MINNESOTA POLLUTION CONTROL AGENCY

You are currently logged in as:

Hastings City MS4

If this is correct, click the 'Next' button. If this information is incorrect, contact Cole Landgraf (651-757-2880, cole.landgraf@state.mn.us).

Before you begin...

A fillable Microsoft Word document with all of the questions is available at https://stormwater.pca.state.mn.us/index.php?title=MS4_Annual_Report (for personal use only, not for submittal).

The MS4 Annual Report for 2021 will automatically save your answers when you hit the 'Next' button at the bottom of each page.

If you wish to leave the MS4 Annual Report for 2021 and complete the document at another time, you may do so by clicking 'Next' at the bottom of your current page to save your progress before exiting the document. Return to the survey by following the previously used web link, and again login using your email and assigned password credentials. Once you successfully log in, your previous answers will appear.

The MPCA will email a formatted version of your MS4 Annual Report for 2021 to you in a confirmation email within three business days after you submit this form.

You may print a copy of the MS4 Annual Report for 2021 for your records at any time by pressing the 'Print' button at the bottom of the page.

Additionally, it is possible to save a PDF copy of the MS4 Annual Report for 2021 if you are working on a computer with OneNote (a program often included in Microsoft Office packages). Detailed saving instructions are available at stormwater.pca.state.mn.us/index.php/Guidance_for_saving_MS4_annual_reports.

MS4 Annual Report for 2021

Reporting period: January 1, 2021 to December 31, 2021

Due: June 30, 2022

Instructions: Complete this annual report to provide a summary of your activities under the 2013 MS4 Permit (Permit) between January 1, 2021 and December 31, 2021. MPCA staff may contact you for additional information.

Note: The annual report questions remain unchanged from the previous annual report because MS4 permittees were covered under the 2013 MS4 Permit for the majority of 2021. In the next annual report (due June 30, 2023), you will be required to report on activities completed to meet requirements under the 2020 MS4 Permit.

Fillable document available at https://stormwater.pca.state.mn.us/index.php?title=MS4_Annual_Report (for personal use only, not for submittal).

Questions: Contact Cole Landgraf (cole.landgraf@state.mn.us, 651-757-2880) or your assigned MPCA staff member listed at https://stormwater.pca.state.mn.us/index.php?title=MS4_staff_contact_information_and_staff_assignments.

MS4 General Contact Information

Full name	John Caven
Title	Assistant City Engineer
Mailing address	1225 Progress Dr
City	Hastings
State	MN
Zip code	55033
Phone	6514802369
Email	jcaven@hastingsmn.gov

Preparer Contact Information (if different from the MS4 General Contact)

Full name	
Title	
Organization	
Mailing address	
City	
State	
Zip code	
Phone	
Email	

MCM 1: Public Education and Outreach

The following questions refer to Part III.D.1. of the Permit.

Q2 Did you select a stormwater-related issue of high priority to be emphasized during this Permit term? [Part III.D.1.a.(1)]

- (●) Yes
- ( ) No

Q3 What is your stormwater-related issue(s)? Check all that apply.

- [ ] TMDL(s)
- [ ] Local businesses
- [x] Residential BMPs
- [ ] Pet waste
- [x] Yard waste
- [ ] Deicing materials
- [x] Household chemicals
- [x] Construction activities
- [ ] Post-construction activities
- [ ] Other

Q4 Have you distributed educational materials or equivalent outreach to the public focused on illicit discharge recognition and reporting? [Part III.D.1.a.(2)]

- (●) Yes
- ( ) No

Q5 Do you have an implementation plan as required by the Permit? [Part III.D.1.b.]

- (●) Yes
- ( ) No

Q6 How did you distribute educational materials or equivalent outreach? Check all that apply and provide circulation/audience associated with each item. [Part III.D.1.a.]

- [x] Brochure
- [x] Newsletter
- [ ] Utility bill insert
- [ ] Newspaper ad
- [ ] Radio ad
- [ ] Television ad
- [ ] Cable access channel
- [ ] Stormwater-related event
- [ ] School presentation or project
- [x] Website
- [x] Other (1)
- [ ] Other (2)
- [ ] Other (3)

Other (1), describe: Facebook

Q7 Intended audience? Check all that apply.

	Residents	Local Businesses	Developers	Students	Employees	Other
Brochure	[x]	[ ]	[ ]	[ ]	[ ]	[ ]
Newsletter	[x]	[ ]	[ ]	[ ]	[ ]	[ ]
Website	[x]	[x]	[ ]	[ ]	[ ]	[ ]
Other (1)	[x]	[ ]	[ ]	[ ]	[ ]	[ ]

Q8 Enter the total circulation/audience (if unknown, use best estimate):

Brochure	<100
Newsletter	23,000
Website	23,000
Other (1)	7,500

Provide a brief description of each activity related to public education and outreach (e.g. rain garden workshop, school presentation, public works open house) held and the date each activity was held from January 1, 2021 to December 31, 2021. [Part III.D.1.c.(4)]

Q9 Date of activity		Q10Description of activity
Date (mm/dd /yyyy)	1/1/21	Landscaping for Clean Water Workshops - See Appendix B5 of Report
Date (mm/dd /yyyy)	1/1/21	Various Facebook postings throughout year - See Appendix B4 of Report
Date (mm/dd /yyyy)	1/1/21	Ongoing City Website information - See Appendix A2 of Report
Date (mm/dd /yyyy)	1/1/21	Spring, Fall, Winter City Newsletters - See Appendix A1 of Report
Date (mm/dd /yyyy)	2/19/21	Erosion Control Letter to Developers/Builders - Spring
Date (mm/dd /yyyy)	9/29/21	Erosion Control Letter to Developers/Builders - Fall
Date (mm/dd /yyyy)		
Date (mm/dd /yyyy)		

Q11 Between January 1, 2021 and December 31, 2021, did you modify your BMPs, measurable goals, or future plans for your public education and outreach program? [Part IV.B.]

- (●) Yes
- ( ) No

Describe those modifications:

Added information to trailhead kiosks near downtown on important water quality issue of pet waste. Executed new articles on big issues such as pet waste, illicit discharge, and chloride in City Newsletter and Facebook.

MCM 2: Public Participation/Involvement

The following questions refer to Part III.D.2.a. of the Permit.

Q12 You must provide a minimum of one opportunity each year for the public to provide input on the adequacy of your Stormwater Pollution Prevention Program (SWPPP). Did you provide this opportunity between January 1, 2021 and December 31, 2021? [Part III.D.2.a.(1)]

- (●) Yes
- ( ) No

Q13 What was the opportunity that you provided? Check all that apply.

- [ ] Public meeting
- [ ] Public event
- [x] Other

Q16 Other

Describe: From 2007-2017 this meeting was held annually at the City Council meeting. After a decade of poor interest, this requirement is fulfilled on its Storm Water page on the City's webpage.

Enter the date of this action (mm/dd/yyyy): 1/1/21

Enter the number of citizens that attended and were informed about your SWPPP: 1

Q17 Between January 1, 2021 and December 31, 2021, did you receive any input regarding your SWPPP?

- ( ) Yes
- (•) No

Q19 Between January 1, 2021 and December 31, 2021, did you modify your BMPs, measurable goals, or future plans for your public participation/involvement program? [Part IV.B.]

- (•) Yes
- ( ) No

Describe those modifications:

We continued the modified Spring and Fall Cleanup Days to adhere to the changing COVID-19 mandates.

MCM 3: Illicit Discharge Detection and Elimination

The following questions refer to Part III.D.3. of the Permit.

Q20 Do you have a regulatory mechanism which prohibits non-stormwater discharges to your MS4? [Part III.D.3.b.]

- (●) Yes
- ( ) No

Q21 Did you identify any illicit discharges between January 1, 2021 and December 31, 2021? [Part III.D.3.h.(4)]

- (●) Yes
- ( ) No

Q22 Enter the number of illicit discharges detected:

1

Q23 How did you discover these illicit discharges? Check all that apply and enter the number of illicit discharges discovered by each category.

- [x] Public complaint
- [ ] Staff

Q24 Enter the number discovered by the public:

1

Q26 Did any of the discovered illicit discharges result in an enforcement action (this includes verbal warnings)?

- ( ) Yes
- (●) No

Q30 Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your illicit discharge regulatory mechanism(s)? [Part III.B.]

- (●) Yes
- ( ) No

Q31 Between January 1, 2021 and December 31, 2021, did you train all field staff in illicit discharge recognition (including conditions which could cause illicit discharges) and reporting illicit discharges for further investigations? [Part III.D.3.e.]

- ( ) Yes
- (●) No

The following questions refer to Part III.C.1. of the Permit.

Q33 Did you update your storm sewer system map between January 1, 2021 and December 31, 2021? [Part III.C.1.]

- (●) Yes
- ( ) No

Q34 Does your storm sewer map include all pipes 12 inches or greater in diameter and the direction of stormwater flow in those pipes? [Part III.C.1.a.]

- (●) Yes
- ( ) No

Q35 Does your storm sewer map include outfalls, including a unique identification (ID) number and an associated geographic coordinate? [Part III.C.1.b.]

- (●) Yes
- ( ) No

Q36 Does your storm sewer map include all structural stormwater BMPs that are part of your MS4? [Part III.C.1.c.]

- (●) Yes
- ( ) No

Q37 Does your storm sewer map include all receiving waters? [Part III.C.1.d.]

- (●) Yes
- ( ) No

Q38 In what format is your storm sewer map available?

- ( ) Hardcopy only
- (●) GIS
- ( ) CAD
- ( ) Other

Q39 Between January 1, 2021 and December 31, 2021, did you modify your BMPs, measurable goals, or future plans for your illicit discharge detection and elimination (IDDE) program? [Part IV.B.]

- (●) Yes
- ( ) No

Describe those modifications:

```
We prepared training materials to be implemented in 2022 and ensured MCM 3 is
in compliant to new MS4 Permit Requirements.
```

MCM 4: Construction Site Stormwater Runoff Control

The following questions refer to Part III.D.4. of the Permit.

Q40 Do you have a regulatory mechanism that is at least as stringent as the Agency's general permit to Discharge Stormwater Associated with Construction Activity (CSW Permit) No. MN R100001 (http://www.pca.state.mn.us/index.php/view-document.html?gid=18984) for erosion and sediment controls and waste controls? [Part III.D.4.a.]

- (●) Yes
- ( ) No

Q41 Have you developed written procedures for site plan reviews as required by the Permit? [Part III.D.4.b.]

- (●) Yes
- ( ) No

Q42 Have you documented each site plan review as required by the Permit? [Part III.D.4.f.]

- (●) Yes
- ( ) No

Q43 Enter the number of site plan reviews conducted for sites an acre or greater of soil disturbance between January 1, 2021 and December 31, 2021:

6

Q44 What types of enforcement actions do you have available to compel compliance with your regulatory mechanism? Check all that apply and enter the number of each used from January 1, 2021 to December 31, 2021.

- [x] Verbal warnings
- [ ] Notice of violation
- [ ] Administrative orders
- [x] Stop-work orders
- [ ] Fines
- [ ] Forfeit of security of bond money
- [x] Withholding of certificate of occupancy
- [ ] Criminal actions
- [ ] Civil penalties
- [ ] Other

Enter the number of verbal warnings issued: 44

Enter the number of stop-work orders issued: 0

Enter the number of withholdings of certificate of occupancy issued: 0

Q45 Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your construction site stormwater runoff control regulatory mechanism(s)? [Part III.B.]

- (●) Yes
- ( ) No

Q46 Enter the number of active construction sites an acre or greater that were in your jurisdiction between January 1, 2021 and December 31, 2021:

4

Q47 Do you have written procedures for identifying priority sites for inspections? [Part III.D.4.d.(1)]

- (●) Yes
- ( ) No

Q48 How are sites prioritized for inspections? Check all that apply.

- [x] Site topography
- [x] Soil characteristics
- [x] Types of receiving water(s)
- [x] Stage of construction
- [x] Compliance history
- [x] Weather conditions
- [x] Citizen complaints
- [x] Project size
- [ ] Other

Q49 Do you have a checklist or other written means to document site inspections when determining compliance? [Part III.D.4.d.(4)]

- (●) Yes
- ( ) No

Q50 Enter the number of site inspections conducted for sites an acre or greater between January 1, 2021 and December 31, 2021:

29

Q51 Enter the frequency at which site inspections are conducted (e.g. daily, weekly, monthly): [Part III.D.4.d.(2)]

Once every 7 days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.

Q52 Enter the number of trained inspectors that were available for construction site inspections between January 1, 2021 and December 31, 2021:

3

Q53 Provide the contact information for the inspector(s) and/or organization that conducts construction stormwater inspections for your MS4. List your primary construction stormwater contact first if you have multiple inspectors.

(1) Inspector name	John Caven
Organization	City of Hastings
Phone (Office)	651.480.2369
Phone (Work Cell)	651.278.6664
Email	jcaven@hastingsmn.gov
Preferred contact method	Email or Office Phone
(2) Inspector name	Cody Mathisen
Organization	City of Hastings
Phone (Office)	651.480.2372
Phone (Work Cell)	651.480.2372
Email	dmathisen@hastingsmn.gov
Preferred contact method	Email or Office Phone
(3) Inspector name	Justin Wolfe
Organization	City of Hastings
Phone (Office)	651.480.2334
Phone (Work Cell)	651.336.9879
Email	jwolfe@hastingsmn.gov
Preferred contact method	Email or Office Phone

Q54 What training did inspectors receive? Check all that apply.

- [x] University of Minnesota Erosion and Stormwater Management Certification Program
- [ ] Qualified Compliance Inspector of Stormwater (QCIS)
- [ ] Minnesota Laborers Training Center Stormwater Pollution Prevention Plan Installer or Supervisor
- [ ] Minnesota Utility Contractors Association Erosion Control Training
- [ ] Certified Professional in Erosion and Sediment Control (CPESC)
- [ ] Certified Professional in Stormwater Quality (CPSWQ)
- [ ] Certified Erosion, Sediment and Storm Water Inspector (CESSWI)
- [ ] Other

Q55 Between January 1, 2021 and December 31, 2021, did you modify your BMPs, measurable goals, or future plans for your construction site stormwater runoff control program? [Part IV.B.]

- (•) Yes
- ( ) No

Describe those modifications:

General update to comply with 11/16/20 SWPPP.

MCM 5: Post-Construction Stormwater Management

The following questions refer to Part III.D.5. of the Permit.

Q56 Do you have a regulatory mechanism which meets all requirements as specified in Part III.D.5.a. of the Permit?

- (•) Yes
- ( ) No

Q57 What approach are you using to meet the performance standard for Volume, Total Suspended Solids (TSS), and Total Phosphorus (TP) as required by the Permit? [Part III.D.5.a.(2)]
Check all that apply.

Refer to the link http://www.pca.state.mn.us/index.php/view-document.html?gid=17815 for guidance on stormwater management approaches.

- [ ] Retain a runoff volume equal to one inch times the area of the proposed increase of impervious surfaces on-site
- [ ] Retain the post-construction runoff volume on site for the 95th percentile storm
- [x] Match the pre-development runoff conditions
- [ ] Adopt the Minimal Impact Design Standards (MIDS)
- [ ] An approach has not been selected
- [ ] Other method (Must be technically defensible--e.g. based on modeling, research and acceptable engineering practices)

Q58 Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your post-construction stormwater management regulatory mechanism(s)? [Part III.B.]

- (●) Yes
- ( ) No

Q59 Between January 1, 2021 and December 31, 2021, did you modify your BMPs, measurable goals, or future plans for your post-construction stormwater management program? [Part IV.B.]

- (●) Yes
- ( ) No

Describe those modifications:

General update to comply with 11/16/20 SWPPP.

MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations

The following questions refer to Part III.D.6. of the Permit.

Q60 Enter the total number of structural stormwater BMPs, outfalls (excluding underground outfalls), and ponds within your MS4 (exclude privately owned).

Structural stormwater BMPs	534
Outfalls	472
Ponds	30

Q61 Enter the number of structural stormwater BMPs, outfalls (excluding underground outfalls), and ponds that were inspected from January 1, 2021 to December 31, 2021 within your MS4 (exclude privately owned). [Part III.D.6.e.]

Structural stormwater BMPs	511
Outfalls	110
Ponds	6

Q62 Have you developed an alternative inspection frequency for any structural stormwater BMPs, as allowed in Part III.D.6.e.(1) of the Permit?

- (●) Yes
- ( ) No

Q63 Based on inspection findings, did you conduct any maintenance on any structural stormwater BMPs? [Part III.D.6.e.(1)]

- (●) Yes
- ( ) No

Q64 Briefly describe the maintenance that was conducted:

A contractor was hired to clean out structures

Q65 Do you own or operate any stockpiles, and/or storage and material handling areas? [Part III.D.6.e.(3)]

- (●) Yes
- ( ) No

Q66 Did you inspect all stockpiles and storage and material handling areas quarterly? [Part III.D.6.e.(3)]

- (●) Yes
- ( ) No

Q67 Based on inspection findings, did you conduct maintenance at any of the stockpiles and/or storage and material handling areas?

- ( ) Yes
- (●) No

Q69 Between January 1, 2021 and December 31, 2021, did you modify your BMPs, measurable goals, or future plans for your pollution prevention/good housekeeping for municipal operations program? [Part IV.B.]

- (●) Yes
- ( ) No

Describe those modifications:

General update to comply with 11/16/20 SWPPP

Discharges to Impaired Waters with a USEPA-Approved TMDL that Includes an Applicable WLA

You must complete the **TMDL Annual Report Form**, available at: https://stormwater.pca.state.mn.us/index.php?title=Annual_TMDL_forms_submitted_by_MS4_permittees. Attach your completed TMDL Annual Report Form to this Annual Report as instructed below. [Part III.E.]

Q71 Click the "up arrow" icon below to upload your TMDL Annual report form. When it has uploaded successfully, a unique ID will appear in the box. Only files less than 10 MB in size will upload.

ref:0000000034:Q71

Partnerships

Q78 Did you rely on any other regulated MS4s to satisfy one or more Permit requirements?

- (●) Yes
- ( ) No

Q79 Describe the agreements you have with other regulated MS4s and which Permit requirements the other regulated MS4s help satisfy: [Part IV.B.6.]

```
Dakota County - Landscaping for Clean Water (Blue Thumb Rain Garden Initiative)
Metro Watershed Partners - Adopt A Drain Tennis Sanitation - Spring Clean Up
Day
```

Additional Information

If you would like to provide any additional files to accompany your annual report, use the space below to upload those files. For each space, you may attach one file. You may provide additional explanation and/or information in an email with the subject *YourMS4NameHere_2021AR* to ms4permitprogram.pca@state.mn.us.

Q80 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files less than 10 MB in size will upload.

```
ref:0000000034:Q80
```

Q81 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files less than 10 MB in size will upload.

```
ref:0000000034:Q81
```

Q82 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files less than 10 MB in size will upload.

```
ref:0000000034:Q82
```

Q83 Optional, describe the file(s) uploaded:

```
Hastings Report: Documentation of MCM 1-7 (in three parts due to size
restraints)
```

Owner or Operator Certification

The person with overall administrative responsibility for SWPPP implementation and Permit compliance must certify this MS4 Annual Report. This person must be duly authorized and should be either a principal executive (i.e., Director of Public Works, City Administrator) or ranking elected official (i.e., Mayor, Township Supervisor).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete (Minn. R. 7001.0070). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment (Minn. R. 7001.0540).

☑ Yes

By typing my name in the following box, I certify the above statements to be true and correct, to the best of my knowledge, and that information can be used for the purpose of processing my MS4 Annual Report.

Name: John Caven

Title: Assistant City Engineer

Date: (mm/dd/yyyy) 6/23/22

When you are ready to submit, you must click the 'Submit' button at the bottom of this page.

Provide the email(s) of the individual(s) you would like to receive the MS4 Annual Report for 2021 submittal confirmation email from the MPCA. After you click the Submit button below, please allow up to three business days to receive this email.

Email (1) jcaven@hastingsmn.gov

Email (2)

Email (3)

Print or save a copy of your completed MS4 Annual Report for 2021 for your records. The MPCA will email a formatted version of your MS4 Annual Report for 2021 in a confirmation email within three business days after you submit this form to the email(s) you provided above.

You may print a copy of the MS4 Annual Report for 2021 for your records by pressing the 'Print' button at the bottom of the page.

Additionally, it is possible to save a PDF copy of the MS4 Annual Report for 2021 if you are working on a computer with OneNote (a program often included in Microsoft Office packages). Detailed saving instructions are available at stormwater.pca.state.mn.us/index.php/Guidance_for_saving_MS4_annual_reports.

If you have any questions, contact MPCA staff Cole Landgraf (cole.landgraf@state.mn.us, 651-757-2880).

City of Hastings, MN
Storm Water Pollution Prevention Plan (SWPPP)
January 1, 2021 – December 31, 2021

This program consists of the following seven Minimum Control Measures (MCMs)

- MCM 1 Public Education & Outreach
- MCM 2 Public Participation & Involvement
- MCM 3 Illicit Discharge Detection & Elimination
- MCM 4 Construction Site Runoff Control
- MCM 5 Post-Construction Runoff Control
- MCM 6 Pollution Prevention / Good Housekeeping
- MCM 7 Additional BMPs

MCM 1 – PUBLIC EDUCATION AND OUTREACH

The public education and outreach program has been developed to distribute educational materials to the community and/or conduct equivalent outreach activities. An annual evaluation of BMP effectiveness will be conducted.

The BMPs identified will focus on:

1) The impact of storm water discharges on streams, rivers, and wetlands
2) The steps that the public can take to reduce pollutants in storm water runoff.

Topics will include, but are not limited to: (see Table 1 for targeted storm water pollutants removed)

1) Erosion & Sediment Control
2) Impacts of Salt Usage
3) Illicit Discharge Recognition & Reporting
4) Impacts of Pet Waste
5) Waste Management/Disposal
6) Chemical Application
7) Property Maintenance
8) Residential Storm Water Practices
9) Composting
10) Shoreline Management
11) Events: Spring Clean-up Day, Parks & Trail Spring Clean-up Day, Arbor Day, Earth Day, Wetland Health Evaluation Program, Blue Thumb Rain Garden Initiative, Youth Green Teams, Adopt-A-Park, Adopt-A-Drain
12) MS4 Storm Water Permit
13) Wellhead Protection
14) TMDL Reduction Targets (TSS, Fecal Coliform & Chloride)

Methods of outreach will include, but are not limited to:

1) Rivertown Newsletter
2) Website
3) Fliers/Brochures
4) Facebook
5) Electronic Message Board
6) KDWA Radio
7) Annual Public Meeting / Public Comment
8) City 3 / City Minute
9) Downtown Kiosk
10) Cleanup Day (Spring & Fall)
11) Earth Day
12) Arbor Day
13) Storm Sewer Stenciling
14) Blue Thumb Raingarden Initiative / Landscaping for Clean Water
15) Wetland Health Evaluation Program (WHEP)
16) Parks & Trail Cleanup Day

17) Youth Green Teams
18) Adopt-a-Park
19) Adopt-a-Drain
20) Builders Handbook
21) Public Works Design Manual
22) Training
23) Website Illicit Discharge

These activities have been prepared to individually address each of the six minimum control measures. For each minimum control measure, the education program identifies the:

1) Audience(s) involved, approximate number of attendees
2) Educational goals for each audience
3) Activities used to reach educational goals
4) Activity implementation plans to include:
    a) Responsible persons and agencies in charge
    b) Schedule
    c) Performance measures that can be used to evaluate success in reaching educational goals.

An annual assessment of MCM 1 will be made and updated as appropriate.

Table 1: Pollutant Removal

Public Education and Outreach										
	Primary Storm Water Pollutants Removed									
Pollution Prevention Activity	Runoff Volume	Sediment	Nutrients	BOD	Oil & Grease	Bacteria	Metals	Thermal Loading	Chloride	Other Organic Compounds
Erosion & Sediment Control Training		x	x	x						
Best Management Practice References		x	x	x						
Vehicle Washing			x	x	x		x			
Street & Parking Lot Sweeping		x	x	x						
Park & Open Space Fertilizer/Chemical Application Programs			x							x
Winter Road Materials Management		x	x				x		x	x
Storm Drain Stenciling					x		x			
Residential Waste Collection & Cleanup Programs			x	x			x			
Potential Discharge Identification & Risk Reduction			x	x	x					x
Hazardous Material Storage & Handling					x		x			x
Illicit Discharge		x	x	x	x	x	x		x	x
Reducing Pet Waste			x	x		x				
Septic System Maintenance Programs			x	x		x				
Open Space Design	x	x	x					x		
Reducing Impervious Surfaces	x	x	x		x		x	x	x	
Pervious Pavements	x	x	x					x	x	
Green Roofs	x							x		
Rainwater Harvesting/Stormwater Reuse & Rain Barrel Programs	x	x	x				x			
Urban Forestry & Storm Water Management	x		x				x	x		
Vegetated Swales & Buffer Strips	x	x	x					x		
Establishing a Buffer Ordinance	x	x	x					x		
Retrofitting: Filtration, Filtration & Bioretention	x	x	x				x	x		
Establishing an Infiltration Standard	x	x	x					x		
Volume Control Using Compost Materials/Soil Amendments	x	x	x							

Pollution Prevention and the MS4 Program: A Guide on Utilizing Pollution Prevention Activities to Meet MS4 General Permit Requirements (page 4-5)

1A: Distribute Educational Materials

Target Audience:

Residents, businesses, City employees, and general public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

Distribute educational materials and/or perform outreach efforts that informs the public. Materials or equivalent outreach should illuminate the impact stormwater discharges has on waterbodies and what actions residents, businesses, and agencies can perform to reduce the discharge of pollutants to storm water. Materials shall include:

1) High Priority Storm Water Related Topic – Two times per year
    a) Hazardous Household Waste
    b) Yard Waste
2) Chloride Issues – One time per year
    a) Impacts of deicing salt use on receiving waters
    b) Methods to reduce deicing salt use
    c) Proper storage of salt or other deicing materials
3) Illicit Discharge – One time per year
    a) Recognition
    b) Reporting
4) Pet Waste – One time per year
    a) Impacts of pet waste on receiving waters
    b) Proper management of pet waste
    c) Existing permittee regulatory mechanism for pet waste
5) TMDL – Periodically as appropriate
6) Other – Periodically as appropriate

Activities Available to Reach Goals:

1) Rivertown Newsletter / Hastings Highlights (See Appendix A1)
2) Website (See Appendix A2)
3) City Hall Fliers (See Appendix A3)
4) Facebook (See Appendix A4)
5) Electronic Message Board (See Appendix A5)
6) KDWA Radio (See Appendix A6)
7) Annual Public Meeting / Public Comment (See Appendix A7)
8) City 3 / City Minute (See Appendix A8)
9) Downtown Kiosk (See Appendix 10)
10) Cleanup Day – Spring & Fall (See Appendix B1)
11) Earth Day (See Appendix B2)
12) Arbor Day (See Appendix B3)
13) Storm Sewer Stenciling (See Appendix B4)
14) Blue Thumb Raingarden Initiative/Landscaping for Clean Water (See Appendix B5)
15) Wetland Health Evaluation Program (See Appendix B6)
16) Parks & Trail Cleanup Day (See Appendix B6

17) Youth Green Teams (See Appendix B8)
18) Adopt-a-Park (See Appendix B9)
19) Adopt-a-Drain (See Appendix B10)
20) Builders Handbook (See Appendix C4)
21) PW Design Manual (See Appendix C5)
22) Training (See Appendix D1)
23) Website Illicit Discharge (See Appendix D4)

Schedule:

Continue to look for new and creative ways to expound the water quality message and evaluate its effectiveness. An Outreach Plan was developed and will be followed (See Appendix A9).

1B: Implement an Education Program: Strategy

Target Audience:

Residents, businesses, City employees, and general public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

Public education is necessary because an informed and knowledgeable community is crucial to the success of a storm water management program. It helps to ensure:

1) Greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important.
2) Greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and with others within the community.

Materials shall:

1) Emphasize actions residents, businesses, and agencies can perform to reduce the discharge of pollutants to storm water.
2) Use the most cost effective technological means of communication
3) Reach all walks of life
4) Be produced in-house or by other entities with City support
5) Be evaluated on an annual basis to ensure effectiveness

Materials shall include:

1) High Priority Storm Water Related Topic – Two times per year
    a. Hazardous Household Waste
    b. Yard Waste
2) Chloride Issues – One time per year
    a. Impacts of deicing salt use on receiving waters
    b. Methods to reduce deicing salt use
    c. Proper storage of salt or other deicing materials
3) Illicit Discharge – One time per year
    a. Recognition
    b. Reporting
4) Pet Waste – One time per year
    a. Impacts of pet waste on receiving waters
    b. Proper management of pet waste
    c. Existing permittee regulatory mechanism for pet waste
5) TMDL – Periodically as appropriate
6) Other – Periodically as appropriate

Activities Available to Reach Goals:

1) Rivertown Newsletter / Hastings Highlights (See Appendix A1)
2) Website (See Appendix A2)
3) City Hall Fliers (See Appendix A3)

4) Facebook (See Appendix A4)
5) Electronic Message Board (See Appendix A5)
6) KDWA Radio (See Appendix A6)
7) Annual Public Meeting / Public Comment (See Appendix A7)
8) City 3 / City Minute (See Appendix A8)
9) Downtown Kiosk (See Appendix 10)
10) Cleanup Day – Spring & Fall (See Appendix B1)
11) Earth Day (See Appendix B2)
12) Arbor Day (See Appendix B3)
13) Storm Sewer Stenciling (See Appendix B4)
14) Blue Thumb Raingarden Initiative/Landscaping for Clean Water (See Appendix B5)
15) Wetland Health Evaluation Program (See Appendix B6)
16) Parks & Trail Cleanup Day (See Appendix B6
17) Youth Green Teams (See Appendix B8)
18) Adopt-a-Park (See Appendix B9)
19) Adopt-a-Drain (See Appendix B10)
20) Builders Handbook (See Appendix C4)
21) PW Design Manual (See Appendix C5)
22) Training (See Appendix D1)
23) Website Illicit Discharge (See Appendix D4)

Schedule:

Continue to look for new and creative ways to expound the water quality message. An Outreach Plan was developed and will be followed (See Appendix A9).

1C: Education Program: Public Education & Outreach

Target Audience:

Residents, businesses, City employees, and general public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

The BMP will:

1) Increase awareness and understanding of water quality issues for MCM 1.
2) Provide education on City's Storm Water Pollution Prevention Program for MCM 1.
3) Educate the public on steps they can do to reduce pollutants in storm water runoff for MCM 1.
4) Document activity and review its effectiveness.

Activities Available to Reach Goals:

1) Rivertown Newsletter / Hastings Highlights (See Appendix A1)
2) Website (See Appendix A2)
3) City Hall Fliers (See Appendix A3)
4) Facebook (See Appendix A4)
5) Electronic Message Board (See Appendix A5)
6) KDWA Radio (See Appendix A6)
7) Annual Public Meeting / Public Comment (See Appendix A7)
8) City 3 / City Minute (See Appendix A8)
9) Downtown Kiosk (See Appendix 10)

Schedule:

Continue to look for new and creative ways to expound the water quality message and evaluate its effectiveness. An Outreach Plan was developed and will be followed (See Appendix A9).

1D: Education Program: Public Participation

Target Audience:

Residents, businesses, and general public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

The BMP will:

1) Increase awareness and understanding of water quality issues for MCM 2.
2) Provide education on City's Storm Water Pollution Prevention Program for MCM 2.
3) Educate the public on steps they can do to reduce pollutants in storm water runoff for MCM 2.
4) Document activity and review its effectiveness.

Activities to Reach Educational Goals:

1) Cleanup Day – Spring & Fall (See Appendix B1)
2) Earth Day (See Appendix B2)
3) Arbor Day (See Appendix B3)
4) Storm Sewer Stenciling (See Appendix B4)
5) Blue Thumb Raingarden Initiative/Landscaping for Clean Water (See Appendix B5)
6) Wetland Health Evaluation Program (See Appendix B6)
7) Parks & Trail Cleanup Day (See Appendix B6
8) Youth Green Teams (See Appendix B8)
9) Adopt-a-Park (See Appendix B9)
10) Adopt-a-Drain (See Appendix B10)

Schedule:

Continue to look for new and creative ways to expound the water quality message. An Outreach Plan was developed and will be followed (See Appendix A9).

1E: Education Program: Elicit Discharge Detection & Elimination

Target Audience:

Residents, businesses, and general public

Responsible Persons for Implementation:

Assistant City Engineer

Educational Goals for Each Audience:

The BMP will:

1) Increase awareness and understanding of water quality issues for MCM 3.
2) Provide education on City's Storm Water Pollution Prevention Program for MCM 3.
3) Educate the public on steps they can do to reduce pollutants in storm water runoff for MCM 3.
4) Document activity and review its effectiveness.

Activities to Reach Educational Goals:

1) Website (See Appendix A2)
2) Website Illicit Discharge (See Appendix D4)
3) Rivertown Newsletter / Hastings Highlights (See Appendix A1)
4) Facebook (See Appendix A4)
5) Annual Public Meeting (See Appendix A7)
6) Training (See Appendix D1)
7) Wetland Health Evaluation Program (See Appendix B6)
8) Storm Sewer Stenciling (See Appendix B4)
9) Spring Cleanup Day (See Appendix B1)
10) Parks & Trail Spring Cleanup Day (See Appendix B7)
11) RV Dump Station (See Appendix F3)
12) Adopt-A-Park (See Appendix B9)
13) Adopt-A-Drain (See Appendix B10)

Schedule:

Continue to look for new and creative ways to expound the water quality message. An Outreach Plan was developed and will be followed (See Appendix A9).

1F: Education Program: Construction Site Run-off Control

Target Audience:

Contractors, developers, consulting engineers, utility companies, City staff, and property owners performing work within the City.

Responsible Persons for Implementation:

Assistant City Engineer

Educational Goals for Each Audience:

The BMP will:

1) Increase awareness and understanding of water quality issues for MCM 4.
2) Provide education on City's Storm Water Pollution Prevention Program for MCM 4.
3) Educate the target audience on steps they can do to reduce pollutants in storm water runoff for MCM 4.
4) Document activity and review its effectiveness.

Activities to Reach Educational Goals:

1) Builders Handbook (See Appendix C4)
2) Public Works Design Manual (See Appendix C5)
3) Construction Site Run-off Control (See Appendix D3)
4) Erosion Control Standard Plates (See Appendix C2)
5) Erosion Control Construction Inspection (See Appendix C3)
6) Erosion Control Training (See Appendix D1)
7) Erosion Control Site Visits (See Appendix D3)
8) City Ordinance – VRWJPO Compliance (See Appendix C7)
9) Property Maintenance Ordinance (See Appendix C8)
10) Website (See Appendix A2)
11) Rivertown Newsletter / Hastings Highlights (See Appendix A1)
12) Site Plan Review Checklists (See Appendix C1)

Schedule:

Continue to look for new and creative ways to expound the water quality message.

1G: Education Program: Post-Construction Storm Water Management in New Development and Redevelopment

Target Audience:

Contractors, developers, consulting engineers, utility companies, City staff, and property owners performing work within the City.

Responsible Persons for Implementation:

Assistant City Engineer

Educational Goals for Each Audience:

The BMP will:

1) Increase awareness and understanding of water quality issues for MCM 5.
2) Provide education on City's Storm Water Pollution Prevention Program for MCM 5.
3) Educate the target audience on steps they can do to reduce pollutants in storm water runoff for MCM 5.
4) Document activity and review its effectiveness.

Activities to Reach Educational Goals:

1) Builders Handbook (See Appendix C4)
2) Public Works Design Manual (See Appendix C5)
3) Water Management Plan (See Appendix C6)
4) Construction Site Run-off Control (See Appendix D3)
5) Erosion Control Standard Plates (See Appendix C2)
6) Erosion Control Construction Inspection (See Appendix C3)
7) Erosion Control Training (See Appendix D1)
8) Erosion Control Site Visits (See Appendix D3)
9) City Ordinance – VRWJPO Compliance (See Appendix C7)
10) Property Maintenance Ordinance (See Appendix C8)
11) Website (See Appendix A2)
12) Rivertown Newsletter / Hastings Highlights (See Appendix A1)
13) Site Plan Review Checklists (See Appendix C1)

Schedule:

Continue to look for new and creative ways to expound the water quality message.

1H: Education Program: Pollution Prevention/Good Housekeeping for Municipal Operations

Target Audience:

City staff involved in public works activities and construction projects.

Responsible Persons for Implementation:

Assistant City Engineer

Educational Goals for Each Audience:

The BMP will:

1) Increase awareness and understanding of water quality issues for MCM 6.
    a. Techniques: Storage, handling, application, and disposal
        1) Anti icing products
        2) Oil based products
        3) Fertilizers
        4) Storm and sanitary sewer maintenance
2) Provide education on City's Storm Water Pollution Prevention Program for MCM 6.
3) Educate the target audience on steps they can do to reduce pollutants in storm water runoff for MCM 6.
4) Document activity and review its effectiveness.

Activities to Reach Educational Goals:

1) Training (See Appendix D1)
2) Storage, Handling & Disposal (See Appendix E6)
3) Street Sweeping (See Appendix G1)
4) Maintenance Plan (See Appendix E7)
5) Televise Sanitary Sewer Service Lines (G2)
6) Sump Manholes (See Appendix E1)
7) Outfalls (See Appendix E2)
8) Ponds/Wetlands (See Appendix E3)
9) Stockpiles (See Appendix E4)

Schedule:

Continue to look for new and creative ways to expound the water quality message.

1I: Coordination of Education Program

Target Audience:

Education Field

Responsible Persons for Implementation:

Assistant City Engineer

Description:

The City will continue to assist, as appropriate, with students and teachers within the K-12 educational programs, City departments, neighboring cities and townships, Dakota County, VRWJPO, local organizations, state agencies, and other outside organizations to support, where applicable, and distribute the most up-to-date stormwater pollution prevention information available.

Measurable Goals:

1) Storm Stenciling (See Appendix B4)
2) Wetland Health Evaluation Program (See Appendix B6)
3) Adopt-A-Park (See Appendix B9)
4) Adopt-A-Drain (See Appendix B10)
5) Public Works Expansion Project-Grounds (See Appendix H2)
6) Vermillion River Linear Park Natural Resource Management Plan (See Appendix H2)

Schedule:

Continue to look for new and creative ways to expound the water quality message and evaluate its effectiveness.

1J: Annual Public Meeting / Public Comment

Target Audience:

General Public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

Prior to submittal of the annual report to the MPCA, the City will either:

1) Hold an annual public meeting or
2) Provide comment opportunity on storm water page on City website

Any meeting held shall include:

1) Presentation of an overview of the MS4 SWPPP program
2) Provide access to the SWPPP document, annual reports, and ordinances
3) Allow opportunity for public to provide oral or written input.
    a) At annual public meeting
    b) On City website

Where applicable, the City shall document:

1) Date of meeting / email
2) Time of meeting / email
3) Notices provided to the public of any events scheduled
4) All relevant input submitted by public and shall be considered for inclusion to the SWPPP
5) Number of participants

Measurable Goals:

1) Annual Public Meeting (See Appendix A7)
2) City Ordinance-VRWJPO Compliance (See Appendix C7)
3) Website (See Appendix A2)
4) Website Illicit Discharge (See Appendix D4)

Schedule:

Continue to look for new and creative ways to expound the water quality message and evaluate its effectiveness.

MCM 2 – PUBLIC PARTICIPATION & INVOLVEMENT

The public participation and involvement program has been developed to provide measures to receive oral or written public input and opinion on the adequacy of the MS4 SWPPP. This input can be received at the annual public meeting, online on our City website, or by contacting the City offices. To reach this goal, the City will implement and maintain the following BMPs:

1) Conduct an annual public meeting or provide comment link on the City Website creating an opportunity for general public to consider and comment on the adequacy of the City's Storm Water Pollution Prevention Program.

2) Incorporate SWPPP onto a separate page within the City's webpage to
    a. Specifically describe the SWPPP
    b. Describe each minimum control measure
    c. Communicate the goals and actions planned by the City
    d. Provide links to BMPs
    e. Contribute articles on each control measure
    f. Provide SWPPP Report for review
    g. Collect feedback from site visitors

3) Conduct an annual assessment of MCM 2 and update as appropriate.

2A: Comply with Public Notice Requirements

Target Audience:

General Public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

The annual public hearing adheres to standard operating procedures per MN State Statutes. Meeting notices were posted a minimum of thirty days in advance of the meeting in the following locations:

1) Hastings Star Gazette (until 2019) or St Paul Pioneer Press (current)
2) City of Hastings website

Public notices shall include:

1) Date
2) Time
3) Location of the meeting
4) Brief Description
5) Contact Person

Measurable Goals:

1) Annual Public Meeting (See Appendix A7)

Schedule:

Continue to look for new and creative ways to expound the water quality message and evaluate its effectiveness.

2B: Solicit Public Input & Opinion on the Adequacy of the SWPPP

Target Audience:

General Public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

Prior to submittal of the annual report to the MPCA, the City will either:

1) Hold an annual public meeting or
2) Provide comment opportunity on storm water page on City website

Any meeting held shall include:

1) Presentation of an overview of the MS4 SWPPP program
2) Provide access to the SWPPP document, annual reports, and ordinances
3) Allow opportunity for public to provide oral or written input.
    a) At annual public meeting
    b) On City website

Where applicable, the City shall document:

1) Date of meeting / email
2) Time of meeting / email
3) Notices provided to the public of any events scheduled
4) All relevant input submitted by public and shall be considered for inclusion to the SWPPP

Measurable Goals:

1) Annual Public Meeting (See Appendix A7)
2) City Ordinance-VRWJPO Compliance (See Appendix C7)
3) Website (See Appendix A2)
4) Website Illicit Discharge (See Appendix D4)

Schedule:

Continue to look for new and creative ways to expound the water quality message and evaluate its effectiveness.

2C: Consider Public Input

Target Audience:

General Public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

Prior to submittal of the annual report to the MPCA, the City will either:

1) Hold an annual public meeting or
2) Provide comment opportunity on storm water page on City website

Any meeting held shall include:

1) Presentation of an overview of the MS4 SWPPP program
2) Provide access to the SWPPP document, annual reports, and ordinances
3) Allow opportunity for public to provide oral or written input.
    a) At annual public meeting
    b) On City website

Where applicable, the City shall document:

1) Date of meeting / email
2) Time of meeting / email
3) Notices provided to the public of any events scheduled
4) All relevant input submitted by public and shall be considered for inclusion to the SWPPP

Measurable Goals:

1) Annual Public Meeting (See Appendix A7)
2) City Ordinance-VRWJPO Compliance (See Appendix C7)
3) Website (See Appendix A2)
4) Website Illicit Discharge (See Appendix D4)

Schedule:

Continue to look for new and creative ways to expound the water quality message and evaluate its effectiveness.

