

Stormwater Management Plan

Hudson Municipal Separate Storm Sewer System (MS4)

City of Hudson, St. Croix County, Wisconsin

MS4 Permit No. (FIN) 52320

HUDSO 140373 | November 14, 2018



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November 14, 2018

RE: Hudson Municipal Separate Storm Sewer
System (MS4)
Stormwater Management Plan
City of Hudson, St. Croix County,
Wisconsin
SEH No. HUDSO 140373 4.00

Mr. Michael Mroz
City of Hudson
505 Third Street
Hudson, WI 54016

Dear Mr. Mroz:

Attached please find the Stormwater Management Plan for the City of Hudson's MS4. The attached Stormwater Management Plan fulfills several of the requirements as outlined in WPDES Permit No. WI-S0050181-1, including Sections 2.1 through 2.6.

Sincerely,

A handwritten signature in blue ink, appearing to read "Erik D. Henningsgard".

Erik D. Henningsgard, PE
Plan Preparer

EH/TH

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Stormwater Management Plan

Stormwater Management Plan
City of Hudson, St. Croix County, Wisconsin

Prepared for:
City of Hudson
Hudson, WI

Prepared by:
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Erik D. Henningsgard, PE
Plan Preparer

E-38819
PE Number

November 14, 2018
Date





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Certification Page
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Stormwater Management Plan

Hudson Municipal Separate Storm Sewer System (MS4)

Prepared for City of Hudson

1 Introduction

On behalf of the City of Hudson, Short Elliott Hendrickson Inc. (SEH®) has prepared a Stormwater Management Plan for implementation of stormwater policies and procedures in Hudson, Wisconsin, in St. Croix County.

In accordance with the requirements of Section 2.1 through 2.6 of the Wisconsin Pollutant Discharge Elimination System (WPDES) Municipal Separate Storm Sewer System General Permit WI-S0050181-1 (General Permit), the management plan was developed to provide guidance to the City with regards to stormwater discharge quality.

1.1 Purpose and Objectives

The primary goal of the Stormwater Management Plan is to provide clear and measurable goals for the City's stormwater management program. The program will be centered on tracking the requirements of the general permit conditions included in Section 2.1 through 2.6. An MS4 Tracking Calendar is included as **Figure 1** and tracking sheets for each of the program objectives are included in the appendices.

1.2 Scope

The following programs, as included in the general permit, will be included in the Stormwater Management Plan:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Pollutant Control
- Post Construction Stormwater Management
- Pollution Prevention

The Plan will give an overview of each of the sections and provide a spreadsheet to track each of the activities in a format similar to the requirements of the annual report.

2 Public Education and Outreach

To increase awareness of the impact stormwater pollution can have on the St. Croix River, Lake Mallalieu, and wetlands throughout the City, the City will implement a public education and outreach program. The program will seek to change public opinion and habits regarding activities that can negatively impact the quality of stormwater runoff. A tracking sheet for Public Education

and Outreach is included in **Appendix A** and a digital copy located at Q:\STORMWATER - GENERAL INFO\MS4 on the City server. The City is part of the stormwater consortium Rain to Rivers, which provides some public education and outreach, but the City will also need to ensure City residents are being reached. Listed in the subsections below are elements that shall be included in the program and potential mechanisms for education and outreach.

2.1 Program Elements

The following program elements are required at a minimum to be included in the Public Education and Outreach program:

- Promote detection and elimination of illicit discharges
- Educate on sources of pollution including automobiles, pet waste, household hazardous waste and household practices
- Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn garden fertilizers and pesticides
- Promote the management of streambanks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways
- Promote stormwater infiltration from downspouts, driveways, and sidewalks
- Educate designers, installers, and those responsible for maintenance for erosion control and post construction management facilities
- Identify businesses and activities that may pose a stormwater contamination concern and educate specific audiences on methods of stormwater pollution prevention
- Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development

2.2 Mechanisms for Implementing Program Elements

Below is a list of potential mechanisms that can be implemented in providing education and outreach to the public:

- Passive print media (brochures at front desk, posters, etc.)
- Social Media Posts
- Active distribution of print media (mailings, newsletters, etc.)
- Informational booth at event
- Targeted group training (contractors, consultants, etc.)
- Website postings (city website, social media sites, etc.)
- Workshops
- Tours
- Signage
- Direct one on one communication

3 Public Involvement and Participation

The City will implement a program to provide ways to engage the public and encourage their participation in the items included within the Stormwater Management Plan. Each year the City will complete the following:

- An annual update to the City Council on the status of the MS4 and activities completed.

- At the annual Public Works safety meeting, include a section on stormwater pollution.
- Discuss stormwater pollution at internal staff meetings.
- Engage the public.

A tracking sheet for Public Involvement and Participation is included in **Appendix A** and a digital copy located at Q:\STORMWATER - GENERAL INFO\MS4 on the City server. Potential mechanisms for public involvement and participation are included in Section 3.1.

