



## **CITY OF HARTFORD**

### **2018 ANNUAL REPORT**

[January 1, 2018 – December 31, 2018]

# **General Permit for the Discharge of Stormwater from Small Municipal Separate Stormwater Sewer Systems (MS4 General Permit)**

Permit Number GSM-000062

## Executive Summary

This document presents the Stormwater Management Plan (SWMP) Annual Report for the City of Hartford. The SWMP Annual Report was developed to provide a summary of the City's progress towards implementing the best management practices (BMPs) for the six Minimum Control Measures outlined in the SWMP to meet the requirements of the Connecticut Department of Energy & Environmental Protection (DEEP) General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit) to the maximum extent practicable from January 1, 2018 to December 31, 2018.

The Annual Report includes a written discussion of the status of compliance with the MS4 General Permit, all monitoring data collected and analyzed, and all other information collected and analyzed, and follows the UCONN CLEAR MS4 Annual Report template.

The person responsible for implementation of the SWMP on behalf of the Department of Developmental Services changed in 2018 and Erik Johnson, Director of Department of Development Services, is now the responsible person.

The Draft Annual Report will be available for public review for 30 days beginning February 15, 2019, during regular business hours at the Public Works Department offices or on-line at <http://www.hartford.gov/dpw/engineering-division>. A notice that the Draft Annual Report would be available was publicly posted 15 days earlier on the Hartford Department of Public Works Facebook page.

Draft 2018 Annual Report  
MS4 General Permit  
City of Hartford  
Permit Number GSM-00063  
[January 1, 2018 – December 31, 2018]

This report documents the City of Hartford’s efforts to comply with the conditions of the MS4 General Permit to the maximum extent practicable (MEP) from January 1, 2018 to December 31, 2018.

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

**1. Public Education and Outreach** (Section 6 (a)(1))

**1.1 BMP Summary**

BMP	Status	Activities in current reporting period	Department/ Person Responsible	Due	Date completed or projected completion date	Additional details
1-1 Implement public education and outreach	In Progress	The City of Hartford maintains a continuing program of public education and outreach through the Office of Sustainability and as a sponsor of the Hartford Climate Stewardship Initiative	DPW/Frank Dellaripa P.E.	7/1/18	Ongoing	<a href="https://circa.uconn.edu/wp-content/uploads/sites/1618/2016/03/Hartford-Poster-03-17-1.pdf">https://circa.uconn.edu/wp-content/uploads/sites/1618/2016/03/Hartford-Poster-03-17-1.pdf</a>  See Section 1.3 below for details
1-1b Periodically post stormwater management issues on social media	In Progress	The Office of Sustainability Green Infrastructure team continues to directly use social media including Twitter, blogging, and newsletter updates to promote programs, highlight progress, and engage the community as reported in BMP 1-1	DPW/Frank Dellaripa P.E.	7/1/18	Ongoing	In future Annual Reports, this BMP will not be reported separately as it is incorporated into BMP 1-1

1-1c Stormwater information provided on local cable access	Not Started	Measureable Goal: Program on local cable access channel aired once annually.	DPW/Frank Dellaripa P.E.			The City decided not to pursue this BMP and instead is going to focus on the Retain the Rain Program (Section 1.3). This BMP is eliminated from the Stormwater Management Plan and will not be discussed in future reports.
1-1d Educate dog owners about picking up dog waste	Not Started	Measureable Goal: The City will plan to distribute a fact sheet on the proper disposal of dog waste with every dog license in Hartford.	DPW/Frank Dellaripa P.E.		7/1/19	In future Annual Reports, this BMP will not be reported separately as it is incorporated into BMP 1-1
1-2 Address education/outreach for pollutants of concern	In Progress	See section 1.3 below	DPW/Frank Dellaripa P.E.	7/1/18	Ongoing	

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

The City plans to continue the Retain the Rain Program. The City plans to provide proper pet waste management information to distribute with each dog license and tag purchased.

**1.3 Details of activities implemented to educate the community on stormwater**

Program Element/Activity	Audience (and Distribution)	Topics covered	Pollutant of Concern addressed	Responsible dept. or partner org.
Retain the Rain Program Phase 1: 2018 Downspout Disconnection Pilot Program with free kits for residents	Home owners, residents (brochures, newsletters, workshops, local Neighborhood Revitalization Zone meetings, Hartford Homeowners' Resource Events and on-line)	Impact of impervious cover, stormwater infiltration and CSOs, green infrastructure	Bacteria	Office of Sustainability, Hartford Climate Stewardship Initiative, CIRCA
Retain the Rain Program Phase 2: 2018 Rain Barrel distribution, 80 rain barrels distributed to Hartford residents	Residents (on-line and pickup events)	Impact of impervious cover, stormwater infiltration and CSOs, green infrastructure	Bacteria	Office of Sustainability Green Infrastructure Team, MDC, CIRCA, Youth Services Corps and Our Piece of the Pie