MCM 3 – ILLICIT DISCHARGE DETECTION & ELIMNATION

Illicit discharges are defined as, "any discharge to a MS4 that is not composed of entirely storm water." The illicit discharge detection and elimination program has been developed to detect and address non-storm water discharges in the MS4 system. The program shall:

1) Provide a storm sewer system map depicting:
    a) Storm sewer pipe 12" or larger
    b) Flow directional arrows on storm sewer pipe
    c) Outfalls including a unique ID number and geographic coordinate
    d) Structural stormwater BMPs (stormceptors, hydroguards, etc)
    e) All receiving waters, including rivers, lakes, ponds, wetlands

2) Implement a regulatory mechanism (ordinance, policy, manuals, etc) that prohibits non-storm water discharges, excluding those allowed under Item 3.2 of the permit.

3) Provide a plan/procedure to detect and address non-storm water discharges into the MS4. The plan/procedure shall:
    a) Investigate, locate, and detect illicit discharges by:
        1) Incorporating illicit discharge detection for all outfall, sump manhole, and pond inspections
        2) Televise sanitary sewer lines
        3) Identifying areas within the MS4 that poses the highest risk of illicit discharges

4) Provide an enforcement response procedure (ERP) for responding to spills and other illicit discharges.

5) Provide training of all field staff on illicit discharge detection and response procedures

6) Educate residents, businesses, and general public on issues pertaining to illicit discharges

7) Conduct an annual assessment of MCM 3 and update as appropriate.

3A: Storm Sewer System Map

Target Audience:

City Field Staff

Responsible Persons for Implementation:

Engineering Technician: Continuous updating of the GIS map

Assistant City Engineer: Reporting

Description:

A map of the storm water conveyance system is designed to help the MS4 understand the flow of the storm water system by identifying discharge points and its upstream pipe network. A storm sewer system map shall include:

1) Storm sewer pipe, at a minimum of 12" or larger
2) Flow directional arrows on storm sewer pipe
3) Outfalls including a unique ID number and geographic coordinate
4) Structural stormwater BMPs (stormceptors, hydroguards, etc)
5) All receiving waters, including rivers, lakes, ponds, wetlands

Measurable Goals:

Storm Sewer System Map (See Appendix F1)

Schedule:

Continue to look for new and creative ways to improve the storm sewer map and evaluate its effectiveness.

3B: Regulatory Control Program

Target Audience:

Residents, businesses, general public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

The City will review and update regulatory mechanisms (ordinances, policies, procedures, etc) to prohibit non-storm water discharges. Discharges listed under Part 1.B.1 of the permit are excluded from the prohibition (see Appendix ZF).

Measurable Goals:

1) City Ordinance – Illicit Discharge (See Appendix C10)
2) City Ordinance – VRWJPO Compliance (See Appendix C7)
3) Property Maintenance Ordinance (See Appendix C8)
4) Builders Handbook (See Appendix C4)
5) Public Works Design Manual (See Appendix C5)
6) Erosion Control Standard Plates (See Appendix C2)
7) Erosion Control Construction Specifications (See Appendix C3)
8) Water Management Plan (See Appendix C6)
9) Stormwater Utility Ordinance (See Appendix C9)
10) Site Plan Review Checklists (See Appendix C1)

Schedule:

Continue to ensure the storm water regulations are current.

3C: Illicit Discharge Detection & Elimination Plan

Description:

Target Audience:

Residents, businesses, City employees, and general public

Responsible Persons for Implementation:

Engineering Technician: Continuous updating of the GIS map
Assistant City Engineer: Reporting responsibilities

Description:

Illicit discharges are defined as, "any discharge to a MS4 that is not composed of entirely storm water." The illicit discharge detection and elimination program has been developed to detect and address non-storm water discharges in the MS4 system. The program shall:

1) Provide a storm sewer system map (see 3a-1)

2) Implement a regulatory mechanism that prohibits non-storm water discharges (see 3b-1)

3) Provide a plan/procedure to detect and address non-storm water discharges into the MS4. The plan/procedure shall:
   a) Investigate, locate, and detect illicit discharges by:
      1) Incorporating illicit discharge detection for all outfall, sump manhole, and pond inspections (see Appendix E1, E2, E3, E5)
      2) Televise sanitary sewer lines (see Appendix G2)
      3) Identifying areas within the MS4 that poses the highest risk of illicit discharges (see Appendix D5)

4) Provide an enforcement response procedure (ERP) for responding to spills and other illicit discharges (see Appendix D6)

5) Provide training of all field staff on illicit discharge detection and response procedures (see 1c-6)

6) Educate residents, businesses, and general public on issues pertaining to illicit discharges (see 1c-3)

Measurable Goals:

See Description

Schedule:

Continue to ensure illicit discharge detection and elimination information is current and available.

3D: Public & Employee Illicit Discharge Information Program

Target Audience:

Residents, businesses, and general public

Responsible Persons for Implementation:

Assistant City Engineer

Description:

The BMP will:

1) Increase awareness and understanding of water quality issues for MCM 3.
2) Provide education on City's Storm Water Pollution Prevention Program for MCM 3.
3) Educate the public on steps they can do to reduce pollutants in storm water runoff for MCM 3.

Activities to Reach Educational Goals:

1) Website (See Appendix A2)
2) Website Illicit Discharge (See Appendix D4)
3) Rivertown Newsletter / Hastings Highlights (See Appendix A1)
4) Facebook (See Appendix A4)
5) Annual Public Meeting (See Appendix A7)
6) Training (See Appendix D1)
7) Wetland Health Evaluation Program (See Appendix B6)
8) Storm Sewer Stenciling (See Appendix B4)
9) Spring Cleanup Day (See Appendix B1)
10) Parks & Trail Spring Cleanup Day (See Appendix B7)
11) RV Dump Station (See Appendix F3)

Schedule:

Continue to look for new and creative ways to expound the water quality message.

3E: Identification of Non Stormwater Discharges & Flows

Target Audience:

City Staff

Responsible Persons for Implementation:

Assistant City Engineer

Description:

In conformance with the requirements for the SWPPP, a number of non-storm water discharges were evaluated to determine if they are significant contributors of pollutants to the storm water system.

Measurable Goals:

According to Item 3.2 of the MS4 Stormwater Permit, these identified sources of non storm water inputs into the MS4 were determined NOT to be a significant contributor of pollutants:

1. Flushing of municipal waterlines
2. Residential, commercial, and agricultural landscaping irrigation
3. Stream flow diversions
4. Groundwater outputs and rising elevations
5. Uncontaminated pumped ground water
6. Uncontaminated groundwater infiltration
7. Filtration backwash from municipal water treatment facility
8. Discharge of foundation drains into the MS4
9. Potable water source discharges
10. Condensation from air conditioning units
11. Car washing by individual residents
12. Discharges from the de-chlorinated swimming pools
13. Wash water from street sweeping activities
14. Water discharged from firefighting activities
15. Irrigation water
16. Springs
17. Water from crawl space pumps
18. Footing drains
19. Lawn watering
20. Flows from riparian habitats and wetlands

Schedule:

The City will continue to monitor and evaluate the non storm water discharges and update its practices as necessary.

MCM 4 – CONSTRUCTION SITE RUNOFF CONTROL

Construction sites contribute a heightened discharge of pollutants in storm water runoff. Pollutants commonly discharged from construction sites include:

1) Sediment
2) Solid and sanitary wastes
3) Phosphorus (fertilizer)
4) Nitrogen (fertilizer)
5) Pesticides
6) Oil and grease
7) Concrete truck washout
8) Construction chemicals
9) Construction debris

The construction site runoff control program is designed to reduce the discharge of pollutants from construction storm water runoff by developing, implementing and enforcing the following for construction activities that result in a land disturbance of greater than or equal to one acre:

1) Regulatory mechanisms that require site plans be submitted and reviewed for approval prior to the start of construction activity.
2) Site plan review with the following criteria:
    a) Project name
    b) Project location
    c) Total acres to be disturbed
    d) Owner and operator of proposed construction activity
    e) Supporting documentation of storm water related comments during review process
3) Site plan review that includes written procedures to verify the following erosion, sediment, and waste controls are met:
    a) BMPs to minimize erosion
    b) BMPs to minimize the discharge of sediment and other pollutants
    c) BMPs for dewatering activities
    d) BMP maintenance
    e) Site inspections
    f) Records of site rainfall events
    g) Management of solid and hazardous waste
    h) Final stabilization upon the completion of construction activity
    i) Criteria for the use of temporary sediment basins
    j) Reminder to applicant to obtain a construction SWPPP.
4) Written procedures for accepting and considering public input on storm water related issues on projects
5) Written procedures for conducting site inspections, including enforcement actions. Inspections shall:
    a) Identify priority sites
    b) Identifying frequency
    c) Identify names/titles of individuals responsible for inspections

    d) Include inspection checklists
6) Enforcement Response Procedures (ERPs)
7) Training of staff commensurate with the responsibilities as they relate to the construction site runoff control.

4A: Ordinance or other Regulatory Mechanism

Target Audience:

Builders, developers, contractors

Responsible Persons for Implementation:

Assistant City Engineer

Description:

For land disturbing activities greater than or equal to one acre, site plans meeting grading and erosion control standards are required to be submitted by the permit applicant for review and approval prior to the start of construction activity. Construction permits will be required to meet MPCA NPDES Phase II guidelines for erosion and sediment control, or the City's standards, whichever are more stringent.

Measurable Goals

1) City Ordinance – VRWJPO Compliance (See Appendix C7)
2) Property Maintenance Ordinance (See Appendix C8)
3) Builders Handbook (See Appendix C4)
4) Public Works Design Manual (See Appendix C5)
5) Erosion Control Standard Plates (See Appendix C2)
6) Erosion Control Construction Specifications (See Appendix C3)
7) Water Management Plan (See Appendix C6)
8) Site Plan Review Checklists (See Appendix C1)

Schedule:

Continue to verify the regulatory mechanisms are current and followed.

4B: Construction Site Implementation of Erosion & Sediment Control BMPs

Target Audience:

Builders, developers, contractors

Responsible Persons for Implementation:

Assistant City Engineer

Description:

For land disturbing activities greater than or equal to one acre, site plans meeting grading and erosion control standards are required to be submitted by the permit applicant for review and approval prior to the start of construction activity.

Measurable Goals:

1) City Ordinance – VRWJPO Compliance (See Appendix C7)
2) Property Maintenance Ordinance (See Appendix C8)
3) Builders Handbook (See Appendix C4)
4) Public Works Design Manual (See Appendix C5)
5) Erosion Control Standard Plates (See Appendix C2)
6) Erosion Control Construction Specifications (See Appendix C3)
7) Erosion Control Site Visits (See Appendix D3)
8) Water Management Plan (See Appendix C6)
9) Site Plan Review (See Appendix D2)
10) Site Plan Review Checklists (See Appendix C1)

Schedule:

Continue to verify the erosion and sediment controls are current and followed.

4C: Waste Controls for Construction Site Operators

Target Audience:

Builders, developers, contractors

Responsible Persons for Implementation:

Assistant City Engineer

Description:

The City of Hastings takes seriously the property owners responsibility to maintain and keep his property clear of construction debris as well as maintaining a respectful lot long after construction as aesthetics and storm water quality hang in the balance.

Construction site operators must conform to NPDES Phase II permit requirements and the City's ordinances to control waste at the construction site that may cause adverse impacts to water quality. All waste must be properly disposed of off-site and prevented from being carried by wind or runoff into a receiving channel or storm sewer system. Waste can be defined as but not limited to:

1) Discarded building materials
2) Concrete truck washout
3) Chemicals
4) Litter
5) Sanitary waste

Measurable Goals:

1) City Ordinance – VRWJPO Compliance (See Appendix C7)
2) Property Maintenance Ordinance (See Appendix C8)
3) Builders Handbook (See Appendix C4)
4) Public Works Design Manual (See Appendix C5)
5) Erosion Control Standard Plates (See Appendix C2)
6) Erosion Control Construction Specifications (See Appendix C3)
7) Erosion Control Site Visits (See Appendix D3)
8) Water Management Plan (See Appendix C6)
9) Site Plan Review (See Appendix D2)
10) Site Plan Review Checklists (See Appendix C1)

Schedule:

Continue to verify the waste controls are current and followed.

4D: Procedure for Site Plan Review

Target Audience:

Builders, developers, contractors

Responsible Persons for Implementation:

Assistant City Engineer

Description:

For land disturbing activities greater than or equal to one acre, site plans meeting grading and erosion control standards are required to be submitted by the permit applicant for review and approval prior to the start of construction activity. Construction permits will be required to meet MPCA NPDES Phase II guidelines for erosion and sediment control, or the City's standards, whichever are more stringent.

Site plan review shall include the following criteria:

1) Project name
2) Project location
3) Total acres to be disturbed
4) Owner and operator of proposed construction activity
5) Supporting documentation of storm water related comments during review process

Site plan review shall include written procedures to verify that the following erosion, sediment, and waste controls are met:

1) BMPs to minimize erosion
2) BMPs to minimize the discharge of sediment and other pollutants
3) BMPs for dewatering activities
4) BMP maintenance
5) Site inspections
6) Records of site rainfall events
7) Management of solid and hazardous waste
8) Final stabilization upon the completion of construction activity
9) Criteria for the use of temporary sediment basins
10) Reminder to applicant to obtain a construction SWPPP.

Measurable Goals:

1) Site Plan Review (See Appendix D2)
2) Site Plan Review Checklists (See Appendix C1)
3) City Ordinance – VRWJPO Compliance (See Appendix C7)
4) Property Maintenance Ordinance (See Appendix C8)
5) Builders Handbook (See Appendix C4)
6) Public Works Design Manual (See Appendix C5)
7) Erosion Control Standard Plates (See Appendix C2)
8) Erosion Control Construction Specifications (See Appendix C3)
9) Erosion Control Site Visits (See Appendix D3)
10) Water Management Plan (See Appendix C6)

Schedule:

Continue to verify the site plan reviews are current and followed.

4E: Establishment of Procedures for the Receipt and Consideration of Reports of Stormwater Noncompliance

Target Audience:

Builders, developers, contractors, residents

Responsible Persons for Implementation:

Assistant City Engineer

Description:

Public input on projects can be realized through a number of vehicles, including but not limited to:

1) In person: City staff can be reached during normal business hours. A specific erosion and sediment control inspector is assigned to follow the progress of each project to ensure compliance.
2) Phone: City staff can be reached during normal business hours. Duty phone is made available 24/7. Phone numbers are listed on the City website: http://www.hastingsmn.gov/Main/StaffDirectory.htm
3) Email: City staff can be reached during normal business hours. Email addresses can be found through business cards located at front desk at City offices or simply by calling and requesting it.
4) Website: Water quality issues non-emergency in nature can be communicated through the illicit discharge section of the City's website: http://www.hastingsmn.gov/PublicWorks/PWENGStormWaterRunoff.htm
5) MPCA: Water quality issues emergency in nature can be communicated to the MPCA Duty Officer. (See Appendix D4)
6) City Council Meeting: Development projects require pre-project council approval. Council agendas can be found on the City website: http://www.hastingsmn.gov/CityGovernment/Council/CCAgendas-Minutes.htm

Measurable Goals

1) Website: Illicit Discharge (See Appendix D4)
2) 24/7 Duty Phone (See Appendix F2)
3) Illicit Discharge – ERP (See Appendix D6)

Schedule:

Continue to keep the communication link open with residents, builders, developers, and contractors.

4F: Establishment of Procedures for Site Inspection & Enforcement

Target Audience:

Erosion Control Inspector

Responsible Persons for Implementation:

Engineering Technician: Erosion & Sediment Control Inspector
Assistant City Engineer: Reporting

Description:

For land disturbing activities greater than or equal to one acre, site plans meeting grading and erosion control standards are required to be submitted by the permit applicant for review and approval prior to the start of construction activity. Approved plans are inspected by a certified erosion control inspector. The inspector:

1) Performs site visits to inspect erosion and sediment control measures in compliance with NPDES Phase II requirements and approved plan.
2) Maintains a log documenting the results of the inspections
3) Provides enforcement actions to ensure compliance

The site inspector shall contain the following qualifications:

1) MNDOT site erosion and sediment control certifications
2) Maintain applicable instruction through various workshops/training sessions

Measurable Goals:

1) Erosion Control Training (See Appendix D1)
2) Training (See Appendix D1)
3) Erosion Control Site Visits (See Appendix D3)

Schedule:

Continue to verify the erosion and sediment controls on construction sites are current and followed.

MCM 5 – POST CONSTRUCTION RUNOFF CONTROL

New development and re-development projects with land disturbance activities of greater than or equal to one acre shall provide a project design that reduces water pollution after construction activity is complete. Green Infrastructure is the preferred volume control technique. Examples include:

1) Infiltration
2) Evapotranspiration
3) Reuse/harvesting
4) Conservation design
5) Urban forestry
6) Green roofs

For projects approved after August 1, 2013, a regulatory mechanism shall be in place to ensure that site plans are submitted and reviewed for conformance of:

1) Volume/TSS/TP Controls
    a) Requirements
        1) New Developments
            a) No net increase from pre-project conditions
                1) Volume of discharged storm water
                2) Storm water discharges of TSS
                3) Storm Water discharges of TP
        2) Re-Developments
            b) Net reduction from pre-project conditions
                1) Volume of discharged storm water
                2) Storm water discharges of TSS
                3) Storm Water discharges of TP

    b) Exemptions/limitations
        1) Infiltration techniques are prohibited from achieving volume/TSS/TP standards when:
            a) High levels of contaminants in soil or ground water will be mobilized by infiltration
            b) Industrial facilities are not allowed to infiltrate storm water under the Industrial Permit
            c) Vehicle fueling and maintenance occur
            d) Cross section of infiltration system is less than 3 feet from surface to bedrock or seasonally saturated soils
            e) Soils are predominantly in Hydrologic Soil Group D (clay)
            f) Active Karst features are within 1,000ft up-gradient, or 100ft down gradient
            g) Within Drinking Water Supply Management Area (DWSMA)
            h) Soil infiltration rates are more than 8.3 inches per hour
            i) Right of Way on linear projects does not contain enough area to meet requirements. However, reasonable attempt to obtain right of way must be made.

j) Other green techniques are implemented (evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc)

c) Mitigation
    1) Regulatory mechanisms shall allow for alternative mitigation projects on projects where the TSS/TP requirements cannot be cost effectively met. Mitigation projects shall:
        a) Be chosen by abiding by the following order of preference:
            1) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity
            2) Locations within the same DNR catchment area as the original construction activity
            3) Locations in the next adjacent DNR catchment area
            4) Locations anywhere within the permitee's jurisdiction
        b) Utilize new or retrofitted green infrastructure (ie. infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc.). Routine maintenance of existing green infrastructure does not count.
        c) Be completed within 24 months after the start of the original project
        d) Determine long term maintenance of new green infrastructure.
        e) Beneficiary of the money paid for a mitigation project shall use as money on a public storm water project.

d) Maintenance
    1) Regulatory mechanism shall provide establishment of a maintenance agreement to ensure green infrastructure is maintained long term. Conditions of the maintenance agreement shall include:
        a) Who performs inspections
        b) When inspections are to performed
        c) Who is responsible for paying for maintenance
        d) What the action plan is if maintenance is needed but responsible party is not complying

e) Documentation
    1) Projects reviewed
    2) Calculations to meet these requirements
    3) Supporting information on mitigation projects
    4) Payments received for mitigation projects
    5) Maintenance agreements

5A: Development & Implementation of Structural &/or Nonstructural BMPs

Target Audience:

Builders, developers, contractors, City staff

Responsible Persons for Implementation:

Assistant City Engineer

Description:

New development and re-development projects with land disturbance activities of greater than or equal to one acre shall provide a project design that reduces water pollution after construction activity is complete.

Structural and/or nonstructural BMPs shall be added as necessary to each project to meet the following criteria:

1) Volume Control
2) Total Suspended Solids (TSS)
3) Total Phosphorus (TP)

Green Infrastructure is the preferred volume control technique. Examples include:

1) Infiltration
2) Evapotranspiration
3) Reuse/harvesting
4) Conservation design
5) Urban forestry
6) Green roofs

Measurable Goals

Private Projects

1) Site Plan Review (See Appendix D2)

Public Projects

1) Site Plan Review (See Appendix D2)
2) Projects (See Appendix H2)
3) Reconstruct Projects (See Appendix H1)

General

1) Maintenance Plan (E7)
2) Sump Manholes (See Appendix E1)
3) Outfalls (See Appendix E2)
4) Ponds/Wetlands (See Appendix E3)

Schedule:

Continue to verify the BMPs are designed and installed as necessary for projects.

5B: Regulatory Mechanism to Address Post Construction Runoff from New Development & Redevelopment

Target Audience:

Builders, developers, contractors, City staff

Responsible Persons for Implementation:

Assistant City Engineer

Description:

New development and re-development projects with land disturbance activities of greater than or equal to one acre shall provide a project design that reduces water pollution after construction activity is complete.

A regulatory mechanism shall be in place to ensure that site plans are submitted and reviewed for conformance of:

1) Volume Control
2) Total Suspended Solids (TSS)
3) Total Phosphorus (TP)

Green Infrastructure is the preferred volume control technique. Examples include:

1) Infiltration
2) Evapotranspiration
3) Reuse/harvesting
4) Conservation design
5) Urban forestry
6) Green roofs

Measurable Goals

1) City Ordinance – VRWJPO Compliance (See Appendix C7)
2) Property Maintenance Ordinance (See Appendix C8)
3) Builders Handbook (See Appendix C4)
4) Public Works Design Manual (See Appendix C5)
5) Erosion Control Standard Plates (See Appendix C2)
6) Erosion Control Construction Specifications (See Appendix C3)
7) Water Management Plan (See Appendix C6)
8) Site Plan Review Checklists (See Appendix C1)

Schedule:

Continue to verify the regulatory mechanisms are current and followed.

5C: Long Term Operation & Maintenance of BMPs

Target Audience:

Builders, developers, contractors, City staff

Responsible Persons for Implementation:

Assistant City Engineer

Description:

New development and re-development projects with land disturbance activities of greater than or equal to one acre shall provide a project design that reduces water pollution after construction activity is complete.

To ensure long term maintenance will be performed on a designed BMP for non-public project, a maintenance agreement shall be drafted to include:

1) Who performs inspections
2) When inspections are to be performed
3) Who is responsible for paying for maintenance
4) What the action plan is if maintenance is needed but the responsible party is not complying

Measurable Goals

Private Projects

1) Site Plan Review (See Appendix D2)

Public Projects

1) Site Plan Review (See Appendix D2)

General

1) Maintenance Plan (E7)
2) Sump Manholes (See Appendix E1)
3) Outfalls (See Appendix E2)
4) Ponds/Wetlands (See Appendix E3)

Schedule:

Continue to verify the regulatory mechanisms are current and followed.

MCM 6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING

Municipal facilities and operations have potential to contribute pollutants to storm water. An operations and maintenance program shall be developed to:

1) Inventory its facilities and maintenance operations
2) Develop and implement BMPs that prevent or reduce pollutants
3) Develop and implement BMPs that may affect Source Water Protection Areas
4) Develop and implement procedures and schedule for the purpose of determining the TSS and TP treatment effectiveness of all public ponds. Schedule may exceed beyond this permit cycle.
5) Perform inspections on storm water infrastructure
6) Document maintenance on storm water infrastructure
7) Ensure employees are adequately trained commensurate with the employee's job duties. Document and establish training frequency.

An inventory of facilities and operations include:

1) Equipment storage
2) Vehicle washing
3) Vehicle fueling
4) Vehicle maintenance
5) Hazardous Material & Chemical Storage
6) Salt Storage & Handling
7) Stockpiles
8) Waste Disposal/Dumpsters
9) Recycling
10) Parking Lots / Streets
11) Road Maintenance
12) Right of Way Maintenance
13) Lawn Maintenance
14) Wells
15) Sanitary Sewer Lines

Inspect and perform necessary maintenance on storm water infrastructure. Document activity. Storm water infrastructure includes:

1) Sump Manholes
   Inspect one time per year. Increase to two times per year if sump contained significant amount of silt. Decrease to one time every other year if sump contained negligible amount of silt.
2) Outfalls
   Inspect one time in a five year cycle. Inspect approximately 20% of the system per year.
3) Ponds
   Inspect one time in a five year cycle. Inspect approximately 20% of the system per year. Maintenance requiring dredging requires documentation of soil testing, amount, and location (before and after).
4) Stockpiles
   Inspect one time every 3 months.

5) Storage & Material Handling Areas
   Inspect one time every 3 months.

6A: Facilities Inventory

Target Audience:

City Owned Facilities

1) Public Works Facility
2) Parks Facility
3) Fire Station
4) Police Garage
5) City Hall Building
6) UBC Building
7) Hydroplant
8) Civic Arena
9) Aquatic Center
10) Veterans Park Complex

Responsible Persons for Implementation:

Respective Department: Maintenance

Assistant City Engineer: Reporting

Description:

Municipal facilities and operations have potential to contribute pollutants to storm water. An operations and maintenance program shall be developed to:

1) Inventory its facilities and maintenance operations
2) Develop and implement BMPs that prevent or reduce pollutants

Measurable Goals:

1) Inventory its facilities and maintenance operations
   City facilities and operations inspected regularly to ensure containment. (See Appendix E6)
2) Develop and implement BMPs that prevent or reduce pollutants
   BMPs are implemented to ensure facilities are containing pollutants. (See Appendix E6 and H2(B)(1-3)).

Schedules:

Inspect facilities on a quarterly basis. Maintain and continuously look for new ways to implement and improve new BMPs.

6B: Inspections

Target Audience:

Public Works Dept/Engineering Dept

Responsible Persons for Implementation:

Engineering Technician: Inspection
Public Works Employee: Maintenance
Assistant City Engineer: Compiling maintenance summary, reporting

Description:

1) Sump Manholes

With time, structural pollution control devices fill up with silt/debris and general maintenance is required. An inspection is required to document the condition of the device so a maintenance plan can be devised.

a) Inspection Frequency:

Inspect sump manholes one time per year. Increase to two times per year if sump contained significant amount of silt. Decrease to one time every other year if sump contained negligible amount of silt.

b) Maintenance Plan/Schedule:

Inspection records will be maintained and the results of all inspections will be summarized in the annual report. The records will identify the date of the inspection and the responses to the inspection, including the work completed and major additional protection measures.

2) Outfalls

With time, outfalls can fill up with silt/debris and general maintenance is required. An inspection is required to document the condition of the outfall so a maintenance plan can be devised.

a) Inspection Frequency:

Inspect one outfall per five year cycle. Inspect approximately 20% of the system per year.

b) Maintenance Plan/Schedule:

Inspection records will be maintained and the results of all inspections will be summarized in the annual report. The records will identify the date of the inspection and the responses to the inspection, including the work completed and major additional protection measures.

3) Ponds

With time, ponds can become polluted with debris, total suspended solids (TSS), and Phosphorus (Ph), and general maintenance is required. An inspection is required to document the condition of the outfall so a maintenance plan can be devised.

a) Inspection Frequency:

Inspect one pond per five year cycle. Inspect approximately 20% of the system per year.

b) Maintenance Plan/Schedule:

Inspection records will be maintained and the results of all inspections will be summarized in the annual report. The records will identify the date of the inspection and the responses to the inspection, including the work completed and major additional protection measures.

4) Stockpiles

With time, stockpiles can erode. Quarterly inspections are required to document the condition of the stockpile so a maintenance plan can be devised.

a) Inspection Frequency:

Inspect stockpiles on a quarterly basis. Preferably, inspect every stockpile once per meteorological season.

b) Maintenance Plan/Schedule:

Inspection records will be maintained and the results of all inspections will be summarized in the annual report. The records will identify the date of the inspection and the responses to the inspection, including the work completed and major additional protection measures.

5) Underground Storm Water Treatment Systems

With time, structural pollution control devices fill up with silt/debris and general maintenance is required. An inspection is required to document the condition of the device so a maintenance plan can be devised.

a) Inspection Frequency:

Inspect structure one time per year. Increase to two times per year if structure contained significant amount of silt. Decrease to one time every other year if structure contained negligible amount of silt.

b) Maintenance Plan/Schedule:

Inspection records will be maintained and the results of all inspections will be summarized in the annual report. The records will identify the date of the inspection and the responses to the inspection, including the work completed and major additional protection measures.

6) Storage, Handling & Disposal

Storage, handling, and disposal techniques are crucial in containing and eliminating illicit discharges. Quarterly inspections are required at all public facilities to identify any deficiencies and make any changes necessary to its maintenance plan.

a) Inspection Frequency:

Inspect facilities on a quarterly basis. Preferably, inspect every facility once per meteorological season.

b) Maintenance Plan/Schedule:

Inspection records will be maintained and the results of all inspections will be summarized in the annual report. The records will identify the date of the inspection and the responses to the inspection, including the work completed and major additional protection measures.

Measurable Goals

1) Sump Manholes (See Appendix E1)
2) Outfalls (See Appendix E2)
3) Ponds / Wetlands (See Appendix E3)
4) Stockpiles (See Appendix E4)
5) Underground Storm Water Treatment Systems (See Appendix E5)
6) Storage, Handling & Disposal (See Appendix E6)

Schedule:

Inspection reporting prompts the inspector to decide how quickly maintenance will be required. A maintenance schedule is then developed to prompt the resolution. Emergency maintenance will be dispensed immediately. Less sensitive maintenance will be added to the maintenance schedule as time, money, and resources allow in due time.

Maintenance is broken down into five categories:

1) Immediate maintenance
2) Maintenance prior to winter
3) Maintenance within 1-2 years
4) Maintenance within 3-5 years
5) No maintenance necessary

6C: Street Sweeping

Target Audience:

Public Works Dept

Responsible Persons for Implementation:

Public Works Employee: Street Sweeping

Assistant City Engineer: Reporting

Description:

To reduce the amount of sand, silt, leaves and other debris from reaching the storm sewers, wetlands, ponds, lakes, and rivers, the Public Works Department sweeps all of it's approximate 100 miles of streets a minimum of two times per year. The City utilizes its limited resources to target the two most vital times of the year, spring and fall, to ultimately capture as much pollutant-laden sediment, leaves, and debris as possible that lay stricken in the centerline and curbline. The process generally takes 2-4 weeks to complete, provided both its sweepers run full time. The task most often gets accomplished from the months of April-May and September-November. However, the sweepers do run every month from snowmelt to snowfall. For example, the sweepers often run during the summertime picking up carefully selected additional areas that require a third or fourth sweeping. According to a 2008 study researched by the Local Technical Assistance Program (LTAP), sweeping 2-3 times per year is on par with the surrounding Minnesota community's sweeping frequencies.

The City operates two street sweepers. The first is a mechanical broom sweeper called Pelican, manufactured by Elgin. The sweeper contains a 3.2CY hopper and can operate with either a wet or dry roadway surface. The Elgin effectively picks up millings, coarse sand, wet/matted leaves, packed dirt, and other heavy duty debris. While focusing on the large/heavy material, the sweeper however does compromise on the fine tuned air and water quality. Therefore, to mitigate the dust, the City owns a regenerative air sweeper that specializes in picking up the fine sand and silt that may even penetrate into the cracks in the road surface. The 4.5CY hopper TYMCO specializes in air and water quality, therefore adequately balancing out the City's arsenal and maximizes its sweeping efficiency. Years of wear and tear from persistent relentless sweeping, the City upgraded and replaced its aging air regenerative sweeper in the Spring of 2011 to a variable height (2ft-11ft) high dump TYMPCO 500X mounted on a Navistar chassis. A 5.7CY side discharge heavy duty scissor lift assembly effortlessly discharges a 10,000lb capacity and is ready for more sweeping action in 68 measly seconds. The rare combination of speed, power, and agility allows more valuable time for the patented tilted 43" vertical digger gutter brooms to "hit the road."

Upon emptying the hopper, street sweepings are taken to a compost area. The sweepings are composted and screened every two to three years as the composting area fills up and the leaves degrade. The composted material is subsequently used as topsoil on City maintenance projects. The inorganic material is used as backfill for maintenance projects in upland areas. Trash is disposed of in a dumpster.

The City will record the frequency and miles of streets that are annually swept and quantify the amount of trash/debris removed.

Measurable Goals

Street Sweeping (see Appendix G1)

Schedule:

Run street sweepers in spring, summer, and fall. Sweep streets a minimum of 2 times per year. Sweep additional times on streets requiring additional sweeping.

6D: Source Water Protection Areas

Target Audience:

Public Works Dept/Engineering Dept

Responsible Persons for Implementation:

Assistant City Engineer: Reporting

Description:

Develop and implement BMPs that may affect Source Water Protection Areas.

Measurable Goals

1) City Ordinance – City Ordinance 152.08(F)(3)(d)(2) establishes infiltration criteria for near wells.
2) Wellhead & Source Water Protection Plan – Minnesota Department of Health (MDH) requires an extensive plan to protect the drinking water. BMPs protecting drinking water, required from the SWPPP, can be found within this plan. Copies of the plan are available upon request.

Schedule:

Update Wellhead & Source Water Protection plan, through MDH, approximately every five years.

6E: Employee Training

Target Audience:

City of Hastings Employees

Responsible Persons for Implementation:

Assistant City Engineer: Implementing, Reporting

Description:

Ensure employees are adequately trained commensurate with the employee's job duties.

Measurable Goals

1) Training (See Appendix D1)

Schedule:

Train often enough to maintain adequate knowledge

6E: Employee Training

Target Audience:

City of Hastings Employees

Responsible Persons for Implementation:

Assistant City Engineer: Implementing, Reporting

Description:

Ensure employees are adequately trained commensurate with the employee's job duties.

Measurable Goals

1) Training (See Appendix D1)

Schedule:

Train often enough to maintain adequate knowledge

MCM 7 – ADDITIONAL BMPs

A number of BMPs have been added since the initial submittal of the SWPPP permit in February, 2006. These BMPs include:

1) Impaired Waters with an approved TMDL
2) Pond Inventory

7A: Impaired Waters with an Approved TMDL

Target Audience:

City of Hastings

Responsible Persons for Implementation:

Assistant City Engineer

Description:

The federal Clean Water Act and the United States Environmental Protection Agency's Water Quality Planning and Management Regulations require states to develop Total Maximum Daily Loads (TMDLs) for water bodies that do not meet water quality standards.

The TMDL process establishes the allowable level of pollutants for a water body based on the relationship between pollutant sources and water conditions. Development of a TMDL Report provides a basis for determining the pollutant reductions necessary from point and nonpoint sources to restore and maintain the quality of water resources.

The City contains three approved TMDLs. They include:

1) Lower Mississippi River Basin Fecal Coliform Bacteria TMDL
2) Lower Vermillion River Watershed Turbidity TMDL
3) South Metro Mississippi TSS TMDL

Each TMDL project contains a Waste Load Allocation (WLA). To meet the WLA, each TMDL project shall:

1) Assess how the WLA will be met
   List BMPs applied to achieve WLA. Each structural BMP shall include:
   Unique ID number
   Geographical Coordinate
2) Provide progress report of implementation
3) Provide an estimate of how much the BMPs will reduce the pollutant loading

Measurable Goals

Lower Mississippi River Basin (See Appendix I1)
Lower Vermillion River Watershed (See Appendix I2)
South Metro Mississippi TSS TMDL (See Appendix I3)

Schedule:

Continuously seek to improve strategies for reducing pollutants of concern within WLA.

7B: Pond Inventory

Target Audience:

City of Hastings

Responsible Persons for Implementation:

Assistant City Engineer

Description:

This inventory is required by Chapter 172, Sec. 28 of the 2009 Session Laws and is required to be incorporated into the 2011 revision and reissuance of the NPDES MS4 General Permit. The purpose of this inventory is to identify stormwater ponds, wetlands, and other water bodies impacted by the collection, treatment and conveyance of stormwater.

Measurable Goals:

Pond Inventory data originally was required to be submitted to the MPCA by June 30, 2011 upon approval of the new reissued MS4 permit. For various reasons, the MPCA has pushed back the submittal date to December 31, 2011, and yet again until August 2012. The City of Hastings meticulously took this task to head prior to the multiple postponements. In lieu, the City documented their thirty storm water ponds by May of 2011. Northing/Easting coordinates were given for the ponds as well as all inlet and outlet flared end sections. Proactively "beating the final buzzer" prior to the second postponement, the City submitted their pond inventory data to the MPCA on December 12, 2011. For redundancy, the City re-submitted their Pond Inventory on their December 27, 2013 submittal for extended permit coverage.

The City will continue to adjust their pond inventory data as new ponds are built.

The spreadsheet tabulating the pond inventory is available upon request.

Schedule:

Maintain an updated Pond Inventory spreadsheet.

Appendix

APPENDIX A1
Rivertown Newsletter / Hastings Highlights
2007-2021

Target Audience:

Property Owners, businesses, and City Employees; consideration given to all people regardless of their walk in life

Responsible Persons for Implementation:

Community Relation Employee: Editing and mailing newsletter
Assistant City Engineer: Providing article and documenting

Activities to Reach Goals:

The City will mail Rivertown Newsletters to residents, businesses, and City employees as time, money, and resources allow. It is also posted on the City's website.

Schedules:

2-4 publications per year. Current budget allows for 3 mailings: Spring (April), Fall (September), and Winter (December) but may be expanded to four in 2022: Spring (February), Summer (May), Fall (August), and Winter (November).

Evaluation Method:

Effectiveness of the newsletter is measured by the number of articles published and households served by the publication. The newsletter reaches approximately 7,500 property owners and 23,000 residents, businesses, and City employees.

Year	Articles	# of Pages	MCMs	# of Publications	Type
2006	15	7	1-3	4	Rivertown Newsletter
2007	23	14	1-6	4	Rivertown Newsletter
2008	16	13	1-5	3	Rivertown Newsletter
2009	9	7	1-3	2	Rivertown Newsletter
2010	17	4	1-3	2	Hastings Highlights
2011	11	5	1-3, 5	2	Hastings Highlights
2012	13	8	1-3	3	Rivertown Newsletters
2013	20	9	1-4	3	Rivertown Newsletters
2014	12	6	1-3	3	Rivertown Newsletters
2015	11	5	1-3	2	Rivertown Newsletters
2016	15	8	1-3	3	Rivertown Newsletters
2017	14	7	1-3	3	Rivertown Newsletters
2018	13	8	1-3	2	Rivertown Newsletters
2019	16	9	1-3	3	Rivertown Newsletters
2020	11	8	1-3	3	Rivertown Newsletters
2021	16	7	1-3	3	Rivertown Newsletters

Rivertown Newsletter (2006-2009, 2012-current): City newsletter that is published and distributed to all homes located within City limits. Newsletter distribution ranges from 2-4 publications per year illuminating interesting topics from each City Department to the general public. Typical length 6-8 pages. A greater emphasis on critical water quality topics (pet waste

chloride issues, and illicit discharges), per MPCA permit issued 11/16/20 will be discussed moving forward.

Hastings Highlights (2010-2011): City newsletter that was published and distributed to all homes located within City limits. Newsletter distribution was 2 publications per year illuminating interesting topics from each City Department to the general public. Typical length of publication was purposefully shortened by directing interested parties to other formats such as Facebook, City Website, etc.

A complete summary of water quality topics and its representative MCMs are available upon request. A brief summary is as follows:

1) Spring Cleanup Day
2) Parks & Trail Spring Cleanup Day
3) Earth Day
4) Arbor Day
5) Wetland Health Evaluation Program (WHEP)
6) Storm Water Permit (SWPPP)
7) Storm water utility
8) Wellhead Protection Plan
9) Youth Green Teams
10) Home Energy Squad
11) Recycling
12) Waste management
13) Hazardous waste disposal
14) Pharmaceutical waste
15) Electronic disposal
16) Pet waste
17) Chlorides/Applying road salt
18) Applying lawn chemicals
19) Illicit discharges
20) Storm sewers lead to ponds
21) Landscaping and construction reminders
22) Property maintenance
23) Watering
24) Sweeping
25) Mowing
26) Mulching
27) Leaf Raking
28) Rain barrels
29) Residential car washing
30) Water conservation practices
31) Nitrate education
32) Porous pavement
33) Coal tar sealants
34) Vehicle and boat care
35) Boating reminders for shoreline protection

Complete Rivertown Newsletter article archives can be found on the city website: http://www.hastingsmn.gov/city-government/city-departments/communications/rivertown-news
In 2011, the City of Hastings selected Decision Resources, Ltd to perform a survey of 400 randomly selected Hastings residents to inquire about seven distinct areas of the quality of life within Hastings. Among the topics, Chapter 7 included an evaluation of the effectiveness of the City's communication means and methods was researched to a +/-5% accuracy. Vehicles of communication researched included Local Newspaper (Hastings Star Gazette), City Newsletter (Rivertown Newsletter), Cable Television, City Website (www.hastingsmn.gov), email, mailings, web stream meetings, podcasts, Facebook, blogs, twitter, and word of mouth.

The following is a snippet of the evaluation on Rivertown Newsletter:

Q: What is your principal source of information about Hastings City Government and its activities?
A: Rivertown Newsletter-22%

Q: How would you prefer to receive information about Hastings City Government and its activities?
A: Rivertown Newsletter-33%

Q: During the past year, did you receive "Rivertown Newsletter" three times a year?
A: Yes-94%

Q: Do you or any members of your household regularly read it?
A: Yes-94%

Q: How would you evaluate its content and format -- excellent, good, only fair, or poor?
A: Good to Excellent – 90%

In August, 2014, the City of Hastings selected Morris Leatherman Company to perform a similar phone survey to a randomly selected cross section of Hastings residents.

The following is a sampling of the evaluation on Rivertown Newsletter:

Q: What is your principal source of information about Hastings City Government and its activities?
A: City Newsletter-28%

Q: How would you prefer to receive information about Hastings City Government and its activities?
A: City Newsletter-33%

Q: Are you satisfied with the amount of information you receive from the City of Hastings?
A: Yes-93%

Q: During the past year, did you receive "Rivertown News," the city's newsletter?
A: City Newsletter-79%

Q: Do you or any members of your household regularly read it?
A: Yes-89%

Q: How would you evaluate its content and format?
A: Excellent-25%, Good-71%, Only Fair-2%, Poor-0%

In 2017 for the preparation of the 2040 Comprehensive Plan, the City of Hastings, with assistance from BARR Engineering, provided an online survey asking residents their priorities on storm water quality. Question 8 inquired about the single best way for the City to provide information. The results are as follows

Social Media – 48%
Printed Newsletters Mailed to Home – 24%
Electronic Newsletters – 11%
Newspaper Articles – 10%
City Website – 6%
Presentations to Community Groups – 1%

The pertinent survey questions related to the Rivertown Newsletter, in its entirety, are available upon request.