3.1 Mechanisms for Public Involvement and Participation

- Website
- Social Media
- Public Workshop
- Group Best Management Practice (BMP) Installation (rain garden, biofilter, etc.)
- Presentation of Stormwater Information
- Government Event (public hearing, council meeting, etc.)
- Citizen Committee Meetings
- Clean-Up Events
- Yard Waste Pick Up
- Storm Drain Stenciling

4 Illicit Discharge Detection and Elimination

The City has established Ordinance §240 Stormwater Management that prohibits illicit discharges and connections to the City's MS4. In Ordinance 240, an illicit discharge is defined as;

Any discharge to a stormwater conveyance system that is not composed entirely of stormwater except discharges authorized by a WPDES permit or other discharge not requiring a WPDES permit limited to landscape irrigation, individual residential car washing, firefighting, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, flows from riparian habitats and wetlands, and similar discharges.

The City is required to develop a program for initial and on-going dry weather screening of stormwater outfalls to inspect for illicit discharges. The WDNR has developed the Illicit Discharge Detection and Elimination guidance (Guidance) and it is available on their website at: <http://dnr.wi.gov/topic/stormwater/municipal/overview.html>.

The City will complete an initial screening of the City's outfalls and if a discharge is observed will complete a visual observation and field analysis as outlined in the General Permit and Guidance. After completion of the initial screening the City will establish a list of priority outfalls and complete a yearly screening of all priority outfalls and a screening every five years of all other outfalls. As included in the Guidance the designation of priority outfalls shall consider the following:

- History of known or suspected illicit discharges reported within the last five years.
- Sections of storm and/or sanitary sewer that have exceeded their design/useful life.

- Drainage areas greater than 80 percent impervious.
- Business or industrial parks with frequent changes in property ownership or operations.
- Commercial or industrial operations that generate waste or wash water.

If an illicit discharge is observed the City must investigate and eliminate the discharge and implement, at a minimum, the following procedures:

- Investigate areas that have indicated a reasonable potential for containing illicit discharges or other sources of non-stormwater discharges.
- Responding to spills that discharge into or from the MS4.
- Notifying the Department of the spill.
- Detecting and eliminating cross-connections and leakage from sanitary conveyance system.
- Provide the Department with advance notice of any dye testing.

A tracking sheet and inspection form are included in **Appendix B** and a digital copy located at Q:\STORMWATER - GENERAL INFO\MS4 on the City server.

Any reports to the City of illicit discharges shall be directed to the Department of Public Works where it will be that department's responsibility to investigate the report.

The Guidance shall be followed by the City with respects to any indicator parameter action levels as included in Table 1 of the Guidance.

5 Construction Site Pollutant Control

Ordinance §240 Stormwater Management includes erosion control requirements during construction of projects that disturb greater than one acre. The City is responsible for administrating and enforcing the requirements of the ordinance. The following table includes the permit phases and the corresponding responsible party.

Permit Phase	Responsible Party
Submit Erosion Control Plan to City ¹	Economic Development/Engineering
Review of Submitted Plan	Engineering
Updates as required for compliance	Applicant/Developer
Approval of Erosion Control Plan ²	Plan Commission and City Council
Provide Plans to Public Works	Economic Development Department
Erosion Control Inspections	Public Works Department/City Building Inspector

¹ The erosion control plan should be included in the site plan review process.

² The Economic Development Department along with Engineering shall provide the Plan Commission and City Council with review comments.

The City Department of Public Works shall follow the procedures listed below for tracking erosion control permits:

- Once received from the Economic Development Department, add the permit to the Active Site Tracking sheet included in **Appendix C** and a digital copy located at Q:\STORMWATER - GENERAL INFO\MS4 on the City server.
- Complete erosion control inspections of active sites, complete the inspection form, and record the inspection on the Inspection Tracking sheet.

The City Department of Public Works along with the City Building Inspector will complete erosion control inspections of active sites. At the time of inspection of a construction site, City staff shall have the following options to ensure the applicant/developer is implementing the erosion control plan as required:

- Verbal Warning (§240-4.A.)
- Written Warning (including email) (§240-4.A.)
- Stop Work Order (§240-4.B.)
- City Remedial Action (§240-4.C.)
- Permit Revocation (§240-4.D.)
- Penalty (§240-4.E. and §1-18)

Erosion control inspections shall be completed by the City Building Inspector each time the Inspector is on the construction site. At a minimum, each construction site shall be inspected once per month and in the fall prior to snow fall.

6 Post Construction Stormwater Management

Ordinance §240 Stormwater Management also includes requirements for post construction stormwater management. There are several stormwater management facilities within the City that require long term maintenance be performed. The City has inventoried the existing stormwater management facilities and currently has the following number of facilities:

Facility Owner	Number of Facilities
City	60
Private	20 ¹
Unknown	27
Total	107

¹ Of the 20 known privately owned facilities, five (5) maintenance agreements were found on file.

All of the stormwater facilities are included on the City's MS4 Program Map, **Figure 2** and the inventory of the facilities is located in **Appendix D**.

The City is responsible for performing maintenance on City owned facilities and inspecting privately owned facilities to ensure maintenance is being performed. Ordinance §240 requires all

new privately owned facilities to include a maintenance agreement but only five maintenance agreements were found on file for facilities constructed prior to the ordinance.

The City Department of Public Works will be responsible for inspecting and ensuring maintenance is performed on stormwater management facilities after construction. The review and approval process for new facilities will follow the erosion control plan review and approval process included in Section 5.

The management of the sediment removed from stormwater facilities is regulated by Chapter NR 528, Wis. Adm. Code. A link to the code is located at the Department's website at <http://dnr.wi.gov/topic/waste/nr528.html>.

