	Screening / Sample date	Visual/ olfactory evidence of illicit discharge	Ammonia	Chlorine	Surfactants
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3.3 Wet weather investigation outfall sampling data

Outfall ID	Sample date	Ammonia	Chlorine	Surfactants
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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
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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: Mayor Joseph Carfora	Print name: Jonathan Bodwell, P.E.
Signature / Date:  2-27-2024	Signature / Date:  2/27/24