Evaluation Summary: Rivertown Newsletter scored well in 2011 and has remained in 2014 as one of the top two communication methods to reach residents. After reviewing the program this year, the City continues to feel the Newsletter is a viable and worthwhile investment for the public education requirement of the permit. A spreadsheet documenting all the pertinent articles will continue to be maintained. No notable modifications to the program were made this year.

RIVERTOWN NEWSLETTER						
MCM#						Topic
1	2	3	4	5	6	
Spring 2006						
x	x	x				2006 Spring Clean-up Day
x	x					Volunteers needed for wetland monitoring
x		x				Medical waste from home
x	x					Arbor Day 2006
Summer 2006						
x						Earn some green while promoting green
x						Recycling 101
x		x				Waste Management change hours at city drop off site
x		x				New lawn sprinkling system requirments
x						Permanent odd/even sprinkling ban
Fall 2006						
x		x				Protecting water quality (runoff to storm)
x						Landscaping and construction reminders
x						What can I do with all these plastic bags? (recycle article)
x	x					Congratulations youth green teams
Winter 2006-7						
x						Its time to rethink recycling
x	x					Congratulations youth green teams
Spring 2007						
x	x	x				8th Annual Spring Clean-up Day
x	x	x	x	x	x	Storm water permit
x						Hydro green energy
x		x				Street salting
x						Earth Day 2007
x	x					Congratulations youth green teams
x	x					Arbor Day 2007
x					x	Trail Sweeping
Summer 2007						
x		x				Water wisely in warm weather
x						Simple ways to protect the environment (mow, mulch etc)
x						Rethinking recycling
x	x					Congratulations youth green teams
Fall 2007						
x						Landscaping & Construction reminder
x			x	x		City adopts Wellhead Protection Plan
x						Protecting water quality - tips for autum (grass etc)
x						Sorting out the Sort (recycling)
x		x				Dakota County Eco-site
x	x					Congratulations youth green teams
x						Leaf Raking
Winter 2007-8						
x						Recycling myths unmasked
x						Congratulations youth green teams
x						Cleaning for the Holiday's?
x				x		Nitrate eduction program
Spring/Summer 2008						
x						Porous Pavement
x						Green Aware Fair
x	x	x				9th Annual Spring Clean-up Day
x	x					Youth Green Teams
Summer/Fall 2008						
x						Vehicle and Boat Care
x						Boating Reminders for Shoreline Protection

x						Storm Water Permit
x						Water Ban Reminder
x	x					Youth Green Teams
x						What is Waste Reduction?
Winter 2008-9						
x						Blue Thumb Raingarden Workshop
x						12 Simple Ways to Save Water
x	x					Youth Green Teams
x		x				Pharmaceutical Waste
x						Need More Room to Recycle?
x						The Recycling Zone: New Name, Same Great Service
Summer 2009: May 2009 - September 2009 Summer Publication (May 22nd Mailing)						
x						Rethink Recycling
x	x					Rainbarrels: More Than a Drop in the Bucket for Conservation
x	x					Youth Green Teams
Winter 2010: November 2009 - April 2010 Publication (Nov 4th Mailing)						
x				x		City Council Considering Storm Water Utility
x						Code Red County-Wide Emergency Notification System
x						Water Quality Is Everyone's Responsibility
x						Got a Problem Spot In Your Lawn Where Rainwater Lingers? Consider Installing a Raingarden!
x	x	x				April is Earth Month in Hastings! Spring Clean-up Day, Earth Day, Arbor Day
x	x					Youth Green Teams
Summer 2010: April 26-Fall Time Publication (4/26 Mailing)						
x						Driveway Sealing (Coal tar based sealants)
x						1906 Original Municipal Well Sealed
x						Vermillion River Levee Work
x						Summer Water Rates
x						Water Restriction Reminder
x						Property Maintenance for a Clean and Vibrant City
x						Free Electronics Recycling at the Recycling Zone
x						Ways to Protect the Environment
x						Raingardens Installed at Public Works
x						Congratulations Youth Green Teams!
x						Free CFL Recycling Drop off at City Hall
HASTINGS HIGHLIGHTS						
Spring 2010						
x	x	x				Spring Cleanup Day
x						Earth Day
x	x					Arbor Day
x						Lawn Sprinkling Ban
Winter 2010-11						
x						Finish that Fall Cleaning! (Recycling and Disposal Guide)
x						City of Hastings is Offering Paperless Utility Billing!
RIVERTOWN NEWSLETTER						
Spring 2011						
x						Spring Flooding: Staying Safe
x						Earth Day
x	x					Arbor Day
x	x	x				12th Annual Spring Clean-Up Day
x						Wetland Monitoring Volunteers Needed
x				x		Wellhead Protection Plan Update
Summer 2011						
x						Conservation Water Rates
x						Go Green: Reduce Paper and Clutter!
x						Odd/Even Sprinkling Ban
x		x				Grass Clippings and Storm Sewers Don't Mix!
x						Property Maintenance is Everyone's Responsibility

Spring 2012						
x	x	x				Spring Clean-up Day
x						Wetland Monitoring Volunteers Needed
x						Lawn Mowing
x						Earth Day
x	x					Arbor Day
Summer 2012						
x						Property Maintenance Enforcement Stepped Up
x						Hastings Consumer Confidence Report
x						Conservation Water Rates
x						Water Wisely
x	x					Congratulation Youth Green Teams!
x						Backyard Fires
x		x				Grass Clippings & Storm Sewers Don't Mix!
Fall/Winter 2012						
x						Van Pool (save gas)
Spring 2013						
x	x	x				Hastings Spring Cleanup Day Returns!
x						Conservation Water Rates
x						Water Quality: Consumer Confidence Report
x						Odd/Even Sprinkling Ban
x						Free Yard Materials at Public Works: Wood Chips, Compost
x	x	x				Parks & Trails Cleanup
x		x				Yard Waste Sites Open
x	x					Youth Green Teams
Fall 2013						
x						Leaf Raking
x			x			Conzemius Park Construction
x						Recycling Refriderators, Microwave Ovens, and More
x						Find Environmentally Friendly Light in Fluorescent Bulbs
x						Dispose of Leftover Household Hazardous Waste at the Recycling Zone
x						Let the Green Guide Lead You to Recycle Beyond the Curb
x		x				More Locations Available for Free Medicine Disposal
x						Recycle Unwanted Electronic Devices
x	x					Congratulations Youth Green Teams!
Winter 2013-4						
x						Garbage & Recycling Containers
x	x					Contratulations Youth Green Teams!
x						More Recycling Options
Spring 2014						
x	x	x				2014 Spring Clean Up Day
x	x					Arbor Day Celebration
x	x	x				Annual Parks & Trails Cleanup
x						Water Supply Information
x						Wood Chips & Compost
Fall 2014						
x		x				No Leaves in the Street!
x						Wood Chips & Compost
x	x	x				Youth Crew
x		x				Deputy Maintenance Reminder
x						No Wipes in the Pipes
Winter 2014-5						
x	x					Home Energy Squad
x						Recycle Beyond the Curb with the Green Guide
Spring 2015						
x	x	x				2015 Spring Clean up Day
x						Hazardous Waste, Electronics, Shredding

x	x					Blue Thumb Raingarden Workshop
x						Spring into Composting!
x	x					Volunteers Needed - Save the Trees!
x	x					Celebrate Earth Day
x	x					Volunteers Needed - Arbor Day
Fall 2015						
x						Efficient Windows Save You Money
x						Rake 'em Up!
x						Dispose of Hazardous Waste at the Recycling Zone
Winter 2015-6						
x						Garbage Cans off Street
Spring 2016						
x						Dakota County Household Hazardous Waste Drop off Day
x	x	x				Hastings Annual Spring Cleanup Day
x						New Code for Homeowners with Lawn Irrigation Systems
x						Garbage & Recycling Placement
x						Odd/Even Lawn Watering
x	x	x				Annual Parks & Trails Cleanup
x	x					Arbor Day Celebration
x						Recycling
Summer 2016						
x						Be a Responsible Dog Owner
x						Green Step City: What's Next?
x						Emerald Ash Borer: What's Next?
x						Fall Spray Concerns
x						The Recycling Zone:
x						Recycling in Parks
Winter 2016-7						
x						Recycle Holiday Lights
Spring 2017						
x						Dakota County Household Hazardous Waste Drop off Day
x	x	x				Hastings Annual Spring Cleanup Day
x						Recreational Fires
x						Irrigate Wisely to Conserve Water
x						Emerald Ash Borer: Time to Take Action
x	x	x				Annual Parks & Trails Cleanup
x	x					Arbor Day Celebration
Fall 2017						
x						Sewer Lining Program Details
x						Keep Grass Clippings Out of the Street
x						Irrigate Wisely
x	x	x				Hastings Spring Cleanup & Dakota County Household Hazardous Waste Drop-off Day
x						Save the Food Campaign
x						Emerald Ash Borer: Have You Treated Yet?
Winter 2017-8						
x						Holiday Light Recycling
Spring 2018						
x	x	x				Hastings Annual Spring Cleanup Day
x	x	x				Dakota County Household Hazardous Waste Drop off Day
x						Fight Emerald Ash Borer
x						Irrigate Wisely to Conserve Water
x		x				Report Illicit Discharges
x						Dispose of Yard and Tree Waste the Right Way
x	x					Arbor Day Celebration
x	x	x				Annual Parks & Trails Cleanup
Fall 2018						
x						Energy Wise Homes

x						Recycling at Home
x						Fall Herbicide Treatments
x						Fall Shred Event for America Recycles Day
x						Emerald Ash Borer - Have You Treated Yet?
Spring 2019						
x	x	x				Energy Planning in Hastings
x	x	x				April 27: Hastings Spring Clean Up & Dakota County Household Waste Drop Off Day
x						What's in my Water? 2018 Consumer Confidance Report
x						Water Disinfection Update
x						Irrigate Wisely to Conserve Water
x						Emerald Ash Borer - Save the Trees
x	x	x				Annual Parks & Trails Cleanup
x						Recycling: Back to the Basics
Fall 2019						
x	x	x				New! Energy Action Plan
x						From Crud to Compost
x						Shop Smart to Save Food, Money and Time
x						Fall Herbicide Treatments
x						New! Hastings Fall Cleanup Day
Winter 2019-20						
x						Holiday Light Recycling
x						All Wrapped Up
x						Home Energy Audit
Spring 2020						
x	x					Xcel Energy: Energy Assistance Program
x	x					Adopt a Park
x						What's in my Water? 2018 Consumer Confidance Report
x	x					New Residential Food Scrap Drop Off Open
x	x	x				Illicit Discharge
Fall 2020						
x	x					Pumpkin Drop Off
x	x					Big Changes Make Recycling Zone More Convenient
x	x					Alternative Fall Clean Up by the Numbers
x	x					When Your Stuff Doesn't Spark Joy
x						Fallen Leaves: Best of Compost, Not the Curb
Winter 2020-21						
x						Holiday Light Recycling
Spring 2021						
x						2020 Drinking Water Report
x	x	x				If You See Something, Say Something! (Illicit Discharge)
x	x	x				DIY Parks and Trails Cleanup
x						Can I recycle this?
x	x	x				Arbor Day Tree Planting
x						Seasonal Drop Site
x						EAB
Fall 2021						
x						Water Restrictions in Place
x	x	x				Fall Clean Up Day
x	x	x				Do Good with Food Scraps
x	x	x				Shred Event
x	x					Batteries are Hot Right Now - and Not in a Good Way
x	x					Online Shopping to Save Your Wallet and Trash Can
x	x					Pumpkin Drop Off
x						Keep Leaves Out of the Street
Winter 2021-22						
x						Holiday Light Recycling

APPENDIX A2
Website
2007-2021

Target Audience:
Approximately 7,500 households and 23,000 Hastings residents and random web surfers; considerations given to all people regardless of their walk in life

Responsible Persons for Implementation:
Assistant City Engineer

Activities to Reach Goals:
Water quality information ranging from MCM1 through MCM6 are posted and maintained on the City of Hastings storm water webpage. The main page "news" and "events" tab (formally quick links) posts upcoming storm water events. Illicit discharge notification and website counters are implemented within the website.

Schedules:
Maintain current postings/links and continuously consider new postings/links

Evaluation Method:
A website counter is located on one of the water quality pages to ensure the site is receiving an adequate amount of website hits. Interest in the website has proven to increase steadily over the past handful of years.

The City recognizes the need and is committed to maximize the utilization of the City's website as an opportunistic tool to reach many of its 23,000 residents, prospective new residents, and interested web-surfers, with an expansive amount of water quality and environmental friendly information. In 2007, the City nearly tripled its web articles to over 50 topics on over 30 pages while discussing a wide variety of topics. In 2008 & 2009, the City updated key components of the website to maintain its clarity, accuracy, and public outreach (i.e. SWPPP Permit Posting, Illicit Discharge Notification, Water Quality Report, Recycling Zone information, Rain Barrel links etc). In 2010, a website counter was implemented to provide the City a tangible gage of how many monthly hits one of the vital stormwater pages receives. In addition, to better serve the public, the City began incremental steps to improve the general layout and appearance of the website. Furthermore, the City continued its annual practice of posting the ever changing latest news on the front page of the website. Stormwater related topics include information pertaining to the stormwater annual meeting, stormwater utility fee, Landscaping for Clean Water workshops, etc. In 2011, significant upgrades were made to the Wellhead Protection Plan, Polycyclic Aromatic Hydrocarbons (PAHs), and Rain Barrel page. Quick Links on the main page was once again used in 2013 to advertise for upcoming events such as Spring Cleanup Day and Blue Thumb Rain Garden Initiative. In 2014, a more visible resident commenting mechanism was added to the annual report page. In addition, a complete revamping of the entire website was completed and rolled out on September 19, 2014. On April 7, 2020, the City rolled out a new website design aimed to create a more user friendly experience for residents. An enhanced mobile view creates an app-like experience for the nearly 50% of visitors that access the site from a mobile device.

A brief summary of the topics encompassing MCMs1-6 are as follows:

1) Storm Water Permit Overview
2) SWPPP-MS4 Hastings
3) SWPPP-MS4 Annual Permits
4) Ordinances: Storm Water and Shoreland
5) Public Works Design Manual
6) Builders Handbook
7) Water quality & conservation
8) Water cycle & consumption
9) Water Quality Report
10) Wellhead Protection & DWSMA
11) Storage Tanks: Above and Underground
12) Wells: Private and Class V
13) Septic Systems
14) Illicit Discharge
15) Chlorides
16) Household Hazardous Waste
17) Recycling
18) Composting
19) Lawn Watering
20) Lawn Fertilizing
21) Pet Waste
22) Erosion and Sediment Control
23) Erosion Control Products and Suppliers
24) Disposal of Yard Waste
25) Rain Barrels
26) Coal Tar Sealants/PAHs
27) Shoreline Protection
28) Ponding Basins
29) Spring Cleanup Day
30) Parks & Trail Spring Cleanup Day
31) Arbor Day
32) Earth Day
33) Roadside Cleanup
34) Adopt a River
35) Adopt a Highway
36) Links to other water quality sites and agencies

The storm water related information, including the SWPPP document and report, can be found on the City's website:
http://www.hastingsmn.gov/city-government/city-departments/public-works/streets-and-utilities/annual-storm-water-permit-reports

The illicit discharge notification can be found on the City's website:
http://www.hastingsmn.gov/city-government/city-departments/public-works/streets-and-utilities/reporting-illicit-storm-water-runoff

The recycling, hazardous waste disposal, and yard waste information can be found on the City's website:
https://www.hastingsmn.gov/residents/my-home/recycling-garbage-services

Website counter totals are available upon request. The counter location is located at:
http://www.hastingsmn.gov/city-government/city-departments/public-works/streets-and-utilities/annual-storm-water-permit-reports

Solicitation of input on anything stormwater related issue, including the SWPPP is located at:
http://www.hastingsmn.gov/city-government/city-departments/public-works/streets-and-utilities/annual-storm-water-permit-reports

In 2011, the City of Hastings selected Decision Resources, Ltd to perform a survey of 400 randomly selected Hastings residents to inquire about seven distinct areas of the quality of life within Hastings. Among the topics, Chapter 7 included an evaluation of the effectiveness of the City's communication means and methods was researched to a +/-5% accuracy. Vehicles of communication researched included Local Newspaper (Hastings Star Gazette), City Newsletter (Rivertown Newsletter), Cable Television, City Website (www.hastingsmn.gov), email, mailings, web stream meetings, podcasts, Facebook, blogs, twitter, and word of mouth.

The following is a snippet of the evaluation on the City Website:

Q: What is your principal source of information about Hastings City Government and its activities?
A: 10% City Website

Q: How would you prefer to receive information about Hastings City Government and its activities?
A: 10% City Website

Q: Have you accessed the City's website?
A: Yes-67%

Q: Were you able to find what you were looking for?
A: Yes-95%

In August, 2014, the City of Hastings selected Morris Leatherman Company to perform a similar phone survey to a randomly selected cross section of Hastings residents.

The following is a sampling of the evaluation on the City website:

Q: What is your principal source of information about Hastings City Government and its activities?
A: City Website-17%

Q: How would you prefer to receive information about Hastings City Government and its activities?
A: City Newsletter-19%

Q: Are you satisfied with the amount of information you receive from the City of Hastings?
A: Yes-93%

Q: Do you have access to the internet at home? At work? At both?
A: Home Only: 30%, Work Only: 1%, Both: 50%, Neither: 18%

Q: Have you accessed the City's website?
A: Yes-71%

Q: Were you able to find what you were looking for?
A: Yes-96%

In 2017 for the preparation of the 2040 Comprehensive Plan, the City of Hastings, with assistance from BARR Engineering, provided an online survey asking residents their priorities on storm water quality. Question 8 inquired about the single best way for the City to provide information. The results are as follows

Social Media – 48%
Printed Newsletters Mailed to Home – 24%
Electronic Newsletters – 11%
Newspaper Articles – 10%
City Website – 6%
Presentations to Community Groups – 1%

The pertinent survey questions related to the City's website, in its entirety, are available upon request.

Evaluation Summary: City website has moderate success in reaching the residents. After reviewing the program this year, the City continues to feel the Website is a viable and worthwhile investment for the public education requirement of the permit. Articles can be viewed by surfing the website. No notable modifications to the program were made this year.

APPENDIX A3
City Hall Fliers
2007-2021

Target Audience:
Residents doing business at City Hall; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Provide water quality information, fulfilling MCM1, available in the main lobby of City Hall.
Schedules:
Maintain current fliers and continuously consider new fliers
Evaluation Method:
The City will document the number of publications available. Effectiveness of fliers are subservient to other means of communication in this technologically changing world. In lieu, outreach efforts will expound elsewhere as no new fliers will be produced to cover the new water quality topics of pet waste, chloride, and illicit discharge issues per MPCA 11/16/20 permit. However, costs to maintain the existing fliers are minimal so it remains an active way to reach residents on those topics. Fewer than one flier per month is expected to be distributed.

In 2007, the City displayed four pamphlets/fliers in the main lobby at City Hall.
1) Recycling & Waste Disposal Information
2) Understanding Non-Point Source Pollution
3) Keeping Wetlands Free of Leaves & Grass Clippings
4) 2030 Dakota County Visioning

In 2008, the City introduced one new pamphlet/flier:
1) A Guide to Healthy Household Products

In April 2014, four new post card fliers were added to aim at addressing TMDL issues. Hastings has two approved TMDLs: Lower Mississippi River Basin Fecal Coliform TMDL and Lower Vermillion River Watershed Turbidity TMDL
1) Total Maximum Daily Load (TMDL)
2) Lower Mississippi River Basin TMDL: Fecal Coliform
3) Lower Vermillion River Watershed TMDL: TSS
4) Illicit Discharges

Fliers are available upon request.

In 2011, the City of Hastings selected Decision Resources, Ltd to perform a survey of 400 randomly selected Hastings residents to inquire about seven distinct areas of the quality of life within Hastings. Among the topics, Chapter 7 included an evaluation of the effectiveness of the City's communication means and methods was researched to a +/-5% accuracy. Vehicles of communication researched included Local Newspaper (Hastings Star Gazette), City Newsletter (Rivertown Newsletter), Cable Television, City Website (www.hastingsmn.gov), email, mailings, web stream meetings, podcasts, Facebook, blogs, twitter, and word of mouth.

In August, 2014, the City of Hastings selected Morris Leatherman Company to perform a similar phone survey to a randomly selected cross section of Hastings residents. Due to its narrow effectiveness, the City did not highlight this form of communication within the survey.

In 2017 for the preparation of the 2040 Comprehensive Plan, the City of Hastings, with assistance from BARR Engineering, provided an online survey asking residents their priorities on storm water quality. Due to its narrow effectiveness, the City did not highlight this form of communication within the survey.

The pertinent survey questions related to the City's fliers, in its entirety, are available upon request.

Evaluation Summary: City Hall Fliers has a limited communication circle when trying to reach residents. After reviewing the program this year, the City continues to feel it will expound its energy through other forms of communication to meet any new requirements of the permit. But, it will still maintain the existing water quality topics due to its minimal cost and effort to maintain.

APPENDIX A4
Facebook
2012-2021

Target Audience:

Approximate 7,500 households / 23,000 Hastings residents and random Hastings enthusiasts; consideration given to all people regardless of their walk in life

Responsible Persons for Implementation:

Community Relation Employee: Posting

Assistant City Engineer: Providing article and documenting

Activities to Reach Goals:

Water quality information ranging from MCM1 through MCM6 can be posted as quick seasonal reminders to good water quality practices.

Schedules:

Maintain current postings/links and continuously consider new postings/links

Evaluation Method:

Facebook postings continues to incrementally increase in its usage as the technology increases in popularity, as seen by the increasing number of "friends" or "followers" of the City. The effectiveness of Facebook is measured by the number of topics posted and the number of friends of the City.

The City recognizes the need and is committed to maximize the utilization of the City's Facebook page as an opportunistic tool to reach many of its 7,500 households and 23,000 residents and Hastings area enthusiasts. Currently, 8,080 people are listed as friends of the City. Topics posted include:

1) Chloride/Snow/salt information
2) Spring Cleanup Day
3) Parks & Trail Spring Cleanup Day
4) Fall Cleanup Day
5) Landscaping for Clean Water (Blue Thumb Raingarden Initiative)
6) Wetland Health Evaluation Program
7) Friends of the Mississippi Work Events
8) Arbor Day
9) Earth Day
10) Green Step Cities Program
11) Pet Waste
12) Illicit Discharge
13) Hazardous Waste
14) Recycling
15) Green Living (Impactful Clothing, Meal Prepping, Green Cleaning, Nature Connection, Organics Recycling, Recycling Fest)
16) Street Sweeping
17) Mowing Practices
18) Composting
19) Medicine Disposal
20) Herbicide Treatments
21) Water Conservation
22) Air Pollution
23) No Wake Zones
24) MMCD Information

Facebook can be found at https://www.facebook.com/cityhastingsmn/

In 2011, the City of Hastings selected Decision Resources, Ltd to perform a survey of 400 randomly selected Hastings residents to inquire about seven distinct areas of the quality of life within Hastings. Among the topics, Chapter 7 included an evaluation of the effectiveness of the City's communication means and methods was researched to a +/-5% accuracy. Vehicles of communication researched included Local Newspaper (Hastings Star Gazette), City Newsletter (Rivertown Newsletter), Cable Television, City Website (www.hastingsmn.gov), email, mailings, web stream meetings, podcasts, Facebook, blogs, twitter, and word of mouth.

The following is a snippet of the evaluation on Facebook:

Q: Do you use Facebook?
A: Yes-25%

In August, 2014, the City of Hastings selected Morris Leatherman Company to perform a similar phone survey to a randomly selected cross section of Hastings residents.

The following is a sampling of the evaluation on Facebook:

Q: Have you visited any of the City's social media sites on Facebook or Twitter?
A: Yes-22%

Q: How would you rate the City's social media sites?
A: Excellent-56%, Good-39%, Only Fair-5%, Poor-0%

In 2017 for the preparation of the 2040 Comprehensive Plan, the City of Hastings, with assistance from BARR Engineering, provided an online survey asking residents their priorities on storm water quality. Question 8 inquired about the single best way for the City to provide information. The results are as follows

Social Media – 48%
Printed Newsletters Mailed to Home – 24%
Electronic Newsletters – 11%
Newspaper Articles – 10%
City Website – 6%
Presentations to Community Groups – 1%

The pertinent survey questions related to the City's website, in its entirety, are available upon request.

Evaluation Summary: Facebook scored as a growing communication tool and it remains very popular within distinct demographics. Facebook continues to exhibit great promise within the social media platforms (i.e. Facebook, blogs, twitter, podcasts). After reviewing the program this year, the City continues to view Facebook as a viable and worthwhile investment and should be continued to be used to reach a distinct and growing demographic.

Year	# Friends	Growth	# Articles
2013	3,056	N/A	N/A
2014	3,228	5.6%	14
2015	3,793	17.5%	10
2016	4,439	17.0%	24
2017	5,082	14.5%	25
2018	6,062	19.3%	31

2019	6,676	10.1%	41
2020	8,080	21.0%	64
2021	9,351	15.7%	76

A screenshot documenting all pertinent articles will continue to be maintained. No notable modifications to the program were made this year.

APPENDIX A5
Electronic Message Board
2007-2021

Target Audience:
31,000 vehicles per day which includes many of the City's 7,500 households and 23,000 residents and sizeable workforce within Hastings; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Communication Coordinator: Posting
Assistant City Engineer: Reporting
Activities to Reach Goals:
Post various water quality event information, ranging from MCM1 through MCM6
Schedules:
Maintain current postings/links schedule and continuously consider new postings/links
Evaluation Method:
The effectiveness of the electronic message board is measured by the number of topics posted and cars traveled.

The City recognizes the opportunity to utilize the electronic message board located at the football field (Todd Field) located at the corner of Highway 61 and Highway 55. The "always red" stop light maximizes the eyes viewing the information. In 2019, the ADT for Hwy 61 north of Hwy 55 was 31,000 vehicles, the ADT for Hwy 61 south of Hwy 55 was 28,000 vehicles, and the ADT for Hwy 55 west of Hwy 61 was 14,500 vehicles. Literally tens of thousands of people see the message board on a daily basis.

Topics posted include event information regarding:
1) Spring Cleanup Day
2) Parks & Trail Spring Cleanup Day
3) Blue Thumb Raingarden Initiative

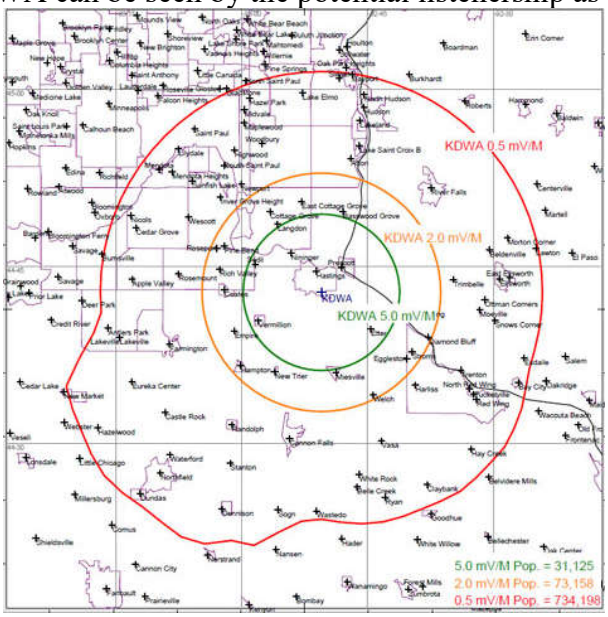
Evaluation Summary: The electronic message board is a joint powers communication tool, with the ISD, and continues to harness a high volume of ADT off Hwy 55 and Hwy 61. After reviewing the program this year, the City continues to feel the Electronic Message Board is a viable and worthwhile investment for the public education requirement of the permit but understands it is not the prime mechanism to expound information.

APPENDIX A6
KDWA Radio
2007-2021

Target Audience:
Hastings area residents (Hastings 23,000, Prescott 4,500, and rural); consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Community Relations Employee: Conveys message
Assistant City Engineer: Documents message
Activities to Reach Goals:
Convey water quality message through radio.
Schedules:
A rarely used communication mechanism but used when deemed appropriate and effective. Continue to look for opportunities.
Evaluation Method:
The audience and platform expectations realistically keep this BMP as a limited use to larger scope issues.

Periodically the City's Communication Relations employee, or City Engineer, updates listeners on the local Hastings radio station, KDWA, on the happenings within the City. Among the myriad of topics discussed, water quality issues occasionally comes up. For example, the Landscaping for Clean Water Raingarden introductory and design classes, including meeting times and locations were discussed (i.e. 1/15/09 and 1/13/22).

The effectiveness of KDWA can be seen by the potential listenership as shown below:



Evaluation Summary: After reviewing the program this year, the City continues to feel KDWA is a satisfactory and worthwhile investment for the public education requirement of the permit but it will be used in a more periodic manner to serve topics and needs of the community.

APPENDIX A7
Annual Public Meeting / Public Comment
2007-2021

Target Audience:
Approximately 23,000 Hastings area residents; consideration to be given to all people regardless of their walk in life
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Participate in one public meeting per year held at a formal council meeting or
Provide public comment opportunity through email linked to City storm water page on website.
Schedules:
Prior to June 30th SWPPP-MS4 permit submittal.
Evaluation Method:
Document the date, meeting location, number of attendees/commentators, comments made, and meeting notices or
Document all public comments received through City storm water page on website

From 2007-2019, the City fulfilled the annual public meeting requirement by presenting an overview of the MS4 program at a Hastings City Council meeting. A public hearing was held. Comments and questions documented and implemented into the SWPPP where applicable. Proper public hearing notifications were followed preceding the meeting and SWPPP made available for review prior to the meeting. The ten minute presentation presented by the Assistant City Engineer encompassed a SWPPP overview, its requirements, list of previous year's accomplishments, and what was expected to come in the following year. A typical meeting netted no comments from the general public and 1-3 comments from the City Council or Mayor. The memo and agenda for the Public Hearing, Affidavit of Publication, and Notice of Public Hearing are available upon request.

From 2019-present, the City chose to accept public comment through the link on the website and document those emails as fulfillment of this requirement. The MPCA acknowledges alternative website or informal meeting settings are sufficient for meeting this requirement due to limited statewide success with the Public Hearing format. The link for the Hastings SWPPP can be found here: https://www.hastingsmn.gov/city-government/city-departments/public-works/streets-and-utilities/annual-storm-water-permit-reports

REPORTING YEAR	ORDER PUBLIC HEARING	HELD PUBLIC HEARING	NUMBER OF COMMENTS		WEBSITE LINK	NUMBER OF COMMENTS
APPROVAL	1/8/07	2/5/07	NA		No	-
2007	6/9/08	7/7/08	3		Yes	0
2008	5/4/09	6/1/09	< 3		Yes	0
2009	5/3/10	6/7/10	< 3		Yes	0
2010	5/2/11	6/6/11	< 3		Yes	0
2011	5/7/12	6/4/12	< 3		Yes	0
2012	5/6/13	6/3/13	< 3		Yes	0
2013	5/5/14	6/2/14	< 3		Yes	0
2014	3/16/15	4/6/15	< 3		Yes	0
2015	-	-	-		Yes	0
2016	10/16/17	11/20/17	< 3		Yes	0
2017	10/15/18	11/19/18	< 3		Yes	0
2018	-	-	-		Yes	0
2019	-	-	-		Yes	0
2020	-	-	-		Yes	0
2021	-	-	-		Yes*	1

*In 2021, a comment was received on Facebook and a new communication method was developed, Downtown Kiosk, to educate the public on a high priority topic, pet waste. See Appendix A10 for further information.

In 2011, the City of Hastings selected Decision Resources, Ltd to perform a survey of 400 randomly selected Hastings residents to inquire about seven distinct areas of the quality of life within Hastings. Among the topics, Chapter 7 included an evaluation of the effectiveness of the City's communication means and methods was researched to a +/-5% accuracy. Vehicles of communication researched included Local Newspaper (Hastings Star Gazette), City Newsletter (Rivertown Newsletter), Cable Television, City Website (www.hastingsmn.gov), email, mailings, web stream meetings, podcasts, Facebook, blogs, twitter, and word of mouth.

The following is a snippet of the evaluation on Cable Television, the broadcasting means for council meetings to those interested residents whom were unable to attend a specific council meeting:

Q: Does your household to cable television, satellite television, or neither?
A: Cable-68%, Satellite-17%, Neither-15%

Q: How often during the past year have you watched City Council meeting telecasts on Channel 16?
A: Frequently-8%, Occasionally-32%, Rarely-25%, Never-34%

In August, 2014, the City of Hastings selected Morris Leatherman Company to perform a similar phone survey to a randomly selected cross section of Hastings residents.

The following is a sampling of the evaluation on Cable Television:

Q: What is your principal source of information about Hastings City Government and its activities?
A: Cable Television-4%

Q: How would you prefer to receive information about Hastings City Government and its activities?
A: Cable Television-4%

Q: Does your household subscribe to cable television, satellite television, or neither?
A: Cable-59%, Satellite-28%, Neither-13%

Q: If cable, how often during the past year have you watched City Council meeting telecasts on Channel 16?
A: Frequently-5%, Occasionally-21%, Rarely-25%, Never-48%

In 2017 for the preparation of the 2040 Comprehensive Plan, the City of Hastings, with assistance from BARR Engineering, provided an online survey asking residents their priorities on storm water quality. Question 8 inquired about the single best way for the City to provide information. The results are as follows

Social Media – 48%
Printed Newsletters Mailed to Home – 24%
Electronic Newsletters – 11%
Newspaper Articles – 10%
City Website – 6%
Presentations to Community Groups – 1%

The pertinent survey questions related to the City's website, in its entirety, are available upon request.

Evaluation Summary: Cable television remains as a strong avenue to expound information discussed at the council meeting but is not as reliable when trying to obtain input from the general public. After reviewing the program again this year, the City continues to feel the email link is the most productive use of the City's limited resources to obtain constructive feedback from the public for inclusion into the permit. This decision will be re-evaluated on an annual basis.

APPENDIX A8
City 3 / City Minute
2018-2021

Target Audience:
Approximately 23,000 Hastings area residents and businesses; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Communications Director
Activities to Reach Goals:
Utilize City 3/City Minute to raise awareness of important City wide news, events and meetings
Schedules:
As appropriate
Evaluation Method:
Document the date and topic

Starting in 2018, Communications Director teamed with HCTV to produce City 3. City 3 is an outreach tool that highlights the top 3 news items that residents should be aware of in town. Links on YouTube can be uploaded to Facebook or City Website for easy access. In 2019, City 3 became City Minute. City Minute is similar to City 3 but is tooled to be a single issue described in 60 seconds. Topics covered in City Minute include:

DATE	TOPICS DISCUSSED
4/3/19	Water Protection Open House, Spring is Here!, Watch Your Driving!
11/4/19	Drain Defenders

Facebook can be found at https://www.facebook.com/cityhastingsmn/

Evaluation Summary: This relatively new outreach tool has been used on other City happenings and may be available for the City to use in the future for relevant storm water related topics. Changing resources temporarily halted this format from consistent use. After reviewing the program this year, the City continues to feel the City 3 / City Minute is a viable and worthwhile investment for the public education requirement of the permit but will be used only on a periodic basis as its scope needs to encompasses a range of City wide topics. The City will look for opportunities in the future to highlight water quality components of the program, as appropriate, and when available.

APPENDIX A9
Outreach Plan
2021-Present

Target Audience:

Hastings area residents, businesses, commercial facilities, institutions, and local organizations; consideration given to all people regardless of their walk in life

Responsible Persons for Implementation:

Assistant City Engineer

Activities to Reach Goals:

Utilize the communication techniques described in Appendix A1 through A8 to highlight activities described in Appendix B1 through B10, and other Appendices within this permit, to ensure public education, outreach, and participation in areas of storm water, water quality, chloride issues, pet waste issues,and other high priority topics described within Sections 16.3 through 16.7 of the MS4 Storm Water Permit.

Schedules:

Communicate, as appropriate throughout the year and as outlined within Appendix A1 through A8, to ensure an adequate program raising awareness of storm water related issues through public education, outreach and participation. At a minimum, the city will distribute using communications methods in Appendix A1 through A8 the following topics:

1) High Priority Storm Water Related Topic – Two times per year
    - Hazardous Household Waste
    - Yard Waste
2) Chloride Issues – One time per year
    - Impacts of deicing salt use on receiving waters
    - Methods to reduce deicing salt use
    - Proper storage of salt or other deicing materials
3) Illicit Discharge – One time per year
    - Recognition
    - Reporting
4) Pet Waste – One time per year
    - Impacts of pet waste on receiving waters
    - Proper management of pet waste
    - Existing permittee regulatory mechanism for pet waste
5) All Others Topics – Mix in periodically as appropriate

Evaluation Method:

Effectiveness of the plan will be determined by the number of articles distributed and outreach programs conducted. These efforts will be documented per Section 16.7, 16.8, and 16.9 within Appendix A1 through A9, Appendix B1 through B10, and other Appendices within this permit. Additional documentation not directly listed within the Appendices is available upon request. The formal plan was created in 2021 as a requirement of the November 16, 2020 permit and is annually reviewed for its effectiveness. After reviewing the program this year, the City feels this plan meets the minimum requirements of the permit and will continue to seek ways to improve and strengthen the plan in the future.

APPENDIX A10
Downtown Kiosk
2021-Present

Target Audience:
Approximately 23,000 Hastings area residents and downtown business community; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Installation: Communications Director
Documentation: Assistant City Engineer
Activities to Reach Goals:
Utilize downtown kiosks to insert friendly reminders for pet enthusiasts to pick up their pet's waste to keep waters of the state safe and free of fecal coliform bacteria
Schedules:
Installed in 2021. Ensure post is legible and in good condition.
Evaluation Method:
Document the date and topic of all postings.

The MS4 Stormwater Permit approved on November 16, 2020 requires an increase in public education on the topic of pet waste. A comment generated from a February 9, 2021 Facebook post suggested installing more signs at trailheads reminding folks to pick up after their dog's business. Staff received the comment and weighed "sign pollution" vs "education" debate. Staff decided to limit educational materials to formal kiosks already set up in the downtown area.

DATE	FLIERS POSTED
Mar 1, 2021	Pick up your dog's poop.

Postings are available upon request.

Evaluation Summary: Kiosks were built in 2015 as part of the Riverfront Renaissance Phase II project. With close proximity to the Mississippi River and parking lots serving as a scenic 10 mile loop trailhead, the posting continue to serve within great locations and high user volumes. The kiosks will be evaluated every year for effectiveness. High priority relevant trail topics will continue to be posted as no more than casual observation denotes substantial pet traffic and canine bowel movements in the environmentally sensitive area.

Example Kiosk - 3/1/21 Posting

Example Downtown Kiosk – Ramsey St east of Levee Park Parking Lot by Pavilion

Additional Example Downtown Kiosks

- *Depot Parking Lot south of 2nd St east of Tyler St*
- *Oliver Grove south of 2nd St west of Ramsey St*
- *Hwy 61 Bridge south of 2nd St west of east access road*

APPENDIX B1
Clean-up Days (Spring & Fall)
2007-2021

Target Audience:

Hastings area residents; consideration given to all people regardless of their walk in life.

Responsible Persons for Implementation:

Hastings Building Official: Organizes event
Garbage Hauler: Provides garbage hauling equipment
Dakota County: Employee Volunteers: Unloads hazardous waste
Hastings City Employee Volunteers: Unloads waste
Assistant City Engineer: Documents waste totals

Activities to Reach Goals:

Hold spring and fall cleanup days as time, money, and resources allow.

Schedules:

When resources allow, provide one spring cleanup day and one fall cleanup day per year. Typically, the events are held on the last Saturday morning in April and third Saturday in September.

Evaluation Method:

Document the date, location, and number of cars, pounds of trash disposed of properly. A successful event is defined by the number of vehicles served and amount of trash and hazardous waste disposed of properly.

Spring Clean-up Day

One Saturday morning and early afternoon every spring, the City joins forces with Dakota County and the local trash hauler (Waste Management 1999-2012, Tennis Sanitation 2013-present) to provide a City wide clean-up day that allows an opportunity for residents to drop off their unwanted household waste and hazardous household wastes for a small nominal fee. Held at the City Public Works facility, the four to six hour event attracts lines of cars, trucks, and trailers. Scores of City of Hastings, Dakota County, and trash hauler volunteers safely and quickly unload the unwanted material and separate it pertaining to its disposal needs. The volunteers document the type, amount and weight of various materials and number of vehicles served. Collected items include batteries to couches to oil to electronics to paint to tires to general household & construction debris...and everything in between. Literally tons of garbage is picked up and disposed of properly!

The event requires 25-30 City volunteers, 10-15 Dakota County volunteers, and 5-10 trash hauler volunteers to make this event a resounding success. The number of hours the event is held in combination with weather conditions has directly impacted the number of vehicles served. The following table documents the number of vehicles served during this event.

After reviewing the program this year, the City continues to feel the Spring Cleanup Day is a viable and worthwhile investment for the public outreach requirement of the permit.

YEAR	DATE	# VEHICLES
2007	April 28	584
2008	April 26	709
2009	April 25	267
2010	April 24	295
2011	April 30	585
2012	None (Budgetary Constraints)	0
2013	April 27	698
2014	April 26	532
2015	April 25	533
2016	April 30	306
2017	April 29	460
2018	April 28	502
2019	April 27	479
2020	April 25	Cancelled – COVID-19
2021	April 5-10	Alternate Clean-up*
2022	April 11-22	Alternate Clean-up*
2023		

*Alternate Spring Clean Up replaced the regular Spring Clean Up Day event held at Public Works due to the gubernatorial restrictions imposed upon the State of Minnesota due to the COVID-19 pandemic. Staff coordinated with vendors to provide drop off and curbside pick up services. The services were provided over a week timeframe April 5th through April 10th.

Curbside pickup by Tennis Sanitation included items such as appliances, furniture, scrap iron, tires, motor oil, yard waste, construction debris, mattress/box springs, etc. The recycling zone continues to encourage drop offs that include hazardous waste, scrap metal, electronics, monitors/TVs, tires, etc.

Copies of the Spring Clean-up Day waste totals are available upon request.

Fall Clean-up Day

September 21, 2019 was the inaugural date for the smaller, fall time version of the Spring Clean-up Day. September 19, 2020 projected to be a full scale Fall Clean-up Day however the COVID-19 pandemic forced the cancellation of the full scale 2020 Spring Clean-up Day and altered the way the Fall Clean-up Day was conducted.