The Public Works Department will inspect approximately one fifth (currently 21±) of the stormwater facilities in any given year. An inspection sheet, inspection tracking sheet, and an activity tracking sheet, similar to the annual report are included in **Appendix E** and a digital copy located at Q:\STORMWATER - GENERAL INFO\MS4 on the City server. Maintenance will be performed on City owned facilities as budgets allows but it is assumed that due to neglect many existing facilities will require maintenance at the beginning of the program.

The City will utilize the paper or electronic copies of the inspection and tracking forms with an ability to connect inspection tracking to the City's GIS database in the future. Updates to the pond types on the City's MS4 Stormwater Map is expected as the initial inspections are completed.

Any public complaints with regards to post-construction stormwater management will be routed to the City Department of Public Works.

Enforcement of post construction stormwater facilities is the same as the erosion control enforcement as outlined in Ordinance §240 and Section 5 of the report.

7 Pollution Prevention

Along with the items included in the previous sections of this Stormwater Management Plan the City is also responsible for additional pollution prevention policies and procedures. The following subsections outline additional pollution prevention measures throughout the City. Tracking of the pollution prevention activities shall be completed using the Pollution Prevention Tracking sheet located in **Appendix F** and a digital copy located at Q:\STORMWATER - GENERAL INFO\MS4 on the City server.

7.1 Municipally Owned or Operated Stormwater Management Facilities

There are sixty (60) known City owned and operated stormwater facilities within the City, twenty (20) privately owned facilities and another twenty-seven (27) facilities that the ownership is unknown at this time. All the City owned facilities are shown and uniquely numbered on the City's MS4 Program Map, **Figure 2**. In accordance with Section 6, the City's Department of Public Works will be inspecting and completing maintenance on the stormwater facilities and tracking the inspection and maintenance on the tracking sheets.

7.2 Street Sweeping and Sump Cleaning

The City currently begins street sweeping in the spring and continues every day until all the streets have been swept. The City then sweeps three days a week until October, sweeping the entire City approximately three times per year. In October the City sweeps every day until all leaves have been cleaned up in mid-November. The City currently does not maintain any storm sewer sumps in the City. All street sweeping waste is collected, stored, and hauled to an approved site. Neither street sweeping nor sump cleaning is included in the City's modeling of stormwater quality and thus is not needed for permit compliance.

Street sweeping frequency and an estimated tons of material swept shall be documented and recorded to be submitted with the City's annual report.

7.3 Winter Road Management

The City is responsible for applying only the necessary road deicers to provide safe travel and will not over use deicing products. The Director of Public Works is directly responsible for the City's winter roadway maintenance. The City shall maintain records of monthly usage of deicing products both solid and liquid and have the deicing equipment calibrated on a regular basis.

Snow disposal locations are indicated on the City's MS4 Stormwater Map, **Figure 2**.

7.4 Leaves and Grass Clippings Management

Leaves and grass clippings can produce high levels of phosphorus in stormwater runoff if left uncollected.

Leaf collection is provided in the City by a contracted refuse company, which picks up bags of leaves once per week during the fall months. The City performs street sweeping each day in the fall months until all leaves have been collected.

City staff are made aware of the negative effects of grass clippings in the streets and are instructed to keep grass clippings on the grass and not in the street. When City residents are observed blowing grass clippings into the street City staff are instructed to inform the residents that the clippings are to remain in the yard. Further education and outreach regarding leaves and grass clippings is included in the City's Education and Outreach program outlined in Section 2.

7.5 Turf and Garden Fertilizers

The City implements site-specific nutrient management plans for Lake Front Park and Grand View Park based on the existing soil types and nutrient needs. The turf grass nutrient management plans are available upon request.

7.6 Consideration of Environmentally Sensitive Designs

The City will consider environmentally sensitive designs including green infrastructure, low impact developments, and other environmentally sensitive considerations during municipal projects.

7.7 City Staff Education

Stormwater pollution prevention will be incorporated into different City department trainings and meetings. All Public Works staff will receive stormwater pollution prevention training at the monthly safety training meetings.

Specific Public Works staff tasked with stormwater pollution items will receive additional training through seminars and other training opportunities.

EH/TH

Figures

Figure 1 – MS4 Activity Calendar

Figure 2 – MS4 Program Map

MS4 Activity Calendar

January	
Week	Activity
1	Prepare/coordinate annual report
2	
3	
4	
5	Record deicing usage

February	
Week	Activity
1	Review options for PE&O
2	Review options for public involvement
3	Propose PE&O program for upcoming year
4	Propose public involvement activities
	Record deicing usage

March	
Week	Activity
1	Quarterly SWPPP inspection
2	
3	Discuss stormwater at annual PW safety mtg
4	Submit annual report
5	Record deicing usage

April	
Week	Activity
1	Construction Site Inspection
2	
3	
4	
5	

May	
Week	Activity
1	Construction Site Inspection
2	Illicit discharge screening
3	Post Construction Pond Inspection
4	
5	

June	
Week	Activity
1	Quarterly SWPPP inspection
2	Construction Site Inspection
3	Post Construction Pond Inspection
4	Illicit discharge screening
5	

July	
Week	Activity
1	Construction Site Inspection
2	Post Construction Pond Inspection
3	
4	
5	

