

**MS4 General Permit**  
**Town of Griswold 2017, 2018 & 2019 Annual Report**  
**New MS4 Permittee**  
**Permit Number GSM 000109**  
**[January 1, 2017 – December 31, 2019]**

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This report documents the Town of Griswold’s efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2017 to December 31, 2019.

**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	Measurable goal	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
1-1 Implement public education and outreach		<a href="#">MS4 Plan link on website.</a>	On website	Planning Dept.	Ongoing beginning Jul 1, 2019		
1-2 Address education/ outreach for pollutants of concern*		<a href="https://nemo.uconn.edu/ms4/tasks/public-education.htm">https://nemo.uconn.edu/ms4/tasks/public-education.htm</a> on website.	On Web Site		Ongoing beginning Jul 1, 2019		

Extra space for describing above BMP activities, if needed:

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

**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 Material Posted on Town Website	Town Residents	Various	Nitrogen, phosphorus & bacteria	Town Planning Department

## 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		<a href="#">Stormwater plan link placed on Town website.</a>	Website	Planning Department	Ongoing	Completed	
2-2 Comply with public notice requirements for Annual Reports		<a href="#">The Draft Annual report link was included on the Town website.</a>	Website	Planning Department	Feb 15, 2020	?	

Extra space for describing above BMP activities, if needed:

BMP	

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

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to public	Yes		Town of Griswold- Planning Dept website
Availability of Annual Report announced to public	Yes		Town of Griswold Planning Department website

### 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 Develop written IDDE program	Plan development ongoing  IDDE Ordinance previously completed.	Priority Areas were determined.	IDDE Plan	Town Planning Dept.	Jul 1, 2019	Planned for 2020.	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	On going	Maps & Spreadsheet were developed for previous MS4.	Map & spreadsheet.	Town Planning Dept.	Jul 1, 2020	Planned for 2020	Maps and spreadsheet will be reviewed and updated as appropriate.
3-3 Implement citizen reporting program	Not initiated	None	Written Program	Town Planning Dept.	Ongoing	Planned for 2020	
3-4 Establish legal authority to prohibit illicit discharges	<b>Completed</b>	None	Ordinance	Town Planning Dept.	Jul 1, 2019	An illicit discharge ordinance (#200) was adopted by the Town on May 12, 2009.	Ordinance will be reviewed in light of 2017 MS4 regulations.

3-5 Develop record keeping system for IDDE tracking	Not initiated	None	Written Program	Town Planning Dept.	Jul 1, 2017	Planned for 2020	
3-6 Address IDDE in areas with pollutants of concern	Not initiated	None		Town Planning Dept.	Not specified		To be evaluated

**Extra space for describing above BMP activities, if needed:**

<b>BMP</b>	

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

See activities listed above.

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

Date of Report	Location / suspected source	Response taken

**3.4 Provide a record of illicit discharges occurring during the reporting period and SSOs occurring July 2012 through end of reporting period using the following table.**

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)

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

To be developed /formalized.

**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
Uncas Health Dept Records- to be evaluated.	Priority Area Issue.	

**3.7 IDDE reporting metrics**

Metrics	
Estimated or actual number of MS4 outfalls	To be finalized in 2020 (less than 20)
Estimated or actual number of interconnections	To be investigated-CTDOT- Limited interconnections

Outfall mapping complete	(50% complete)- Existing mapping will be verified and expanded to include the additional information specified.
Interconnection mapping complete	Not completed to date.
System-wide mapping complete (detailed MS4 infrastructure)	(80 % complete) Existing mapping for outfalls will be verified and additional information added as specified.
Outfall assessment and priority ranking	Not initiated.
Dry weather screening of all High and Low priority outfalls complete	Not initiated.
Catchment investigations complete	Catchments delineated by local basins- not investigated.
Estimated percentage of MS4 catchment area investigated	Not initiated.

**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).**

To be initiated.

## 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	In progress	Regulations reviewed relative to MS4 requirements.		PZC/Planning Department	Jul 1, 2020	July 1, 2021	Regulation modifications will be planned.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Completed	Ongoing coordination.	Coordinated plan review/file documentation.	Town Planning Department.	Ongoing		
4-3 Review site plans for stormwater quality concerns	Ongoing	Submitted plans reviewed for stormwater quality concerns.	File documentation.	Town Planning Department.	Ongoing		
4-4 Conduct site inspections	Ongoing	Site inspections conducted.	File documentation.	Town Planning Department.	Ongoing		
4-5 Implement procedure to allow public comment on site development	Ongoing	Public notices made and public comment solicited.	File documentation.	Town Planning Department.	Completed		
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Completed	Zoning regulations specify.	Current Zoning Regulations.	Town Planning Department.	Completed		

Extra space for describing above BMP activities, if needed:

<b>BMP</b>	
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**4.2 Describe any Construction Site Runoff Control activities planned for the next year, if applicable.**