YEAR	DATE	#VEHICLES
2019	Sept 21	178
2020	Sept 14 - Sept 25	Alternate Clean-up*
2021	Sept 20 – Oct 1	Alternate Cleanup**
2022		

*Alternate Fall Clean Up replaced the regular Fall Clean Up Day event held at Public Works due to the gubernatorial restrictions imposed upon the State of Minnesota due to the COVID-19 pandemic. Staff coordinated with vendors to provide drop off and curbside pick up services. The services were provided over a two-week timeframe, September 14th through September 25th, with an extension of shredding services until September 28th due to a high volume of calls. Curbside Pickups: 111 residents. Certified Recycling Curbside Pickups: 54 residents. Shredding Drop Offs: 240+ residents.

**Alternate Fall Clean Up continued due to advertised COVID-19 pandemic. The format mirrored the first alternate fall clean-up date.

Copies of the Fall Clean-up Day waste totals are available upon request.

After reviewing the program this year, the City continues to feel the Fall Cleanup Day is a viable and worthwhile investment for the public outreach requirement of the permit. Advertisements for the event are advertised through Facebook and/or City Newsletters.

APPENDIX B2
Earth Day
2007-2021

Target Audience:
Hastings area residents; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Parks Department: Planning
Assistant City Engineer: Documents events
Activities to Reach Goals:
Participate in Earth Day event
Schedules:
Earth Day typically is celebrated on a Saturday at the end of April or first week of May
Evaluation Method:
Document the date, location, and events held.

Earth Day is typically celebrated on a Saturday at the end of April or beginning of May. An event of various kinds are held to raise awareness for the stewardship of the environment. On April 28, 2007, the City of Hastings joined forces with Dakota County, Art Start, WHEP, Dakota Electric, Waste Management, and Hastings Environmental Protectors to produce the City of Hastings first Earth Day Festival. The City of Hastings annually continues the tradition and works with various partners.

YEAR	DATE	LOCATION	EVENT
2007	April 28	Hastings Civic Arena	20 Foot Earth Balloon, Presentation, Etc.
2008	April 26	Hastings Civic Arena	
2009	April 25	Hastings Civic Arena	Recycling, Water Quality, Energy Reduction, Paper Shredding, Etc.
2010	April 24	Lake Rebecca Park	Trail Clean-up
2011	May 7	Lake Rebecca Park	Trail Clean-up
2012	May 5	Lake Rebecca Park	Trail Clean-up
2013	April 20	Carpenter Nature Center	Birding Day
2014	April 19	Carpenter Nature Center	Birding Day
2015	May 5	Carpenter Nature Center	Birding Day
2016	May 7	Carpenter Nature Center	Birding Day
2017	April 22	Carpenter Nature Center	Birding Day
2018	April 21-22	Levee Park Vermillion Falls Park	Story Walk Trail Clean-up
2019	April 19-22 April 20	Levee Park/Jaycee Park Carpenter Nature Center	Story Walk Birding Day
2020	April 24-25	Carpenter Nature Center	Online Youth Birding Competition. All other formal events cancelled (COVID-19)
2021	April 24-25	Carpenter Nature Center	Online Youth Birding Competition
2022	April 22-24	Levee Park	Story Walk

Meeting notices are posted and can be found within:

1) Rivertown Newsletter
http://www.hastingsmn.gov/city-government/city-departments/communications/rivertown-news

2) Facebook
https://www.facebook.com/cityhastingsmn/

After reviewing the program this year, the City continues to feel the Earth Day event is a viable and worthwhile investment for the public education requirement of the permit.

APPENDIX B3
Arbor Day
2007-2021

Target Audience:
Hastings area residents; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Parks Department: Planning
Assistant City Engineer: Documents events
Activities to Reach Goals:
Participate in Arbor Day event
Schedules:
Arbor Day typically is celebrated on a mid to late April Saturday
Evaluation Method:
Document the date, location, and events held.

Arbor Day is a 1-3 hour event taking place on a randomly scheduled day held sometime between the last week of April to mid-May. The City of Hastings Parks and Recreation Department joins forces with registered residents to plant trees. This event offers volunteers an opportunity to support a healthy urban forest by planting a dozen or more trees of varying species in local parks.

YEAR	DATE	LOCATION	EVENT
2007	April 27	Veteran's Athletic Complex	Planted Trees
2008	April 25	Lake Isabel Park	Planted Trees
2009	April 24	Levee Park	Planted Trees
2010	April 30	Wallin Park Hastings Civic Arena	Planted 100 oak seedlings and 15 spruce trees
2011	April 29	Veteran's Athletic Complex	Planted Trees
2012	April 27	Tuttle Park Cari Park	Planted Trees, 10 Planted Trees, 5
2013	May 17	Veteran's Home	Planted Trees
2014	May 16	CP Adams Park	Planted Trees, 12
2015	May 15 May 15	Cannon Park Greten Park	Planted Trees, 12 Planted Trees, 5
2016	May 20	Greten Park	Planted Trees
2017	May 19	Jaycee Park	Planted Trees
2018	May 4	Tierney Park	Planted Trees
2019	April 19	Riverwood Park	Planted Trees
2020	May 14	CP Adams Park	Planted Trees
2021	May 14	CP Adams Park	Planted Trees
2022	April 15	Hastings River Flats Park	Planted Trees

Meeting information is posted and can be found within:

1) Rivertown Newsletter
http://www.hastingsmn.gov/city-government/city-departments/communications/rivertown-news

2) Facebook
https://www.facebook.com/cityhastingsmn/

After reviewing the program this year, the City continues to feel the Arbor Day event is a viable and worthwhile investment for the public outreach requirement of the permit.

APPENDIX B4
Storm Sewer Stenciling
2007-2021

Target Audience:
Youth; special consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Public Works Supervisor: Chose neighborhood to stencil
Assistant City Engineer: Reporting
Activities to Reach Goals:
Encourage and help volunteers plan task of installing storm sewer stencils
Schedules:
Maintain open invitation for storm stenciling
Evaluation Method:
The effectiveness of the storm stenciling is measured by the number of groups/projects and number of catch basins stenciled.

During the spring of 2012, Hastings area Girl Scouts approached the City with interest to perform a water quality service project aimed at raising the awareness that whatever goes down the storm sewer ultimately ends up in the river. The Hastings Public Works Supervisor assisted the girl scouts by determining most effective neighborhood to meet their goals. The "Westwood" neighborhood was chosen for its quality of street section, close proximity to the Vermillion River, and its approximate 150 catch basins. During the fall of 2012, the girl scouts achieved their goal, as well as raked leaves and other debris away from the FES discharging to the Vermillion River, located just south of the Westwood development. In late 2017, staff supplied Hastings Environmental Protectors group a utility map of possible target areas for a 2018 installation.

This program coincides with various neighborhoods within Hastings that already provide the similar storm water message on the storm sewer grate itself. "Dump No Waste, Drains to Fresh Water" grate can be found within newer neighborhoods or neighborhoods who recently had their catch basins replaced during a reconstruction project. The photo below was taken in the South Pines 6th neighborhood.

After reviewing the program this year, the City continues to support the program upon request however does not actively seek out groups nor provide any financial support towards a proposed project.

APPENDIX B5
Landscaping for Clean Water / Blue Thumb Raingarden Initiative
2007-2021

Target Audience:
Hastings area residents; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Dakota County: Runs program
Assistant City Engineer: Advertizing partner, meeting place provider, and City contact
Activities to Reach Goals:
Upon request supports Dakota County in holding one introductory class and two design classes per year. Document date, location, and number of registrars/attendees.
Schedules:
Typically one introductory class and two design classes are held in January, February, or March. Projects are typically installed in May or early June.
Evaluation Method:
Document the date, location, and number of registrars/attendees of the introductory/design classes. A successful season is defined by the number of projects installed.

The Dakota County Blue Thumb Raingarden Initiative was created to make it easy for residents to plan, purchase, and install native rain gardens and shorelines. The program promotes the use of plants, as an alternative to turf, to infiltrate storm water, reduce storm water runoff, beautify landscapes and to stabilize shorelines.

In 2008, Dakota County Soil and Water Conservation District (DCSWCD) began looking to build a partnership of MS4 organizations to assist with delivering Blue Thumb educational courses as well as providing quality assistance for residents seeking to install these practices. The City of Hastings joined forces with Dakota County in 2008 and has continued its support of the program ever since. As a partner, the City has provided meeting room space, upon request, for the one introductory and two design classes. The City also assists with advertising the program using varying methods including the City's webpage, Facebook, Rivertown Newsletters, KDWA radio, fliers posted on front doors of City Hall, Parks Department, Civic Arena, Public Works buildings, informational update on the electronic message board at the football field (Todd Field) located at Highway 61 and Highway 55, fliers at the Earth Day event, and raised awareness of the program with Hastings Environmental Protectors (HEP) group as well as with the Wetland Health Evaluation Program (WHEP). In 2016, the Blue Thumb Rain Garden Initiative changed its name to Landscaping for Clean Water.

The introductory class is designed to inform and inspire inquiring residents what the program is, how it can assist a resident in choosing the right design materials, how it can field check critical design parameters during installation, and how to apply for a grant opportunity to help make this project affordable. This course is designed to challenge a property owner in thinking where on their property a functional yet beautiful rain garden could go to increase their curb appeal and

manage their storm water runoff. Introductory classes are typically offered throughout Dakota County cities from February to April. Format in 2020-2022 transferred to Zoom due to the advertised COVID-19 pandemic.

The two design classes target serious rain garden enthusiasts by walking a resident through each design step of their rain garden. At the end of the two days, a resident often has constructed a viable plan and excitedly sent home wishing for the fickle April weather to transform into the more predictable warm weather of May and June so their beautiful rain garden can be installed. The two design classes typically are offered within weeks of the introductory class and range from March to April. Format in 2020-2022 transferred to Zoom due to the advertised COVID-19 pandemic.

Starting in 2018, due to lower attendance numbers in comparison to our neighboring Dakota County communities, introductory and design courses are no longer held within the City of Hastings. City Staff continues to encourage and support the program by advertising the program for residents to attend one of the other courses offered in a neighboring community.

For full program results/summary reference the Dakota County website below or contact Dakota County directly: http://www.dakotaswcd.org/cleanwater.html . Historically, the City of Hastings has drawn approximately 5-15 residents to the introductory class and 2-9 residents to the design class with approximately 1-4 designs constructed in May or June.

After reviewing the program this year, the City continues to feel the Landscaping for Clean Water program is a viable and worthwhile investment for the public education requirement of the permit. Advertisements for the event are advertised through Facebook and/or City Newsletters.

2021 Landscaping for Clean Water Program Summary

DAKOTA COUNTY
SOIL & WATER CONSERVATION DISTRICT

Engaging Landowners to Provide them the Skills and Resources Needed to Improve Water Quality in Their Communities.

Landscaping for Clean Water

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has."

—Margaret Mead


LAYOUT


MIDPOINT


FINAL PROJECT

2021 BY THE NUMBERS

3 Grant rounds

371 Individuals participated in Introduction Classes

96 Individuals participated in Maintenance Workshops

52 People participated in the Office Hours program

142 Projects designed as part of virtual Design Workshops

41 Raingardens & Native Gardens & Shorelines Installed

The Landscaping for Clean Water program - Introduction class, Design course, and Maintenance workshop - was offered remotely again in 2021. Four Introduction classes were held live via Zoom during the spring. Staff with partner cities joined each class to host breakout sessions for the participants.

New this year, the Maintenance workshop was offered as a series of three virtual classes held live via Zoom, providing participants with season specific information on how to maintain and promote the health, performance, and beauty of their garden!

2021 Financial Contributors

BLACK DOG Watershed Management Organization

Eagan - Inver Grove Heights Watershed Management Organization

Lower Minnesota River Watershed District

LMR WMO Lower Mississippi River Watershed Management Organization

North Cannon River Watershed Management Organization

Vermillion River watershed reflecting life

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org

2021 Landscaping for Clean Water Program Summary

DAKOTA COUNTY
SOIL & WATER CONSERVATION DISTRICT

Thank you to everyone who joined the cause to reduce pollution, improve water quality, and increase pollinator habitat on your property this year! Participation at any level - watching the Introduction to Clean Water video, installing a project with the Design Course, or learning some tips and tricks on how to properly maintain your garden with the Maintenance Workshop series - helps to spread interest and know-how to all corners of Dakota County.

Below is a summary of the 2021 participants by City.

Apple Valley

Introduction class registrants	43
Projects designed	20
Installed raingardens	2
Installed native gardens	3

Burnsville

Introduction class registrants	100
Projects designed	34
Installed raingardens	7
Installed native gardens	2
Installed shoreline planting	1

Eagan

Introduction class registrants	44
Projects designed	24
Installed raingardens	2
Installed native gardens	3
Installed shoreline planting	1

Hastings

Introduction class registrants	10
Projects designed	2
Installed native gardens	1

Inver Grove Heights

Introduction class registrants	9
Projects designed	7
Installed raingardens	2
Installed native gardens	2

Lakeville

Introduction class registrants	47
Projects designed	26
Installed raingardens	1
Installed native gardens	4

Mendota Heights

Introduction class registrants	35
Projects designed	21
Installed raingardens	5
Installed native gardens	4

Northfield

Introduction class registrants	2
Projects designed	1
Installed native gardens	1

Randolph

Introduction class registrants	1
Projects designed	1
Installed native gardens	1

Rosemount

Introduction class registrants	30
Projects designed	7
Installed raingardens	2
Installed native gardens	2

South Saint Paul

Introduction class registrants	8
Projects designed	3
Installed raingardens	1

West Saint Paul

Introduction class registrants	8
Projects designed	7
Installed raingardens	1
Installed shoreline planting	1

Installed in partnership with Ramsey County

Raingardens—St. Paul	1

Non-Dakota County Introduction Participant Cities

Aitkin, Bloomington, Columbia Heights, Minneapolis, Minnetonka, Prescott, Prior Lake, Richfield, Savage, Shakopee, St Paul, Verndale

2021 PARTNERS

Cities

- Apple Valley
- Burnsville
- Eagan
- Lakeville
- Mendota Heights
- Rosemount
- South St Paul

Dakota County

Ramsey County

FIFTEEN YEARS OF CLEAN WATER ACCOMPLISHMENTS

Workshop Participants 2007-2021 **5,136**

Projects Completed 2007-2021 **667**

4100 220th Street W, Suite 102, Farmington, MN 55024 Tel: (651) 480-7777 Fax: (651) 480-7775 www.dakotacountyswcd.org

APPENDIX B6
Wetland Health Evaluation Program-WHEP
2007-2021

Target Audience:
Hastings area residents; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Dakota County Water Resource Educator: Planning
Assistant City Engineer: Identifying wetlands to monitor, funding
Activities to Reach Goals:
Support Dakota County with monitoring 4 wetlands
Schedules:
Training in spring, monitoring in summer
Evaluation Method:
Document health of 4 wetlands by analyzing trend lines of invertebrates and vegetation.

In 1999, the City and local community volunteers joined forces with Dakota County, and its consultant, Fortin Consulting, Inc., to monitor Dakota County wetlands for macroinvertebrates and vegetation levels to enumerate the health of typical area wetlands using the Index of Biotic Integrity (IBI), methodology produced by the Minnesota Pollution Control Agency (MPCA). Through careful sampling, testing, documentation, analyzing, and quality control spot checking techniques, wetland health trends are calculated but simplified to easy to understand "excellent, moderate, or poor" condition ratings.

In 2021, 42 wetlands in ten Dakota County cities and two watersheds were monitored. Since the program's inception, nine Hastings wetlands, using Dakota County and City Parks Dept (and currently City Public Works Dept) funding, have been monitored with no more than four ponds monitored within any one given year. Anywhere from five to ten Hastings area residents, including one recently retired Parks Department employee, monitor the four wetlands located within Hastings. Annually, the four wetlands are chosen carefully to best represent the varying characteristics of Hastings area habitat as well as aim to produce an accurate wetland health trendline by maintaining consistency and stability that comes from monitoring the same wetland year after year. 2013 marked the first time since 2004 the same grouping of four wetlands was interrupted when Cari Park Pond replaced Sand Coulee Pond. The new revised foursome now includes: Lake Rebecca, Stonegate Treated, Cari Park Pond, and 180th St Marsh. Social distancing restrictions from COVID-19 temporarily reduced the number of ponds evaluated in 2020 from 4 to 3, with 180th Street Marsh taking a one year absence.

All volunteers are obliged to classroom and field training to learn all technical aspects of the program while building one of the several layers of quality assurance / control to alleviate colossal statistical errors. Trained volunteers annually monitor invertebrates in June and the plant life during its most robust month of July. Subsequent to analysis, final reports are posted on the Wetland Health Evaluation Program (WHEP) website but also has been displayed at booths at the Dakota County Fair in August and various times at the Science Museum of Minnesota in St. Paul. This outreach program intimately tracks the quality of the county's waters by monitoring water quality pond indicators and reporting the trends.

The full 2021 report, or previous year's reports, are available upon request, or by visiting, http://www.mnwhep.org/

After reviewing the program this year, the City continues to feel WHEP is a viable and worthwhile investment for the public outreach requirement of the permit. Advertisements for the event are advertised through Facebook and/or City Newsletters.

APPENDIX B7
Parks & Trail Clean-up Day
2010-2021

Target Audience:
Hastings area residents and local organizations; consideration given to all people regardless of walk in life
Responsible Persons for Implementation:
Parks Department: Advertises event, organizes event and picks up collected bags of trash.
Assistant City Engineer: Provides documentation
Activities to Reach Goals:
Hold clean-up day one time per year.
Schedules:
Provide one spring clean-up day per year held typically the first Saturday in May.
Evaluation Method:
Document the date, locations, number of people, pounds of trash disposed of properly. A successful event is defined by the number of volunteers and the amount of trash disposed of properly.

Since 2010, the City of Hastings Parks Department organizes a clean-up day for trails. Hastings partners with local organizations and residents to pick up debris from area Parks and trails. Some participating volunteers are part of an Adopt a Park program which they clean up a certain park minimally three times per year for a two year period. These volunteers may choose to accomplish this on spring clean-up day, while others are assigned to other various Parks in town. Historically, approximately 40-50% of the parks in town are cleaned up in any given clean-up day.

YEAR	DATE	LOCATION	EVENT
2010	April 24	Lake Rebecca Park	Trail clean-up, 155 volunteers
2011	May 7	Lake Rebecca Park	Trail clean-up, approx. 80 volunteers
2012	May 5	Lake Rebecca Park	Trail clean-up, approx.. 80 volunteers
2013	May 4	Vermillion Falls Park	Trail clean-up, approx.. 80 volunteers
2014	May 3	Vermillion Falls Park	Trail clean-up
2015	May 2	Vermillion Falls Park	Trail clean-up
2016	May 7	Vermillion Falls Park	Trail clean-up
2017	May 6	Vermillion Falls Park	Trail clean-up
2018	May 5	Vermillion Falls Park	Trail clean-up
2019	May 4	Vermillion Falls Park	Trail clean-up
2020	May 2	Vermillion Falls Park	Trail clean-up (Cancelled due to COVID-19)
2021	May 1	Vermillion Falls Park	Trail clean-up

Notifications for the event are advertised through City Newsletters and the various forms of social media such as Facebook.

After reviewing the program this year, the City continues to feel the Parks Spring Cleanup Day is a viable and worthwhile investment for the public outreach requirement of the permit.

APPENDIX B8
Youth Green Teams
2006-2021

Target Audience:
Hastings area youth; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Parks Department: Advertises event
Waste Hauler: Signs ups
Activities to Reach Goals:
Monitoring of community recycling container and advertising it to community
Schedules:
3 month sign up period
Evaluation Method:
The number of participating Youth Green Teams per year

The City and Tennis Sanitation has teamed up to offer a program designed to involve youth groups to help increase the recycling of mixed paper throughout the community.

Youth groups sign up for three month block of time in which they are responsible for monitoring and keeping clean a recycling container that is located at a local hardware store parking lot. General public is encouraged to discard the likes of paper materials, cardboard, magazines, newspapers, junk mail and cereal boxes. Groups are also responsible for spreading the word on recycling.

Evaluation Summary: Steady participation has been seen throughout the years. After reviewing the program this year, the City continues to feel the Youth Green Teams is a viable and worthwhile investment for the public outreach requirement of the permit. Advertisement is made on our website, Rivertown Newsletter, and/or social media platform such as Facebook .Additional information on the program can be found on the City's website.
https://www.hastingsmn.gov/residents/recycling-garbage-services/youth-green-teams

APPENDIX B9
Adopt-A-Park
2006-2021

Target Audience:
Hastings area residents and groups; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Parks Department
Activities to Reach Goals:
Adopt a park to keep it clean and tidy
Schedules:
Minimum of a two year commitment per group per park.
Evaluation Method:
The number of participating Adopt-A-Park groups

This volunteer program provides the opportunity for residents and groups to assist in keeping City parks and trails as clean, tidy, and beautiful as possible. Volunteer groups are asked to pick an available park, sign up for a minimum of two years and become involved with picking up trash, weeding/planting flowers and/or removing graffiti. The City provides trash bags and pick-up of full bags.

Evaluation Summary: The number of participants of the program can be found on the City's website. Countless bags of trash are removed each year protecting adjacent rivers and lakes from getting polluted.
https://www.hastingsmn.gov/city-government/city-departments/parks-recreation/general-information/adopt-a-park

After reviewing the program this year, the City continues to feel the Adopt-A-Park program is viable and worthwhile investment for the public outreach requirement of the permit.

Adopt-a-Drain in Hastings, 2021

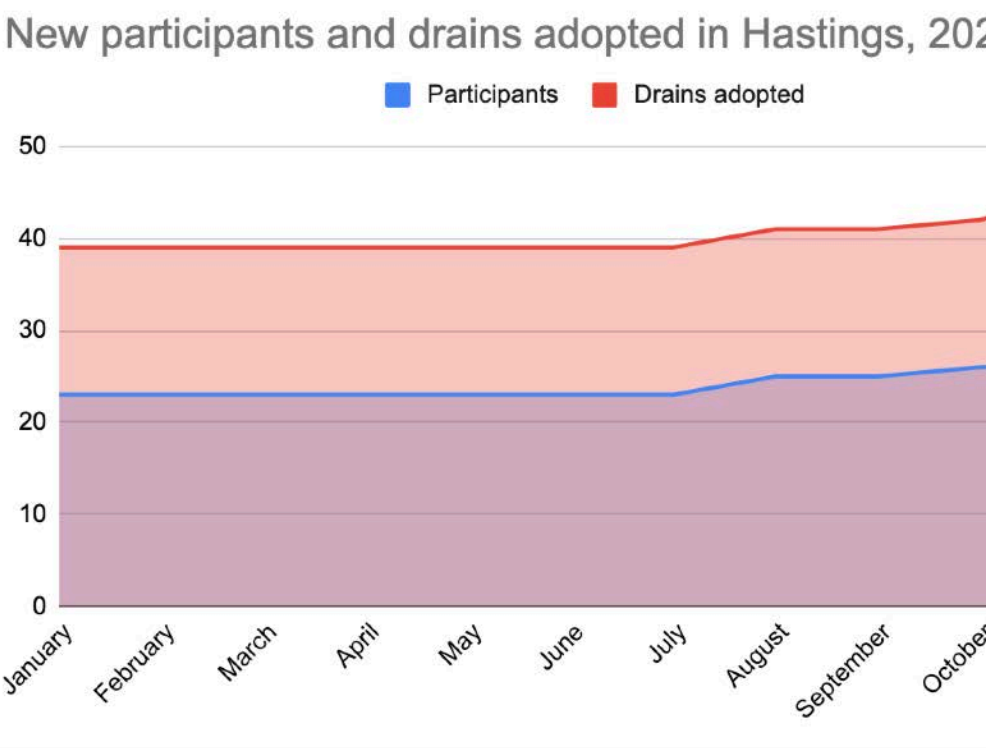
Annual Report

5
new participants in 2021

7
drains adopted in 2021

22
total participants

45
total adoptions



2021 Reporting Data

5 Hastings participants reported cleanings, which represents 22.7% of all Hastings participants.

Hastings participants collected 77.4 lbs of debris from their adopted storm drains in 2021.

Debris Type	Amount (lbs)
Brown leaves	41.7
Grass and green leaves	0.0
Sediment and dirt	33.9
Trash	1.8
Salt	0.0

In 2020, the total amount reported was 28.1 lbs.

Month	New participants	Drains adopted	Debris collected (lbs)	Time spent (hours)
January*	1	1	7.0	1.0
February				
March			21.5	0.4
April			0.2	0.0
May			0.5	0.1
June				
July				
August	2	2		
September				
October	1	1	7.2	0.5
November	0	3	41.0	0.6
December				
TOTALS	**4**	**7**	**77.4**	**2.6**

*January total includes year-end reports from 2020.

Geographic Breakdown: Watershed and Subwatershed

Drains adopted: Cumulative total
Debris collected: 2021 data only.

Watershed	Drains adopted	Debris collected (lbs)	Time spent (hours)
Vermillion River	45	77.4	2.5

Subwatershed	Drains adopted	Debris collected (lbs)	Time spent (hours)
Lower Mainstem Vermillion River	22	63.4	1.8
Vermillion River / Mississippi River	23	14.0	0.7

APPENDIX B10
Adopt-A-Drain
2019-2021

Target Audience:
Hastings area residents; consideration given to all people regardless of their walk in life
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Adopt a drain to keep neighborhoods clean and protect local waterways
Schedules:
Adopt drain for as long as resident desires
Evaluation Method:
The number of drains adopted

This volunteer program provides the opportunity for residents to keep neighborhoods clean and protect local waterways. Residents can sign up to clean debris, leaves, grass clippings, fertilizer, road salt, pet waste from one or more catch basins and its upstream curb lines to keep pollutants from reaching the nearby rivers, streams, ponds, and lakes. Residents are asked not to open the grate on catch basins but if they notice a lot of debris and sediment in their catch basin to call the Public Works Department for assistance.

Evaluation Summary: The number of drains adopted within the program can be found on the Adopt-A-Drain website. After reviewing the program this year, the City continues to feel the Adopt-A-Drain program is viable and worthwhile investment for the public outreach requirement of the permit.
https://adopt-a-drain.org/#how-to-clear-a-drain

2021

Adopt-a-Drain in Hastings, 2021

Annual Report

5
new participants in 2021

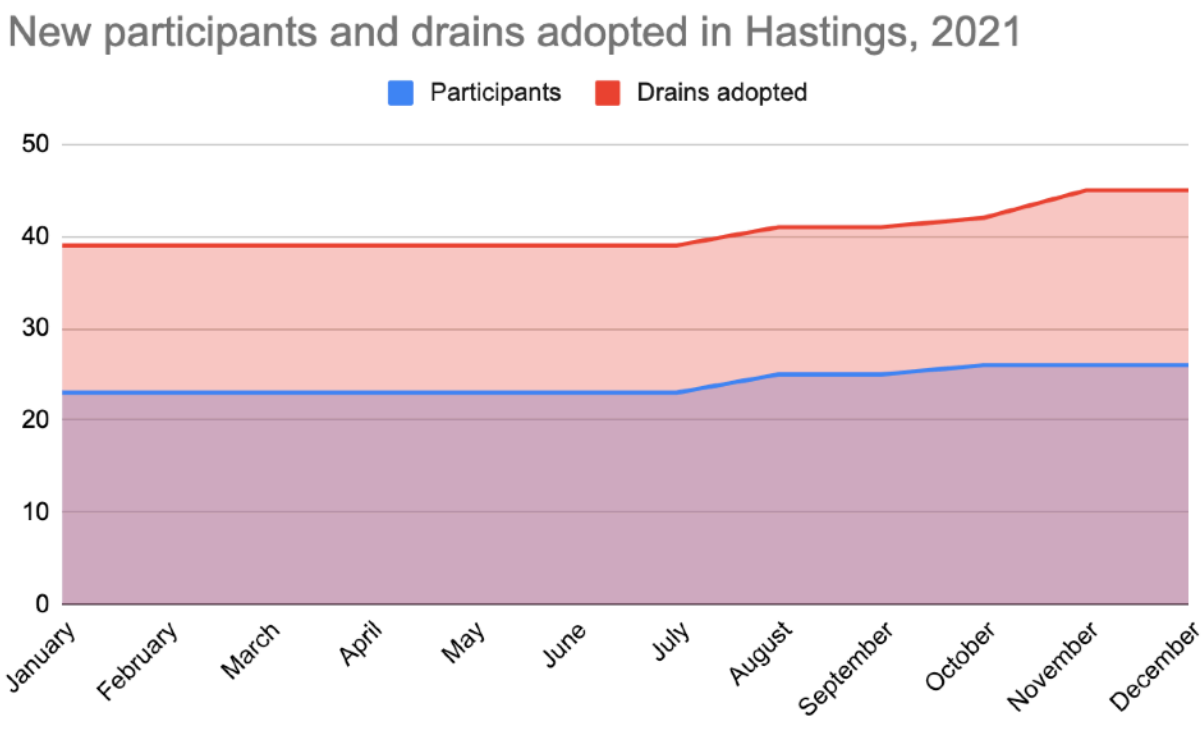
7
drains adopted in 2021

22
total participants

45
total adoptions



Adopt a Storm Drain
adopt-a-drain.org

2021 Reporting Data

5 Hastings participants reported cleanings, which represents 22.7% of all Hastings participants.

Hastings participants collected 77.4 lbs of debris from their adopted storm drains in 2021.

Debris Type	Amount (lbs)
Brown leaves	41.7
Grass and green leaves	0.0
Sediment and dirt	33.9
Trash	1.8
Salt	0.0

In 2020, the total amount reported was 28.1 lbs.

Month	New participants	Drains adopted	Debris collected (lbs)	Time spent (hours)
January*	1	1	7.0	1.0
February				
March			21.5	0.4
April			0.2	0.0
May			0.5	0.1
June				
July				
August	2	2		
September				
October	1	1	7.2	0.5
November	0	3	41.0	0.6
December				
TOTALS	**4**	**7**	**77.4**	**2.6**

*January total includes year-end reports from 2020.

Geographic Breakdown: Watershed and Subwatershed

Drains adopted: Cumulative total
Debris collected: 2021 data only.

Watershed	Drains adopted	Debris collected (lbs)	Time spent (hours)
Vermillion River	45	77.4	2.5

Subwatershed	Drains adopted	Debris collected (lbs)	Time spent (hours)
Lower Mainstem Vermillion River	22	63.4	1.8
Vermillion River / Mississippi River	23	14.0	0.7

APPENDIX C1
Site Plan Review Checklists, Stormwater Maintenance Agreements & ERPs
2007-2021

Target Audience:
Contractors, developers, builders
Responsible Persons for Implementation:
City Engineer: Engineering review and administering ERPs
Assistant City Engineer: Engineering review, administering ERPs, and documentation
Activities to Reach Goals:
Implement and enforce water quality and erosion control regulations to land disturbing activities. The City promptly reviews all development and re-development projects to verify the sites conform to NPDES Phase II permit guidelines, Vermillion River Watershed Rules, City Ordinances, Builders Handbook, Construction Specifications, and Standard Plates.
Schedules:
Review plans, maintain current checklists, administer Stormwater Maintenance Agreements and ERPs.
Evaluation Method:
Effectiveness of the checklists and Agreements is measured by the number of site plans reviewed to the satisfaction of the City Ordinances, NPDES Phase II permit guidelines, Vermillion River Watershed Rules, Construction Specifications, and Standard Plates.

The City encourages development and re-development but recognizes the responsibility of the owner to maintain the integrity of the natural resources in the process. Projects requiring development reviews must accompany an erosion and sediment control plan and/or SWPPP in accordance with the Construction Stormwater Permit, MS4 Stormwater Permit, Vermillion River Watershed Rules, Builders Handbook, Construction Specifications, Standard Plates and City Ordinance. Three site plan review checklists are used to assure all review criteria are met:

1) Residential - Certificate of Survey review checklist used for new single family and multi-family home construction. See attached checklist.
2) Commercial - Civil Site Plan Review checklist and Stormwater Summary sheet used for single site non-residential development / re-development. See attached checklist and summary sheet.
3) Subdivision - Civil Site Plan Review checklist and Stormwater Summary sheet used for large subdivision development. See attached checklist and summary sheet.

Site plans review procedures include
1) Concept Plan Review (Optional) as part of the Development Review Committee (DRC) meeting.
2) Neighborhood Meeting (Optional)
3) Site Plan Application Submittal.
    a. Staff will review the submittal documents for completeness and require submittal of any incomplete information before formally accepting the project

for review. This may include any necessary storm water calculations or environmental reviews.

4) Development Review Committee (DRC) meeting
    a. Applicants and staff to discuss high level concepts and designs, including storm water.
5) Planning Commission Meeting
    a. All significant comments from the DRC meeting must be completed prior this meeting. Planning commission will offer their recommendation of denial or approval.
6) City Council Meeting
    a. Final approval or denial will be issued.
7) Final Engineering Infrastructure Plan Approval
    a. Plans will be reviewed against City ordinances and other regulatory mechanisms using applicable checklists.
8) Final Building Permit Approval
9) Conduct Preconstruction Meeting
    a. Engineering Dept conducts a preconstruction meeting to bring all parties "on the same page" prior to construction.
    b. Erosion and sediment control must be installed prior to Notice to Proceed is issued.
10) Construction
    a. Inspection protocols will be in place to ensure sediment and erosion control requirements be met and all Best Management Practices (BMPs) are installed correctly. See Appendix D3 for Construction Site Runoff Control and ERPs.

During site plan reviews, and Per City Ordinance 152, land disturbing activities may need to meet certain water quality standards. BMPs installed to meet these standards are therefore required to be memorialized within a Stormwater Maintenance Agreement to ensure the property is inspected and maintained in perpetuity, including through sale of the property. The Agreement:

1) Must be signed by the owner and recorded at the County
2) Require owner to perform one inspection per year.
3) Require owner to provide annual inspection report to City.
4) Must allow for the City to conduct inspections of the BMPs, perform necessary maintenance, and assess costs for those structural stormwater BMPs outlined in the Agreement in the event the owner fails to inspect and maintain with proper functionality the BMP per the Agreement.
5) Must allow for continual treatment effectiveness, through additional BMPs, should the original BMP be non-operational or removed.

Year	Stormwater Maintenance Agreements (New)	Stormwater Maintenance Agreements (Total)
2019	4	4
2020	1	5
2021	3	8
2022		

The Stormwater Maintenance Agreement requires an annual submittal of an inspection report to ensure the storm water improvements made on the property during construction is maintained and functioning to its designed capacity. Non-emergency inspection reports are gathered by the Assistant City Engineer on the following schedule. A list of active Agreements are available upon request.

1) August. City mails first letter to owner requesting an inspection report (See attachment)
2) September. City mails second letter requesting an inspection report (If needed) (See attachment).
3) October. City calls owner firmly requiring a schedule to complete the inspection report (If needed).
4) November. City considers executing rights to complete the maintenance per Agreement and Section 20.15 of MS4 Permit (If needed).

The objective of the letters is to uphold ownership and attain compliance from the property owner. Project managing maintenance of private BMPs is not the objective of the City and should be performed on a limited and emergency basis only when health, wealth and safety is at stake. The City will work with the owner to obtain a reasonable schedule to inspect and correct the BMP.

Site plans not complying with ordinances and other regulatory mechanisms shall not be approved and be denied. Failures during the construction process will be addressed through the construction management process and if necessary drawing from either the Construction Inspection Escrow, Letter of Credit or One Year Maintenance Bond. Emergency Response Procedures (ERPs) for underperforming BMPs installed shall be addressed within a reasonable amount of time dependent on the severity of the failure as it relates to the health, wealth and safety of the property, adjacent properties, and surrounding natural resources. Enforcement tools listed within Appendix D3 and D6 are available as needed.

Critical supportive documentation for site plan reviews are filed for future Vermillion River Watershed Audits and MS4 Permit Audits. Documentation may include: Stormwater Calculations/MIDS Calculator/P8 Modeling, Stormwater Summary Sheet, Plans/Asbuilts, and Stormwater Maintenance Agreements. This documentation is available upon request.

The City conducted its annual assessment of the program this year and brought it up to compliance with the November 16, 2020 MS4 Permit requirements. The City will continue to run the program and look for ways to improve trainings, site plan review, inspections, and enforcement in the coming years. Site plan reviewers have at a minimum the Design of the Construction SWPPP Certification. See Appendix D1.

CITY OF HASTINGS

CERTIFICATE OF SURVEY REVIEW CHECKLIST

NEW SINGLE FAMILY / MULTI-FAMILY HOME CONSTRUCTION

Date of Submittal: _____ Reviewed By: _____
Date of Review: _____ Builder: _____
Site Address: _____ Surveyor: _____
Legal Description: _____ Owner: _____

The Certificate of Survey shall include:

Review Status Key	
√	Acceptable
C	Corrections Required
N/A	Not Applicable

General

1 ☐ Submitted as PDF
2 ☐ Street Address
3 ☐ Drawing Scale
4 ☐ North Arrow
5 ☐ Property Lines
6 ☐ Easements
7 ☐ Survey Benchmark
8 ☐ Signed by a MN licensed surveyor
9 ☐ Existing and proposed structures (including driveways, fences, decks, storm sewers, watermain, sanitary sewers)
10 ☐ Existing sanitary sewer service line
11 ☐ Exisiting water service line (including curb stop)
12 ☐ Location of potable well (if applicable)
13 ☐ Location of on-site sewage treatment system (if applicable)

Driveway

1 ☐ 30ft max width within public right-of-way (City Ordinance: 155.09, Subd. B (4)(a))
2 ☐ 3ft min separation from property line extension into ROW (City Ordinance: 155.09, Subd. B (4)(a))
3 ☐ Label curb cuts (if applicable)
4 ☐ Proposed garage floor elevation
5 ☐ Proposed grade from garage floor to top of curb (garage floor minimum 6" above top of curb)
6 ☐ Existing top of curb elevation at side lot line extensions, lot mid-point, and proposed driveway

Building Structure

1 ☐ Proposed top of foundation elevation
2 ☐ Proposed lowest floor elevation (when lot is adjacent to ponding basins and multi-yard drainage swales)
3 ☐ Proposed lowest opening elevation and location (when lot is adjacent to ponding basins and multi-yard drainage swales)
4 ☐ Proposed lowest opening elevation of structure must be a min of 2ft above the 100 year HWL
5 ☐ HWL elevation (when lot is adjacent to ponding basins and mult-yard drainage swales)
6 ☐ Proposed finish grade elevation at building corners (6" minimum below top of block)
7 ☐ Proposed sill elevation and finish grade elevation for egress window wells

Grading

1 ☐ Existing and proposed lot corner elevations (must match approved grading plan)
2 ☐ Existing and proposed mid-point elevations on side lot lines
3 ☐ Proposed spot elevations for drainage swales (based on the approved grading plan)
4 ☐ Emergency Overflow Elevation (taken from approved grading plan, if applicable)
5 ☐ Proposed drainage flow direction (arrows)
6 ☐ Proposed contours of lot match approved grading plan

Additional Review (Reviewed Separately Through Community Development Department)

1 ☐ Structure setback distances to property lines
2 ☐ Front yard tree location
3 ☐ Boulevard tree location

General Notes:

1 Erosion & Sediment Control
   a) Perimeter erosion & sediment control and rock construction entrance is required to be installed prior to start of project, including before foundation is dug. Minimum allowable diameter of compost log is 8".
   b) Perimeter erosion & sediment control is required until turf is established.
2 Permittees are advised that the City of Hastings will inspect the condition of driveways, sidewalks, curb and gutter, and other municipal facilities located in the public right of way prior to the issuance of a Certificate of Occupancy. The permittee will be held liable for any damages noted by the City.
3 Mailbox shall be affixed to a cluster (City Ordinance: Ch 154.06 (G)(4))

Specific Notes:

1
2
3
4
5
6
7
8
9
10

City of Hastings Engineering Department Approval

By: MN License: Date:

CITY OF HASTINGS

CIVIL SITE PLAN REVIEW CHECKLIST

SINGLE SITE NON-RESIDENTIAL DEVELOPMENT / REDEVELOPMENT

Project Name:		Developer:	
Site Address:		Engineer:	
Owner:		Architect:	
Date of Submittal:		Surveyor:	
Date of Review:		Electrical:	
Reviewed By:		Contractor:	

Plans shall include:

Review Status Key	
√	Acceptable
C	Corrections Required
N/A	Not Applicable

General

1		Plan submitted as PDF
2		Drawing Scale
3		North Arrow
4		Property Lines
5		Easements
6		Survey Benchmark (two)
7		Signed by MN licensed Professional Engineer
8		Existing and Proposed infrastructure to opposite side of adjacent public right-of-way (ie. buildings, pavement, curb and gutter, public utilities, private utilities)
9		Existing site topography with existing drainage patterns (arrows)
10		Proposed Grading, Utility, Civil, and Photometric Plan Sheets
11		Lighting Photometric Plan with max 0.5 foot candles at property line (City Ordinance 95.23, Subd. (S))

Title Sheet

1		Project Name
2		Street Address
3		Gopher State One Call information
4		Hastings Public Works contact information
5		*"No construction may begin until erosion and sediment controls are in place and approved by the City"*
6		*"No construction may begin until a preconstruction meeting is held with the City"*
7		*"No changes shall be made to approved plans without written consent of the City"*
8		*"Irrigation systems require separately metered supply line connected to the public main line and permitting through the City Building Department"*
9		*"Prevailing Specifications: City of Hastings Standards Specs, MN MUTCD, MNDOT Specifications, CEAM Specifications"*
10		Separate signature block for licensed Professional Engineer to sign, *"I hereby certify that this plan meets all City of Hastings and Vermillion River Watershed Rules and Regulations for stormwater volume control, stormwater rate control, and water quality treatment requirements"*

Utilities

1		Manhole rings include seals (Infishield (external), I&I Barrier (internal), or approved equal)
2		Storm sewer flared end sections include trash guards
3		Location of water service lines indicating pipe material and curb stop location
4		Location of sanitary sewer service line indicating pipe material and clean out locations.