August	
Week	Activity
1	Construction Site Inspection
2	Post Construction Pond Inspection
3	
4	
5	

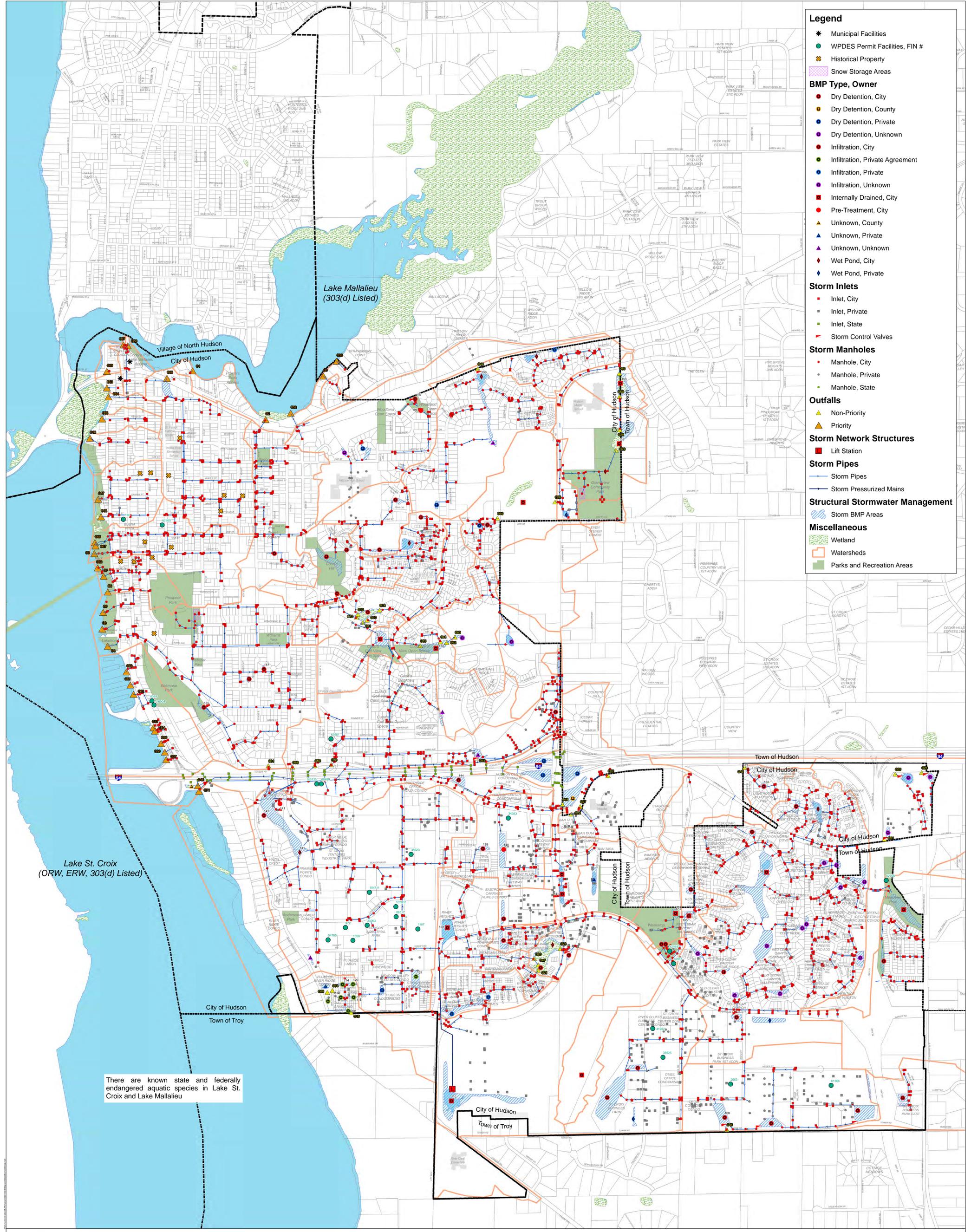
September	
Week	Activity
1	Quarterly SWPPP inspection
2	Construction Site Inspection
3	
4	
5	

October	
Week	Activity
1	Schedule Council MS4 update
2	Construction Site Inspection
3	Calibrate Deicing Equipment
4	
5	Record deicing usage

November	
Week	Activity
1	Inspect all active construction sites
2	
3	
4	Present MS4 update to Council
5	Record deicing usage

December	
Week	Activity
1	Quarterly SWPPP inspection
2	Complete SWPPP AFSCI report
3	
4	
5	Record deicing usage

*All calendar activities shall be directed by the City Director of Public Works



- Legend**
- * Municipal Facilities
 - WPDES Permit Facilities, FIN #
 - ✱ Historical Property
 - Snow Storage Areas
 - BMP Type, Owner**
 - Dry Detention, City
 - Dry Detention, County
 - Dry Detention, Private
 - Dry Detention, Unknown
 - Infiltration, City
 - Infiltration, Private Agreement
 - Infiltration, Private
 - Infiltration, Unknown
 - Internally Drained, City
 - Pre-Treatment, City
 - ▲ Unknown, County
 - ▲ Unknown, Private
 - ▲ Unknown, Unknown
 - ◆ Wet Pond, City
 - ◆ Wet Pond, Private
 - Storm Inlets**
 - Inlet, City
 - Inlet, Private
 - Inlet, State
 - Storm Control Valves
 - Storm Manholes**
 - Manhole, City
 - Manhole, Private
 - Manhole, State
 - Outfalls**
 - ▲ Non-Priority
 - ▲ Priority
 - Storm Network Structures**
 - Lift Station
 - Storm Pipes**
 - Storm Pipes
 - Storm Pressurized Mains
 - Structural Stormwater Management**
 - Storm BMP Areas
 - Miscellaneous**
 - Wetland
 - Watersheds
 - Parks and Recreation Areas