Developed Green Infrastructure Handbook: BMPs in Hartford, CT	City Staff / Developers (on-line)	Green Infrastructure including cost-benefit analysis		Office of Sustainability, Hartford Climate Stewardship Initiative, CIRCA
Demonstration Project: roof downspout disconnection at the Keney Park House, water is diverted to edible rain garden.	Residents (brochures, on-line)	Impact of impervious cover, stormwater infiltration and CSOs, green infrastructure	Bacteria	Office of Sustainability Green Infrastructure Team , Keney Park Sustainability Project, LISS, Farmington River Watershed Association
Demonstration Project: Keney Park Sustainability Project uses rain barrels to collect water for the aquaponics system.	Residents (Green Infrastructure Handbook, on-line)	Rainwater harvesting		Office of Sustainability Green Infrastructure Team , Keney Park Sustainability Project

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**2. Public Involvement/Participation (Section 6(a)(2))**

**2.1 BMP Summary**

BMP	Status	Activities in current reporting period	Department /Person Responsible	Due	Date completed or projected completion date	Additional details
2-1 Continue availability of Stormwater Management Plan to the public and comply with public notice requirements for Annual Report	Complete	Public notice of annual report posted to DPW website	DPW/Frank Dellaripa P.E.	2/15/19	2/15/19	Posted to DPW facebook page 1/31/19 @: <a href="https://www.facebook.com/pg/HartfordDPW/community/?ref=page_internal">https://www.facebook.com/pg/HartfordDPW/community/?ref=page_internal</a>
2-2: Stormwater Committee meetings	In Progress	Measureable Goal: One meeting held annually	DPW/Frank Dellaripa P.E.	7/31/19	March 2019	
2-3: Sponsor community participation event	Completed	-“Hartford Cleans Up” with Knox Park Foundation and keep America Beautiful Program -Promoted the UN’s World Environment Day by challenging residents to take part in the #beatplasticpollution challenge -Rain Barrel Pickup Events in September and December	DPW/Frank Dellaripa P.E.	7/31/19	December 2018	-The City and KNOX provide bags, brooms, gloves, and other donated materials to registered groups  -80 rain barrels distributed

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

The City plans to hold MS4 Meetings to discuss implementation. Continue Retain the Rain program to distribute green infrastructure (downspout disconnections, rain barrels, street trees).

### 2.3 Public Involvement/Participation reporting metrics

Metrics	Implemented	Date	Posted
Availability of the Stormwater Management Plan to public	Yes	3/31/2017	<a href="http://www.hartford.gov/dpw/engineering-division">http://www.hartford.gov/dpw/engineering-division</a>
Availability of Annual Report announced to public	Yes	2/15/19	<a href="http://www.hartford.gov/dpw/engineering-division">http://www.hartford.gov/dpw/engineering-division</a>

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**3. Illicit Discharge Detection and Elimination** (Section 6(a)(3) and Appendix B)

**3.1 BMP Summary**

BMP	Status	Activities in current reporting period	Department/ Person Responsible	Due	Date completed or projected completion date	Additional details
3-1 Develop written IDDE program	In progress	The City is in negotiations with the MDC to determine infrastructure ownership	DPW/Frank Dellaripa P.E.	7/1/18	10/31/19	
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	In progress	The City is in negotiations with the MDC to determine infrastructure ownership	DPW/Frank Dellaripa P.E.	7/1/19	7/1/19	
3-3 Implement citizen reporting program	In progress	The City currently utilizes the “Hartford 311” call center that was established to provide a secure way to report, track, and resolve problems or issues residents may have.	DPW/Frank Dellaripa P.E.	7/1/17	Before 7/1/17	“SeeClickFix” was an added feature to the call center to improve residential and municipal communications.
3-4 Establish legal authority to prohibit illicit discharges	Not Started		DPW/Frank Dellaripa P.E.	7/1/18		
3-5 Develop record keeping system for IDDE tracking	In progress	The Hartford 311 Call Center tracks all reports of illicit discharges	DPW/Frank Dellaripa P.E.	7/1/17	Before 7/1/17	None reported in 2018
3-6 Address IDDE in areas with pollutants of concern	Not Started	See section 3.6 below	DPW/Frank Dellaripa P.E.	Not Specified		

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

The City is anticipating reaching an agreement with MDC establishing ownership of stormwater infrastructure.



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

Date of Report	Location / suspected source	Response taken
Hartford 311/SeeClickFix Program did not record any suspected illicit discharges during the period.		

**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)
The City does not keep records of SSOs, they are maintained by MDC						

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

After a citizen reports a concern to the Hartford 311 or SeeClickFix, it is issued a case number and is logged into an advanced tracking system that allows the appropriate department to take ownership and respond appropriately. The status of the concern can be checked by the case number. Concerns about illicit discharges would be routed to the MDC.