Pavement

1		Driveway: 30ft, 32ft max width for residential, commercial within public ROW (City Ordinance 155.09, Subd.B (4)(a))
2		Driveway: 3ft min separation from property line extension into ROW (City Ordinance 155.09, Subd.B (4)(a))
3		Pavement cross section design details for patches within public ROW
4		Concrete curb and gutter for all paved areas

Grading

1		Emergency Overflow locations and elevations
2		Drainage swales and ponds. Provide NWL and 100 year HWL elevations.
3		Ponds contain a lined bottom (when located within the Wellhead Protection Emergency Response Zone)
4		Retaining walls 4ft and taller require and engineer designed retaining wall plan and must meet MNDOT design standards

(over)

Storm Water Management

Compliance with Vermillion River Watershed Rules and Storm Water Management Ordinance 152

Storm Water Calculations (Atlas 14) - If over 1 acre disturbed

1 ☐ Peak Runoff Rates: Post development not to exceed pre-project: 1yr24hr, 10yr24hr, 100yr24hr, 100yr4day

2 ☐ Volume Runoff Criteria: Post development not to exceed pre-project condition: 2yr24hr

3 ☐ Water Quality: Post development not to exceed pre-project condition: TSS & TP

Compliance with NPDES Construction Stormwater Permit (MPCA)

Storm Water Calculations (Atlas 14) - If over 1 acre of new impervious surface

4 ☐ Volume Runoff Criteria: 1" of runoff must be retained onsite - p12 of permit

5 ☐ Coverage Card - If over 1 acre disturbed or part of a common plan of development

General Notes:

1 **Financial Submittals:** Please notify Ryan Stempski, through email, once the submittal has been mailed/dropped off (rstempski@hastingsmn.gov)

a) **Letter of Credit:** (Note: The City may accept a cash escrow of equal value in lieu of an LOC)

Amount/Status:
- Purpose: Guarantees funding for completing improvements proposed within public ROW and easement areas
- Amount: 125% of the value of improvements within the public ROW and easement areas. The LOC shall contain an auto renew feature applicable until the City's final acceptance of the project.
- Submittal Due: Prior to the start of construction.
- Submittal Location: Hastings Public Works, 1225 Progress Dr, Hastings, MN 55033
  Attn: Samantha Hanson, Engineering Administrative Assistant (651) 480.2334

b) **Construction Inspection/Project Administration Escrow (Cash Deposit):**

Amount/Status:
- Purpose: Covers cost to provide construction inspection and administration for improvements within the public ROW and easement areas. Note: This is separate from the plan review escrow.
- Amount: Using final plans, amount is calculated by the City's consultant inspection service provider and includes 10% City project administration overhead (per City Ordinance). MSA Professional Services currently performs development related inspection services for the City.
- Submittal Due: Prior to start of civil site plan construction
- Submittal Location: Hastings City Hall, 101-4th St E, Hastings, MN 55033
  Attn: Melanie Lammers, Finance Manager

c) **One Year Maintenance Bond:**
- Purpose: Protects City against poor workmanship, materials, and design should a problem arise after project completion
- Amount: $10,000 or 20% of the value of the improvements within public ROW and easement areas, whichever is greater.
- Submittal Due: Bond shall commence upon the City's final acceptance of the project.
- Submittal Location: Hastings Public Works, 1225 Progress Dr, Hastings, MN 55033
  Attn: Samantha Hanson, Engineering Administrative Assistant (651) 480.2334

2 **Required Permits**: Apply for all applicable (MNDOT, Dakota County, Railroad, DNR, USACE, MPCA, MDH, Met Council)

a) **NPDES Construction Stormwater Permit(MPCA)**

Status:
- Location: http://www.pca.state.mn.us/index.php/water/water-types-and-programs/stormwater/construction-stormwater/index.html
- Submittal Due: Prior to approval of plans and specifications.
- Submittals Needed
  1) Permit Coverage Card verifying permit was applied for by Developer through the MPCA.
  2) Storm calculations with narrative explaining how volume control of permit is met if site creates more than one acre of new impervious surface (1" of runoff must be retained on site - p12 of permit)

b) **City Right of Way Permit**

Status:
- Location: http://www.hastingsmn.gov/i-want-to/apply-for-a-street-opening-permit
- Submittal Due: Developer shall prepare and submit application, including fee, online on Dakota County's "One Stop Roadway Permit Shop," prior to construction.
- Typical Review Time: 1 week

3 **Agreements**

a) **Storm Water Maintenance Agreement** ("Long-Term Stormwater BMP Maintenance Agreement")

Status: Per MPCA general SWPPP requirements, a legal agreement shall be signed to allow City to access public or private stormwater BMPs for purpose of inspecting, notifying owner of maintenance duties, and in case of unresponsive owners the ability to assess cost of performing the maintenance work. Maintenance inspections and work is preferred and expected to be completed by the owner. An exhibit is required to identify locations and recommended maintenance activities. The agreement shall be drafted by the City Attorney and signed by the owner.

4 **Easements**

a) No **trees** shall be planted in any of the easements containing pipes, per the 2005 Easement Fence & Landscaping Policy.

b) All storm water BMPs shall exhibit a D&U easement of sufficient size to ensure proper future maintenance access.

5 **Preconstruction Meeting**

Status: Developer shall call Ryan Stempski, City of Hastings, to set up a preconstruction meeting prior to civil site work. Ryan Stempski can be reached at 651.480.2368.

General Notes:

1 **Existing Conditions**

Permittees are advised that the City of Hastings will inspect the condition of the existing driveways, sidewalks, curb and gutter, and other municipal facilities located in the public right-of-way prior to the final acceptance of the project. The permittee will be held responsible for any **damages** found, unless provided notification of damage prior to the start of the project.

2 **Erosion & Sediment Control:**

a) Perimeter erosion & sediment control and rock construction entrance is required to be installed prior to start of project.

b) Perimeter erosion & sediment control is required until turf is established.

3 **Construction Site Inspections**

a) Contractor is responsible for submitting to the City an **erosion control inspection form** after every half inch or greater rain event and at a minimum of one time per week. Inspection forms can be emailed electronically to Ryan Stempski at rstempski*@hastingsmn.gov* Inspection forms can be found on the MPCA website: *www.pca.state.mn.us/index.php/view-document.html?gid=2068.* A **rain gage** must be present on site when over 1 acre disturbed.

b) Ryan Stempski will coordinate **inspections** on utilities, road construction, and infrastructure within the City's right of way. Provide Ryan a minimum of 48 hours of advance notice. Ryan can be reached at 651.480.2368.

Specific Notes:

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

City of Hastings Engineering Department Approval

By: _____ MN License: _____ Date: _____

CITY OF HASTINGS

SUBDIVISION PLAN REVIEW CHECKLIST

PRIVATE DEVELOPMENTS

Project Name:		Developer:	
Site Address:		Engineer:	
Owner:		Architect:	
Date of Submittal:		Surveyor:	
Date of Review:		Electrical:	
Reviewed By:		Contractor:	

Plans shall adhere to the City of Hastings Public Works Design Manual. A summary of the most common items include:

Review Status Key	
√	Acceptable
C	Corrections Required
N/A	Not Applicable

Submittals (refer to City of Hastings Public Works Design Manual Section 1&2)

Plans submitted as PDF (all that apply)

1. ☐ Title Sheet
2. ☐ Existing Conditions
3. ☐ Demolition Plan
4. ☐ Overall Utility Plan
5. ☐ Sanitary Sewer and Watermain Plan
6. ☐ Storm Sewer Plan
7. ☐ Street Construction Plan
8. ☐ Conduit Crossing Plan
9. ☐ Grading Plan
10. ☐ Erosion & Sediment Control Plan (SWPPP)
11. ☐ Detail Sheets
12. ☐ Construction Specifications
13. ☐ Construction Cost Estimate
14. ☐ Street Pavement Design Calculations
15. ☐ Traffic Volume Prediction for collector and arterial Streets (20yr)
16. ☐ Storm Drainage Calculations (City Stormwater Management Ordinance 152 and NPDES Construction Stormwater Permit)
17. ☐ Soil Test Reports

General (refer to City of Hastings Public Works Design Manual Section 1&2)

1. ☐ Drawing Scale (no smaller than): Grading Plans 1":100', Street & Utility Plans 1": 50'
2. ☐ North Arrow
3. ☐ Property Lines

Easements

4. ☐ Drainage & Utility: 5ft side, 10ft front & edge of plat
5. ☐ Public Utility: (3)(Pipe Depth) + 4ft, rounded to next 5ft increment
6. ☐ Ponds: HWL
7. ☐ Trails: 20ft
8. ☐ Survey Benchmarks (two)
9. ☐ Signed by MN licensed Professional Engineer
10. ☐ Separate signature block for licensed Professional Engineer to sign, *"I hereby certify that this plan meets all City of Hastings and Vermillion River Watershed Rules and Regulations for stormwater volume control, stormwater rate control, and water quality treatment requirements"*

Cover Sheet (refer to City of Hastings Public Works Design Manual Section 1&2)

1. ☐ Inset illustrating project location within City of Hastings
2. ☐ Legend for symbols used on drawings
3. ☐ Sheet Index
4. ☐ Title block, per City standard, at bottom right hand corner of each plan sheet
5. ☐ Sheet Subject (Grading, Sanitary Sewer, Water, Storm Sewer, Streets, Details, etc)
6. ☐ Subdivision or Development Name
7. ☐ A list of all streets shown on the plan sheet (names with termini)
8. ☐ Date of plans and revisions
9. ☐ Gopher State One Call information
10. ☐ Hastings Public Works contact information
11. ☐ *"No construction may begin until erosion and sediment controls are in place and approved by the City"*
12. ☐ *"No construction may begin until a preconstruction meeting is held with the City"*

13 ☐ *"No changes shall be made to approved plans without written consent of the City"*
14 ☐ *"Irrigation systems require separately metered supply line connected to the public main line and permitting through the City Building Department"*
15 ☐ *"Only City employees are permitted to operate valves and hydrants"*
16 ☐ *"Prevailing Specifications: City of Hastings Standards Specs, MN MUTCD, MNDOT Specifications, CEAM Specifications"*

Grading Plan (refer to City of Hastings Public Works Design Manual Section 3)

General

1 ☐ Show construction limits
2 ☐ Show neighboring plats, parcels, streets utilities
3 ☐ Show lot lines
4 ☐ Show easements
5 ☐ Upgrade plans after plat approval to show lot and block numbers

Grading

6 ☐ Min 2ft proposed contours, dashed existing contours
7 ☐ Show topography for 200ft around project
8 ☐ Max Grade: General 4:1, Ponding Basins 5:1, Driveways 10%
9 ☐ Min Grade: 2%

Provide elevations:

10 ☐ Lot corner elevations
11 ☐ Finish grade elevations at all 4 principal building corners
12 ☐ Show note "There must be at least a 6" drop in ground elevation within 10ft of the structure"

Retaining walls 4ft and taller

13 ☐ City of Hastings Building Permit
14 ☐ Engineer designed retaining wall plan
15 ☐ MNDOT approved material specifications within public ROW.

Ponds

16 ☐ Ponds contain a lined bottom (when located within the Wellhead Protection Emergency Response Zone)

Show Elevations:

17 ☐ NWL
18 ☐ HWL (100yr)
19 ☐ Overflow Elevations

Wetland Ponds

20 ☐ Buffers: Meets Storm Water Management Ordinance 152.01 (G)(3)

Sedimentation Ponds

21 ☐ Side Slope (max): 5:1
22 ☐ Depth (ave): 4ft-10ft
23 ☐ Length to Width Ratio: 3:1 or larger

Bench:

24 ☐ Slope (max): 10:1
25 ☐ Width (min): 16.5ft vegetated buffer strip

Maintenance Access Routes

26 ☐ Provide paved access route to drainage ponds
27 ☐ Grade (max): 8%
28 ☐ Width: 10ft
29 ☐ Cross Slope: 2%
30 ☐ Cross Section: 1.5" bit wear/1.5" bit non wear/6" aggregate base

Drainage Swales

31 ☐ Show details of side yard swale and common lot swale
32 ☐ Easements: Must be contained within easements of sufficient size
33 ☐ Length (max): 300ft or a total of 8 lots draining to a point
34 ☐ Depth (min): 18"
35 ☐ Width of Bottom (min): 18"
36 ☐ Side Slopes (min): 5:1
37 ☐ Grade (min): 2%

Emergency Overflow Swale

38 ☐ Show elevation
39 ☐ Show cross section
40 ☐ Easements: Must be contained within easements of sufficient size
41 ☐ Flow area must be lined with an approved mat
42 ☐ Separation: 15ft from easement to nearest structure
43 ☐ Width of Bottom (min): 3ft
44 ☐ Side Slopes: 4:1

Building Pads

45 ☐ Show structure type (ie. WO, LO, SOG)

Structure Elevations

46 ☐ Garage Floor Elevation: Min 6" above top of curb

47 ☐ Lowest Floor Elevation

Lowest Opening Elevation

48 ☐ Must be a min of 2ft above the 100yr HWL or critical EOF swale elevation

49 ☐ Must be a min of 1ft above the hydraulic line grade in an adjacent drainage swale.

50 ☐ Street Grades

Erosion Control Plan (refer to City of Hastings Public Works Design Manual Section 3)

1 ☐ Identify EOF swales and provide required EC protection

2 ☐ Identify all wetlands and show appropriate width buffer strips and signage

Show locations of:

3 ☐ Perimeter erosion & sediment control

4 ☐ Inlet Protection

5 ☐ Rock construction entrances

6 ☐ Check dams

7 ☐ Stockpile locations

8 ☐ Concrete washout area or self-contained washout on trucks

9 ☐ Add note "no construction may begin on site until the erosion & sediment control has been installed and approved by the City."

10 ☐ Permits: Provide Coverage Card for application of General NPDES Construction Stormwater Permit (MPCA)

Street Design (refer to City of Hastings Public Works Design Manual Section 4)

1 ☐ Street Widths (min Face to Face): Arterial 44ft, Collector 40ft, Local 32ft. Provide notation on plans.

2 ☐ Grades (min/max): Arterial 0.5%/4%, Collector 0.5%/6%, Local 0.5%/8%

Intersections:

3 ☐ 2% max grade for 100ft back from intersecting curb line

4 ☐ 15ft min curb radius

5 ☐ 400ft min sight distance

6 ☐ Crown: Centerline crown with 2% cross slopes.

7 ☐ Design Speeds: Arterial 40mph, Collector 40mph, Local 30mph

8 ☐ Horizontal Curves: 250ft min radius for 30mph road

9 ☐ Vertical Curves: 90ft min vertical curve and meets AASHTO Design Standards for SSD

10 ☐ Pavement Design: Minimum City of Hastings design standard or provide pavement design calculations, the greater of

11 ☐ Bit Wear/Bit Base/Agg Base/Subcut (min): Arterial & Industrial 3/3/14/18", Collector 2/3/10/12", Local 2/2/5/12"

12 ☐ Concrete curb and gutter for all paved areas

13 ☐ Soil Borings: Provide geotechnical report

Dead Ends

14 ☐ With driveways: Temporary CDS. Concrete curb required on CDS if preliminary plat for extension is not approved.

15 ☐ With no driveways: Type III barricade at dead end with "future street extension" signage

16 ☐ Testing: Notation requiring City Inspector to inspect subbase.

Driveways

17 ☐ No access to arterials, minimize access to collectors

18 ☐ 30ft max width within public right of way (City Ordinance: 155.09, Subd.B (4)(a))

19 ☐ Edge Setback: 3ft min separation from property line extension into ROW (City Ordinance: 155.09, Subd.B (4)(a))

20 ☐ Rollover (difference in grade) cannot exceed 5% from crown of road to driveway entrance

21 ☐ Mailboxes shall be affixed to a cluster (City Ordinance: 154.06 (G)(4))

22 ☐ Private utility conduits at crossings: location and quantity

Trail/Sidewalk Design (refer to City of Hastings Public Works Design Manual Section 4)

1 ☐ Concrete Sidewalk: 4" thick by 5ft wide concrete , 6" concrete at residential driveways, 8" conc at commercial driveways

2 ☐ Bituminous Trails: 1.5" wear/1.5" nonwear/4" aggregate, 8ft wide: 66ft ROW, 10ft wide: 80ft ROW

3 ☐ Minimum 3ft turf establishment behind curb

Storm Sewer Design (refer to City of Hastings Public Works Design Manual Section 5)

1 ☐ Compliance with Vemillion River Watershed Rules and Storm Water Management Ordinance 152

Storm Water Calculations (Atlas 14) - If over 1 acre disturbed

2 ☐ Peak Runoff Rates: Post development not to exceed pre-project: 1yr24hr, 10yr24hr, 100yr24hr, 100yr4day

3 ☐ Volume Runoff Criteria: Post development not to exceed pre-project condition: 2yr24hr

4 ☐ Water Quality: Post development not to exceed pre-project condition: TSS & TP

5 ☐ Infiltration techniques preferred outside Inner Wellhead Management Zone. Were infiltration techniques considered?

Design Level of Service

6 ☐ Pipes: 10yr
7 ☐ Ponding Basins: 100yr
8 ☐ EOF: 100yr
9 ☐ Alignment: 10ft separation from other utilities. Generally follows sanitary sewer and watermain, where practical.

Pipe

10 ☐ Size: 15" min pipe diameter, except first run CB lead where 12" is permitted.
11 ☐ Type: RCP within street ROW
12 ☐ Velocity: 3ft/s min

Catch Basins

13 ☐ Crossings perpendicular to centerline of road.
14 ☐ Located on the tangent section of the curb at a point 3ft from the point of curb when at an intersection.
15 ☐ Depth: 4ft min depth from RIM to invert
16 ☐ Cover: 3ft min cover over storm pipe
17 ☐ Sumps: 3ft sump for every manhole intaking water with exception to beyond 5th structure an within 5ft of watermain
18 ☐ Manhole rings include seals (Infishield (external), I&I Barrier (internal), or approved equal)
19 ☐ Rings: 2-6 plastic rings manufactured by LadTech (or approved equal)

Manholes

20 ☐ 400ft max spacing
21 ☐ Located within readily assessible paved surfaces, CDS islands, or medians

FES

22 ☐ Trash guards on all inlets and outlets 15" and larger
23 ☐ Inlets match NWL of ponds

Utility Crossings

24 ☐ Show plan and profile of existing & proposed storm sewer construction with all san sewer and water crossings
25 ☐ 18" minimum separation between sanitary and watermain.
26 ☐ Insulation: 2" for 40"-60" utility separation, 4" for 18"-40" utility separation

Access

27 ☐ 10ft bituminous access trail when storm manholes located outside of paved right of way.

Watermain Design (refer to City of Hastings Public Works Design Manual Section 6 & 8)

Alignment

1 ☐ 10ft separation from other utilities. Generally follows sanitary sewer on north and east side of centerline.
2 ☐ 3ft separation from curb, where possible
3 ☐ Loop watermain where practical. Minimize dead end mains.

Pipe

4 ☐ Cover: DIP 7.5ft min cover, PVC 8.5ft min cover; 10ft max cover
5 ☐ Size (min): 8" except for hydrant leads and short CDS
6 ☐ Type: Class 52 DIP to 12", Class 51 DIP for over 12" diameter; PVC C900 or C905, DR 18
7 ☐ Show all stubs and valves for all future watermain extensions. Gate valve 30ft back from end of watermain.
8 ☐ Carrier pipe for side lot installation. 15ft on either side of building pad.

Utility Crossings

9 ☐ Show plan and profile of existing & proposed water main construction with all sanitary sewer and storm crossings
10 ☐ 18" minimum separation between sanitary or storm. Water installed on top.
11 ☐ Insulation: 2" for 40"-60" utility separation, 4" for 18"-40" utility separation

Dead End Mains

12 ☐ Hydrant installed behind curb at end
13 ☐ Gate valve 30ft min from plugged end

Hydrants

14 ☐ 250ft service radius
15 ☐ Mid Block: Property lines
16 ☐ Locate on far end of landscaped island
17 ☐ Provide water flow and pressure test results on existing hydrant closest to the proposed connection point.

Gate Valves

18 ☐ Spacing (max): 1000ft
19 ☐ Location: Within bituminous where possible and right of way line extended
20 ☐ Rod extensions shall be installed on all gate valves

Services

21 ☐ Type: Copper or DIP (No PVC)
22 ☐ Size: 1" min diameter

Location

23 ☐ Stubbed 10ft past the ROW to the edge of the D&U
24 ☐ Sanitary sewer service no greater than 2ft downstream
25 ☐ Avoid driveway locations where possible. Provide valve box cover if curb stop ends within driveway.

26 ☐ Installed perpendicular to main
27 ☐ Provide note stating a "T" post shall be installed over terminous of service and painted blue.
28 ☐ Provide note stating a "W" will be placed on curb to which a service runs underneath.
29 ☐ Provide note stating two ties shall be provided to the City.
30 ☐ Fire service separate from potable water service. Valve outside of building.
31 ☐ Irrigation Service: Show all irrigation serivce locations and pipe diameters.
32 ☐ Fire Sprinklers: Show pressure test results
33 ☐ Permits: Plan Review Application (MDH)

Sanitary Sewer Design (refer to City of Hastings Public Works Design Manual Section 7 & 8)

Alignment
1 ☐ 10ft separation from other utilities. Generally follows centerline.

Pipe
2 ☐ Cover: 5ft min cover
3 ☐ Type/Depth/Size: PVC SDR 35/8'-20'/8"-10", PVC SDR 26/20'30'/8"-10", DIP Class 52/Over 30'/8"-10"
4 ☐ Slope (min): 8"/0.40%, 10"/0.28%, 12"/0.22%, 15"/0.15%

Utility Crossings
5 ☐ Show plan and profile of existing & proposed sanitary construction with all watermain and storm crossings
6 ☐ 18" minimum separation between watermain or storm. Water installed on top.
7 ☐ Insulation: 2" for 40"-60" utility separation, 4" for 18"-40" utility separation

Manholes
8 ☐ Location: Centerline of street and out of wheel path, if possible
9 ☐ Spacing (max): 400ft
10 ☐ Stub Lines: MHs required on terminus end of all stubs if line is active
11 ☐ Manhole rings include seals (Infishield (external), I&I Barrier (internal), or approved equal)
12 ☐ Drop MH: Outside drop where 2ft separation of inverts, DIP pipe (min): 20ft
13 ☐ Connections: Core drilled and water proof seal and boot connection when no stub available
14 ☐ No MH in drainage easements

Services
15 ☐ Type: SDR 26, Schedule 40, or extra heavy cast iron soil pipe
16 ☐ Size: 4" min diameter

Location
17 ☐ Stubbed 10ft past the ROW to the edge of the D&U easement
18 ☐ Sanitary sewer service no greater than 2ft downstream
19 ☐ Avoid driveway locations where possible.
20 ☐ Installed perpendicular to main
21 ☐ Provide note stating a "T" post shall be installed over terminous of service and painted green.
22 ☐ Provide note stating a "S" will be placed on curb to which a service runs underneath.
23 ☐ Provide note stating two ties shall be provided to the City.
24 ☐ Connect to main with a wye, not a MH
25 ☐ Cleanouts (max): 100ft apart and not within ROW
26 ☐ Permits: Sanitary Sewer Extension Permit Application (MPCA & Met Council)

Access
27 ☐ 10ft bituminous access trail when sanitary manholes located outside of paved right of way.

Street Lighting (refer to City of Hastings Public Works Design Manual Section 9)
1 ☐ Location: All intersections and midblock property line if light spacing exceeds 500ft
2 ☐ Spacing (max): 500ft
3 ☐ Wattage: Residential 100W, Collector & Arterial 150W

Private Utility Crossings (refer to City of Hastings Public Works Design Manual Section 10)
1 ☐ ROW to ROW crossings shown at intersections

Pre-Construction Submittals

1 **Financial Submittals**: Please notify John Caven, through email, once the submittal has been mailed/dropped off (jcaven@hastingsmn.gov)

a) **Letter of Credit:** (Note: The City may accept a cash escrow of equal value in lieu of an LOC)

Amount/Status:
- Purpose: Guarantees funding for completing improvements proposed within public ROW and easement areas
- Amount: 125% of the value of improvements within the public ROW and easement areas. The LOC shall contain an auto renew feature applicable until the City's final acceptance of the project.
- Submittal Due: Prior to the start of construction.
- Submittal Location: Hastings Public Works, 1225 Progress Dr, Hastings, MN 55033
  Attn: Samantha Hanson, Engineering Administrative Assistant (651) 480.2334

b) **Construction Inspection/Project Administration Escrow (Cash Deposit):**

Amount/Status:
- Purpose: Covers cost to provide construction inspection and administration for improvements within the public ROW and easement areas. Note: This is separate from the plan review escrow.
- Amount: Using final plans, amount is calculated by the City's consultant inspection service provider and includes 10% City project administration overhead (per City Ordinance). MSA Professional Services currently performs development related inspection services for the City.
- Submittal Due: Prior to start of civil infrastructure construction
- Submittal Location: Hastings City Hall, 101-4th St E, Hastings, MN 55033
  Attn: Rebecca Petersen, Assistant Finance Director

c) **Chip Seal Escrow (Cash Deposit):**

Amount/Status:
- Purpose: Covers cost for City to provide a chip seal one year after construction to protect a new road segment, per City policy.
- Amount: Value, calculated by the City, on a square yard of pavement requiring chip seal.
- Submittal Due: Prior to start of civil infrastructure construction.
- Submittal Location: Hastings City Hall, 101-4th St E, Hastings, MN 55033
  Attn: Rebecca Petersen, Assistant Finance Director

d) **Street & Traffic Control Escrow (Cash Deposit):**

Amount/Status:
- Purpose: Covers cost to provide labor and materials for street sign and traffic control sign installation.
- Amount: Value, calculated by the City.
- Submittal Due: Prior to start of civil infrastructure construction
- Submittal Location: Hastings City Hall, 101-4th St E, Hastings, MN 55033
  Attn: Rebecca Petersen, Assistant Finance Director

e) **One Year Maintenance Bond:**
- Purpose: Protects City against poor workmanship, materials, and design should a problem arise after project completion
- Amount: $10,000 or 20% of the value of the improvements within public ROW and easement areas, whichever is greater.
- Submittal Due: Bond shall commence upon the City's final acceptance of the project.
- Submittal Location: Hastings Public Works, 1225 Progress Dr, Hastings, MN 55033
  Attn: Samantha Hanson, Engineering Administrative Assistant (651) 480.2334

2 **Required Permits**: Apply for all applicable (MNDOT, Dakota County, Railroad, DNR, USACE, MPCA, MDH, Met Council)

a) **Sanitary Sewer Extension Permit (MPCA)**

Status:
- Location: *www.pca.state.mn.us/index.php/view-document.html?gid=7005*
- Amount: <0.1MGD: $310, 0.1-1.0MGD: $620, >1.0MGD: $930 paid by the developer
- Submittal Due: Developer shall prepare and submit application, including fee, to the City. City will package application and fee and submit it to the MPCA and Met Council to receive approval prior to construction.
- Typical Review Time: 2-4 weeks

b) **Watermain Plan Review Application (MDH)**

Status:
- Location: http://www.health.state.mn.us/divs/eh/water/planreview/community.html
- Amount: $150 paid by the developer
- Submittal Due: Developer shall prepare and submit application, including fee, directly to MDH. Developer shall provide documentation of permit approval from MDH prior to construction.
- Typical Review Time: 2-3 weeks

c) **NPDES Construction Stormwater Permit(MPCA)**

Status:
- Location: http://www.pca.state.mn.us/index.php/water/water-types-and-programs/stormwater/construction-stormwater/index.html
- Submittal Due: Prior to approval of plans and specifications.
- Submittals Needed
  1) Permit Coverage Card verifying permit was applied for by Developer through the MPCA.
  2) Storm calculations with narrative explaining how volume control of permit is met if site creates more than one acre of new impervious surface (1" of runoff must be retained on site - p12 of permit)

d) **City Right of Way Permit**

Status:
- Location: http://www.hastingsmn.gov/i-want-to/apply-for-a-street-opening-permit
- Submittal Due: Developer shall prepare and submit application, including fee, online on Dakota County's "One Stop Roadway Permit Shop," prior to construction.

- Typical Review Time: 1 week

e) **Private Utility Plans**

Status:
- Submittal Location: Private utility companies must submit their plans to the Engineering Department for approval (Attn: John Caven, jcaven@hastingsmn.gov)
- Submittal Due: Prior to installation.
- Typical Review Time: 1 week
- Submittal Info: Plans shall be joint trench, utilitize conduits installed at crossings from ROW to ROW and provide one extra conduit. No borings shall be allowed once the street is built.

3 **Agreements**

a) **Development Agreement**

Status: The agreement shall be drafted by the City Attorney and signed by the owner.

b) **Storm Water Maintenance Agreement** ("Long-Term Stormwater BMP Maintenance Agreement")

Status: Per MPCA general SWPPP requirements, a legal agreement shall be signed to allow City to access public or private stormwater BMPs for purpose of inspecting, notifying owner of maintenance duties, and in case of unresponsive owners the ability to assess cost of performing the maintenance work. Maintenance inspections and work is preferred and expected to be completed by the owner. An exhibit is required to identify locations and recommended maintenance activities. The agreement shall be drafted by the City Attorney and signed by the owner.

c) **Utility Abandonment Agreement** ("Agreement Regarding Disconnection of Service Line and Waiver of Procedural Irregularity and Assessment Appeal")

Status: A legal agreement shall be signed for all services not removed back to the main. All services shall be moved back to the main unless conditions reasonably don't allow for it. The agreement shall be drafted by the City Attorney and signed by the owner.

d) **Encroachment Agreement** ("Licence to Encroach Upon Right-of-Way")

Status: A legal agreement shall be signed for all encroachments allowed within the City right-of-way. The agreement shall be drafted by the City Attorney and signed by the owner.

4 **Easements**

a) No **trees** shall be planted in any of the easements containing pipes, per the 2005 Easement Fence & Landscaping Policy.

b) All storm water BMPs shall exhibit a D&U easement of sufficient size to ensure proper future maintenance access.

5 **Preconstruction Meeting**

Status: Developer shall call John Caven, City of Hastings, to set up a brief preconstruction meeting prior to civil site work. John Caven can be reached at 651.480.2369.

General Notes:

1 **Existing Conditions**

Permittees are advised that the City of Hastings will inspect the condition of the existing driveways, sidewalks, curb and gutter, and other municipal facilities located in the public right-of-way prior to the final acceptance of the project. The permittee will be held responsible for any **damages** found, unless provided notification of damage prior to the start of the project.

2 **Erosion & Sediment Control:**

a) Perimeter erosion & sediment control and rock construction entrance is required to be installed prior to start of project.

b) Perimeter erosion & sediment control is required until turf is established.

3 **Construction Site Inspections**

a) Contractor is responsible for submitting to the City an **erosion control inspection form** after every half inch or greater rain event and at a minimum of one time per week. Inspection forms can be emailed electronically to John Caven at *jcaven@hastingsmn.gov* Inspection forms can be found on the MPCA website: *www.pca.state.mn.us/index.php/view-document.html?gid=2068.* A **rain gage** must be present on site.

b) Kevin Burns, MSA, will perform **inspections** on utilities, road construction, and infrastructure within the City's right of way. Provide Kevin a minimum of 48 hours of advance notice. Kevin can be reached at 651.271.6584.

4 **Testing**

Consultant: Developer shall retain a **testing consultant**, approved by the City, to complete necessary third party testing of all materials, soil compaction and other infrastructure systems as required by City Infrastructure Specifications. Copies of the test reports shall be made available for the City at same time it is made available for the developer.

a) **Watermain** shall satisfactorly meet all testing requirements for compaction, pressure test, disinfection, and line locating per City specifications (Section 300(4-5)). Lead free fittings (curb stops, corps, hydrants) must be used.

b) **Sanitary sewer** shall satisfactorly meet all testing requirements for compaction, air test, deflection test, and be televised per City specifications (Section 400(3-5)).

5 **Asbuilt Grading Plan**

Upon completion of site grading, the Developer shall submit to PW for review an asbuilt grading plan showing the newly graded elevations at all lot corners, critical elevations in drainage ways, one foot contours at ponding and sedimentation basins, and at ponding level control points for ponding basin emergency overflow swales.

6 **Property Monuments:** Developer shall provide certification of installation to Dakota County and City of Hastings.

Specific Notes:

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51

Submittals: Prior to the preconstruction meeting, the following additional items shall be submitted for review:

1. **Shop Drawings**. One copy of any final drawings, preferably in electronic pdf format. Include drawings for all utility components, structures, castings, mixture designs for concrete and bituminous materials, and erosion control devices. Please do not submit them until they first have been reviewed by you.
2. **Progress and Completion Schedule**. Please submit a detailed schedule of major construction activities for each area of the project.
3. **Contact Information**. Please submit a list of contractors, subcontractors and suppliers and their contact information.
4. **Testing Consultant**. Developer shall retain a testing consultant, approved by the City, to complete necessary third party testing of all materials, soil compaction and other infrastructure systems as required by City Infrastructure Specifications. Copies of the test reports shall be made available for the City at same time it is made available for the developer.
5. **Utility Companies**. Please confirm in writing your arrangements for notifying the utility companies.
6. **Sanitary Facilities.** Please confirm in writing that approved sanitary facilities will be provided and used by all onsite personell.
7. **Paving.** Please confirm in writing that "no diesel fuel is to be used as a release agent, cleaning agent, etc during paving operations."
8. **Aggregate Supplier**. Please provide identification of aggregate supplier.
9. **Materials.** Certificate of compliance needs to be submitted for all materials. Note: All components of pipe fittings, valves, hydrants, etc. shall be certified as lead-free as per Section 1417 of the Federal Safe Drinking Water Act.
10. **Backfill Procedures.** Provide written acknowledgement that bucket tamping will not be used as a means of compaction.
11. **Concrete Washout.** Please provide your method of containing concrete washout slurry.
12. **Public Convenience & Safety.** Please confirm in writing that all trash will be cleaned up daily and that OSHA and other safety requirements will be conformed to at all times.
13. **Certificate of Liability Insurance.** Please provide Certificate of Liability Insurance in minimum of $2M, with City as additional insured.

City of Hastings Engineering Department Approval

By: _____ MN License: _____ Date: _____

Month Day, Year

Contact Name
Agency
Address

Dear Contact Name,

On Month Day, Year, Owner Name signed a Long-Term Stormwater BMP Maintenance Agreement between the City of Hastings and Agency.

The purpose of the agreement is to ensure the storm water improvements made on the property during a (re)development project is maintained and functioning to its designed capacity. Section 2 (Page 3) of the Agreement states:

> *"The Owner shall maintain a log sheet documenting all required inspections and maintenance by qualified individuals…the Inspection and Maintenance Log shall be made available for periodic inspection at reasonable times by the City."*

The City respectfully requests the Owner submit the Inspection and Maintenance Log for Year to the City (see contact below) within 30 days of the date of this letter. An Operations and Maintenance Plan for this property can be found in Exhibit A of the Agreement. A sample Inspection and Maintenance Log can also be found within Exhibit A. The plan lists out the required maintenance activity for your site, recommended inspection frequency, and recommended actions required for maintaining the Storm Water Best Management Practices (BMPs).

The City acknowledges inspection work takes time out of your busy day but also wants to stress the importance of maintaining storm water BMPs for flood control and/or water quality. Thank you in advance for your cooperation with this Agreement. The Agreement has been attached to this letter for your ease of reference. If you have any questions feel free to contact the City of Hastings Engineering Department at 651.480.2334.

Please send Inspection and Maintenance Log to:
Samantha Hanson
Administrative Assistant
City of Hastings
1225 Progress Dr
Hastings, MN 55033
shanson@hastingsmn.gov

Sincerely,

John Caven

John Caven, P.E.
Assistant City Engineer

Enc: Long-Term Stormwater BMP Maintenance Agreement
Cc: Ryan Stempski, P.E., City Engineer

Month Day, Year

Contact Name
Agency
Address

Dear Contact Name,

On Month Day, Year, Owner Name signed a Long-Term Stormwater BMP Maintenance Agreement between the City of Hastings and Agency.

The purpose of the agreement is to ensure the storm water improvements made on the property during a (re)development project is maintained and functioning to its designed capacity. Section 2 (Page 3) of the Agreement states:

> *"The Owner shall maintain a log sheet documenting all required inspections and maintenance by qualified individuals…the Inspection and Maintenance Log shall be made available for periodic inspection at reasonable times by the City."*

The City mailed a letter dated Month Day, Year requesting this Inspection and Maintenance Log for Year be submitted to the City for review within 30 days of the date on that letter. The City has yet to receive the requested information and respectfully requests you contact the City at the number below to give a status update on completing the Log.

Failure to submit an Inspection and Maintenance Log may trigger the City to respond with Section 4 (Page 3) of the Agreement:

> *"In the event Owner fails to maintain the Facilities in good working order…or if Owner fails to maintain the Inspection and Maintenance Log…the City with at least ten day written notice may enter the Subject Property and take whatever reasonable maintenance and repair action it reasonably determines…"*

The Owner shall financially reimburse the City of their time and materials needed to correct the issue per Section 5 (Page 4) of the Agreement. If unpaid, the City would transfer those costs to the property taxes of the Owner:

> *"The Owner shall reimburse the City within thirty days of issuance of an invoice thereof to the Owner for all the reasonable costs incurred by the City…If not paid within the prescribed time period…the Owner agrees to have Subject Property assessed for the full amount of the unpaid Maintenance Charges and with the entire assessed amount due and payable with the real estate taxes in the year following the certification of the assessment."*

The City appreciates in advance your efforts in adhering to your responsibility agreed upon within the Agreement. Please contact the City of Hastings Engineering Department at 651.480.2334 to provide a schedule for complying with the Agreement. Furthermore:

Please send Inspection and Maintenance Log to:

Samantha Hanson
Administrative Assistant
City of Hastings
1225 Progress Dr
Hastings, MN 55033
shanson@hastingsmn.gov

Sincerely,

John Caven, P.E.
Assistant City Engineer

Enc: Letter dated Month Day, Year
Long-Term Stormwater BMP Maintenance Agreement
Cc: Ryan Stempski, P.E., City Engineer

APPENDIX C2
Standard Plates: Erosion Control
2007-2021

Target Audience:
Contractors, developers, builders, and City staff
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Implement and enforce erosion control standard plates to all land disturbing activities
Schedules:
Maintain current standard plates. Update as necessary.
Evaluation Method:
The effectiveness of the standard plates will be measured by the number of land disturbing activities (See Appendix D3, H1, and D2)

Construction site operators must conform to NPDES Phase II permit requirements, City's ordinances, Builders Handbook, Public Works Design Manual, erosion control specifications, and the City's standard plates to control storm water runoff. The City understands that controlling erosion at the source can significantly reduce the amount of sediment transportation and other pollutant runoff from construction sites. The City actively enforces its standard plates for silt fence, inlet protection, rock construction entrance, and sediment control dam.

The erosion control standard plates are available within Section 1500 on the City's website: https://www.hastingsmn.gov/home/showdocument?id=6093

APPENDIX C3
Construction Specifications: Erosion Control
2007-2021

Target Audience:
Contractors, developers, builders, and City staff
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Implement and enforce erosion control construction specifications to all land disturbing activities
Schedules:
Maintain current construction specifications. Update as necessary.
Evaluation Method:
The effectiveness of the construction specifications will be measured by the number of land disturbing activities (See Appendix D3, H1, and D2)

Construction site operators must conform to NPDES Phase II permit requirements, City's ordinances, Builders Handbook, Public Works Design Manual, standard plates, and the City's the erosion control specifications to control storm water runoff at the construction site to prevent adverse effects to water quality.

Section 1500, "Erosion Control Measures and Materials", specifies:

1) Silt fence
2) Erosion control blankets
3) Storm drain protection
4) Rock construction entrances
5) Filter blanket materials
6) Rip rap
7) Proper removal of all erosion control after project completion
8) Protection of property and utilities using proper placement, initiation, and maintenance of all erosion control means, methods, and procedures.

Section 1200, "Landscaping and Lawn Restoration", specifies:

1) Landscaping materials
2) Construction methods
3) Application rates
4) Planting seasons
5) Protection and maintenance
6) Tree preservation requirements
7) Tree trimming.

The erosion control construction specifications are available within Section 1200 and 1500 on the City's website:
https://www.hastingsmn.gov/home/showdocument?id=6093

APPENDIX C4
Builders Handbook
2007-2021

Target Audience:

The handbook is a great tool for, but not limited to, home builders for reference.

Responsible Persons for Implementation:

Building Administrative Assistant: Issuing permits

Assistant City Engineer: Updating handbook and conducting permit review

Activities to Reach Goals:

Provide building permit requirements for builders. Topics range from erosion control requirements to on-site sanitation requirements to street sweeping.

Schedules:

Maintain a current and up to date handbook. The City of Hastings revised and posted their Builder's Handbook on the City website in 2007, 2010, 2011, 2013 and again in 2014.

Evaluation Method:

The City will document the number of single family homes, townhomes, and apartment buildings built within the calendar year.

YEAR	SINGLE FAMILY	TOWNHOME	APARTMENT
2007	9	11 (54 units)	1 (66 units)
2008	6	2 (4 units)	1 (36 units)
2009	9	2 (3 units)	0
2010	4	0	0
2011	20	1 (2 units)	0
2012	39	0	0
2013	41	0	0
2014	42	0	0
2015	21	0	0
2016	22	0	0
2017	29	0	0
2018	15	0	0
2019	14	0	1 (60 units)
2020	21	0	0
2021	34	0	1 (90 units)

The Builders Handbook is available on the City of Hastings website
http://www.hastingsmn.gov/city-government/city-departments/building-safety/handouts

APPENDIX C5
Public Works Design Manual
2007-2021

Target Audience:

The Public Works Design Manual primarily focuses on engineering design standards for street and utility construction. However, one of the nine sections is devoted to grading and erosion control design standards aimed at providing protection to water quality. The document is used and adhered to by City staff, to design their annual reconstruct project, and perform plan reviews for developers.

Responsible Persons for Implementation:

City Engineer, Assistant City Engineer

Activities to Reach Goals:

Implement manual on in-house projects as well as provide this manual to developers wishing to develop in Hastings.

Schedules:

Maintain a current and up to date manual. The City of Hastings has maintained the posting of their manual on the City website since 2006. The manual was last updated in 2006.

Evaluation Method:

The City will document the number of projects within the calendar year: Reconstruction, Subdivision, Commercial, and individual residential housing.

Reconstruction Projects – See Appendix D2, C1

Subdivisions – See Appendix D2, C1

Commercial – See Appendix D2, C1

Residential – See Appendix D2, C1

The Public Works Design Manual can be found on the City of Hastings website:
http://www.hastingsmn.gov/city-government/city-departments/public-works/engineering-department/resources

APPENDIX C6
Water Management Plan (WMP)
2007-2021

Target Audience:
City Staff
Responsible Persons for Implementation:
City Engineer
Activities to Reach Goals:
The City will continue to address the goals of the WMP
Schedules:
The City will continue to evaluate the effectiveness of the WMP and revise its goals and policies once every ten years.
Evaluation Method:
Every ten years the City of Hastings teams up with a consultant (ie. Barr Engineering 2007, 2017) to revise the Water Management Plan. City Council approved the final plans dated 2009-2018 and 2018-2017. The following agencies were part of the review process:

1) Vermillion River Joint Powers Organization (VRJPO)
2) Lower St. Croix Watershed Management Organization (LSCWMO)
3) Metropolitan Council
4) Dakota County Soil and Water Conservation District (SWCD)
5) Dakota County Water Resources Office, Washington Conservation District (WCD)
6) Washington County Public Health & Environment, Denmark Township
7) Marshan Township
8) Nininger Township
9) Ravenna Township

The Water Management Plan is a local water management plan meeting the requirements of:

1) Minnesota Statutes 103B.235, Minnesota Rules 8410
2) Vermillion River Watershed Joint Powers Organization's Watershed Plan.