Lake Mallalieu
(303(d) Listed)

Village of North Hudson
City of Hudson

City of Hudson
Town of Hudson

Town of Hudson

City of Hudson

City of Hudson

Town of Hudson

City of Hudson
Town of Troy

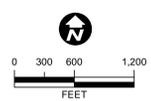
City of Hudson
Town of Troy

Lake St. Croix
(ORW, ERW, 303(d) Listed)

There are known state and federally
endangered aquatic species in Lake St.
Croix and Lake Mallalieu



MS4 Program Map
2018
Hudson, WI



This map is a public utility map and is not intended to be used for any other purpose. It is not a warranty, representation, or guarantee of any kind. The user of this map is responsible for verifying the accuracy of the information shown on this map. The user of this map is responsible for obtaining all necessary permits and approvals from the appropriate authorities. The user of this map is responsible for obtaining all necessary permits and approvals from the appropriate authorities. The user of this map is responsible for obtaining all necessary permits and approvals from the appropriate authorities.

Appendix A

Public Education, Outreach, Involvement and Participation Tracking

Public Education and Outreach (MCM 1)

Tracking

Practice	Mechanism	Qty	Est People Reached	Regional Effort?	Target Audiences	Notes

Practice

A	Detection and elimination of illicit discharges
B	Management of materials that may cause stormwater pollution from automobiles, pet waste, household hazardous waste and household practices
C	Beneficial onsite reuse of leaves grass clippings/proper use of lawn and garden fertilizers and pesticides
D	Management of stream banks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways.
E	Infiltration of residential stormwater runoff from rooftop downspouts, driveways and sidewalks
F	Inform and where appropriate educate those responsible for the design, installation, and maintenance of construction site erosion control practices and stormwater management facilities on how to design, install and maintain
G	Identify businesses and activities that may pose a stormwater contamination concern, and where appropriate, educate specific audiences on methods of stormwater pollution prevention
H	Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development
I	Any other Public Education and Outreach program information for inclusion in the Annual Report may be added here.

Mechanisms

1	Passive print media (brochures at front desk, posters, etc.)
2	Social media posts
3	Active distribution of print media (mailings, newsletters, etc)
4	Educational activities (school presentations, summer camps, etc.)
5	Informational booth at event
6	Targeted group training (contractors, consultants, etc.)
7	Government event (public hearing, council meeting, etc.)
8	Website
9	Workshops
10	Tours
11	Signage
12	Direct one-on-one communication
13	Other

Target audience examples: agricultural, contractors, general public, public employees, residential, school groups, business, developers, industries, restaurants, or other.

Public Involvement and Participation (MCM2)

Describe how the municipality has kept the following local officials and municipal staff apprised of the municipal stormwater discharge permit programs and its requirements.

Elected Officials:	
Municipal Officials:	
Appropriate Staff:	

Tracking

Practice	Mechanism	Qty	Est People Reached	Regional Effort?	Target Audiences	Notes

Practice

A	Detection and elimination of illicit discharges
B	Management of materials that may cause stormwater pollution from automobiles, pet waste, household hazardous waste and household practices.
C	Beneficial onsite reuse of leaves grass clippings/proper use of lawn and garden fertilizers and pesticides
D	Management of stream banks and shorelines by riparian landowners to minimize erosion and restore and enhance the ecological value of waterways
E	Infiltration of residential stormwater runoff from rooftop downspouts, driveways and sidewalks
F	Inform and where appropriate educate those responsible for the design, installation, and maintenance of construction site erosion control practices and stormwater management facilities on how to design, install and maintain.
G	Identify businesses and activities that may pose a stormwater contamination concern, and where appropriate, educate specific audiences on methods of stormwater pollution prevention
H	Promote environmentally sensitive land development designs by developers and designers, including green infrastructure and low impact development
I	Any other Public Education and Outreach program information for inclusion in the Annual Report may be added here.

Mechanisms

1	Website
2	Public Workshop
3	Group BMP Installation
4	Presentation of Stormwater Information
5	Government event (public hearing, council meeting, etc.)
6	Citizen Committee Meetings
7	Stream Monitoring
8	Clean-Up Events
9	Storm Drain Stenciling
10	Planting Community Rain Garden

Target audience examples: agricultural, contractors, general public, public employees, residential, school groups, business, developers, industries, restaurants, or other.

