

MS4 General Permit
Town of Bethel 2017 Annual Report
 Existing MS4 Permittee
 Permit Number GSM 000096
 [January 1, 2017 – December 31, 2017]

This report documents the Town of Bethel’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, 2017.

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	Ongoing	Develop and distribute handouts and publications. Materials available in Town Hall and given to builders and residents when taking out permits in Building Department, Planning & Zoning and Public Works	Educate the general public and increase their awareness regarding the effects of polluted stormwater	Public Works	Jul 1, 2019	Dec 31, 2017 - Ongoing	
1-2 Address education/ outreach for pollutants of concern*	Ongoing	Target residents and businesses with appropriate informational materials. Materials available in Town Hall and given to builders and residents when taking out permits in Building Department, Planning & Zoning and Public Works	Educate residents and business owners on potential stormwater impacts of improper waste disposal and illegal discharges	Public Works	Jul 1, 2019	Dec 31, 2017 - Ongoing	

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

Going to discuss with BOE on implementing stormwater into curriculum or have assembly stormwater based near Earth Day.

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.
Brochures distributed at Town Hall & Town Meetings	Developers, home owners (approx. 500)	Impact of impervious cover, Septic systems & Fertilizer use	Bacteria, nitrogen and phosphorus	Public Works

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 Comply with public notice requirements for the Stormwater Management Plan	Ongoing	Attempted to reach as many residents from the public for comment and review of SMP	Include the public in the development, implementation and review of the SMP.	Public Works	Jul1, 2017	Jul 1, 2017	
2-2 Comply with public notice requirements for Annual Reports	In Progress	Getting website links set up to be able to post to public on internet Annual Report currently available in Public Works office for review	Include the public in the development, implementation and review of Annual Reports	Public Works	Feb 15, 2018	Feb 15, 2018	
Established stormwater committee	Ongoing	Met multiple times this year to discuss any issues that have occurred in the different departments with stormwater etc.	Provide forum to coordinate SWMP implementation across depts. and commissions	Inland Wetlands, Public Works, Planning & Zoning and Building Department	Ongoing	Ongoing	Reason for addition: Committee will represent town departments & commissions with stake in stormwater mgmt.

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

Hold quarterly stormwater committee meetings to review SMP implementation progress.
Get ideas about how to implement the new website and how to better public involvement on the website thru the commission.

2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan announced to public	Y	July 1, 2017	Copies currently located in Public Works Department *Working on Town Website*
Availability of Annual Report announced to public	Y	February 15, 2018	Copies currently located in Public Works Department *Working on Town 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	In Progress	Town is in process of completing written IDDE program using the CT IDDE program template	Develop written plan of IDDE program	Public Works	Jul 1, 2018	Anticipate completing by the deadline of July 1, 2018.	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In Progress	Working with WestCOG to create mapping in GIS format	Develop a map that shows the locations and designation of the storm sewer outfalls, inlets and receiving State waters. Identify, locate and eliminate illicit discharges to the stormwater sewer system.	Public Works	Jul 1, 2019	Anticipate completing by the deadline of July 1, 2019.	
3-3 Implement citizen reporting program	Ongoing	Developed GIS based reporting program to report resident and employee complaints and concerns	Develop and implement GIS based reporting program to better see problem areas.	Public Works	Jul 1, 2017	July 1, 2017	

3-4 Establish legal authority to prohibit illicit discharges	In Progress	Worked with commission to start process of establishing procedure	Make sure that all parties are involved in any illicit discharge problems and make sure staff knows the proper procedure should a problem arise.	Public Works, Planning & Zoning and Inlands Wetlands	Jul 1, 2018	Anticipate completing by the deadline of July 1, 2018.	
3-5 Develop record keeping system for IDDE tracking	In Progress	Developed GIS based reporting program to better see problem areas.	Implement GIS based reporting program to better see problem areas.	Public Works	Jul 1, 2017	Jul 1, 2017	
3-6 Address IDDE in areas with pollutants of concern	Not Started		N/A	Public Works	Not specified		
3-7 Consolidate IDDE tracking spreadsheets	Not Started		Compile all the IDDE tracking requirements into one spreadsheet	Public Works	-	Anticipate completing by the deadline of July 1, 2018.	Reason for addition: Make it easier to track all IDDE activities

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

The written program will be posted to the Dept of Public works webpage and a link listed in next year's Annual Report; will update the written IDDE program as needed throughout the permit term.

Maintain master IDDE tracking spreadsheet and ensure all employees involved in IDDE program understand the logging process

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.