The purpose of the Water Management Plan is to:

1) Preserve and enhance surface water quality of lakes, wetlands, and watercourses in and downstream of the City of Hastings.
2) Manage the rate and volume of stormwater runoff to minimize negative impacts to infrastructure, the natural environment, and public and private lands.
3) Protect groundwater quality and quantity to preserve it for sustainable and beneficial purposes.
4) Preserve and enhance the amount of quality of wetlands and habitats within the City.
5) Minimize the risk of flooding to protect public health and safety, minimize adverse environmental impacts, and minimize capital expenditures.
6) Develop or improve recreational, fish and wildlife, and open space areas and accessibility in conjunction with water quality improvement projects.

7) Protect and conserve water and natural resources by promoting sustainable growth, integrated land use planning, and water resource management
8) Facilitate understanding of water resource and other natural recourses issues and encourage water resource stewardship through programs, educational opportunities and surface water management responsibilities.
9) Efficiently and responsibly perform the City's stormwater and surface water management responsibilities.

The Hastings Water Management Plan references and encompasses many key water quality components such as

1) Public Works Design Manual (See Appendix C5)
2) Builders Handbook (See Appendix C4)
3) City Ordinances (See Appendix C7-C10)
4) Vermillion River Joint Powers Organization rules (See Appendix C7)
5) MPCA MS4-SWPPP

The Water Management Plan is available upon request.

APPENDIX C7
Ordinance: VRWJPO Compliance
2007-2021

Target Audience:
Builders, contractors, developers, property owners
Responsible Persons for Implementation:
Assistant City Engineer:
Activities to Reach Goals:
Plan review to ensure compliance
Schedules:
Maintain an up to date ordinance
Evaluation Method:
The effectiveness of the ordinance is measured by the number of compliant permits approved.

The City encourages development and re-development but recognizes the responsibility of the owner to maintain the integrity of the natural resources in the process. Projects requiring development reviews must accompany an erosion and sediment control plan in accordance with the NPDES Phase II permit guidelines, Builders Handbook, and City Ordinance. City Ordinances can be located on the City's website https://www.hastingsmn.gov/city-government/city-charter-ordinances and include:

1) Section 152 Storm Water Management
https://www.hastingsmn.gov/home/showdocument?id=7907
2) Section 151 Flood Plain Regulation
https://www.hastingsmn.gov/home/showdocument?id=7893
3) Section 153 Shoreland Management
https://www.hastingsmn.gov/home/showdocument?id=7895

In 2009, the City revised the Storm Water Management and Flood Plain Ordinances to bring Hastings' ordinances in conformity with the Vermillion River Watershed Joint Powers Organization's (VRWJPO) rules and regulations. City council approved the Flood Plain Ordinance on March 1, 2010 and Stormwater Management Ordinance on June 21, 2010. Changes implemented included:

1) Rate and volume requirements for discharges
2) Pond design standards
3) Design standards for erosion control
4) Increased buffer zones.

On April 6, 2015, the City Storm Water Management Ordinance was approved by the City Council. This ordinance adequately brings the City in compliance with the NDPES permit approved by the MPCA on August 1, 2013. The revisions impose the following criteria on all development and redevelopment projects:

1) Rate, volume, and water quality standards must be met for all projects disturbing 1 acre

2) Rate, volume, and water quality standards must no longer use "TP-40" but utilize the revised "Atlas 14" NOAA rain intensity curves to size ponds, storm sewer, and waterways.
3) Storm calculations shall be submitted showing that no net increase of TSS and TP will occur compared to pre-project conditions.
4) A legal document (i.e. development agreement) shall be executed to assure long term maintenance is completed by the owner of a structural BMP (i.e. infiltration basin, rain garden, underground stormwater device, etc.). The agreement shall allow the City to inspect the BMP, maintain, perform maintenance, and assess cost to the property owner.

On January 19, 2016, two points within the ordinance adopted on April 6, 2015 were clarified and adjusted per the recommendation by the MPCA during their September 28, 2015 audit.

In 2016, the VRWJPO completed another revision to the standards and rules. The City will be updating the ordinances to reflect these changes at the same time it reviews the municipal stormwater (MS4) permit. The MS4 permit was approved November 16, 2020 and LGU's were given one year to update ordinance updates (from the April 15, 2021 permit coverage submittal/approval). Therefore, these rules will be updated by April of 2022.

Until performing the work in house in 2011, the City contracted out the engineering development plan review to MSA Professional Services, formally known as BDM Consulting, Inc. Presently, erosion control site visits are performed by qualified erosion and sediment control inspectors in a number of ways. For more information see Appendix D2.

APPENDIX C8
Ordinance: Property Maintenance
2007-2021

Target Audience:
Post Construction Property Owners
Responsible Persons for Implementation:
Code Enforcement: Enforcement of Property Maintenance Ordinances
Assistant City Engineer: Reporting
Activities to Reach Goals:
Site Inspections to ensure compliance
Schedules:
Maintain a current and up to date property maintenance ordinance.
Evaluation Method:
The City will document the number property maintenance inspections performed within the calendar year.

The Property Maintenance Ordinance 158 takes seriously the property owners responsibility to maintaining a clean and respectful lot long after construction. It provides a practical method to regulate the maintenance and use of existing properties and buildings within the City of Hastings for the purpose of protecting the public health, safety, and welfare. The ordinance:

1) Establishes minimum standards for maintenance property and buildings
2) Provides administration and enforcement

The City employs a full time Code Enforcement employee who pursues and encourages violators to comply with the ordinance. Annually, the Code Enforcement employee contacts, on average 200 properties, all ranging in severity and type. Some of these enforcement actions indirectly contribute to water quality by eliminating improper waste disposal.

The Property Maintenance Ordinance can be found on the City of Hastings website
http://www.hastingsmn.gov/city-government/city-charter-ordinances

APPENDIX C9
Ordinance: Stormwater Utility
2007-2021

Target Audience:
Property Owners
Responsible Persons for Implementation:
Finance Dept: Billing
Assistant City Engineer: Reporting
Activities to Reach Goals:
Improve storm water quality.
Schedules:
On January 19, 2010, the City Council approved a Stormwater Utility fee. The first billing cycle was mailed April 30, 2010 and due May 20th. The first billing cycle for the remaining two billing zones ensued accordingly. The City has over 8,000 total accounts.
Evaluation Method:
The City Council may adjust the rates of the storm water utility on an annual basis, or as necessary, to meet the financial needs of maintaining the City's storm water collection, treatment, and storage systems.

On January 19, 2010, the City approved a Stormwater Utility Fee. The newly created fee was implemented with the desire to collect just and equitable charges for the use and availability of storm sewer systems for the collection and disposal of storm water. Similar in concept to a water and sanitary sewer fee, a storm water utility fee is charged to individual parcels and is typically based on the percent impervious and/or the amount of storm water runoff generated from an individual site or land use. The utility fees are collected for the purpose of maintaining the City's existing storm water conveyance system, detention ponds, storm water treatment basins, wetland mitigation sites, and infiltration basins within the community. These storm water fees can also be used to implement the requirements outlined in the City's NPDES Phase II Storm Water Pollution Prevention Plan (SWPPP) and the Watershed Management Plan (WMP).

In 2013, Malcolm Avenue drainage improvements were funded primarily by the storm water utility. The funding allowed the City to fix a nagging drainage issue on three private properties and adjacent street and cul-de-sac.

In 2019, a study was conducted to determine how much sediment has built up in the Southwest Ponding Basin, and how much, if any, and when, should a sediment removal project be conducted.

In 2020, a multi-faceted stormwater improvement project was conducted off 21st St near the falls that collaborated with local businesses, state, and watershed to complete this project.

The Storm Water Utility Ordinance 51.10 can be found on the City's website:
http://www.hastingsmn.gov/home/showdocument?id=454

APPENDIX C10
Illicit Discharge: Illicit Discharge
2007-2021

Target Audience:
General Public
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Provide ordinance restricting illicit discharges
Schedules:
Maintain current illicit discharge ordinance
Evaluation Method:
The effectiveness of the illicit discharge ordinance is measured by the amount of time it is codified.

Illicit discharges in Hastings are not tolerated. On September 6, 2011 an illicit discharge ordinance became in effect. The ordinance includes:

1) Prohibition of Illicit Discharges
2) Prohibition of Illicit Connections
3) Discharge Prevention
4) Industrial Activity Discharges
5) Notification of Spills
6) Access to Facilities
7) Enforcement

City Ordinance 152.09 Illicit Discharges and Connections can be located on the City's website: http://www.hastingsmn.gov/city-government/city-charter-ordinances

APPENDIX D1
Training
2007-2021

Target Audience:
City of Hastings Employees
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
The City of Hastings is committed to training their employees in the knowledge and practice of storm water quality. Training can be broken down into several different categories:

1) Erosion & Sediment Control
2) Illicit Discharge & Detection
3) Hazardous Material Handling & Disposal
4) Road Salt Application
5) Pesticides, Herbicides, and Fertilizers
6) Pet Waste
7) General Storm Water

Generally speaking, training comes through the following formats:

1) MNDOT Certifications
2) U of M Stormwater U Workshops
3) MECA
4) MPCA Smart Salting Certification Program (Level 1 & II)
5) CEAM Conference
6) APWA Conference
7) In House Training Schedules
8) Misc/Various Training

Schedules:
Train to maintain applicable certifications, keep knowledge sharp, and meet permit requirements (ie. UofM SWPPP Design Certification once every 3 years – Section 19.11). Training materials and documentation were developed to meet the 2020 MS4 Permit requirements and instilled by the November 2022 deadline.

Evaluation Method:
The effectiveness of the training is measured by City employee attendance in training sessions that are needed to meet the permit requirements. City employees who spend time in the field (partial or full) as well as perform plan reviews require training. Training is designed to be commensurate with the employees depth and scope of their job description as it relates to these required topics. The City maintains a spreadsheet to ensure the 2020 MS4 permit requirements for training are adhered to:

1) Section 18.8 - Illicit Discharge Recognition (1 time per year)
    a. Internal Training: Public Works, Engineering (1 time per year)
    b. Internal Training: Parks, Building, Planning, Police, Fire, Building Facility Manager (1 time per 5 years)

2) Section 19.11 - Construction Site Runoff Control (1 time per 3 years)
    a. External Training: Engineering (1 time per 3 years)
    b. Internal Training: Parks, Building, Planning, Police, Fire, Building Facility Manager, Public Works, Engineering (1 time per 5 years)
3) Section 20.18 - Post Construction Stormwater Management (1 time per 3 years)
    a. External Training: Engineering (1 time per 3 years)
    b. Internal Training: Parks, Building, Planning, Police, Fire, Building Facility Manager, Public Works, Engineering (1 time per 5 years)
4) Section 21.7 - Winter Maintenance Activities Smart Salt Training (1 time per 5 years, annually review)
    a. External Training: Level 1 MPCA Smart Salting Certifications Roads – Public Works (1 time per 5 years)
    b. External Training: Level 1 MPCA Smart Salting Certifications Parking Lots & Sidewalks – Public Works (1) and Parks (1) (1 time per 5 years)
    c. External Training: Level 2 MPCA Smart Salting Certification City of Hastings (1 time per 2 years)
    d. Internal Training: Reduce Salt Use – Public Works, Parks, Building Facilities Manager (1 time per 5 years)
5) Section 21.12 - Importance of Water Quality (1 time per 5 years)
    a. Internal Training: Parks, Building, Planning, Police, Fire, Building Facility Manager, Public Works, Engineering (1 time per 5 years)

Construction project inspectors who are active in the field are properly trained. These inspectors are expected to possess the adequate amount of knowledge necessary to maximize the minimization of sediment transportation. Training comes in a myriad of ways. They include:

1) Erosion & Sediment Control (Engineering)
    a) MNDOT Certifications
        1) Site Management/Erosion & Sediment Control
        2) Construction Installer
        3) Design of Construction SWPPPs

    b) U of M Stormwater U Workshops
        1) Stormwater Pond Management: Visual Inspection
        2) Pond Management: Easement & Vegetation Maintenance

    c) MECA
        1) MECA Erosion & Sediment Control Seminar
        2) MECA Design, Construction & Maintenance of Permanent EC Facilities
        3) MECA Erosion & Sediment Control Seminar

    d) Misc/Various Training
        1) Best Management Practice Assessment
        2) Building Lot Erosion & Sediment Control Seminar
        3) Building Lot Erosion & Sediment Control: BMPs Field Seminar

4) MN Spring Maintenance Expo
5) Roadside Vegetation BMPs
6) Site Plans, SWPPP Reviews, Checklists & Enforcement – MECA
7) Improving MS4 Compliance Workshop

2) Illicit Discharge & Detection (Public Works, Engineering, Parks, Building, Police, Fire)
    a) U of M Stormwater U Workshops
        1) Stormwater Pond Management: Visual Inspection

    b) Spill Prevention and Control Insuring a Safer World
        1) On May 19, 2014, Public Works employees and the Assistant City Engineer watched a 16 minute training video on spill prevention control and countermeasures to protect waterways and shorelines.

    c) Misc/Various Training
        1) EXCAL Visual
        In April, 2008, City staff reviewed a training video produced by "Excal Visual" aimed at training City employees with the proper methods and procedures of dealing with illicit discharges, spills, vehicle washing, good housekeeping, etc. Upon rigorous review, it was decided that with all fairness to the video, the benefit to cost ratio of the product did not significantly increase, nor adversely affect, the City's awareness and practice of protecting the environment and water quality. It was determined the City's adequate practice and past training/knowledge sufficiently met the SWPPP's training requirement. In subsequent years, City staff has kept an eye on Excal Visual's training materials and associated costs.

    d) WSB University
        1) Illicit Discharge Response – 12/3/15 - Assistant City Engineer

    e) You Tube Videos (Parks, Public Works, Engineering, Building, Planning, Police, Fire, Building Facilities Manager)
        1) Stormwater Training Series: Illicit Discharge Detection & Elimination – March 2022

3) Hazardous Material Handling & Disposal (Public Works, Parks)
    a) Misc./Various Training
        1) EXCAL Visual
        In April, 2008, City staff reviewed a training video produced by "Excal Visual" aimed at training City employees with the proper methods and procedures of dealing with illicit discharges, spills, vehicle washing, good housekeeping, etc. Upon rigorous review, it was decided that with all fairness to the video, the benefit to cost ratio of the product did not significantly increase, nor adversely affect, the City's awareness and practice of protecting the environment and water

quality. It was determined the City's adequate practice and past training/knowledge sufficiently met the SWPPP's training requirement. In subsequent years, City staff has kept an eye on Excal Visual's training materials and associated costs.

2) Chemical Spills
   Public Works and Assistant City Engineer watched a 0.25 hour training video that discussed spill prevention inspections through spill cleanup techniques (5/19/14)
3) Safe Use Handling
4) Storage of Paint Thinners

4) Road Salt Application (Public Works)
   a) APWA Conference
      1) Water Re-Use: Opportunities & Issues for Stormwater & Big Design
      2) Smart Snow & Ice Control Program
         Local City discussed how it achieved lower application rates in 2010 and ways it will strive to reduce the rates even more in future years.
      3) Management, Liquid Chemical Applications, Technology for Winter
   b) Misc/Various Training
      1) Road Salt Applicator Training
         Road salt applicator training was designed by the MPCA to train and encourage snow plow drivers to minimize road salt usage while yet maintaining safe driving conditions. The reduction of the pollutant promises to reduce chloride impairment in local ponds, wetlands, and streams. During the fall of 2008, 16 Public Works staff attended and successfully passed the course examination to become certified road salt applicators and have an opportunity to hone their knowledge and skills on every subsequent snowfall event. A MN Snow & Ice Field handbook was made available for snowplow operators. Certification is valid through 7/1/16. Training records can be found on the MPCA's website: http://www.pca.state.mn.us/index.php/about-mpca/mpca-events-and-training/road-salt-education-program.html

      2) Force America
         Hastings is continually researching ways to reduce the amount of salt that is distributed on roadways after each snow event. In 2012, Supervisors teamed with Force America to provide GPS units on four snow plows. The technology helps drivers look back on their plowing route and see their salt usage "in real time" to help determine areas where too much salt was dumped.

c) MPCA Certifications

1) Level 1 Smart Salt Certification Program - Roads (1 time per 5 years)
The MPCA program is designed for snow plow drivers to help reduce salt usage.
3/4/21 – Five PW Operators completed training.
2/16/22 – Nine PW Operators/Engineering Technicians completed training.

2) Level 1 Smart Salt Certification Program – Parking Lots & Sidewalks (1 time per 5 years)
The MPCA program is designed for maintenance workers to help reduce salt usage when salting around buildings and within parking lots.
2/23/22 – PW (1) and Parks (1) completed the training.

3) Level 2 Smart Salt Certification Program – City of Hastings (1 time per 2 years)
The MPCA program is designed to help an organization assess their salt management practices to help reduced salt usage.
3/23/21 – Public Works Superintendent completed the Certification for the City of Hastings with the help of the Assistant City Engineer and Public Works Senior Operator. The Public Works Maintenance Supervisor assumes future role in the program beginning in 2022.

5) Pesticides, Herbicides, and Fertilizers
   a) Misc./Various Training
      1) Pesticide Recertification (Parks & PW) – Operators take this once every two years.
      2) MN Turf & Ornamental Pesticide Applicator Training (Parks)
      3) MN Dept of Agriculture: Non-Commercial Pesticide Applicator training (PW Operators – 4 operators as of 2014 and sending 1-2 more operators per year until all operators have received it)
   b) Fertilizer Application Rates
      1) Utilized Source Water Grant to install Lysimeters to help self-train City employees on proper application rates. (Parks)

6) Pet Waste
   a) You Tube (Parks)
      1) Minnehaha Creek Watershed District – March 2022

7) General Storm Water (Engineering, Parks)
   a) UofM Stormwater U Workshops
      1) Designing for Volume Control in South Metro
      2) Designing Volume Control in East Metro
      3) Underground Stormwater Treatment & Rain Harvesting Systems

4) Illicit Discharge Management (IDDE)

b) APWA Conference

1) Maintenance, Stormwater BMPs
2) Porous and Pervious Pavements
3) Green Fleets, Alternate Fuels, Hybrid Electric Vehicle Technology, Fuel
4) Modeling for TMDL/MS4 Compliance
5) MN Water Situation from Contamination to Conservation

c) CEAM Conference

1) Innovative Stormwater Management to Address New Regulations
2) Innovative Management Tools-Using GIS in Stormwater
3) Stormwater-TMDL Implementation
4) New Rules for Wetlands (MPCA)
5) Pond Maintenance Program
6) The New MS4 Permit
7) Groundwater Management, Water Supply Trends, Aquifer Storage & Recovery, and Drought Planning
8) Metro Area Groundwater Sustainability and Response at the Local Level

d)PWX APWA National Conference

1) Permeable Pavers Streets in Midwest

e)MECA Confereence

1) Managing MS4 Programs

f)Webinars

1) Maximizing Stormwater BMPs for Phosphorus Removal

g)You Tube (Parks, Public Works, Engineering, Building, Planning, Police, Fire, Building Facilities Manager)

1) MN Stormwater Manual: What is Stormwater – March 2022
2) MN Stormwater Manual: What can we do – March 2022
3) UofM Training: Erosion & Sediment Control: Water Quality Regulation Overview – March 2022
4) UofM Training: Construction Stormwater Permit – March 2022
5) UofM Training: BMP Silt Fence – March 2022

g) Misc./Various Training

a) Bioretention Systems: The “Dirt” on Soils, Water, and Infiltration
b) PAH, Pond Sediment & Contamination, Pond Dredging
c) Underground Stormwater Treatment Devices
d) Stormwater Management Facilities as a Community Amenity

e) Regional Water Planning
f) Embrace Open Space (Water Quality Protection)
g) MN Shade Tree Course (Urban Forestry and Water Quality)
h) How to Survive an MS4 Audit
i) MN Stormwater Manual Update

Complete training records are available upon request.

APPENDIX D2
Site Plan Review
2007-2021

Target Audience:
City Engineering Department, contractors, builders, developers
Responsible Persons for Implementation:
City Engineer: Site Plan Review
Assistant City Engineer: Site Plan Review, Reporting
Principal Engineer: Reconstruction Project
Activities to Reach Goals:
Implement and enforce water quality and erosion control regulations to land disturbing activities. The City promptly reviews all development and re-development projects to verify the sites conform to NPDES Phase II permit guidelines, Vermillion River Watershed rules, city ordinances, construction specifications, Public Works Design Manual, Builders Handbook, and standard plates.
Schedules:
Site plan reviews for storm water management are conducted per approval standards described in City Ordinance 152 Storm Water Management. The ordinance can be found on the City's website in the following location:
http://www.hastingsmn.gov/city-government/city-charter-ordinances

Evaluation Method:
The effectiveness of the site plan reviews will be measured by the number of site plan reviews per the standards of the State, Watershed, and City.

The City encourages development and re-development but recognizes the responsibility of the owner to maintain the integrity of the natural resources in the process. Projects requiring development reviews must accompany an erosion and sediment control plan in accordance with the NPDES Phase II permit guidelines, Vermillion River Watershed rules, city ordinances, construction specifications, Public Works Design Manual, Builders Handbook, and standard plates. Site plan reviews are performed in a number of ways:

Reconstruction Projects

The Engineering Department under the direction of the City Engineer and Principal Engineer prepares the annual reconstruction program plans and specifications. A construction SWPPP is prepared by the Principal Engineer or Assistant City Engineer.

2006	3rd Street Area Improvements	1.54 miles
2007	5th Street Area Improvements	1.74 miles
2008	North Vermillion Area Improvements	1.69 miles
2009	Industrial Park Area Improvements	1.13 miles
2010	Infrastructure Improvements	2.34 miles
2011	Infrastructure Improvements	3.66 miles
2012	Infrastructure Improvements	1.60 miles
2013	10th St & Progress Dr Improvements	1.30 miles
2013	18th St / TH 291 Improvements	1.18 miles
2014	Infrastructure Improvements	1.94 miles
2015	Infrastructure Improvements	0.61 miles
2016	Infrastructure Improvements	0.77 miles
2017	Infrastructure Improvements	0.75 miles
2018	Infrastructure Improvements	1.49 miles
2019	Infrastructure Improvements	3.44 miles
2020	Infrastructure Improvements	1.86 miles
2021	Hwy 316 Reconstruction Project	1.35 miles
2021	15th St Infrastructure Improvements Phase II	0.93 miles
2022	Infrastructure Improvements	2.54 miles

Subdivision
Site Designs are currently being reviewed by the City Engineer or Assistant City Engineer

2008	Vermillion Shores Apartments
2014	South Pointe
2015	Wallin 16th Phase I
2015-2016	South Pines 8th
2016-2019	South Oaks 4th
2017-2019	Voyageur Estates Apartments
2018	Wallin 16th Phase II
2018-2019	South Pines 9th
2019	Vermillion Shores Apartments
2019-2020	Schoolhouse Square
2020-2021	Heritage Ridge 1st Addn
2020-2021	Villas at Pleasant Dr
2020-2021	Wallin 18th (Sanitary Sewer only)
2021	Heritage Ridge 2nd Addn
2021	Wallin 19th Addn
2022	Heritage Ridge 3rd Addn
2022	Vermillion Acres Senior Living
2022	Schoolhouse Square Senior Apts – The Quill
2022	County Crossroads Apartments
2022	Flats on 3rd Luxury Apartments
2023	Heritage Ridge 4th Addn

Commercial

Site Designs are currently being reviewed by the City Engineer or Assistant City Engineer

2011	Carlson Office Building
2011	Grotjohn Storage Buildings
2011	Extreme Sandbox
2012	St Phillips Church
2012	Hastings Middle School
2012	CDJ Carwash
2012	Block 16 Parking Lot
2013	Las Margaritas
2013	First National Bank
2013	Hastings Middle School (north lot)
2014	CVS
2014	Millner Chiropratic
2014	Autozone
2015	Kwik Trip
2016	YMCA
2016	Artspace
2016-2017	Allina (Dakota Summit 3rd)
2016-2018	Great Rivers Landing
2017	Crossfit
2017-2018	Caturi Funeral Home
2018	Medical Office Blg – Whispering Aspen
2018-2019	United Methodist Church
2018-2019	McNamara Field & Blg Improvements
2018-2019	Confluence Parking Structure
2019-2021	Confluence
2020	Creek Rentals (Smurawa)
2021	Creek Rentals2 (Smurawa)
2021	Quality One Woodworking
2021	Custom Sawdust
2022	Jersey Mikes

Residential

Individual residential permits are reviewed by the Assistant City Engineer.

YEAR	SINGLE FAMILY	TOWNHOME	APARTMENT
2007	9	11 (54 units)	1 (66 units)
2008	6	2 (4 units)	1 (36 units)
2009	9	2 (3 units)	0
2010	4	0	0
2011	20	1 (2 units)	0
2012	39	0	0
2013	41	0	0
2014	42	0	0
2015	21	0	0
2016	22	0	0
2017	29	0	0
2018	15	0	0
2019	14	0	1 (60 units)
2020	21	0	0
2021	34	0	1 (90 units)
2022			

Century South 2nd Addition	2011
Eastenders	2017
Featherstone Oaks Addition	2013
Glendale Heights 3rd Addition	2013-2014
Heritage Ridge 1st Addition	2020-2021
Heritage Ridge 2nd Addition	2021-2022
Heritage Ridge 3rd Addition	2022-2023
Heritage Ridge 4th Addition	2023-2024
Riverwood 8th – 12th Addition	2013-2017
Sontag's 2nd Addition	2013
South Oaks 2nd – 3rd Addition	2013
South Oaks 4th Addition	2016-2018
South Pines 6th – 7th Addition	2013
South Pines 8th Addition	2014-2018
South Pines 9th Addition	2019-2020
South Pointe Addition	2015-2017
Vermillion Shores Apartments	2019
Villas at Pleasant	2021-2023
Voyageur Estate Apartments	2019
Wallin 9th-10th, 12th, 15th Additions	2013-2018
Wallin 16th Addition	2014-2018
Wallin 19th Addition	2022
Random Custom Graded Lots	2011-present

Maintenance
Project Managers are either City Engineer, Assistant City Engineer, or Principal Engineer

2016	MN Veterans Home Sanitary Sewer Reconstruction & Rehab
2018	Vermillion River Sediment Removal Project

Other

Project Managers are either City Engineer, Assistant City Engineer, or Principal Engineer

2006	Commerce Drive Improvements
2008	Downtown Street & Watermain Improvements
2009	Three Rivers Stormwater Diversion
2012	Block 16 Parking Lot
2012	Vermillion Trail & Underpass Connection
2014	Riverfront Renaissance Phase I
2015	Riverfront Renaissance Phase II
2016	Riverfront Renaissance Phase III
2016	Vermillion River Greenway Trail Connection
2020	21st St Water Quality Improvement Project

APPENDIX D3
Construction Site Runoff Control, Written Procedures, ERPs
2007-2021

Target Audience:

Contractors, developers, builders

Responsible Persons for Implementation:

1) MSA Professional Services/Focus Engineering/Other: Erosion and Sediment Control Inspector (Commercial)
2) Engineering Technician: Erosion and Sediment Control Inspector, Enforcement (Residential, Reconstruction Projects, Commercial)
3) Assistant City Engineer: Reporting, Enforcement
4) City Engineer: Enforcement

Activities to Reach Goals:

The City promptly performs site visits to all active construction sites conforming to NPDES Phase II permit guidelines, construction specifications, and standard plates to implement and enforce:

1) Erosion and sediment control regulations to land disturbing activities.
2) Waste controls that may cause adverse impacts to water quality. All waste, including discarded building materials, concrete truck washout, chemicals, litter and sanitary waste must be properly disposed of off-site and prevented from being carried by wind or runoff into a receiving channel or storm sewer system.

Schedules:

Inspections are conducted often daily, but at a minimum of, once every seven days during the active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. Silt fence, inlet protection, construction entrances, and/or other suitable perimeter erosion control measures are required to be installed prior to the start of any grading or land disturbing activity. Street sweeping is also a required practice as the situation dictates. The frequency of inspection, speed of resolving non-compliance and severity of enforcement will be determined by whether or not a site is of high priority or of lower "average" priority. Higher priority sites are considered, by the Engineer/Inspector, above and beyond the average typical site whereas they are loosely defined as those with a higher known level of environmental impact or are directly discharging water to a high quality water of the state. These sites tagged high priority may include:

1) A waterbody with an approved TMDL running through the project, or discharging water directly to it. https://stormwater.pca.state.mn.us/index.php/Forms_and_guidance_for_TMDLs
2) A waterbody listed within the City's Water Management Plan as "High Quality Wetland" (see Figure 3-9)
3) Land area within the 1 year capture zone of the Wellhead Protection Area.

In the opinion of the Engineer/Inspector, a site may receive an increase in inspection frequency based on the factors listed within Appendix D3. Whereas, a site may receive a reduced inspection frequency based on the factors listed within Appendix D3.

Evaluation Method:

The effectiveness of the construction projects will be measured by the number of compliant construction sites. Written procedures have been established to utilize existing documentation framework to coordinate public input. Failure to generate satisfactory compliance implements applicable Enforcement Response Procedures (ERPs). This program will be re-evaluated annually to ensure sites are adequately held in compliance.

The City encourages development, re-development, and reconstruction but recognizes the responsibility of the owner to maintain the integrity of the natural resources in the process. Projects requiring development reviews must accompany an erosion and sediment control plan in accordance with the NPDES Phase II permit guidelines, Builders Handbook, and City Ordinance. Until performing the work in house in 2011, the City contracted out the engineering development plan review to MSA Professional Services, formally known as BDM Consulting, Inc. Presently, erosion control site visits are performed by qualified erosion and sediment control inspectors in a number of ways:

1) Commercial:

   Once a project is approved, the site inspections are performed by a qualified erosion and sediment control inspector internally or from MSA Professional Services/Focus Engineering/Other. The inspector is responsible for providing inspection notes on erosion and sediment control. The City erosion and sediment control inspector serves as an unofficial second pair of eyes on projects. For projects over an acre, the City requires a Construction Inspection Checklist be submitted weekly to the City. Typically, the contractor chooses to the utilize the MPCA checklist found at the following location:
   http://www.pca.state.mn.us/index.php/view-document.html?gid=20686
   The inspection notes documenting the inspections and enforcement actions for each project are available upon request.

   For annual project listings please see Appendix D2.

2) Residential:

   Once a house Certificate of Survey is approved, the City erosion and sediment control inspector inspects the site to make sure all BMPs are in place. And follow-up inspects the site per the aforementioned schedule. The inspector maintains good communication links through phone and email to maintain compliance. The inspection log documents the results of the inspections (requiring communication with the builder/owner) and enforcement actions for each project. The inspection log is available upon request.

   For annual project listings please see Appendix D2.

3) Subdivision

Once a project is approved, the site inspections are performed by a qualified erosion and sediment control inspector internally or from MSA Professional Services/Focus Engineering/Other. The inspector is responsible for providing inspection notes on erosion and sediment control. The City erosion and sediment control inspector serves as an unofficial second pair of eyes on projects. For projects over an acre, the City requires a Construction Inspection Checklist be submitted weekly to the City. Typically, the contractor chooses to the utilize the MPCA checklist found at the following location:
http://www.pca.state.mn.us/index.php/view-document.html?gid=20686

The inspection notes documenting the inspections and enforcement actions for each project are available upon request.

For annual project listings please see Appendix D2.

4) Reconstruction Projects

Once a reconstruction project is approved through City Council, the City Engineering Technicians under the oversight of the Principal Engineer maintain daily field notes, including notes pertaining to erosion and sediment control issues. The City works closely with the contractor's foreman and project supervisor to maintain a stable work site. The City requires a Construction Inspection Checklist be submitted weekly to the City. Typically, the contractor chooses to the utilize the MPCA checklist found at the following location:
http://www.pca.state.mn.us/index.php/view-document.html?gid=20686
The inspection notes documenting the inspections and enforcement actions for each project are available upon request.

For annual project listings please see Appendix D2 and H1.

5) Maintenance Projects

Once a project is approved, the City erosion and sediment control inspector inspects the site and/or project manages to make sure all BMPs are in place. The inspector maintains good communication links through phone and email to maintain compliance. The inspection log documenting the results of the inspections and enforcement actions for each project is available upon request.

For annual project listings please see Appendix D2.

The City values public input on stormwater related issues. Written procedures are required in Section 19.10 of the MS4 SWPPP permit to ensure the publics concerns of stormwater related areas are addressed. An average construction project will generate public input through a number of ways. Some ways may include:

1) On-site inspector (In person or phone call)
2) City Offices (Stop by or phone call)
3) City Website (Stormwater page)
4) Facebook (Response to posting)
5) Public Works Duty Phone (After hours contact)

The City takes seriously the concerns of the public and aims to respond to their questions within a reasonable timeframe and by the end of the same day if possible. Understanding typical concerns, the City has established a number of ways to "get out in front of issues" and communicate with residents. Outreach efforts may include:

1) On-site inspector
2) Project Mailings
3) Hand deliver informational door hanger
4) Construction updates
5) Facebook
6) Email Listserve
7) Nixle Test Messaging
8) Twitter
9) City Website
10) On-site Mailbox for Construction Updates

Routine storm water related requests are often taken care of immediately and not necessarily documented outside of the typical documentation practices. These practices may include:

1) Updating Construction SWPPP.
2) Weekly Erosion Control Inspection Reports
3) Daily Construction Reports
4) Erosion Control Inspections Logs

Storm water related requests on a construction site that are deemed routine include such items as:

1) Sweeping due to vehicle tracking
2) Cleaning plugged erosion control on a catch basin or inlet.
3) Cleaning out catch basin inverts after its/nearby construction.
4) Addressing drainage concerns from adjacent properties.

A key component for successful seamless compliance with storm water related requests is built on unwavering communications with the contractor through:

1) Daily communication with on-site Inspector / Project Engineer.
2) Weekly project management meetings

In the event of an unresolved issue, Enforcement Response Procedures (ERPs) are enacted when a site is found non-compliant. The enforcement action is executed by the discretion of an appropriately trained Engineer/Inspector and prioritized based on:

1) Site topography
2) Soil characteristics
3) Type of receiving water
4) Stage of construction
5) Compliance history
6) Weather conditions
7) Severity of non-compliance

Enforcement action applied may include:

1) Verbal warning
2) 48 Hour Correction Notice: Erosion & Sediment Control Site Inspection Form
3) Stop work order
4) Withholding of Temporary Certificate of Occupancy (TCO)
5) Withholding of Certificate of Occupancy (CO).

ERPs may be documented within any one of the typical documentation practices listed above. The Erosion Control Inspection Log will be the formal location for documenting non-routine construction resolution, per Section 19.15 of the MS4 Permit. However, the other forms of documentation are still acceptable and will likely be used to a much greater extent. In the fast paced reconstruction/development world, minimizing multiple documentation efforts is critical to being able to expound one's stretched resources and efforts into solving the actual problem. As, revisions to the SWPPP, Weekly Inspection Reports, and Daily Construction Reports are already being used on a daily basis. And note, an ERP relating to Illicit Discharge has its own separate log and documentation (See Appendix D6). For post-construction ERPs, see Appendix C1.

The intent of the ERP is to bring the construction site into compliance as quickly as reasonably possible and to move forward with a mutual understanding of the importance of compliance.

The City conducted its annual assessment of the program this year and brought it up to compliance with the November 16, 2020 MS4 Permit requirements. The City will continue to run the program and look for ways to improve the program in the coming years.

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Construction Stormwater Inspection Checklist

Construction Stormwater Program

Doc Type: Permitting Checklist

Note: This inspection report does not address all aspects of the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater permit (Permit) issued on August 1, 2013. The completion of this checklist does not guarantee that all permit requirements are in compliance; it is the responsibility of the Permittee(s) to read and understand the permit requirements.

Facility Information

Site name: _____

Facility address: _____ Permit number: _____

City: _____ State: _____ Zip code: _____

Inspection Information

Inspector name: _____ Phone number: _____

Date (mm/dd/yyyy): _____ Time: _____ ☐ am ☐ pm

Is the inspector certified in sediment and erosion control and it is documented in the Stormwater Pollution Prevention Plan (SWPPP)? ☐ Yes ☐ No

Is this inspection routine or in response to a storm event: _____

Rainfall amount (if applicable): _____

Is site within one aerial mile of special or impaired water? ☐ Yes ☐ No

If yes, follow Appendix A and other applicable permit requirements.

Note: If NA is selected at any time, specify **why** in the comment area for that section.

Erosion Control Requirement (Part IV.B)

	Yes	No	NA
1. Soil stabilization where no construction activity for 14 days? (7 days were applicable)	☐	☐	☐
2. Has the need to disturb steep slopes been minimized?	☐	☐	☐
3. All ditches stabilized 200' back from point of discharge within 24 hours? (Not mulch)	☐	☐	☐
4. Are there erosion BMP's for onsite stockpiles?	☐	☐	☐
5. Are appropriate BMP's installed protecting inlets/outlets?	☐	☐	☐

Sediment Control Requirement (Part IV.C.)

	Yes	No	NA
1. Perimeter control installed on all down gradient perimeters?	☐	☐	☐
2. Perimeter control trenched in where appropriate?	☐	☐	☐
3. 50 Foot-natural buffer maintained around all surface waters?	☐	☐	☐
If No, have redundant sediment controls been installed?	☐	☐	☐
4. Inlet protection on all catch basins and culvert inlets?	☐	☐	☐
5. Vehicle tracking Best Management Practices (BMPs) at all site exits?	☐	☐	☐
6. All tracked sediment removed within 24 hours?	☐	☐	☐
7. Are all infiltration systems staked and marked to avoid compaction?	☐	☐	☐
8. Are all infiltration areas protected with a pretreatment device?	☐	☐	☐
9. Do all stockpiles have perimeter control?	☐	☐	☐

Comments:

Maintenance-Erosion and Sediment Control BMPs (Part IV.E.)

	Yes	No	NA
1. Are all previously stabilized areas maintaining 90% ground cover?	☐	☐	☐
2. Any ditch erosion observed?	☐	☐	☐
3. Perimeter Control – Has sediment reached one half the height of the device?	☐	☐	☐
4. Are inlet protection devices maintained and functioning properly?	☐	☐	☐

Comments:

Other

	Yes	No	NA
1. Are all materials that can leach pollutants under cover?	☐	☐	☐
2. Has access been restricted to onsite hazardous materials?	☐	☐	☐
3. Does on-site fueling only occur in a contained area?	☐	☐	☐

7. Were any discharges seen during this inspection, sediment, water, or otherwise? ☐ Yes ☐ No

   If yes, state the exact location of all points of discharge. Photograph the discharge and describe the discharge (color, odor, foam, oil sheen, etc). How will it be removed? How did the discharge happen? How much was discharged? How will it be stopped, and how long will it take to stop? Is the discharge going into an adjacent site? Was the discharge a sediment delta? If yes, will the delta be recovered within 7 days?

8. Will a permanent stormwater management system be utilized in this project as required and in accordance with Part III.D of the permit? Describe:

9. Is any dewatering occurring on site? ☐ Yes ☐ No

   If yes, where? What BMP is being used? How much water is being dewatered? Is the water clear? Where is the water being discharged to?

10. Is a copy of the SWPPP located on the construction site? ☐ Yes ☐ No
11. Has the SWPPP been followed and implemented on site? ☐ Yes ☐ No
12. Is a sedimentation basin required for this project as specified in the permit? ☐ Yes ☐ No

    If yes, are they maintained as specified in the permit? ☐ Yes ☐ No
13. Is the topsoil on this project being preserved? ☐ Yes ☐ No

    If yes, explain how the topsoil is being preserved. If not, explain why it was infeasible.

14. Are all infiltration systems marked to avoid compaction? ☐ Yes ☐ No

    Do all infiltration areas have pretreatment devices? ☐ Yes ☐ No
15. Description of areas of non-compliance noted during the inspection, required corrective actions, and recommended date of completion of corrective actions:

16. Proposed amendments to the SWPPP:

18. Additional comments:

Disclosures:

- After discovery, the permit requires many of the deficiencies that may be found in this checklist be corrected within a specified period of time. See permit for more details.
- This inspection checklist is an option for small construction sites. Large construction sites and linear projects require more extensive/more location specific inspection requirements.
- The Permittee(s) is/are responsible for the inspection and maintenance of temporary and permanent water quality management BMP's as well as erosion prevention and sediment control BMPs until another Permittee has obtained coverage under this Permit according to Part II.B.5., or the project has undergone Final Stabilization and a Notice of Termination has been submitted to the MPCA.

February 19, 2021

Re: City of Hastings Erosion & Sediment Control Requirements

Builders / Contractors,

The new construction season is fast approaching. Accordingly, the City would like to remind you of its long-standing ordinances and expectations regarding construction site management for new home construction. All of these requirements are based on Minnesota Pollution Control Agency regulations and City Ordinances, Chapter 152.

- Street Sweeping: Sediment deposited on the street surface from tracking or runoff is required to be swept upon each occurrence or at the end of the work day on which it has occurred. A pick-up sweep, or equal, must be used on the street surface. A bucket shovel or broom will not suffice.
- Perimeter Erosion and Sediment Controls: Either an effectively working silt fence or a compost log around the perimeter of the site is required to be in place prior to excavation and earth moving activities unless grades legitimately fall back on to the property. Ends of these devices shall use a J-Hook configuration to trap and contain sediment from escaping around the end. These devices are required to be repaired and replaced from time to time to maintain their effectiveness.
- Compost Logs: These devices are required to be completely filled and sized to a minimum of 8" in diameter (per MN Storm Water Manual best management practices). Silt fence must be used in lieu of compost logs when slopes exceed 3:1.
- Stockpiles: Inactive stockpiles are required to be contained by a compost log or silt fence.
- Rock Construction Entrances: An effective washed rock or class 5 entrance is required to be installed and properly maintained throughout the project until the permanent hard surface driveway is installed.
- Inlet Protection: Inlet protection is required to be provided on the first downstream catch basin from the site. These devices are required to be routinely cleaned out to maintain effectiveness.
- Turf Establishment: Seed or sod is required to be placed within 14 days of the final grade inspection.

Engineering Technician Justin Wolfe will continue to perform regular inspections again this year. The "48 Hour Correction Notice" form (see attachment) will be used in coordination with the Building Department to help identify areas that need improvement. Please continue to work with Justin and the Building Department to bring the sites back into compliance. Failure to do so will result in withholding building inspections and stop work orders until the site is brought back up in to compliance.

Please contact me at 651-480-2369 if you have any questions.