Appendix B

Illicit Discharge Detection and Elimination



Outfall Information					
Outfall Location and Description:					Outfall #:
Inspector Information					
Inspector Name:		Phone Number:		Date:	Time:
Weather Information					
Weather Conditions:					
Date of Last Rainfall:		Amount:			
Inspection Results					
Describe the flow from the outfall: (ie: color, sheen, foam)					
Testing Performed?	Y or N	If Yes, test results must be attached to this form.		Results Attached?	Y or N
Is there an Illicit Discharge? (Non-illicit sources can include groundwater inflows and permitted facilities.)					Y or N
If an illicit discharge is suspected, what actions were taken to track and eliminate sources?					
Additional Comments:					

Illicit Discharge Detection and Elimination (MCM 3)

	# of Outfalls
How many total outfalls does the municipality have?	
How many outfalls did the municipality evaluate as part of their ongoing field screening program?	
How many were confirmed illicit discharges?	
How many illicit discharge complaints did the municipality receive?	
How many were confirmed illicit discharges?	
How many of the confirmed illicit discharges did the municipality eliminate in the reporting year?	

How many of the following enforcement mechanisms did the municipality use to enforce its illicit discharge ordinance?

Verbal Warning	Written Warning	Notice of Violation	Civil Penalty/Citation

Any other Illicit Discharge Detection and Elimination program information for inclusion in the Annual Report may be added here.

Appendix C

Construction Site Pollution Control Program



Facility Information			
Site Name:			Permit Number:
Site Address:			
Inspector Information			
Inspector Name:			Phone Number:
Date:			Time:
Weather Information and Inspection Type			
Weather Conditions:			Current phase of Construction:
Date of Last Rainfall:			Amount:
Type of Inspection:	<input type="checkbox"/> Rainfall event	<input type="checkbox"/> Weekly	
Inspection Questions			
	Yes	No	Location/Comment
Is the EC Plan on site and accessible?			
Are all areas where construction has temporarily ceased and will not resume for 14 days temporarily stabilized?			
Are stockpiles existing for more than 7 days covered and stabilized?			
Are downstream channels and other downhill areas protected from scour and erosion?			
Are all areas at final grade permanently vegetated or stabilized?			
Are perimeter controls in place and installed correctly?			
Is inlet protection installed and functioning in all inlets likely to receive runoff from the site?			
Are all other erosion and sediment control BMPs shown on the EC Plan installed and functioning?			
Is the public right of way curb line free of tracked soil and accumulation?			
Are wetlands, lakes, streams, ditches, or storm sewers downstream free of sedimentation and turbid water leaving the site?			
Is dewatering and/or vehicle and equipment washing being done in a manner that prevents erosion and sediment discharge?			
Are good housekeeping practices or treatment controls in place to prevent the discharge of chemicals, cement, trash and other materials into waters of the state?			
Is the air free of fugitive dust resulting from construction activity?			



Additional Comments

A large, empty rectangular box with a black border, intended for handwritten or typed additional comments.

Construction Site Pollutant Control (MCM 4)

How many total construction sites were active at any point in the reporting year?	
---	--

How many construction sites did the municipality issue permits for the reporting year?	
--	--

Are any of the above sites < 1 acre? Yes No Unsure

How many erosion control inspections did the municipality complete in the reporting year?	
---	--

What types of enforcement actions does to municipality have available to compel compliance with the regulatory mechanism? How many times were each used last year?

Verbal Warning	
Written Warning (including email)	
Notice of Violation	
Civil Penalty/Citation	
Stop Work Order	
Forfeiture of Deposit	
No Authority	
Other (Describe)	

Any other construction site pollutant control program information for inclusion in the Annual Report may be added here:

--

Appendix D

Stormwater Facility Inventory

Facility ID	Pond Type				Ownership					Notes		
101	Infiltration		Wet Pond	Dry Detention	X	City		Private	X	Maint	X	DEVELOPERS AGREEMENT
102	Infiltration		Wet Pond	Dry Detention		City		Private		Maint		UNDER NEW DEVELOPMENT/CARMICHAEL RIDGE
103	Infiltration	X	Wet Pond	Dry Detention		City	X	Private		Maint		
104	Infiltration	X	Wet Pond	Dry Detention		City		Private		Maint		
105	Infiltration	X	Wet Pond	Dry Detention		City		Private		Maint		
106	Infiltration	X	Wet Pond	Dry Detention		City	X	Private		Maint		
107	Infiltration	X	Wet Pond	Dry Detention		City		Private		Maint		NOT SURE ON OWNERSHIP
108	Infiltration	X	Wet Pond	Dry Detention		City	X	Private		Maint		
109	Infiltration	X	Wet Pond	Dry Detention		City	X	Private		Maint		
110	Infiltration		Wet Pond	X	Dry Detention	City		Private		Maint		LIFT STATION, NEW DEVELOPMENT
111	Infiltration	X	Wet Pond	Dry Detention		City	X	Private		Maint		
112	Infiltration	X	Wet Pond	Dry Detention		City		Private	X	Maint		POSSIBLE EASEMENT
113	Infiltration	X	Wet Pond	Dry Detention		City		Private	X	Maint		
114	Infiltration		Wet Pond	Dry Detention	X	City		Private	X	Maint	X	DEVELOPERS AGREEMENT
115	Infiltration		Wet Pond	Dry Detention	X	City		Private	X	Maint	X	DEVELOPERS AGREEMENT
116	Infiltration	X	Wet Pond	Dry Detention		City		Private	X	Maint		
117	Infiltration	X	Wet Pond	Dry Detention		City		Private		Maint		
118	Infiltration		Wet Pond	Dry Detention	X	City		Private	X	Maint		
119	Infiltration		Wet Pond	Dry Detention		City		Private	X	Maint		POSSIBLE EASEMENT
120	Infiltration		Wet Pond	Dry Detention	X	City		Private	X	Maint	X	DEVELOPERS AGGREEMENT
121	Infiltration	X	Wet Pond	Dry Detention		City		Private	X	Maint	X	DEVELOPERS AGGREEMENT
122	Infiltration		Wet Pond	Dry Detention		City		Private	X	Maint		POSSIBLE EASEMENT
123	Infiltration	X	Wet Pond	Dry Detention		City		Private		Maint		
125	Infiltration	X	Wet Pond	Dry Detention		City	X	Private		Maint		
126	Infiltration	X	Wet Pond	Dry Detention		City		Private		Maint		UNKNOWN OWNERSHIP
127	Infiltration	X	Wet Pond	Dry Detention		City		Private		Maint		UNKNOWN OWNERSHIP
128	Infiltration		Wet Pond	X	Dry Detention	City	X	Private		Maint		RARELY DISCHARGES
129	Infiltration	X	Wet Pond	Dry Detention		City		Private		Maint		UNKNOWN OWNERSHIP