The Town of Bethel tracks the discharge to the source. We have not gotten any complaints from citizens or have been made aware of any major discharge. But we have a method in place of storm drain investigations, drainage investigations, on-site investigations and septic system investigations. We would track and report to DEEP and other parties. Public Works is responsible for tracking this 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

3.7 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	36
Estimated or actual number of interconnections	Working on Field Verification
Outfall mapping complete	~10% from HV Work
Interconnection mapping complete	N/A
System-wide mapping complete (detailed MS4 infrastructure)	~5-10%
Outfall assessment and priority ranking	N/A
Dry weather screening of all High and Low priority outfalls complete	36
Catchment investigations complete	~5-10%
Estimated percentage of MS4 catchment area investigated	~5-10%

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).

Handouts on IDDE are reviewed twice a year with employees with training review.

Employees are expected to input any reports into the GIS tracking long by putting points on the map of problem areas.

Continue to work with WestCOG and community services to get as much information and knowledge of stormwater in our area to put into our GIS.

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	Ongoing	Incorporates LID regulations and BMP's in P & Z regulations	Planning & Zoning will incorporate and expand LID regulations and BMPs in their regulations.	Planning & Zoning	Jul 1, 2019	Anticipate completing by the deadline of July 1, 2019.	
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Ongoing	Updated existing paperwork Continued tracking system	Revise and update existing paperwork to promote a good tracking system of communication.	Planning & Zoning	Jul 1, 2017	Jul 1, 2017	
4-3 Review site plans for stormwater quality concerns	Ongoing	Reviewed site plans per DEEP regulations	Engineer will continue to review site plans per DEEP regulations.	Engineering	Jul 1, 2017	Jul 1, 2017	
4-4 Conduct site inspections	Ongoing	Conducted site inspections per DEEP regulations	Engineer will continue to conduct site inspections per DEEP regulations.	Engineering	Jul 1, 2017	Jul 1, 2017	
4-5 Implement procedure to allow public comment on site development	Ongoing	Continued to promote existing public comment.	Promote existing public comment.	Land Use	Jul 1, 2017	Jul 1, 2017	
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Ongoing	Handouts and documents given to developers and is now part of application process	The Land Use Department will make this part of the site plan application.	Land Use	Jul 1, 2017	Jul 1, 2017	
4-7 Develop stormwater compliance checklist	In Progress	Developing checklist to provide developers on stormwater mgmt compliance requirements	Standardize plan review	Planning & Zoning	-	Anticipate completing by the deadline of July 1, 2018.	Reason for addition: Make it easier to ensure compliance with stormwater regulations

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

Integrate a stormwater compliance checklist into review process once completed.

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		To become more explicit through regulations and examples of good LID development.	Land Use	Jul 1, 2021	Anticipate completing by the deadline of July 1, 2021	
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	In Progress	Engineer and P&Z and Inlands worked together to try and eliminate noncompliance in post construction matters	Work with Engineer to develop a plan of action for noncompliance.	Land Use/Engineering	Jul 1, 2019	Anticipate completing by the deadline of July 1, 2019	
5-3 Identify retention and detention ponds in priority areas	In Progress	WestCOG is helping with the mapping process of all components of stormwater in Bethel	Have a list for tracking and be able to locate all retention and detention ponds in priority areas on GIS	Public Works	Jul 1, 2019	Anticipate completing by the deadline of July 1, 2019	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	In Progress	Management staff have been speaking about maintenance plan and working to get something budgeted	Create and implement a long-term plan for basins and treatment structures. Update as necessary	Public Works	Jul 1, 2019	Anticipate completing by the deadline of July 1, 2019	

5-5 DCIA mapping	In Progress	WestCOG and Town of Bethel working to get mapping together	Complete mapping with guidance from UConn CLEAR and WestCOG	Public Works	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020	
5-6 Address post-construction issues in areas with pollutants of concern	In Progress		Engineer will give all information over to individual parties so proper departments can track findings to report.	Engineering	Not Specified		

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

N/A

5.3 Post-Construction Stormwater Management reporting metrics

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	822 Acres – Mildly Connected Model 3057 Acres – Highly Connected Model
DCIA disconnected (redevelopment plus retrofits)	N/A
Retrofits completed	N/A
DCIA disconnected	N/A
Estimated cost of retrofits	N/A
Detention or retention ponds identified	N/A