Thank you,

John Caven

John Caven, P.E.
Assistant City Engineer

Cc: Building Department
Ryan Stempski, City Engineer

101 4th St E
Hastings, MN 55033

CONSTRUCTION SITE / ADDRESS:

48 Hour Correction Notice

EROSION AND SEDIMENTATION CONTROL SITE INSPECTION FORM

An erosion and sedimentation control inspection was completed on this construction site/address on the date noted below, and a violation of the City Ordinance, Permit and/or approved Erosion and Sedimentation Control Plan was identified as noted herein:

SILT FENCE OR COMPOST LOGS

- ☐ Repair and/or install silt fence/logs on site.
- ☐ Clean sediment deposits that have breached silt fence.
- ☐ Silt fence/logs NOT installed to function properly.
- ☐ Silt fence/logs required around stock piles.
- ☐ Additional silt fence/log installation required.

ROCK CONSTRUCTION ENTRANCE

- ☐ Entrance requires cleaning of silts/soils.
- ☐ Unapproved entrance is in use on the site.
- ☐ Entrance has NOT been installed on this site.
- ☐ NOT installed per Plan or Standard Detail.

INLET PROTECTION

- ☐ Repair and/or re-install inlet protection measures.
- ☐ Replace inlet protection devices
- ☐ NOT installed per Plan or Standard Detail.

STREET CLEANING

- ☐ Street cleaning required for site and/or adjacent street.

OTHER VIOLATION / ADDITIONAL COMMENTS

- ☐ _____

_____

_____

Date of Inspection: _____ By: _____

Re-inspection By: _____ Date Approved: _____

Construction sites found to be in violation must bring the site into compliance within 48 hours from the date of this notice. Building inspections will not continue to be scheduled and/or a Stop Work Order will be issued if the failure has not been corrected within 48 hours of notice.

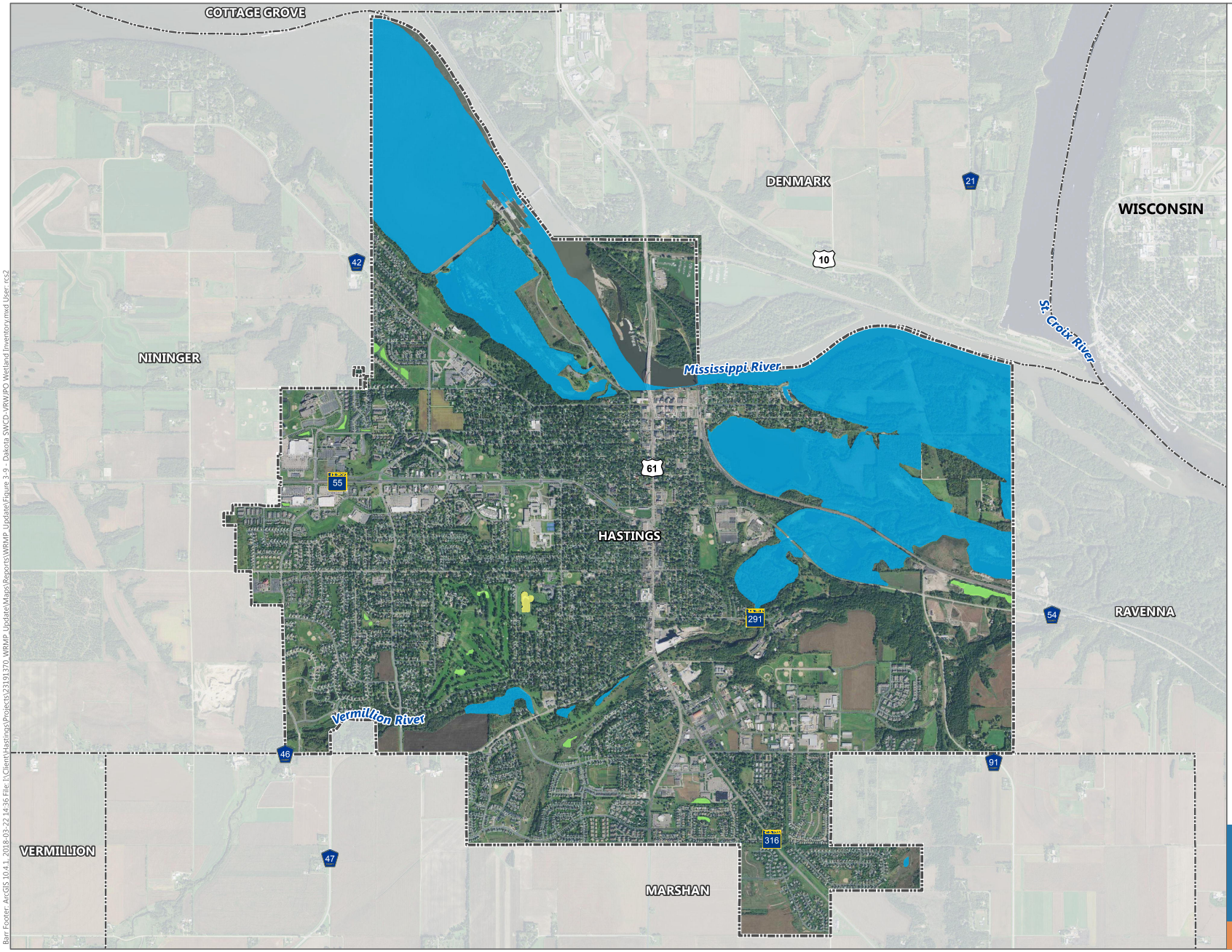
MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

TMDL Master List

Municipal Separate Storm Sewer Systems (MS4)
Total Maximum Daily Load (TMDL), Wasteload Allocations (WLAs)

This table is for reference only and shows ALL waste load allocations assigned to an MS4 and all flow zones, whether they need to be reported on in this application or not. See 'Applicable WLAs determination' tab for oxygen demand, nitrogen, TSS and TP WLAs that need compliance schedules or documentation to demonstrate that the WLAs are being met.

Permittee name	MS4 Permit #	TMDL project name	Waterbody ID	Waterbody name	WLA type	Numeric WLA	Units	Flow Condition	Percent Reduction	Pollutant	Annual/Daily	MPCA Recommended Baseline year	TMDL Approval Date	Notes
Hastings city of	MS400240	Lower Mississippi River Basin-Fecal Coliform TMDL	07040001-692 (previous waterbody ID: 07040001-	Vermillion River	Categorical	8.620	trillions of organisms/mon	Very High	Not Available	Fecal Coliform	Monthly	1988	4/5/2006	
Hastings city of	MS400240	Lower Mississippi River Basin-Fecal Coliform TMDL	07040001-692 (previous waterbody ID: 07040001-	Vermillion River	Categorical	3.090	trillions of organisms/mon	High	Not Available	Fecal Coliform	Monthly	1988	4/5/2006	
Hastings city of	MS400240	Lower Mississippi River Basin-Fecal Coliform TMDL	07040001-692 (previous waterbody ID: 07040001-	Vermillion River	Categorical	1.570	trillions of organisms/mon	Mid	Not Available	Fecal Coliform	Monthly	1988	4/5/2006	
Hastings city of	MS400240	Lower Mississippi River Basin-Fecal Coliform TMDL	07040001-692 (previous waterbody ID: 07040001-	Vermillion River	Categorical	0.300	trillions of organisms/mon	Low	Not Available	Fecal Coliform	Monthly	1988	4/5/2006	
Hastings city of	MS400240	Lower Mississippi River Basin-Fecal Coliform TMDL	07040001-692 (previous waterbody ID: 07040001-	Vermillion River	Categorical	**	trillions of organisms/mon	Very Low	Not Available	Fecal Coliform	Monthly	1988	4/5/2006	
Hastings city of	MS400240	Lower Vermillion River Watershed Turbidity TMDL	07040001-504	Vermillion River	Individual	64.000	kg/day	Not Applicable	0%	TSS	Daily	2000	9/29/2009	
Hastings city of	MS400240	South Metro Mississippi TSS TMDL	07040001-531	Mississippi River	Categorical	154.000	lbs/acre/year	Not Applicable	Not Available	TSS	Annual	Not Applicable	4/26/2016	



Dakota SWCD/VRWJPO Inventoried Wetlands (Wildlife Quality)

- High Quality Wetland
- Medium Quality Wetland
- Low Quality Wetland
- Municipal

Source: Dakota County Soil and Water Conservation District (SWCD) and Vermillion River Watershed Joint Powers Organization (VRWJPO), 2008.

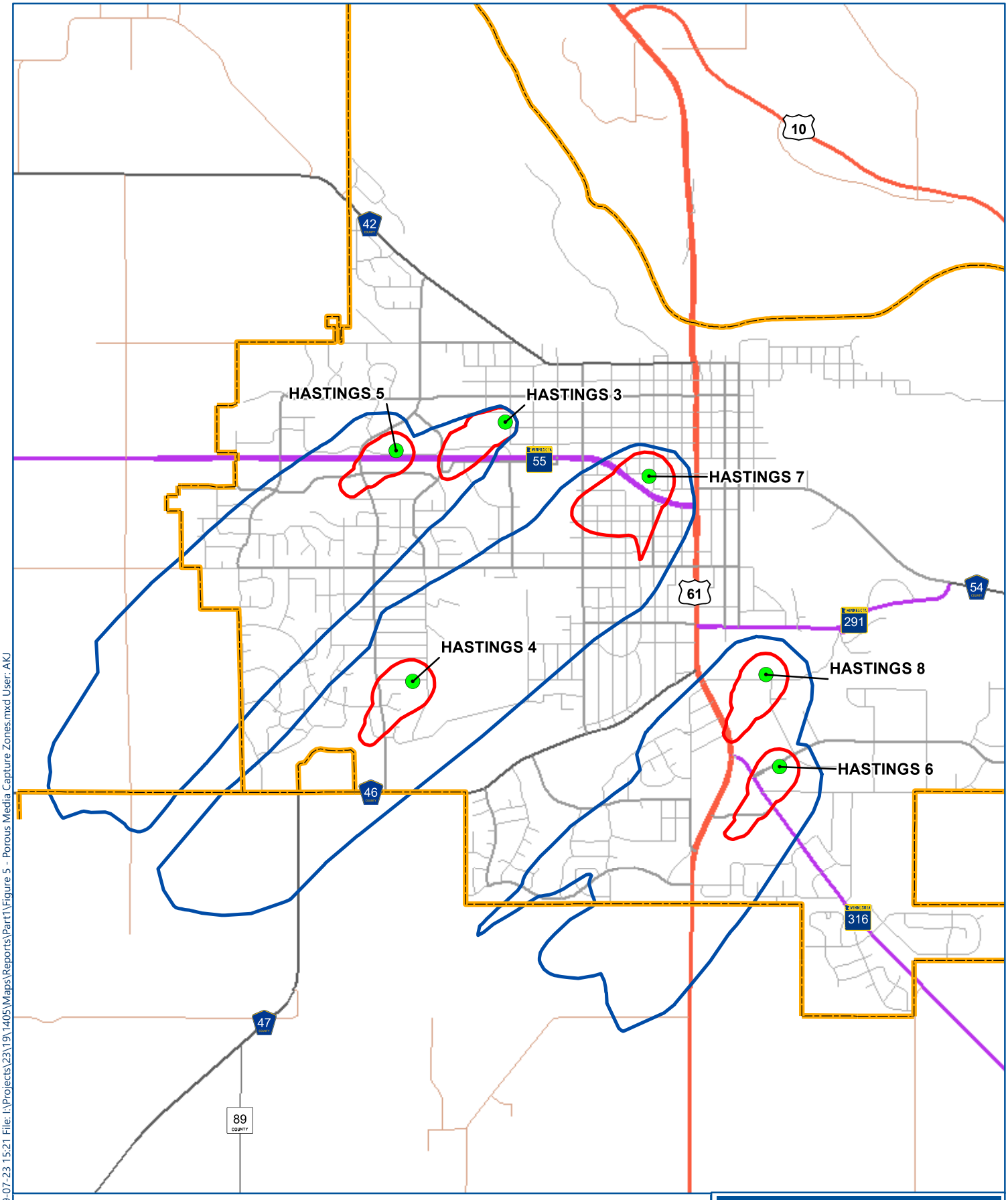
0 1,000 2,000 3,000

Feet

1 inch = 2,600 feet

DAKOTA SWCD/VRWJPO
WETLAND INVENTORY
Water Resources
Management Plan
Hastings, MN

FIGURE 3-9



APPENDIX D4
Illicit Discharge: Website
2007-2021

Target Audience:
General Public
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Provide link on website for the public to contact authorities of an illicit discharge is discovered.
Schedules:
Maintain contact information on website
Evaluation Method:
The City will document the number of illicit discharges investigated during the calendar year.

The City recognizes the need and is committed to maximize the utilization of the City's website as an opportunistic tool to reach many of its 23,000 residents, as well as web-surfers, with an expansive amount of water quality and environmental friendly information. The City has listed within the framework of the website an opportunity for the public to inform the City of any illicit discharge via phone or email:

http://www.hastingsmn.gov/city-government/city-departments/public-works/streets-and-utilities/reporting-illicit-storm-water-runoff

WHERE DO I REPORT AN ILLICIT DISCHARGE?
If you notice that a hazardous waste was not disposed of properly and is in the storm water conveyance system, please contact:
Non-Emergency
City of Hastings Email: publicworksdept@hastingsmn.gov
Emergency
If there is an immediate threat to life or property, call 911 first…otherwise
City of Hastings Duty Phone: 651.248.3271
MN Dept of Safety Duty Officer: 651.649.5451 (Metro) or 1.800.422.0798

The City will document all incoming phone calls and emails. The City anticipates this means of communication to become a more readily used tool in the future as its population gains an increased awareness of storm water quality and the City's website capabilities.

The number of illicit discharges investigated are as follows:

2007 – 0	2012 – 0	2017 – 3
2008 – 2	2013 – 0	2018 – 2
2009 – 2	2014 – 0	2019 – 1
2010 – 0	2015 – 1	2020 - 0
2011 – 1	2016 – 1	2021 - 1

A detailed summary of the illicit discharges and response actions are available upon request. Starting in November, 2014, a Stormwater Illicit Discharge Documentation Form was created to help provide uniform documentation of each illicit discharge. Documentation shall include:

1) Observed violation
    a) Name of responsible party
    b) Date
    c) Location
    d) Description
2) Parties contacted
3) Corrective actions taken (including completion schedule)
4) Enforcement actions taken
    a) Dates
    b) Type (i.e. written notice, citation, stop work order, etc.)
5) Date of violation resolution

After reviewing the Illicit Discharge program this year, the City continues to feel the ordinance, reporting mechanisms, training, ERPs, enforcement, and documentations are in place to successfully handle an illicit discharge. The City is committed to a City-wide team effort to minimize any affects from an illicit discharge.

Stormwater Illicit Discharge Documentation Form

Emergency Contact Information

- *Immediate threat to life or property:* *911*
- *MN Dept of Safety Duty Officer:* *651.649.5451 or 1.800.422.0798*

Date: (When was the discharge reported and when did the discharge first be discharged?)

Problem: (Give background information of alleged discharge)

Location: (Where does the illicit discharge start? Where are the potential discharge points of this discharge?)

Source: (Who was the responsible party?)

Parties Contacted: (Who was contacted to investigate and resolve this issue?)

Actions: (How was the problem resolved?)

APPENDIX D5
Illicit Discharge: Identification of Potential High Risk Discharges
2014-2021

Target Audience:
MS4 SWPPP Coordinator
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Identify parcels or systems that contain high risk discharges.
Schedules:
Enforcement response procedures (ERPs) shall be in effect 12 months after permit coverage has been extended.
Evaluation Method:
Effectiveness of the ERPs is measured by the number of illicit discharges prevented.

Illicit discharges are defined as, "any discharge to an MS4 that is not composed of entirely storm water." Identification of high risk discharges shall be determined by reviewing the City of Hastings zoning map to identify industry, businesses, or private property that produce harmful substances, store significant materials, contain subpar storm water systems, or are located near sensitive waters.

Due to the size and nature of production activities, industry and commercial businesses pose the greatest potential for large scale spills. The Hwy 55, Hwy 61, Hwy 316, and Spiral Blvd corridors house the vast majority of these areas. Zoning listed from areas of greatest concern to least are as follows:

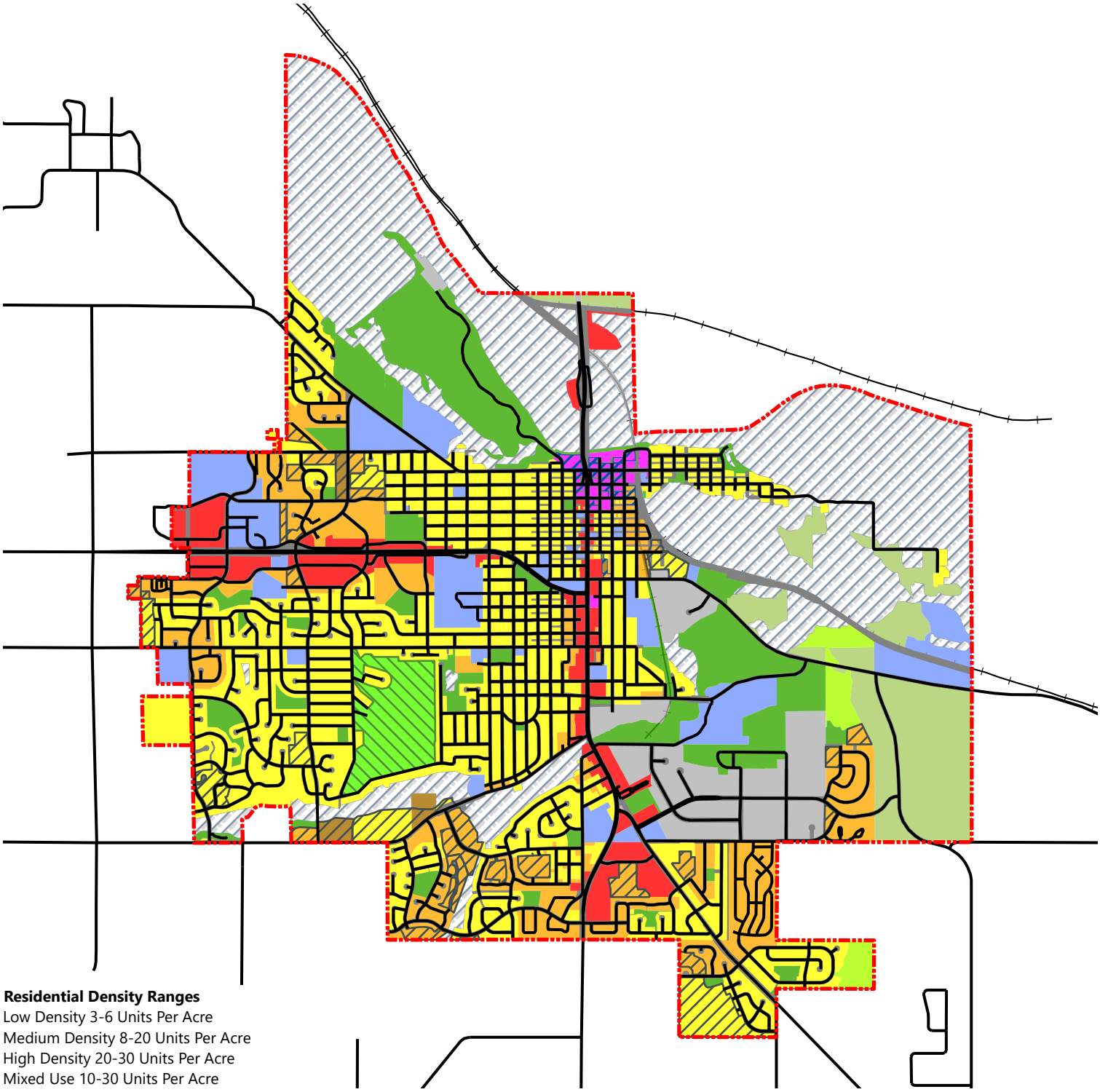
1) I-1 Industrial Park
2) I-2 Industrial Park Storage/Service
3) C-2 Highway Auto-Specialized Commerce
4) C-1General Commerce
5) C-4 Regional Shopping Center
6) C-3 Community Regional Commerce
7) P-1 Public Institution
8) O-1 General Office
9) R-1L Large Lot
10) RMU Residential Mixed Use
11) R-6 Manufactured Home Park Residence
12) R-4 PRD
13) R-4 High Density Residence
14) R-3 PRD
15) R-3 Medium-High Density Residence
16) R-2 Medium Density Residence
17) OHDS
18) R-1 Low Density Residence
19) A Agriculture

Past history with illicit discharges should also be mentioned and included for consideration on prioritizing the list above. Per Appendix D4, up to 3 illicit discharges occur every year in Hastings. The one of greatest concern is the flared end section discharging directly into the Vermillion River on the northeast side of the Vermillion River and Hwy 61 bridge. This location has spurred a flurry of activity in the past and is on the "watch list" for Hastings. The City has added a random quarterly inspection for this high risk location. Inspection results are available upon request.

Section 18.11 of the November 16, 2020 permit requires additional inspection of the areas identified as high risk, to the maximum extent possible. As part of its illicit discharge program, the City will train all field staff to be extra vigilant through the high risk areas. The City will seek ways to increase inspection presence in this area but cannot guarantee its very limited resources. However, an additional checklist item has been included to the Erosion and Sediment Control Inspection checklist for new home construction. The inspector for that program has been trained to "keep their head on a swivel" when performing those duties and document his finding on every site visit. And, as noted in the last paragraph, a new quarterly inspection was added to capture areas known for high risk.

The Hastings Zoning Map is located on the City's website:
https://www.hastingsmn.gov/home/showdocument?id=124

FUTURE LAND USE MAP
Hastings 2040 Comprehensive Plan



Residential Density Ranges
Low Density 3-6 Units Per Acre
Medium Density 8-20 Units Per Acre
High Density 20-30 Units Per Acre
Mixed Use 10-30 Units Per Acre

- Current City Limits
- Floodplain & Wetland Protection
- Agriculture
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Commercial
- Industrial & Utility
- Institutional
- Parks
- Upland Conservation Area
- Golf Course

Forecasted Residential Growth Areas

- New Low Density Residential Growth
- New Medium Density Residential Growth
- New High Density Residential Growth
- Mixed Use Redevelopment
- Upper Story Redvelopment (Commercial on Ground Floor)

Since 1857 Hastings MINNESOTA

0 7501,500 3,000 Feet

N

APPENDIX D6
Illicit Discharge: ERP
2014-2021

Target Audience:
General Public
Responsible Persons for Implementation:
Assistant City Engineer – Documentation
Public Works Operator – Duty Phone & Boots on the Ground
Police/Fire – Traffic control, Public Safety
Activities to Reach Goals:
Ordinance, website, and duty phone information will be updated and be made available for public viewing
Schedules:
Enforcement response procedures (ERPs) shall be in effect 12 months after permit coverage has been extended.
Evaluation Method:
Effectiveness of the ERPs is measured by the number of successful illicit discharges properly handled.

Illicit discharges are defined as, "any discharge to a MS4 that is not composed of entirely storm water." City Ordinance 152.09 "Illicit Discharges and Connections" has been established to assist with the entire process of identification, notification, access, and enforcement of the illicit discharge. http://www.hastingsmn.gov/city-government/city-charter-ordinances

1) Notification/Contacts:

Public: The City has listed within the framework of the website an opportunity for the public to inform the City of any illicit discharge via phone or email. For emergency contact information see Appendix D4.

City Inspections: An Engineering Technician performs visual sump manhole, outfall, pond, and erosion control inspections and documents any illicit discharges found during these inspections. For more information on the inspections see Appendix E1, E2, and E3 and Appendix D3 and D4 for the Illicit Discharge Documentation Form used to document illicit discharges.

Field Staff: All field staff, as defined by Engineering, Public Works, Building, Parks, Police and Fire Departments were trained in recognizing and identifying illicit discharges and who to call in case they see something, see Appendix D1. Raising awareness of the high risk areas as defined in Appendix D5 is a critical piece for field staff.

Televising Sanitary Sewer: The City televises its sanitary sewer and replaces on average of 2 miles of aging sanitary sewer every year. See Appendix G2 for more information.

2) Identification/Locating

   Finding the source of the discharge is of utmost importance. The following tools are available to help locate the source:

   a) Storm Sewer System Map (See Appendix F1)
   b) Hastings Zoning Maps (See City Website) https://www.hastingsmn.gov/home/showdocument?id=124
   c) Sewer cameras (Public Works)
   d) Water Samples (Contact Testing Companies)
   e) Dye Testing (Public Works)

3) Investigating

   Access to facilities is addressed in City Ordinance 152.09(F).

4) Emergency Spill Kits

   An emergency spill kit is housed at the Hydro plant and floor dry is available at any shop operating machinery. MN Dept of Safety Duty Officer 651.649.5451 (Metro) or 1.800.422.0798, see Appendix D4, shall be contacted for spills requiring additional precautions, including to prevent spills from entering the MS4 or a leak as defined by MN Statute 115.061.

5) Enforcement

   Enforcement procedures from notification of spills to source control can be found in City Ordinance 152.09(E&G). Construction sites may first receive an appropriate combination of verbal warnings, stop work orders, and holding of subsequent building permits until problem is resolved. Solutions are to be developed and implemented as quickly as possible to the maximum extent possible based upon the severity of discharge, cost, approvals required, access, weather, and other factors unique to its condition. The general goal of enforcement is to facilitate willful compliance rather than to penalize. The City's Assistant City Engineer will ensure follow through of the enforcement.

6) Follow-up

   The Engineer Technician will perform random follow-up inspections to any site that has violated an illicit discharge.

7) Documentation

   An illicit discharge documentation form is used to help identify emergency contact information and as well as track the date, problem, location, source, parties contacted, and actions taken for each incident. All occurrences are logged for future reference.

The nature of every spill is different. Consideration needs to be given to the material spilled, its location, proximity to the waters of the State, its threat to public health, wealth, and safety to life and property of the individual and community. This needs to be thoroughly vetted. Immediate containment should be the minimum instantaneous goal with subsequent swift proactive actions aimed toward final cleanup, identifying the source and removing the threat. The City is committed to using its available resources, within a reasonable amount of time, to mitigate any future illicit discharge. If the source of the problem is found to be on private property then the property owner will be expected to provide a schedule to fix/solve the issue within a reasonable amount of time.

Stormwater Illicit Discharge Documentation Form

Emergency Contact Information

- *Immediate threat to life or property:* *911*
- *MN Dept of Safety Duty Officer:* *651.649.5451 or 1.800.422.0798*

Date: (When was the discharge reported and when did the discharge first be discharged?)

Problem: (Give background information of alleged discharge)

Location: (Where does the illicit discharge start? Where are the potential discharge points of this discharge?)

Source: (Who was the responsible party?)

Parties Contacted: (Who was contacted to investigate and resolve this issue?)

Actions: (How was the problem resolved?)

Illicit Discharge Log			
Date	Issue	Location	Followup

APPENDIX E1
Sump Manholes
2007-2021

Target Audience:
Sump manholes within City storm sewer system
Responsible Persons for Implementation:
Inspections: Engineering Technician &/or Engineering Intern
Reporting: Assistant City Engineer
Activities to Reach Goals:
Inspect each sump manhole on schedule
Schedules:
Inspect each sump manhole one time per year. Inspections can be skipped one year should the structure be found to have no significant level of silt or debris. Inspections can be increased given a pattern of maintenance or justifiable complaints elevating unnecessary risk. Maintenance lists will be developed and sump manholes cleaned out the same fall of the summer inspection but by no later than one year after the inspection.
Evaluation Method:
The effectiveness of the sump manhole inspection is measured by the number of sump manholes inspected and cleaned.

Annually, the City seeks to inspect and clean its appropriate number of sump manholes on a performance based inspection schedule. Between 2007-2009, the City conducted inspections using a checklist "clipboard" style. Between 2010-2016 the City conducted inspections using a program developed for an in-the-field laptop. Drop down arrows prompted the inspector to rate the characteristics of the sump. Data was later downloaded for analysis upon completion of the inspections. Between 2017-2018 the City researched a far more efficient way to perform inspections. After a two year absence from being able to provide staff resources at completing inspections, the City rolled out the new program in 2019 (to present) that data can be entered real time into a GIS based technology (Survey123) on an IPAD and downloaded with much greater ease. Sump inspections were a COVID-19 casualty in 2020 as resources to perform the inspections were lost due to being financially unable to hire its intern to perform the work. The entire system was immediately inspected in 2021 and set forth on its normal inspection cycle.

Manholes are rated in categories of full, ¾ full, ½ full, ¼ full and minor/negligible full amounts of silt and debris. Manholes identified as ½ full, ¾ full or full are placed on a maintenance list to be cleaned out in the fall by a contractor hired by the City. These manholes will be re-inspected the following year. Manholes identified as ¼ full or minor/negligible full are put on the list to be inspected in two years.

New manholes are periodically added. These manholes commonly are installed during the annual reconstruction program but also are added during development projects or other various stormwater projects. The new manholes are added to the total system and inspected the following year it was installed or accepted by the City. Sump manholes are installed in locations to maximize TSS removal to the benefit of the downstream environment.

Year	# MH Inspected	# MH System	% MH Inspected	# Needs Cleaning	# Cleaned Out	% Needed Cleaning	# New MHs
2007	143	143	100%	34	34	24%	
2008							78
2009	151	221	68%	62	62	41%	39
2010	215	260	83%	20	20	9%	4
2011	201	264	76%	58	58	29%	45
2012	157	309	51%	64	64	41%	47
2013	223	367	61%	92	92	41%	58
2014	292	422	69%	25	25	9%	55
2015	289	477	61%	65	65	22%	5
2016	251	482	52%	73	73	29%	5
2017	0*	487	0%	-	0	-	10
2018	0*	497	0%	-	0	-	10
2019	507	507	100%	152	152	30%	7
2020	0**	514	0%	-	0	-	1
2021	511	515	99%	111	111	22%	11
2022		516					

*Developing new program for documenting inspections

**Limited resources due to COVID-19. Funding for summer intern cut.

In 2022, 122 sump manholes will be inspected. These include the sump manholes from last year's maintenance list plus the newly installed sump manholes installed during the previous year's reconstruction project and development.

Sump manhole inspection forms and sump manhole summary sheets are available upon request. The City has assessed the effectiveness of the program again this year and will continue to inspect and maintain the sump manholes on the same schedule.

APPENDIX E2
Outfalls
2007-2021

Target Audience:
Outfalls within City storm sewer system
Responsible Persons for Implementation:
Inspections: Engineering Technician &/or Engineering Intern
Reporting: Assistant City Engineer
Activities to Reach Goals:
Inspect and maintain each outfall on schedule
Schedules:
Inspect each outfall one time every five years. Maintenance lists will be developed the same fall of the summer inspection but by no later than one year after the inspection.
Evaluation Method:
The effectiveness of the outfall inspection is measured by the number of outfalls inspected and cleaned/repaired.

The City seeks to inspect and clean/repair its appropriate outfalls (flared end sections) a minimum of once every five years. Inspections are typically paced at a rate of 20% every year. Between 2007-2009, the City conducted inspections using a checklist "clipboard" style. Between 2010-2016 the City conducted inspections using a program developed for an in-the-field laptop. Drop down arrows prompted the inspector to rate the characteristics of the outfall. Data was later downloaded for analysis upon completion of the inspections. Between 2017-2018 the City researched a far more efficient way to perform inspections. After a two year absence from being able to provide staff resources at completing inspections, the City rolled out the new program in 2019 (to present) that data can be entered real time into a GIS based technology (Survey123) on an IPAD and downloaded with much greater ease. The number of outfalls typically remains stead with exception to an occasion increase due to a reconstruction project or development project. One digital photo is taken of each outfall per inspection.

Year	# Outfalls Inspected	# Outfalls System	% Outfalls Inspected	# Needs Cleaning	# Cleaned Out	% Needed Cleaning	# New Outfalls
2007	89	410	22%	25	25	28%	0
2008	66	410	16%	3	3	5%	0
2009	93	410	22%	3	3	3%	0
2010	130	410	32%	7	7	5%	0
2011	116	410	28%	11	11	9%	0
2012	81	385*	21%	18	18	22%	0
2013	44	385	11%	1	1	<1%	17
2014	89	402	22%	9	9	10%	0
2015	58	471*	12%	7	7	12%	0
2016	88	471	19%	1	1	<1%	0
2017	0**	471	0%	0	0	0%	0
2018	0**	471	0%	0	0	0%	0

2019	276	471	59%	40	40	15%	1
2020	40	472	9%	4	4	10%	0
2021	77	472	16%	19	19	25%	0
2022		472					

*Definition clarification altered number of outfalls

**Developing new program for documenting inspections

In 2022, another "20%" of the outfalls will be inspected and maintained as necessary.

Outfall inspection forms, summary sheet, and digital photographs are available upon request. The City has assessed the effectiveness of the program again this year and will continue to inspect and maintain the outfalls on the same schedule.

APPENDIX E3
Ponds / Wetlands
2007-2021

Target Audience:
Ponds within City
Responsible Persons for Implementation:
Inspections: Engineering Technician
Reporting: Assistant City Engineer
Activities to Reach Goals:
1) Inspect each pond on schedule
2) Develop and implement procedures and schedule for the purpose of determining the TSS and TP treatment effectiveness of all public ponds. Schedule may exceed beyond this permit cycle.
3) Documentation of any pond sediment removal project.

Schedules:
Inspect each public pond one time every five years. Maintenance lists will be developed and addressed within one year of the inspection. A maintenance schedule shall be developed should it extend beyond one year.

Evaluation Method:
The effectiveness of the pond inspection is measured by the number of ponds inspected.

1) Inspection

The City seeks to inspect its ponds at a minimum of once every five years. Inspections are typically paced at a rate of 20% per year or approximately 6 every year (20%). Between 2007-2009, the City conducted inspections using a checklist "clipboard" style. Between 2010-2018 the City conducted inspections using a program developed for an in-the-field laptop. Drop down arrows prompted the inspector to rate the characteristics of the pond. Data was later downloaded for analysis upon completion of the inspections. The City researched a more efficient way to perform inspections and rolled out a new program in 2019 (to present). The new program, Survey 123, can be entered real time into a GIS based technology on an IPAD and downloaded with much greater ease.

The total number of ponds (30) remains steady with exception of an occasional addition from a reconstruction or development project. Note: Most ponds added are private ponds maintained by a homeowners association or developer. One digital photo is taken of each outfall per inspection and is now housed on the Survey123 platform.

Year	# of Ponds Inspected	% Completed this Year	% Completed in 5 Year Cycle	# New Public Ponds
2021	0	00.0%	66.7%	0
2020	6	19.4%	66.7%	0
2019	6	19.4%	45.2%	0
2018	8	25.8%	25.8%	0

2017	0	00.0%	00.0%	0
2016	11	36.7%	100.0%	0
2015	3	10.0%	63.2%	0
2014	5	16.6%	53.2%	0
2013	6	20.0%	36.6%	1
2012	5	16.6%	16.6%	0
2011	5	17.9%	100.0%	0
2010	4	14.3%	82.2%	0
2009	4	14.3%	67.9%	0
2008	7	25.0%	53.6%	0
2007	8	28.6%	28.6%	0

Most ponds inspected have generally received a favorable inspection. Most ponds contain low amounts of erosion, silt flumes, or storage capacity issues. Ponds found to contain silt built up or erosion issues are put on a maintenance schedule as time, money and resources allow. The severity of the problem and level of urgency is taken into account when formulating the maintenance schedule. Pond inspections that have netted concern include:

Louis Lane Pond (44.728536, -92.866714):

a) In 2013 and again in 2019, the City hired BARR Engineering to survey how much silt is in the pond, how the silt has affected the storage capacity, and identified possible solutions to solve the issue. The pump system was deemed adequate to meeting the storage needs of the pond but the level of silt in the pond will be closely monitored in the coming years. One of the three tests came back contaminated. To date, 0 CY of material has been dredged. Technical memos are available upon request.

South Oaks 4th Regional Pond (44.717491, -92.862093):

a) In 2019, the City worked with a local developer and his Engineer to determine a solution to an erosion problem on the southeast bank of the ponding basin. The City worked with BARR Engineering to engineer a solution and worked with the Developer to find a reasonable solution. The City is currently navigating through solutions to this problem. No tests have been taken of the silt. To date, 0 CY of material has been dredged. Further information is available upon request.

Joint Powers Agreement between the Vermillion River Watershed Joint Powers Organization and the City of Hastings for Vermillion River Direct Drainage Stormwater Treatment Assessment.

a) In 2020-2021, the City worked with the VRWJPO to acquire a $30,000 grant using Watershed Based Initiative Funding (WBIF) from the Minnesota Board of Water and Soil Resources and VRWJPO. In 2022, the City will use the money to hire a consultant to study the drainage area in the City directly discharging to the Vermillion River and identify up to five projects that best improve water quality (TSS, TP). The study shall identify the most needed projects so that the City can proceed with applying for future grants to see these projects through construction.

In 2022, another 6 ponds will be inspected. If serious problems are found, additional inspections may be added as appropriate and subsequent action steps will be taken as time, money, and resources allow.

Pond inspection forms, inspection summary sheet, and digital photographs are available upon request. The City has assessed the effectiveness of the program again this year and will continue to inspect and maintain the ponds on the same schedule.

2) TSS & TP Treatment Effectiveness

Procedures for determining TSS and TP treatment effectiveness for all public ponds will correspond with the availability of inexpensive and reliable testing methods.

a) TSS

A reduction of pond volume will be reviewed through visual inspection conducted within the 5 year inspection cycle. Inspector shall identify any significant flume or erosion within pond. TSS inundation adversely affecting the storage volume of the pond will be put on a maintenance schedule for removal. Pond material large enough to exceed the MPCA's dredging threshold will be tested for PAHs and disposed of properly (see "*Modified Characterization & Permit Approach for Urban Stormwater Ponds*"). Any pond material required to be removed shall minimally include the following documentation:

1) Pond Identification Number
2) Volume of Sediment Removed (CY)
3) Testing Results (if necessary)
4) Location of Final Disposal

Pond Inspections that have netted concern include:

1) Louis Lane Pond:
   In 2013 and again in 2019, the City hired BARR Engineering to survey how much silt is in the pond, how the silt has affected the storage capacity, and identified possible solutions to solve the issue. The pump system was deemed adequate to meeting the storage needs of the pond but the level of silt in the pond will be closely monitored in the coming years.

2) South Oaks 4th Regional Pond:
   In 2019, the City worked with a local developer and his Engineer to determine a solution to an erosion problem on the southeast bank of the ponding basin. The City worked with BARR Engineering to engineer a solution and worked with the Developer to find a reasonable solution. The City is currently navigating through solutions to this problem.

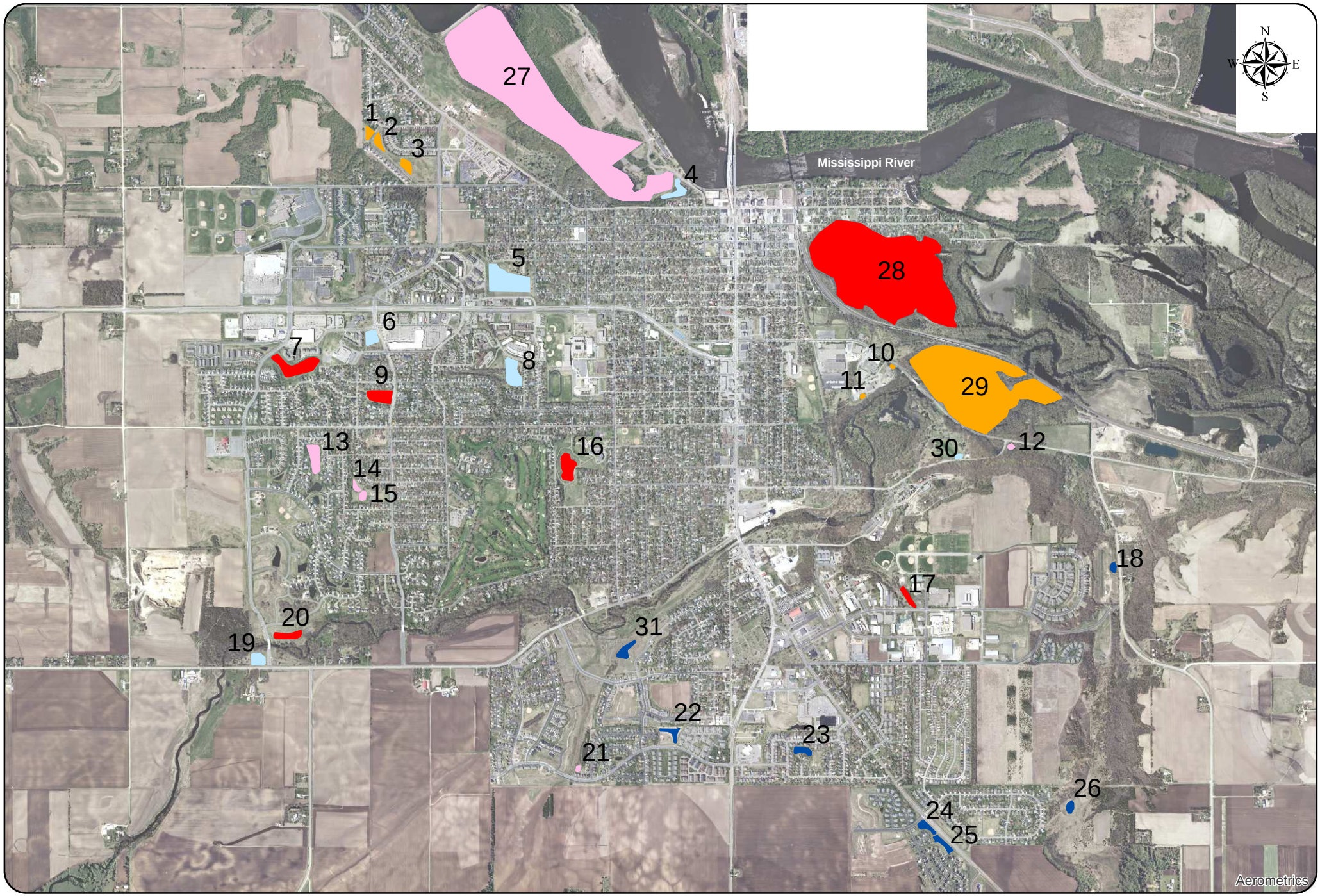
b) TP

The availability of an effective and inexpensive testing method will be continuously reviewed and investigated through this permit cycle, and beyond.

3) Documentation of Pond Sedimentation Removal Projects

The MPCA provides guidance on their website for the permitting and construction of managing dredged pond material. The guidance can be found here:
https://www.pca.state.mn.us/water/dredged-materials-management

To date, the City has not performed a pond dredging project however as mentioned above it has explored projects (ie. Louis Land Pond, South Oaks 4th regional pond). The City will continue to inspect their ponds and invest in studying their pond system on an as needed basis while complying with Section 21.14 of the Municipal MS4 Permit.