Data provided by City of Hudson staff July 2017.

Facility ID	Pond Type				Ownership				Notes			
130	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
131	Infiltration		Wet Pond	X	Dry Detention	City	X	Private		Maint	RARELY DISCHARGES	
132	Infiltration	X	Wet Pond		Dry Detention	City		Private		Maint	UNKNOWN OWNERSHIP	
133	Infiltration		Wet Pond		Dry Detention	City		Private	X	Maint	BELIEVED TO BE PRIVATE	
134	Infiltration		Wet Pond	X	Dry Detention	City	X	Private		Maint	RARELY DISCHARGES	
135	Infiltration		Wet Pond		Dry Detention	X	City	Private		Maint	UNKNOWN OWNERSHIP	
136	Infiltration		Wet Pond		Dry Detention	X	City	Private		Maint	UNKNOWN OWNERSHIP	
137	Infiltration	X	Wet Pond		Dry Detention	City		Private		Maint	UNKNOWN OWNERSHIP	
138	Infiltration	X	Wet Pond		Dry Detention	City		Private		Maint	UNKNOWN OWNERSHIP	
139	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
140	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint	COUNTY OWNED, NEGOTIATIONS FOR CITY OWNED	
141	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint	MAIN DETENTION BEFORE DISCHARGE TO RIVER	
142	Infiltration		Wet Pond		Dry Detention	City		Private	X	Maint	COUNTY OWNED, FINAL DISCHARGE BEFORE RIVER	
143	Infiltration		Wet Pond		Dry Detention	X	City	Private		Maint	COUNTY OWNED	
144	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
145	Infiltration		Wet Pond		Dry Detention	X	City	Private	X	Maint	COUNTY OWNED	
146	Infiltration		Wet Pond		Dry Detention	X	City	Private	X	Maint	COUNTY OWNED	
147	Infiltration		Wet Pond		Dry Detention	X	City	Private	X	Maint	COUNTY OWNED	
148	Infiltration		Wet Pond		Dry Detention	City		Private		Maint	REDESIGNED NEW DEVELOPMENT/CARMICHAEL RIDGE	
149	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
150	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
151	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
152	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
153	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
154	Infiltration		Wet Pond	X	Dry Detention	City	X	Private		Maint	RARELY DISCHARGES	
155	Infiltration	X	Wet Pond		Dry Detention	City		Private	X	Maint		
156	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
157	Infiltration		Wet Pond	X	Dry Detention	City		Private	X	Maint		

Data provided by City of Hudson staff July 2017.

Facility ID	Pond Type				Ownership				Notes			
158	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint	HOLDS WATER	
159	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
161	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
162	Infiltration	X	Wet Pond		Dry Detention	City	X	Private		Maint		
163	Infiltration		Wet Pond		Dry Detention	X	City	X	Private	Maint		
164	Infiltration		Wet Pond		Dry Detention	X	City	X	Private	Maint		
165	Infiltration		Wet Pond		Dry Detention		City		Private	Maint	UNKNOWN	
166	Infiltration		Wet Pond		Dry Detention	X	City	X	Private	Maint		
167	Infiltration		Wet Pond	X	Dry Detention		City		Private	X	Maint	ULINE OWNERSHIP
168	Infiltration	X	Wet Pond		Dry Detention		City		Private		Maint	UNKNOWN OWNERSHIP
169	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
170	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
171	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
172	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
173	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
174	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
175	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
176	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
177	Infiltration	X	Wet Pond		Dry Detention		City		Private		Maint	UNKNOWN OWNERSHIP/MOVIE THEATRE
178	Infiltration		Wet Pond	X	Dry Detention		City	X	Private		Maint	RARELY DISCHARGES
179	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
180	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
181	Infiltration	X	Wet Pond		Dry Detention		City		Private		Maint	UNKNOWN OWNERSHIP/MOVIE THEATRE
182	Infiltration	X	Wet Pond		Dry Detention		City		Private		Maint	UNKNOWN OWNERSHIP/MOVIE THEATRE
183	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
184	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
185	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
187	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	

Data provided by City of Hudson staff July 2017.