**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
The Department of Health and Human Services (HSS) regulates septic systems in Hartford. Due to extensive development, the majority of the city is served by the MDC sanitary sewer system. According to HSS, there is a small area where septic systems may exist but exact locations are unknown. HSS did not receive any reports of failed septic systems in 2018.		

**3.7 IDDE reporting metrics:** IDDE program has not been implemented pending resolution of infrastructure ownership with MDC

**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).**

Illicit discharge identification and reporting training was given to DPW operations staff on 12/18/18 and to Flood Control staff on 12/27/18 during annual environmental training.

**4. Construction Site Runoff Control** (Section 6(a)(4))

**4.1 BMP Summary**

<b>BMP</b>	<b>Status</b>	<b>Activities in current reporting period</b>	<b>Department / Person Responsible</b>	<b>Due</b>	<b>Date completed or projected completion date</b>	<b>Additional details</b>
4-1a Implement, upgrade (as necessary) and enforce City land use regulations	In progress	The City has reviewed the requirements of the MS4 General Permit and is determining if any changes need to be made in the City land use regulations	Planning Division/ Erik Johnson	7/1/19	7/1/19	
4-1b: Establish interagency or inter-jurisdictional agreements	In progress	The City is in negotiations with the MDC to determine infrastructure ownership	DPW/Frank Dellaripa P.E.	7/1/19	7/1/19	Potentially interconnected MS4s that have been tentatively identified include the MDC, various state properties and CTDOT
4-2 Develop/ Implement plan for interdepartmental coordination in site plan review and approval	Completed	The City has implemented interdepartmental coordination in site plan review and approval	Planning Division/ Erik Johnson	7/1/17	Before 7/1/17	
4-3 Review site plans for stormwater quality concerns	Completed	Site plans were reviewed for stormwater quality concerns	Planning Division/ Erik Johnson	7/1/17	On-going	
4-4 Conduct site inspections	Completed	All sites are inspected	Planning Division/ Erik Johnson	7/1/17	On-going	
4-5 Implement procedure to allow public comment on site development	Completed	Currently any project requiring approval by a land use agency or commission is presented at a public meeting.	Planning Division/ Erik Johnson	7/1/17	Before 7/1/17	
4-6 Implement procedure to notify developers about DEEP construction stormwater permit	Completed	The City notifies Contractors and developers that they must submit a registration Stormwater Construction General Permit when the City holds a preconstruction meeting or reviews an application	Planning Division/ Erik Johnson	7/1/17	Before 7/1/17	

**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))

**5.1 BMP Summary**

BMP	Status	Activities in current reporting period	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 Progress	Elimination of minimum parking requirements and instituted a “stormwater fee in lieu” provision in the zoning code	Planning Division/ Erik Johnson	7/1/21	7/1/21	
5-2 Enforce LID/runoff reduction requirements	Complete	“stormwater fee in lieu” provision in the zoning code	Planning Division/ Erik Johnson	7/1/19	7/1/18	Fee requires developers to manage 1 <sup>st</sup> inch of rainwater on their properties or pay into a fund – has received first payment into fund
5-3 Implement long-term maintenance plan for stormwater basins and treatment structures	Not Started		DPW/Frank Dellaripa P.E.	7/1/19	7/1/19	
5-4 DCIA mapping	Not Started		DPW/Frank Dellaripa P.E.	7/1/20	7/1/20	
5-5 Address post-construction issues in areas with pollutants of concern	Not Started		DPW/Frank Dellaripa P.E.	7/1/19	7/1/19	
5-6 Implement and maintain any control measures or conditions for New Discharge to an Impaired Water without an Established TMDL	Not Started		DPW/Frank Dellaripa P.E.	7/1/17	7/1/17	
5-7 Additional requirements for all new and existing discharges to a water with an Established TMDL or with a Pollutant Load Reduction	Not Started		DPW/Frank Dellaripa P.E.	7/1/17	7/1/17	

**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)	5,287.4 acres
DCIA disconnected (redevelopment plus retrofits)	0 acres this year / 0 acres total
Retrofits completed	0
DCIA disconnected	0% this year / 0% total since 2012
Estimated cost of retrofits	\$0
Detention or retention ponds identified	0 this year /0 total

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

DCIA taken from UCONN CLEAR MS4 mapping data for total impervious cover without taking into account potentially disconnected areas.