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

Working with DPW, P&Z, Inlands Wetlands, WestCOG, Uconn Clear and other Town of Bethel Departments we are working on finding the best method to identify 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	Employee training through the Town and CIRMA	Increase town staff awareness of the effects of polluted stormwater on the environment and the necessity of a municipal stormwater management program.	Public Works	Jul 1, 2017	Jul 1, 2017	
6-2 Implement MS4 property and operations maintenance	In Progress	Using MSDS thru OSHA working on getting Master List of materials and learning procedures of DPW and P&R	Work with Parks & Recreation to make sure they are following guidelines. Provide list of products and materials being used annually.	Public Works	Jul 1, 2018	Anticipate completing by the deadline of July 1, 2018	
6-3 Implement coordination with interconnected MS4s	In Progress	Attend local meetings to connect with towns and cities within the area to brainstorm and hear solutions to similar issues and situations	Continue BMP – Speaking with surrounding towns.	Public Works	Not Specified		
6-4 Develop/implement program to control other sources of pollutants to the MS4	Not Started		Use GIS to track different information from the coordinating departments	Public Works	Not Specified		
6-5 Evaluate additional measures for discharges to impaired waters*	In Progress	Have met with various staff members and commission to make sure all are prepared for tracking and reporting	Make sure the Town pays attention to what illicit discharges are happening in the Town and make sure that if there is an issue it is handled and reported.	Public Works	Not Specified		

6-6 Track projects that disconnect DCIA	Ongoing	Working on mapping and tracking of the locations	Attempt to reduce percentage of DCIA.	Public Works	Jul 1, 2017	Jul 1, 2017	
6-7 Implement infrastructure repair/rehab program	Not Started		Make sure that all town owned buildings, materials and infrastructure is up to date and maintained.	Public Works	Jul 1, 2021	Anticipate completing by the deadline of July 1, 2021	
6-8 Develop/implement plan to identify/prioritize retrofit projects	In progress	Newly implemented - Starting to track on GIS of infrastructure issues	Continue to track problem areas and make lists of any and all infrastructure issues and track them on GIS.	Public Works	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020	
6-9 Implement retrofit projects to disconnect 2% of DCIA	Not Started		Disconnect 2% of DCIA with retrofit projects	Public Works	Jul 1, 2022	Anticipate completing by the deadline of July 1, 2022	
6-10 Develop/implement street sweeping program	Ongoing	Swept streets after winter storm season Multiple sweeps for high priority area (downtown)	Continue with our annual program and go out to streets several times a year as necessary.	Public Works	Jul 1, 2017	Jul 1, 2017	
6-11 Develop/implement catch basin cleaning program	In Progress	Attempting to have catch basin cleanings added to yearly budget to set up program	Working on budget that accepts catch basin cleaning.	Public Works	Jul 1, 2020	Anticipate completing by the deadline of July 1, 2020	
6-12 Develop/implement snow management practices	In Progress	Working with staff to better the process DPW mixes product before use – tests performed	Continue using sand/salt mixture and not using any sort of liquid deicer.	Public Works	Jul 1, 2018	Anticipate completing by the deadline of July 1, 2018	

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

Continue sweeping, cleaning and inspecting catch basins. Following any issues with infrastructure closely.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	Yes April 15, 2017 November 15, 2017
Street sweeping	
Curb miles swept	220 mi.
Volume (or mass) of material collected	324 t.
Catch basin cleaning	
Total catch basins in priority areas	50
Total catch basins in MS4	2600
Catch basins inspected	120
Catch basins cleaned	120
Volume (or mass) of material removed from all catch basins	75.6 t.
Volume removed from catch basins to impaired waters (if known)	N/A
Snow management	
Type(s) of deicing material used	Sand & Salt
Total amount of each deicing material applied	729 t. & 243 t.
Type(s) of deicing equipment used	Sander - Plow
Lane-miles treated	86 mi. road/storm
Snow disposal location	N/A
Staff training provided on application methods & equipment	Yes April 15, 2017 November 15, 2017
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	N/A
Reduction in turf area (since start of permit)	N/A
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	N/A

6.4 Catch basin cleaning program

Briefly describe the method used to optimize your catch basin inspection and cleaning schedule. [\[Complete this section for the 2017 Annual Report only\]](#)

Vacuum truck, cleaning, inspection and report deficiencies. Cleaning schedule based on emergencies and high priority areas.

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. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

N/A

Describe plans for continuing the Retrofit program and how to achieve a goal of 1% DCIA disconnection in future years. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

N/A

Describe plans for continuing the Retrofit program beyond this permit term with the goal to disconnect 1% DCIA annually over the next 5 years. [\[Provide information if available in 2017 report. Section to be completed for the 2019 Annual Report.\]](#)

N/A