Facility ID	Pond Type				Ownership				Notes			
188	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
189	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
190	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
191	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
192	infiltration		wet Pond		dry Detention	X	city		private	X	maint	holds water
193	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
194	Infiltration		Wet Pond	X	Dry Detention		City	X	Private		Maint	RARELY DISCHARGES
195	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
196	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
197	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
198	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	FLows TO LAKE MALLALIEAU
199	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
201	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
206	Infiltration		Wet Pond		Dry Detention	X	City		Private		Maint	UNKNOWN IF OWNED BY CITY OR SCHOOL
207	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
208	Infiltration		Wet Pond		Dry Detention	X	City	X	Private		Maint	
209	Infiltration		Wet Pond		Dry Detention	X	City		Private		Maint	MAY BE COUNTY OWNED PROPERTY
210	Infiltration		Wet Pond		Dry Detention		City		Private		Maint	UNDER NEW DEVELOPMENT/CARMICHAEL RIDGE
212	Infiltration		Wet Pond		Dry Detention		City		Private		Maint	UNDER NEW DEVELOPMENT/CARMICHAEL RIDGE
213	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
214	Infiltration		Wet Pond		Dry Detention	X	City		Private	X	Maint	
215	Infiltration	X	Wet Pond		Dry Detention		City	X	Private		Maint	
216	Infiltration		Wet Pond	X	Dry Detention		City	X	Private		Maint	RARELY DISCHARGES

Data provided by City of Hudson staff July 2017.

Appendix E

Post Construction Stormwater Management



Facility Information									
Site Name:						Number:			
Site Address:					BMP Owner:				
Inspector Information									
Inspector Name:					Phone Number:				
Date:					Time:				
Weather Information									
Weather Conditions:									
Date of Last Rainfall:					Amount:				
BMP Information									
What type of BMP is it?	<input type="checkbox"/>	Infiltration	<input type="checkbox"/>	Wet Pond	<input type="checkbox"/>	Biofilter	<input type="checkbox"/>	Other	<input type="checkbox"/>
When was maintenance performed last?					Are any of the inlets or outlets plugged?				
If BMP is infiltration or biofilter, is standing water observed?					Y or N	Estimated area of standing water:			
If BMP is a wet pond, what is the active water depth?						Estimated area of water surface:			
Is clearing and grubbing required?	<input type="checkbox"/>	Y or N	<input type="checkbox"/>	If yes, what is the estimated area?	Length:		Width:		
Number and diameter of trees greater than X diameter:									
Any storm sewer inlets or pipe need repair? Explain, include pipe size and lengths:									
Any areas of erosion need repair? Explain, include estimated area of repair:									
Additional Comments:									

Post-Construction Stormwater Management (MCM 5)

How many new construction sites with new structural stormwater management practices have received local approvals?	
--	--

How many privately owned stormwater facility inspections were completed in the reporting year?	
---	--

How many municipally owned stormwater facility inspections were completed in the reporting year?	
---	--

What types of enforcement actions does to municipality have available to compel compliance with the regulatory mechanism? How many times were each used last year?

	Verbal Warning	
	Written Warning (including email)	
	Notice of Violation	
	Civil Penalty/Citation	
	Forfeiture of Deposit	
	Complete Maintenance	
	Bill responsible party	
	No Authority	
	Other (Describe)	

Any other post-construction stormwater management program information for inclusion in the Annual Report may be added here.

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Appendix F

Pollution Prevention

Pollution Prevention - Tracking (MCM6)**Stormwater Management Facility Inspections (ponds, biofilters, etc)**

Enter the total number of municipally owned or operated structural stormwater facilities.	
How many new municipally owned stormwater facilities were installed in the reporting year?	
How many municipally owned stormwater devices were inspected in the reporting year?	
How many of these facilities required maintenance?	

Public Works Yards & Other Municipally Owned Properties (SWPPP Plan Review)

How many inspections of municipal properties were conducted in the reporting year?	
Have amendments to the SWPPPs been made?	

Collection Services - Street Sweeping/Cleaning Program

Did the municipality conduct street sweeping/cleaning during the reporting year?	
If known, how many tons of material was removed?	
If street cleaning is identified as a stormwater management practice in the pollutant loading analysis, was street cleaning completed at the assumed frequency?	

Collection Services - Catch Basin Sump Cleaning Program

Did the municipality conduct catch basin sump cleaning during the reporting year?	
How many catch basin sumps were cleaned in the reporting year?	
If known, how many tons of material was removed?	

Collection Services - Leaf Collection Program

Does the municipality conduct curbside leaf collection?	
Does the municipality notify homeowners about pickup? Where are residents directed to store the leaves for collection?	
Whats is the frequency of collection?	
Is collection followed by street sweeping/cleaning?	

Winter Road Management

Provide the amount of de-icing products used by month last winter season?

	Oct	Nov	Dec	Jan	Feb	Mar
Solids (tons) (sand, salt-sand)						
Liquids (gal) (ex. Brine)						

Was salt applying machinery calibrated in the reporting year?	
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How many municipal personnel attended salt reduction strategy training in the reporting year?	
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Sustainable buildings, sound infrastructure, safe transportation systems, clean water, renewable energy and a balanced environment. Building a Better World for All of Us communicates a companywide commitment to act in the best interests of our clients and the world around us.

We're confident in our ability to balance these requirements.