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

**6.1 BMP Summary**

BMP	Status	Activities in current reporting period	Department / Person Responsible	Due	Date completed or projected completion date	Additional details
6-1 Continue formal employee training program	In Progress	-A Green Infrastructure and Stormwater Management Workshop was conducted in April 2018 for City Staff by UCONN NEMO to increase awareness and understanding of green infrastructure and allow engineers and operations staff the opportunity to ask questions in regards to installation and maintenance -Illicit discharge identification and reporting training was given to DPW operations staff on 12/18/18 and to Flood Control staff on 12/27/18 during annual environmental training	DPW/Frank Dellaripa P.E.	7/1/17	12/18/18 and 12/27/18	
6-2 Implement MS4 property and operations maintenance	In Progress	"Low mow zones" at Keney, Goodwin, Pope, Colt, Elizabeth and Brackett Park	DPW/Frank Dellaripa P.E.	7/1/18	Ongoing	Low mow zones are planted with meadow plants instead of traditional turf
6-3 Implement coordination with interconnected MS4s	Not Started		DPW/Frank Dellaripa P.E.	Not Specified	7/1/19	
6-4 Develop & implement program to control other sources of pollutants to the MS4	Not Started		DPW/Frank Dellaripa P.E.	Not Specified	7/1/19	
6-5 Evaluate additional measures for discharges to impaired waters	Not Started		DPW/Frank Dellaripa P.E.	Not Specified	7/1/19	
6-6 Track projects that disconnect DCIA	In Progress	The City keeps track of green infrastructure projects at <a href="https://hartfordclimate.org/map/">https://hartfordclimate.org/map/</a>	DPW/Frank Dellaripa P.E.	7/1/17	Ongoing	

6-7 Implement infrastructure repair/rehab program	Not Started		DPW/Frank Dellaripa P.E.	7/1/21	7/1/21	
6-8 Develop & implement plan to identify/prioritize retrofit projects	Not Started		DPW/Frank Dellaripa P.E.	7/1/20	7/1/20	
6-8a Implement retrofit projects to disconnect 2% of DCIA	Not Started		DPW/Frank Dellaripa P.E.	7/1/22	7/1/22	
6-9 Develop & implement street sweeping program	Complete	The City has implemented a street sweeping program that exceeds the minimum requirements of the permit	DPW/Frank Dellaripa P.E.	7/1/17	Ongoing	
6-10 Develop & implement catch basin cleaning program	In Progress	The City does not clean any catch basins themselves, and instead the MDC manages all catch basins within the City	DPW/Frank Dellaripa P.E.	7/1/20		
6-11 Develop & implement snow management practices	In Progress	The City developed standard operating practices for snow management practices as described in the SMP	DPW/Frank Dellaripa P.E.	7/1/18	Ongoing	

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

Continue formal employee training program; Implement coordination with interconnected MS4; Implement snow management SOPs

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

Metrics	
Employee training provided for key staff	Yes, 12/18/18 and 12/27/18
Street sweeping	
Curb miles swept – entire roadway network swept approximately 34 times (434 curb miles per week)	14,756 miles
Volume (or mass) of material collected	data is unavailable
Catch basin cleaning	N/A

Snow management	
Type(s) of deicing material used	Clearlane Enhanced Deicer & Enhanced Salt
Total amount of each deicing material applied	Data unavailable at time of report (7513 tons in 2017)
Type(s) of deicing equipment used	Fleet of 6 & 10 wheel trucks with speed control, Various smaller plow vehicles without speed control. For some storms various sanitation vehicles are outfitted with plows.
Lane-miles treated	217 centerline miles
Estimated area of the City roadway network	1.39 square miles
Snow disposal location	City Parking Lots located at #63 & 80 New Road
Staff training provided on application methods & equipment	Planned for 2019
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	NA
Reduction in application of fertilizers (since start of permit)	0 lbs or 0% (not tracked)
Reduction in turf area (since start of permit)	0 acres (not tracked)
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	\$0 (not tracked)

#### 6.4 Catch basin cleaning program

**Briefly describe the method used to optimize your catch basin inspection and cleaning schedule.**

The City does not clean any catch basins themselves, and instead the MDC manages all catch basins within the City

#### 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 2018 report. Section to be completed for the 2019 Annual Report.]**

Not available for the 2018 report

**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 2018 report. Section to be completed for the 2019 Annual Report.]**

Not available for the 2018 report



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 2018 report. Section to be completed for the 2019 Annual Report.]

Not available for the 2018 report

## Part II: Impaired waters investigation and monitoring

Impaired waters investigation and monitoring not started pending agreement with MDC concerning ownership of Stormwater infrastructure. Bacteria has been identified as the Stormwater pollutant of concern in the City of Hartford.

## Part III: Additional IDDE Program Data

IDDE Program not started pending agreement with MDC concerning ownership of Stormwater infrastructure.

## 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."

Authorized Signature	Document Prepared by
Print name: <b>Frank Dellaripa P.E.</b>	Print name: <b>Kristin Doundoulakis</b>
Title: <b>City Engineer</b>	Title: <b>Consultant</b>
Signature / Date:	Signature / Date:  February 15, 2019