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**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	Regulations reviewed relative to MS4 requirements.		PZC/Planning Department	Jul 1, 2022	July 1, 2021	Regulation modifications will be planned.
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Not initiated	None			Ongoing beginning Jul 1, 2022		
5-3 Identify retention and detention ponds in priority areas	Completed	No town owned retention/detention ponds.			Jul 1, 2020		
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Not Applicable	None in Priority Areas. Board of Education is responsible for storm water treatment facilities at Griswold School facilities.			Ongoing beginning Jul 1, 2020		

5-5 DCIA mapping	Completed	DCIA calculated by drainage basin	Spreadsheet by drainage basin.	Town Planning Department	Jul 1, 2020		
5-6 Address post-construction issues in areas with pollutants of concern	To be evaluated.				Not specified		

**Extra space for describing above BMP activities, if needed:**

<b>BMP</b>	

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

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

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	292 Acres
DCIA disconnected (redevelopment plus retrofits)	None- acres this year / acres total
Retrofits completed	0 #
DCIA disconnected	0 % this year / % total since 2012
Estimated cost of retrofits	\$
Detention or retention ponds identified	None

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

Completed- Total Impervious Cover (acres) obtained from CTDEEP mapping by drainage basin. Connected level estimated from inspection of 2010 areal mapping and CTDEEP Table. DCIA % calculated by equation based on connectivity level.

## 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	Not initiated			Town Highway Dept./Planning Dept.	Ongoing beginning Jul 1, 2019		
6-2 Implement MS4 property and operations maintenance	Initiated	Existing operations under review.		Town Highway Dept.	Ongoing beginning Jul 1, 2018		
6-3 Implement coordination with interconnected MS4s	Initiated	Plans for Route 12 storm drainage obtained from CTDOT.		Town Planning Dept./Consultant.	Not specified		
6-4 Develop/implement program to control other sources of pollutants to the MS4	Not initiated.				Not specified		
6-5 Evaluate additional measures for discharges to impaired waters*	Not initiated.				Not specified		
6-6 Track projects that disconnect DCIA	Not initiated				Ongoing		
6-7 Implement infrastructure repair/rehab program	Not initiated				Jul 1, 2021		

6-8 Develop/implement plan to identify/prioritize retrofit projects	Not initiated				Jul 1, 2020		
6-9 Implement retrofit projects to disconnect 2% of DCIA	Not initiated				Jul 1, 2022		
6-10 Develop/implement street sweeping program	Ongoing	Once a year in Priority Areas (Jewett City)			Ongoing beginning Jul 1, 2018		
6-11 Develop/implement catch basin cleaning program	Ongoing	Once a year in Priority Areas (Jewett City)			Ongoing beginning Jul 1, 2020		
6-12 Develop/implement snow management practices	Ongoing				Ongoing beginning Jul 1, 2018		

**Extra space for describing above BMP activities, if needed:**

<b>BMP</b>	

**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	N (y/n) / date(s)
Street sweeping	
Curb miles swept	Unknown- miles
Volume (or mass) of material collected	Unknown- lbs or tons
Catch basin cleaning	
Total catch basins in priority areas	Unknown- #
Total catch basins in MS4	Unknown- #
Catch basins inspected	All in Priority Areas
Catch basins cleaned	All in Priority Areas
Volume (or mass) of material removed from all catch basins	Unknown-lbs or tons
Volume removed from catch basins to impaired waters (if known)	Unknown-lbs or tons
Snow management	
Type(s) of deicing material used	
Total amount of each deicing material applied	lbs or tons
Type(s) of deicing equipment used	
Lane-miles treated	miles
Snow disposal location	
Staff training provided on application methods & equipment	(y/n) / dates(s)
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	No fertilizer used- lbs or %
Reduction in turf area (since start of permit)	NA -acres
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	\$

### 6.4 Catch basin cleaning program

**Provide any updates or modifications to your catch basin cleaning program.**

## 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.**

Not initiated

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

Not initiated

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

Not initiated

## 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.

Aspinook Pond Class B) - Nitrogen & Phosphorus- Cause Algae, Chlorophyll-A, Nutrients

Quinebaug River (Class B) - Other Pollutant of concern. Cause unknown.

Monitoring will be initiated in 2020.

### 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? *
Not initiated					

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

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	<ul style="list-style-type: none"> <li>E. coli &gt; 235 col/100ml for swimming areas or 410 col/100ml for all others</li> <li>Total Coliform &gt; 500 col/100ml</li> </ul>
Bacteria (salt waterbody)	<ul style="list-style-type: none"> <li>Fecal Coliform &gt; 31 col/100ml for Class SA and &gt; 260 col/100ml for Class SB</li> <li>Enterococci &gt; 104 col/100ml for swimming areas or 500 col/100 for all others</li> </ul>



Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample
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### 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
Not initiated		

### 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, 2021.

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

### 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

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

### 3.3 Wet weather investigation outfall sampling data

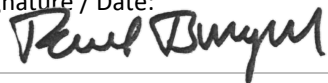
Outfall ID	Sample date	Ammonia	Chlorine	Surfactants

### 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

**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: Todd Babbitt, First Selectman	Print name: Paul Burgess, PE Paul Burgess, LLC
Signature / Date:	Signature / Date:  6/4/2020