Pond Inspection Cycle Map

- Year Ending in 0 or 5 (Ponds 7, 9, 16, 17, 20, 28)
- Year Ending in 1 or 6 (Ponds 1, 2, 3, 10, 11, 29)
- Year Ending in 2 or 7 (Ponds 4, 5, 6, 8, 19, 30)
- Year Ending in 3 or 8 (Ponds 18, 22, 23, 24, 25, 26, 31)
- Year Ending in 4 or 9 (Ponds 12, 13, 14, 15, 21, 27)

Pond Inventory

Public

ID #	Name	Type		Location	Year Built	Owner	Maintenance Authority	Size (ac)	Function					# Inlets	#Outlets
		Natural or Constructed?	Type						Water Quality	Rate Control	Flood Control	Infiltration/ Vol Control	No Control		
1	Pleasant Valley Ponding Basin	Constructed	Sedimentation Pond	Featherstone Ponding Basin	1991	City	City	0.39	Primary	Primary	Primary	Pipe		1	1
2	Pleasant Valley Ponding Basin	Constructed	Sedimentation Pond	Featherstone Ponding Basin	1999	City	City	1.74	Primary	Primary	Primary	Pipe		1	1
3	Pleasant Valley Ponding Basin	Constructed	Sedimentation Pond	Featherstone Ponding Basin	1999	City	City	1.30	Primary	Primary	Primary	Landlocked		5	0
4	Lake Rebecca Ponding Area	Natural	Natural	West of Jaycee Park	-	City	City	4.78	Primary	Primary	Primary	Landlocked		2	0
5	NW Ponding Basin	Constructed	Dry Overland Spillway	Lions Park	1982	City	City	8.65	Secondary	Primary	Primary	Pipe		6	1
6	Bauer's Pond	Constructed	Dry Infiltration Pond	Bauer's 2nd	1993	City	City	0.59	Primary	Primary	Primary	Pipe		1	1
7	14th St Ponding Basin	Constructed	Dry Infiltration Pond	Hastings Marketplace Family Housing	2001	City	City	2.48	Primary	Primary	Primary	Pipe		6	0
8	Conzemius Pond	Constructed	Dry Infiltration Pond	Conzemius Park	1965	City	City	3.10	Secondary	Primary	Primary	Pipe		1	1
9	Rosemary Pond	Constructed	Dry Infiltration Pond	Dakota Hills 5th	1985	City	City	2.15	Primary	Primary	Primary	Pipe		1	1
10	Public Works East	Constructed	Sedimentation Pond	Public Works Building-East side	-	City	City	0.05	Primary	Primary	Primary	Pipe		2	1
11	Public Works West	Constructed	Sedimentation Pond	Public Works Building -West side	-	City	City	0.12	Primary	Primary	Primary	Pipe		1	1
12	291/54 Pond	Constructed	Constructed	SE corner of 18th and Ravenna Trail	-	City	City	0.27	Primary	Primary	Primary	Overland		0	0
13	Wallin Pond	Constructed	Sedimentation Pond	Outlot A, Wallin 1st	1994	City	City	2.18	Primary	Primary	Primary	Pipe		3	1
14	20th St Ponding Basin	Constructed	Dry Infiltration Pond	Pleasant Park	1973	City	City	0.30	Primary	Primary	Primary	Pipe		2	1
15	20th St Ponding Basin	Constructed	Dry Infiltration Pond	Pleasant Park	1973	City	City	0.33	Primary	Primary	Primary	Landlocked		3	0
16	15th St Pond	Constructed	Sedimentation Pond	Southwest Ponding Basin	1965	City	City	1.86	Primary	Primary	Primary	Landlocked		5	0
17	Ravine Pond	Constructed	Dry Infiltration Pond	2009 Industrial Park Area Improvements	2009	City	City	0.38	Primary	Primary	Primary	Pipe		3	1
18	Hwy 91 Pond	Constructed	Sedimentation Pond	E of Glendale Heights, W of Glendale Rd	-	City	City	0.10	Primary	Primary	Primary	Landlocked		0	0
19	Wallin Pond	Constructed	Dry Infiltration Pond	Outlot D, Wallin 10th	2003	City	City	0.42	Primary	Primary	Primary	Pipe		1	1
20	Wallin Pond	Constructed	Dry Infiltration Pond	Outlot E, Wallin 10th	2003	City	City	0.06	Primary	Primary	Primary	Landlocked		0	0
21	Century South Pond	Constructed	Dry Infiltration Pond	Outlot J, Century South 1st	2001	City	City	0.39	Primary	Primary	Primary	Pipe		1	1
22	Century South Pond	Constructed	Sedimentation Pond	Outlot D, Century South 1st	2001	City	City	1.65	Primary	Primary	Primary	Pipe		4	1
23	Cari Park Pond	Constructed	Sedimentation Pond	Cari Park	1989	City	City	0.75	Primary	Primary	Primary	Pipe		4	1
24	South Pines West Pond	Constructed	Dry Infiltration Pond	Outlot A, South Pines 4th	2002	City	City	0.65	Primary	Primary	Primary	Overland		2	0
25	South Pines West Pond	Constructed	Dry Infiltration Pond	Outlot A, South Pines 4th	2002	City	City	1.06	Primary	Primary	Primary	Pipe		3	1
26	South Pines East Pond	Constructed	Sedimentation Pond	Outlot D, South Pines 1st	1994	City	City	0.75	Primary	Primary	Primary	Pipe		1	1
27	Lake Rebecca	Natural	Type IV Wetland	South of Lake Rebecca Park	-	City	City	19.00	Primary	Primary	Primary	Landlocked		0	0
28	Lake Isabel	Natural	Natural	South of Lake Isabel Park	-	City	City	107.79	Primary	Primary	Primary	Overland		0	0
29	Bullfrog Pond	Natural	Natural	East of C.P. Adams Park	-	City/State/Private	City/State/Private	-	Primary	Primary	Primary	Mississippi River Backwater		0	0
31	CP Adams 18th St Pond	Constructed	Dry Infiltration Pond	18th St by CP Adams main parking lot	2013	City	City	0.34	Primary	Primary	Primary	Pipe		3	1
	Vermillion River	Natural	Linear Water	AUID#07040002-502	-	State	State	-	Primary	Primary	Primary	-		-	-

Note:

Updated: 2/28/14

Drainage areas for the ponding basins can be found on Figure VR-1 (p85) of the City of Hastings Watershed Management Plan (WMP) as adopted in March 2009.

Discharge locations for each drainage area into adjacent rivers/lakes can be found on the City of Hastings GIS mapping system.

Pond Inventory

Private

ID #	Name	Type		Location	Year Built	Owner	Maintenance Authority	Size	Function					# Inlets	#Outlets
		Natural or Constructed?	Type					(ac)	Water Quality	Rate Control	Flood Control	Infiltration/ Vol Control	No Control		
PP3-1	Hastings Ford Pond	Constructed	Dry Infiltration Pond		2002	Private	Private	0.30	Primary	Primary	Primary	Pipe		1	1
PP3-2	Cari Park Lane Pond	Constructed	Sedimentation Pond		1990	Private	Private	1.03	Primary	Primary	Primary	Landlocked		2	0
PP3-3	Three Rivers Pond North	Constructed	Dry Infiltration Pond		1960	Private	Private	1.86	Primary	Primary	Primary	Pipe		4	1
PP3-4	Three Rivers Pond South	Constructed	Dry Infiltration Pond		1960	Private	Private	3.73	Primary	Primary	Primary	Overland		5	1
PP-3-5	South Pines West Pond	Constructed	Dry Infiltration Pond	L21, B2 South Pines 4th	2003	Private	Private	0.41	Primary	Primary	Primary	Landlocked		3	0
PP3-6	South Pines West Pond	Constructed	Dry Infiltration Pond	L37, B1 South Pines 4th	2003	Private	Private	0.33	Primary	Primary	Primary	Pipe		0	1
PP3-7	South Pines West Pond	Constructed	Dry Infiltration Pond	L37, B1 South Pines 4th	2003	Private	Private	0.09	Primary	Primary	Primary	Pipe		1	1
PP3-8	South Pines West Pond	Constructed	Dry Infiltration Pond	L6, B4 South Pines 6th	2003	Private	Private	0.40	Primary	Primary	Primary	Pipe		1	1
PP4-1	Century South Pond	Constructed	Sedimentation Pond		2001	Private	Private	0.38	Primary	Primary	Primary	Pipe		3	1
PP20-1	Riverdale West Pond	Constructed	Dry Infiltration Pond		2001	Private	Private	0.35	Primary	Primary	Primary	Pipe		2	1
PP20-2	Riverdale East Pond	Constructed	Dry Infiltration Pond		2001	Private	Private	0.12	Primary	Primary	Primary	Pipe		1	1
PP29-1	Walmart Pond	Constructed	Sedimentation Pond		1973	Private	Private	0.66	Primary	Primary	Primary	Pipe		4	1
PP29-2	Featherstone Oaks Pond	Constructed	Dry Infiltration Pond		2006	Private	Private	0.05	Primary	Primary	Primary	Pipe		2	1
PP29-3	Hastings High School Pond	Constructed	Dry Infiltration Pond		2001	Private	Private	1.11	Primary	Primary	Primary	Pipe		2	1
PP29-4	Summit Point Pond	Constructed	Dry Infiltration Pond		1999	Private	Private	0.16	Primary	Primary	Primary	Pipe		2	1
PP29-5	Cub West Pond	Constructed	Dry Infiltration Pond		2002	Private	Private	0.11	Primary	Primary	Primary	Pipe		1	1
PP29-6	Cub South Pond	Constructed	Dry Infiltration Pond		2002	Private	Private	0.22	Primary	Primary	Primary	Landlocked		5	0
PP30-1	Prairie Ridge West Pond	Constructed	Dry Infiltration Pond		2005	Private	Private	0.80	Primary	Primary	Primary	Pipe		0	1
PP30-2	Prairie Ridge East Pond	Constructed	Dry Infiltration Pond		2005	Private	Private	0.59	Primary	Primary	Primary	Pipe		2	1
PP32-1	Wallin Pond	Constructed	Sedimentation Pond		1998	Private	Private	0.54	Primary	Primary	Primary	Pipe		1	1
PP32-2	Wallin Pond	Constructed	Sedimentation Pond		1998	Private	Private	0.90	Primary	Primary	Primary	Pipe		1	1
PP32-3	Wallin Pond	Constructed	Sedimentation Pond		1997	Private	Private	1.02	Primary	Primary	Primary	Pipe		1	1
PP32-4	Wallin Pond	Constructed	Sedimentation Pond		1997	Private	Private	0.55	Primary	Primary	Primary	Pipe		2	1
PP32-5	Wallin Pond	Constructed	Sedimentation Pond		2003	Private	Private	1.35	Primary	Primary	Primary	Pipe		3	1
PP32-6	Wallin Pond	Constructed	Sedimentation Pond		2000	Private	Private	1.00	Primary	Primary	Primary	Pipe		1	1
PP32-7	Wallin Pond	Constructed	Sedimentation Pond		2000	Private	Private	0.69	Primary	Primary	Primary	Pipe		1	1
PP32-8	Wallin Pond	Constructed	Sedimentation Pond		2000	Private	Private	0.75	Primary	Primary	Primary	Pipe		3	1
PP32-9	Wallin Pond	Constructed	Sedimentation Pond		1997	Private	Private	0.52	Primary	Primary	Primary	Pipe		1	1
PP32-10	Wallin Pond	Constructed	Sedimentation Pond		2003	Private	Private	1.27	Primary	Primary	Primary	Pipe		1	1
PP32-11	Country Club Pond	Constructed	Sedimentation Pond	Country Estates 1st	1960	City	City	0.94	Primary	Primary	Primary	Landlocked		0	0
PP33-1	South Oaks West Pond	Constructed	Sedimentation Pond		1997	Private	Private	0.68	Primary	Primary	Primary	Landlocked		0	0
PP33-2	South Oaks East Pond	Constructed	Sedimentation Pond		1997	Private	Private	0.06	Primary	Primary	Primary	Overland		2	0
PP33-3	Country Club Pond	Constructed	Sedimentation Pond	Country Estates 1st	1960	City	City	0.19	Primary	Primary	Primary	Overland		0	0
PP33-4	Country Club Pond	Constructed	Sedimentation Pond	Country Estates 1st	1960	City	City	0.36	Primary	Primary	Primary	Landlocked		0	0
PP33-5	Country Club Pond	Constructed	Sedimentation Pond	Country Estates 1st	1960	City	City	0.40	Primary	Primary	Primary	Landlocked		0	0
PP35-1	Glendale Heights North Pond	Constructed	Dry Infiltration Pond		2004	Private	Private	0.12	Primary	Primary	Primary	Pipe		1	1
PP35-2	Glendale Heights South Pond	Constructed	Dry Infiltration Pond		2004	Private	Private	0.45	Primary	Primary	Primary	Pipe		2	1
PP35-3	Industrial Park Pond	Constructed	Dry Infiltration Pond		1985	Private	Private	2.26	Primary	Primary	Primary	Landlocked		2	0

Note:

Updated: 10/18/10

Drainage areas for the ponding basins can be found on Figure VR-1 (p85) of the City of Hastings Watershed Management Plan (WMP) as adopted in March 2009.
Discharge locations for each drainage area into adjacent rivers/lakes can be found on the City of Hastings GIS mapping system.

Minnesota Pollution Control Agency

Modified Characterization and Permit Approach for Urban Stormwater Ponds

(as taken from Managing Dredged Materials- April 2009)

Sediment characterization

This section specifically addresses the process to be used for municipal or urban stormwater systems. The modified permit process and requirements are described below. Protocols for the baseline sampling parameters in sediment, as described in Chapter 4, have been modified for projects involving the removal and management of sediment from an urban stormwater treatment system. A stormwater system will accumulate sediment in many different parts of a stormwater system including stormwater ponds, sediment basins, or other management practices used to pre-treat stormwater in a treatment train approach. For simplicity all are hereafter referred to as stormwater ponds that may or may not be a part of a Municipal Separate Storm Sewer System (MS4). The baseline set of parameters identified in the Dredge Manual are modified here based on current knowledge of typical urban stormwater runoff and appropriate consideration of the environmental risk associated with sediment from stormwater systems.

Because the land use within the drainage area of a stormwater pond can be unique you must also consider and use the sediment risk assessment approach provided in Chapter 3. Use the risk assessment process to evaluate the land use types within the drainage area for each stormwater pond to determine if the parameter list should be supplemented. The risk assessment and the sampling process will determine if the sediment can be re-used, with or without restrictions. The sediment removed may be re-used as fill material, treated for reuse by a proven method or disposed of in a permitted lined landfill. It is important that the risk be properly assessed to avoid the cost of future cleanup or other future liability. The sediment generator (owner of the stormwater facility) may be held responsible for damages or future liability due to improper evaluation, reuse or placement of contaminated sediment. If it is determined early in the process that all the sediment is to be removed and disposed of in a permitted landfill then the sample parameter list may be altered as necessary to meet the landfill facility requirements. The MPCA will monitor sample results and may modify the baseline list of parameters in the future. The current baseline parameters are as follows (check the MPCA Web site periodically for an updated parameter list- to determine if any parameters have been added or removed:

- Copper
- Arsenic and
- Polycyclic Aromatic Hydrocarbons (PAHs), both carcinogenic and non-carcinogenic

This information in this section should be used for planning your sampling, laboratory analysis and finally for data analysis and decision making on stormwater pond sediments.

The list of PAHs for analysis includes both non-carcinogenic PAH and carcinogenic PAH (cPAH) chemicals. Minnesota uses Potency Equivalency Factors (PEFs) to evaluate the toxicity and to assess the risk associated with cPAHs. A PEF is a relative estimate of toxicity for a chemical compared to a reference chemical. Benzo(a)pyrene (BaP) was chosen as a reference chemical for cPAHs because its toxicity is well characterized. The BaP equivalents are further explained in fact sheets and guidance found on the MPCA Web site.

A spreadsheet can be used to calculate **BaP Equivalents for PAHs** for sediment samples. The spreadsheet can be set up to multiply the laboratory sample result for each parameter by the Potency

Equivalency Factor (PEF). The products are summed to determine the BaP Equivalent for each sample allowing comparison to the SRVs and management levels described below.

When the laboratory detects a cPAH present in the sample at a concentration greater than the Method Detection Level (MDL) but less than the Reporting Limit (RL), a specific procedure must be followed to complete the analysis. In some cases the laboratory may detect the presence of the chemical but must provide an estimate of the concentration level for that parameter in the sample. When this occurs the laboratories are supposed to use a "J" flag on lab sheets to indicate that the value is an estimate between the MDL and RL. Laboratory reports must be attached to the permit application and the MPCA also requests that the permittee highlight any value on the data summary sheet when a “J flag is needed. For purposes of the BaP calculation when the lab reports a value between the MDL and the RL, the MPCA policy for storm ponds is to substitute one-half (1/2) the reporting limit for the estimated sample result and that value will be multiplied by the PEF to calculate the BaP equivalent. A template for the spreadsheet to summarize sediment sample data is provided on the Stormwater MS4 Web page of the MPCA Web site.

As background information on this policy, there are at least three (3) ways of handling values below the RL (sometimes also labeled as Non-Detects (ND)) to calculate the BaP equivalents:

1) the most conservative is to substitute or use the value of reporting limit as the value in the BaP calculation;
2) substitute one-half (1/2) the reporting limit in the BaP calculation; or
3) use a zero for the sample value in the BaP calculation.

For purposes of storm pond dredging decisions and using the summary spreadsheet, please use method #2. This will require the permittee to change the formula in spreadsheet from the (estimated parameter value times the PEF) to (0.5 times the Reporting Limit times the PEF). The existing formula in the template provided will need to be changed for each of the appropriate cells within the range of cells AE29 to AN53 from the default formula to the formula appropriate for a “J” flagged value. Those sample results withhich with received a “J” flag and should be highlighted with the appropriate background color on the spreadsheet for clarity and transparency purposes.

The permittee may attach a narrative comparing the outcome with calculations using all three (3) methods and a recommended course of action if desired. Always provide units for all factors and report sample results on a **dry weight basis in mg/kg** unless otherwise noted.

Storm pond sediment sampling

Regardless of the volume of sediment to be removed, it is important to determine if the sediment presents a potential adverse impact to human health or the environment. Proper risk evaluation, sampling protocol and site consideration for where the sediment will be reused or disposed is necessary. Observing and testing for the particle size is often a cost effective way to begin characterization of dredge material. You may want to consider collecting samples for particle size evaluation during pond surveys or inspections to help in advance with maintenance activity planning. Visual and physical observation of sediment may reveal that sediments are too to fine to justify the cost of particle size sample analysis. If, however, the particle size distribution test indicates that 93 percent or more of the sediment is retained on a #200 sieve, then it is helpful to know this factor early in the project planning. When the sediment is 93 percent or more sand, then the sediment is unlikely to be contaminated and chemical laboratory analysis will not be required. The MPCA does not require a permit or reporting of results for small maintenance projects, however, the process described herein is provided to ensure that proper consideration is given to potential impacts of sediment material. Use Table 7 below in place of Table 6 of the Dredge Manual to determine the number of cores and sediment samples recommended to evaluate for stormwater facility maintenance. Each stormwater pond may have unique characteristics which makes it very difficult to provide guidance on sampling locations; use good professional judgment for selecting the number and location of core samples. Core sampling is the most accurate method for storm pond sediment sampling. The minimum

recommendation is to obtain one composite sample for each two (2) feet of sediment. Also be aware that if there are significant changes is sediment color or texture the contaminant level may also change. While core samples are preferred, other appropriate sampling methods may be utilized if the method is described in the field notes. A sediment (boring) log should describe the equipment, changes in color and texture of the sediment sampled. Sampling is not required for small removals of individual sediment deltas by pond inlets or outfalls. Sampling is recommended if maintenance is preformed at multiple inlet locations and if the material consolidated at one location is greater than 500 cubic yards. Sediment from maintenance of individual stormwater inlets and outfalls may be combined and stockpiled for composite sampling as one project if desired (refer to Management Levels section regarding co-mingling different management levels). This information should be kept as a part of your MS4 maintenance records.

This procedure requires review of the sediment sample data and permit application review **only** when project maintenance activity exceeds an estimated 3,000 cubic yards **and** chemical sample data indicate that the dredge material **exceeds** management level 1 (see When is a Permit Required).

Maintenance projects planned to dredge sediment from multiple ponds should be evaluated and sampled separately, however, the projects can be consolidated into one permit application. When sediment is observed in the field to be mostly fine particles, sediment should be tested for contaminant levels and the test for particle size distribution can be eliminated if it will not contribute to decision making for reuse. Samples must be representative of the material to be dredged. An evaluation of past and current land use along with a risk assessment of pollutant sources is needed to identify additional parameters for lab testing. Information on location and depth of samples must be included on a site map and attached to the application. Project managers must use good professional judgment to develop a reasonable sampling plan. In some cases the minimum number of core samples below may not be adequate to obtain representative samples and properly characterize the dredge material. It is the responsibility of the generator of the dredge material to properly characterize the material to be dredged. Results from all samples collected and analyzed must be submitted to MPCA when a permit application review is required. Table 7 uses dredge volume to establish sampling and permit requirements.

Table 7 Minimum Recommended Number of Samples and Permit Requirements

Estimated Volume of Dredge Material (cubic yards)	Number of samples for Particle Size Distribution recommended	Maintain records at the MS4	Minimum recommended number of samples for analysis	Permit review required if >3000 cubic yards of sediment & exceeds level 1
0 to 100	0	Y	0	
100 to 500	1	Y	1	
500- to 3,000	2	Y	2	
3,000-30,000	3	Y	3	Y
30,000-100,000	5	Y	5	Y
100,000-500,000	6	Y	6	Y
500,000-1,000,000	8	Y	8	Y
1,000,000	X>8	Y	>8	Y

Management levels

Laboratory results from the completed sediment characterization are used to determine the management level; management levels are determined by MPCA based on established SRVs. For more detail on SRVs refer to the item labeled “Risk-Based Guidance for the Soil - Human Health Pathway” on the MPCA web site at: http://www.pca.state.mn.us/cleanup/riskbasedoc.html. Based on sample results dredged material may be segregated and handled in one or more management levels. The management level of a dredged material determines the appropriate handling and disposition of the material; more detailed information can be found in Chapter 5 of the Dredge Manual. Larger

projects may produce dredge materials that can be segregated for health, environmental or economic reasons into volumes of sediment that have distinctly different particle sizes and/or contaminant levels from each other. Subsets of dredged material may be managed in a different manner. **Avoid mixing sediment with high levels of contamination with low level contaminated material.** If sediments of different management levels are co-mingled prior to disposal they must be managed at the highest management level measured. Stormwater pond sediments are categorized into the same three management levels as other dredge material; for stormwater ponds management level 3 is modified as follows:

- Level 3 Dredged Material is characterized as having significant contamination and must be managed appropriately for the specific contaminants present. If PAHs are the only contaminants present at Level 3 they may be treated to reduce the contaminant levels by a proven treatment method if there is an operating permitted facility. Level 3 materials may also be reused or disposed of at a permitted landfill with an approved industrial waste management plan (Consult Chapter 5 of the Dredge Guidance for more information).

When is a permit required for stormwater pond dredging?

Stormwater ponds and similar facilities are part of the stormwater management system permitted under the NPDES/SDS program (refer to Minn. Rule 7090 for Stormwater permit requirements). Maintenance of stormwater facilities is required by the MS4 permit conditions in Minimum Control Measures five and six of the MS4 Permit (see parts V.G.5. and V.G.6). The MS4 General Permit issued in 2006 does not address the sediment dredging approval process specifically as a maintenance activity.

Beware that it is a violation of water quality rules to discharge turbid water from dewatering or dredge activity to a water resource without a permit. The water level in the stormwater pond must be maintained below the pond outlet for the duration of activity, protected or controlled to prevent turbid discharge in some other manner. BMPs for erosion and sediment control are necessary because dredge operations may cause the disturbance of soil around the facility as well as the location where sediment is reused or it is placed as fill material. Soil disturbing activity requires an NPDES/SDS Permit for Construction Stormwater (CSW) Permit when more than one acre will be disturbed. In cases where more than one acre of soil is disturbed a CSW Permit will be required for the location where the dredge material is placed for reuse or as fill material. The MPCA does not require a CSW permit application if storm pond dredge material is taken to a permitted lined landfill. Other types of permits may be required for a site where treatment of the dredge material is to occur. A CSW Permit or Dredge Supplemental form as described below is **not** required if dredged material is reused at an MPCA permitted facility. Notification is not required for a storm pond dredge project if does not meet the criteria below. It is recommended that records of all dredge projects be maintained by the owner and operator of stormwater facilities.

The MPCA requires a CSW Permit Application, **Stormwater Facility Dredge Project Supplement form** (Dredge Supplement form) and stormwater pond sample data for review when the:

a) sample results exceed management level 1; and

b) estimated dredge volume exceeds 3000 cubic yards; and

c) sediment is *not* going to a lined landfill or a permitted treatment/processing facility.

For question number 9 – "project type" - on the CSW Permit Application form mark the "other" box and insert "dredge" into the explanation box. The Dredge Supplement form gathers information specific to the activity at the storm pond location. Permittees should receive a CSW Permit coverage letter within 7 days if all the information requested is clearly presented in the Dredge Supplement form and attachments. Sampling recommendations, records retention and sample data review requirements are based on project size criteria found in the previous chart. In situations where a permit application and review is not required, this information is considered part of the MS4 maintenance

records and therefore MS4 Permittee must collect the information and keep all sampling and maintenance records on file for internal review, decision making and tracking of sediment disposal. The same procedures and record keeping are recommended for owners and operators not required to obtain and MS4 Permit.

On page 4 of the Dredge Supplement form there is a check list of information and attachments that must be submitted with a permit application. This information is needed for each stormwater pond to be dredged along with the laboratory reports:

1. Detailed map showing pond location, inlet(s) and outlet(s), sample locations, pond name or ID number. For example, this map can be placed on an aerial photo, GIS based map or storm sewer map.
2. As part of the narrative requested in question 4a., on the dredge supplement form, identify the stormwater drainage area (storm-shed) for each pond in acres and significant land uses.
3. In the narrative for 4a, provide the surface area of each pond in acres; average design depth and sediment depth before removal, in feet.
4. Approximate date of construction and last sediment removal action from stormwater pond

Lab data sheets must be submitted. A Storm Pond Data Summary Table in spreadsheet format is provided on the MPCA MS4 Web site under Revised Permit and Program forms: www.pca.state.mn.us/water/stormwater/stormwater-ms4.html for a convenient way to summarize and graphically represent the sample data for review and decision making. In the future to improve turn around time and efficiency, the MPCA is considering use of a Web site for dredge sample data entry and analysis.

APPENDIX E4
Stockpiles
2007-Present

Target Audience:
City Owned Stockpiles
Responsible Persons for Implementation:
Inspections: Engineering Technician
Reporting: Assistant City Engineer
Activities to Reach Goals:
Inspect each stockpile on a quarterly basis through December 31, 2021. The new Municipal MS4 permit does not require stockpiles to be inspected starting in 2022.
Schedules:
Inspect each stockpile on a quarterly basis. It is preferred to inspect each stockpile one time per meteorological season. March, June, September, and December are earmarked as the dates for inspection but flexibility is granted for the inspector's workload, weather conditions, historical performance, etc. Maintenance adding seed/blanket and/or perimeter control to inactive stockpiles shall be in adherence with the timelines granted within the Construction Stormwater Permit.
Evaluation Method:
The effectiveness of the stock inspection is measured by the number of compliant stockpiles.

From 2007-2013, the City inspected all known stockpiles within the City one time per year. Mid-year 2014, the City strengthened its program, per the 2013 MS4 Permit requirements, to inspect all known stockpiles four times per year. From 2007-2018, the City used a one page checklist for each stockpile. Starting in December, 2018 the City uses an online GIS based inspection form on Survey123 using an IPAD mini. The following number of stockpiles were identified, inspected, and photo taken. (Spring, Summer, Fall, Winter):

Year	Spring	Summer	Fall	Winter
2022-Present	No Longer Req'd	No Longer Req'd	No Longer Req'd	No Longer Req'd
2021	26	24	28	26
2020	28	29	25	29
2019	28	31	28	0 (Snow)
2018	29	30	28	28
2017	28	27	24	0 (Snow)
2016	28	27	25	25
2015	31	24	23	0 (Snow)
2014	-	-	24	28
2013	-	21	-	-
2012	-	19	-	-
2011	-	0	-	-
2010	-	19	-	-
2009	-	26	-	-
2008	-	29	-	-
2007	-	14	-	-

The stockpiles consist of materials ranging from:

1) Black dirt
2) Wood chips
3) Compost
4) Street sweepings
5) Chip seal rock
6) Class 5
7) Washed or unwashed rock
8) Rip rap
9) Pea gravel
10) Road salt

All of the stockpiles were found to be in stable condition and/or in general compliance with the NDPES Phase II requirements. Inspection reports indicated satisfactory vegetation surrounded the stockpiles enough to properly contain the stockpile from unnecessary erosion, especially to nearby waters of the state or adjacent properties. Storage bins, covers, grass buffers, or downstream basins mitigate potential erosion and sediment concerns affecting the nearby natural resources. Weather, time and personnel constraints periodically limit the entire quarterly stockpile inspection program but in those limited occurrences it is determined that favorable inspection history and policy practices safely allow for a quarterly absence; hopping on the next inspection as quickly as possible.

After reviewing the program this year, 2021 will be the last year for performing the quarterly inspection cycle. Starting in 2022, the City's erosion control inspector will be mindful of the stockpiles and informally check the stockpile runoff controls during his routine inspections. Inspections will remain informal with no formal tracking. Additional inspections may be added should a serious issue arise.

Stockpile inspection forms, summary sheets, and digital photographs are available upon request.

(CIRCLE ITEMS THAT APPLY)

STOCKPILES

Inspector: **Date:**

STOCKPILE IDENTIFICATION

Material:
Reason/Use:
Location:
Photo taken? Yes No

Dimensions: Length (ft): Width (ft): Height (ft): Diameter (ft):

STOCKPILE CONDITION

Erosion:

Yes No

Location:

Side slopes Toe of slope Upstream side Downstream side Other:

Severity:

High Moderate Low

Erosion control?

No Silt Fence Sock Seed Mulch Wood Fiber Blanket Other:

Mainenance required?

No Within 3-5 years Within 1-2 years Before winter Immediate

What percentage of the stockpile is vegetated?

0% 25% 50% 75% At or near 100% Other: Explain:

Type of slope:

Flatter than 10:1 10:1 to 3:1 Steeper than 3:1

How much and when did it rain last?

Date: Amount: (inches)

STOCKPILE FUNCTION

How long has the stockpile existed?

0-7 days 7-14 days 14-21 days ( )months ( )years

How long will the stockpile exist?

0-7 days 7-14 days 14-21 days ( )months ( )years

Does the stockpile pose a threat by eroding onto adjacent property?

Yes No Explain:

Does the stockpile pose a threat by eroding into nearby storm sewers, streams, ponds or lakes?

Yes No Explain:

NOTES/COMMENTS

DIAGRAM

APPENDIX E5
Structural Storage Treatment Systems
2010-2021

Target Audience:
Structural storage treatment systems within City storm sewer system
Responsible Persons for Implementation:
Inspections: Engineering Technician
Reporting: Assistant City Engineer
Activities to Reach Goals:
Inspect each structural storage treatment system on schedule
Schedules:
Inspect each structural storage treatment system one time per year. Inspections can be skipped one year should the structure be found to have no significant level of silt or debris. Inspections can be increased given a pattern of maintenance or justifiable complaints elevating unnecessary risk. Maintenance lists will developed the same fall after the summer inspection. A maintenance schedule shall be developed should it extend beyond one year.
Evaluation Method:
The effectiveness of the structural storage treatment system inspection is measured by the number of structures inspected and cleaned.

Structural storage treatment systems include structures such as the:
1) Hydroguard
2) Stormceptor
3) Bio Clean Hydrodynamic Separator
4) Rainguardian

Hydroguard
In 2012, the City installed a Hydroguard manhole on its Block 16 Depot Parking Lot project near downtown. Four Rain Guardian structures serving as pretreatment for the site rain garden was also installed. The Hydroguard manhole and four Rain Guardian structures are inspected annually and are put on a maintenance schedule as needed.

Stormceptor
In 2011, MNDOT installed a Stormceptor manhole as part of the Hwy 61 bridge project. The maintenance of the manhole was not officially transferred to the City of Hastings until the bridge project was completed in 2015.

Bio Clean Hydrodynamic Separator
In 2020, the 21st St Water Quality Improvement project installed one publicly maintained Bio Clean SC-6-V Hydrodynamic Separator structure and four privately maintained Rain Guardian Turret Pretreatment Chambers. The Hydrodynamic Separator will be put on the annual maintenance schedule. An Agreement with Cemstone requires Cemstone to submit an annual inspection report to the City for the Rain Guardian Turret Pretreatment Chambers.

Rain Guardian

In 2012, the City installed a Hydroguard manhole on its Block 16 Depot Parking Lot project near downtown. Four Rain Guardian structures serving as pretreatment for the site rain garden was also installed. The Hydroguard manhole and four Rain Guardian structures are inspected annually and are put on a maintenance schedule as needed.

In 2016, the city installed four Rain Guardian structures serving as treatment for the parking lot at Levee Park near the Riverfront. The four Rain Guardian structures are inspected annually and is put on a maintenance schedule as needed.

In 2020, the 21st St Water Quality Improvement project installed one publicly maintained Bio Clean SC-6-V Hydrodynamic Separator structure and four privately maintained Rain Guardian Turret Pretreatment Chambers. The Hydrodynamic Separator will be put on the annual maintenance schedule. An Agreement with Cemstone requires Cemstone to submit an annual inspection report to the City for the Rain Guardian Turret Pretreatment Chambers.

Inspection forms and results are available upon request. The City has assessed the effectiveness of the program again this year and will continue to inspect and maintain the structural storage treatment systems on the same schedule.

APPENDIX E6
Storage, Handling & Disposal - Including Salt
2007-2021

Target Audience:
City owned facility that contribute pollutants to storm water system
Responsible Persons for Implementation:
1) City Employees: Good Housekeeping
2) Assistant City Engineer: Reporting

Activities to Reach Goals:
1) Handle, store, and dispose of materials properly
2) Provide BMPs to contain source of pollutants
3) Inspect each storage, handling, and disposal technique four times per year. It is recommended to inspect on a quarterly basis conducting an inspection once per meteorological season.

Schedules:
Maintain current practices

Evaluation Method:
The effectiveness of storing, handling, and disposal techniques are measured by the number of illicit discharges discharging from City owned facilities.

The City of Hastings controls its practices and procedures in efforts to limit the contribution of pollutants made to storm water. Training is offered where applicable (see Appendix D1). Formal BMPs are implemented where appropriate.

1) Equipment Storage
    a) Public Works Dept
        All vehicles and machinery are stored in the Public Works garage, old UBC storage building, or water towers when not in use. This eliminates affects of weather and contains any unnoticed leaking.
    b) Parks Dept
        All vehicles and machinery are stored in the Parks Dept garage. This eliminates affects of weather and contains any unnoticed leaking.
    c) Police Dept
        All vehicles are stored in the Police Dept garage or old UBC storage building. This eliminates affects of weather and contains any unnoticed leaking.
    d) Fire Dept
        All vehicles are stored in the Fire Dept garage. This eliminates affects of weather and contains any unnoticed leaking.
    e) Community Development Dept
        Planning Dept and Building Dept vehicles are stored year round in the outdoor parking lot adjacent to City Hall. The number of vehicles is minimal in comparison to the number within the City fleet. Vehicles are serviced on a regular basis.

2) Vehicle Washing

Vehicle washing for entire City fleet is performed in the designated area located on the west end of the Public Works building. The wash bay drains to the sanitary sewer so that all dissolved material is treated prior to entering public waters. The one exception is the street sweeper hopper which gets washed outside using a hose from a hydrant. However, the grey water is contained by a concrete curb and storm sewer system. Water collected discharges a "stone's throw away" to a man-made basin designed to effectively settle out the particulates coming from the wash area and Pubic Works yard. This basin is dredged as needed to maintain its functionality.

3) Vehicle Fueling

Fueling for the entire City fleet is performed through a joint cooperative agreement with Dakota County at their shop located off CSAH 46, west of Pine St. Dakota County administers the maintenance of the two regular gas pumps and the two diesel gas pumps.

4) Vehicle Maintenance

Generally, city vehicles are maintained by each department through their local automotive dealer. However, the Public Works Dept performs a fair amount of minor maintenance work on the vehicles and machinery. Oils, greases, and solvents are kept indoors in the proper container to eliminate the potential for problematic spills and illicit discharges. Used oil and solvents, for example, are kept sealed in an on-site 400 gallon barrel. As necessary, the City contracts out the periodic disposal of the contents in the barrel. A Material Safety Data Sheet is made readily available in two locations (shop & office) for all hazardous materials.

5) Hazardous Material and Chemical Storage

Chemicals purchased by the Public Works Dept and Parks Dept are kept indoors in the properly sealed container until use. Oils, grease, solvents, road salt, herbicides, pesticides, fertilizers, and swimming pool chlorine are managed to eliminate illicit discharges. The pool at the outdoor Hastings Family Aquatic Center is given ample time to de-chlorinate prior to emptying the pool out in the fall. Floor dry is available in shops susceptible to machinery oil and antifreeze leaks. A spill kit is available for emergency cleanup of hydroplant oil leaks.

6) Salt Storage & Handling

For multiple reasons, including environmental purposes, the Public Works Dept phased out of using sand with their winter snow plow routes in 2006. The salt of choice is a product called Clear Lane. It's a mined rock salt, produced by Cargill, that is coated with magnesium chloride for optimal deicing characteristics. Prior to use, the salt is stored underneath an outside storage shelter and on an impermeable bituminous surface to keep it out of the elements and minimize runoff/infiltration. The day before the storm, a front end loader fills the salt truck within the salt shed and is available to scoop up any untidy mess tracked outside

the salt shed. Should salt escape the confines of the shed (unlikely), a detention pond was built in 2008, downhill from the shed, to contain the parking lot pollutants (see Appendix H2).

Hastings is continually researching ways to reduce the amount of salt that is distributed on roadways after each snow event. Snow plow drivers attend training events to brush up on their knowledge of salt application techniques and application rates (see Appendix D1). In 2012, Supervisors teamed with Force America to provide GPS units on four snow plows. The technology helps drivers look back on their plowing route and see their salt usage "in real time" to help determine areas where too much salt was dumped. An official "Snow Plowing & Ice Control Policy" was last adopted by City Council in 2011 to outline the number and type of equipment to be used, and by whom, where, when and even how. The policy was developed in conformance with the League of Minnesota Cities model policy. The City will periodically review the policy to make sure it is in conformance with the latest technologies and practices. The policy is available upon request.

The City is continually seeking ways to limit salt use. Example techniques include pre-wetting streets to trying new salts. In 2020 for example, one truck experimented with a less corrosive salt for 75 tons of his season's usage and was expanded for usage on a second snow plow route in 2021.

7) Stockpiles

Stockpiles located on City property were inspected on a quarterly basis through 2021 to ensure the materials do not move and cause environmental harm (see Appendix E4 for latest inspection schedule). Typical stockpiles include salt, dirt, sand, street sweepings, chip seal rock, rip rap, etc. Stockpiles generally are placed in three locations:

a) Public Works Department
   In 2008, Public Works Dept installed 8 concrete bins to better contain stockpiling. Other stockpiles are kept in low risk erosion areas (flat slope) with a man-made basin nearby to collect any runoff.
b) Parks Department
   Department has 4 concrete bins to store their stockpiles
c) City owned property off Spiral Blvd and CSAH 91
   Public Works Department uses the flat grassy area for temporary excess stockpiles.

For inspection record, see Appendix E4.

8) Waste Disposal/Dumpsters

Covered dumpsters are picked up once per week, at each City facility, by the local sanitation company (ie. City Hall/Police Dept, Public Works Dept, Parks Dept, Fire Dept, Aquatic Center)

9) Recycling

Recycling bins are offered at each City facility to encourage recycling of unwanted waste. Organic drop off recycling is offered at the Dakota County shop located off CSAH 46, just west of Pine St.

10) Parking Lots / Streets

The City of Hastings maintains a number of parking lots. Parking lots are swept, along with 105 miles of streets, in the spring, summer, and fall per the sweeping schedule (see Appendix G1). Parking lots are also plowed in the winter time and use very little salt. The following is a list of parking lots:

a) Public Works Building
b) Old UBC Building
c) Fire Dept Building
d) City Hall Building
e) 4th St/Sibley St
f) Block 16 Parking Lot
g) Parks Dept Building
h) Civic Center Arena
i) Veterans Athletic Complex (not plowed)
j) 10th St Parking Lot
k) Lake Rebecca Parking Lot
l) CP Adams Park
m) Old Mill Parking Lot
n) Rebecca Lake East
o) Rebecca Lake West
p) Roadside Park
q) Vermillion Falls linear Park
r) Vermillion Falls Linear Park

11) Road Maintenance

Annually, the City contracts out its pavement management projects: seal coat, crack seal, and traffic marking. City crews pothole patch, spray patch, skin patch and on a limited basis paint crosswalks. City crews also jet/rod sanitary sewer lines and provide minor street repairs. Bituminous materials used in all these practices do not contain the pollutant coal tar product, polycyclic aromatic hydrocarbons (PAHs). Cold patch is stored inside the Public Works shop. City sweepers follow operations to contain any mess (ie. spray patching, seal coat, etc).

12) Right of Way Maintenance

Public Works Dept generally mows right of ways as needed and many ponding basin areas 1-2 times per year (some is contracted out). Parks Dept generally mows Parks and open space areas as needed. Loose grass clippings are blown back off the street. Mowing schedules adhere to recommendations made by the

DNR being mindful of concerns associated with the life cycle of wildlife utilizing such basins.

13) Lawn Maintenance

Parks Dept applies herbicides, pesticides, and fertilizers as needed. Responsible personnel are trained at handling and applying such products (see Appendix D1). Most parks see little to no fertilizer. Athletic fields at Veteran's Park perhaps are the one exception. In 2014, lysimeters were placed in the fields as part of the Wellhead Protection Plan to try and help optimize fertilizer use in the area.

14) Wells

The City has a Wellhead Protection Plan (WHPP) that protects its six wells and drinking water supply management area (DWSMA). The City works with the MN Dept of Health and implements appropriate measures to maintain the system. See attached DWSMA map.

15) Sanitary Sewer Lines

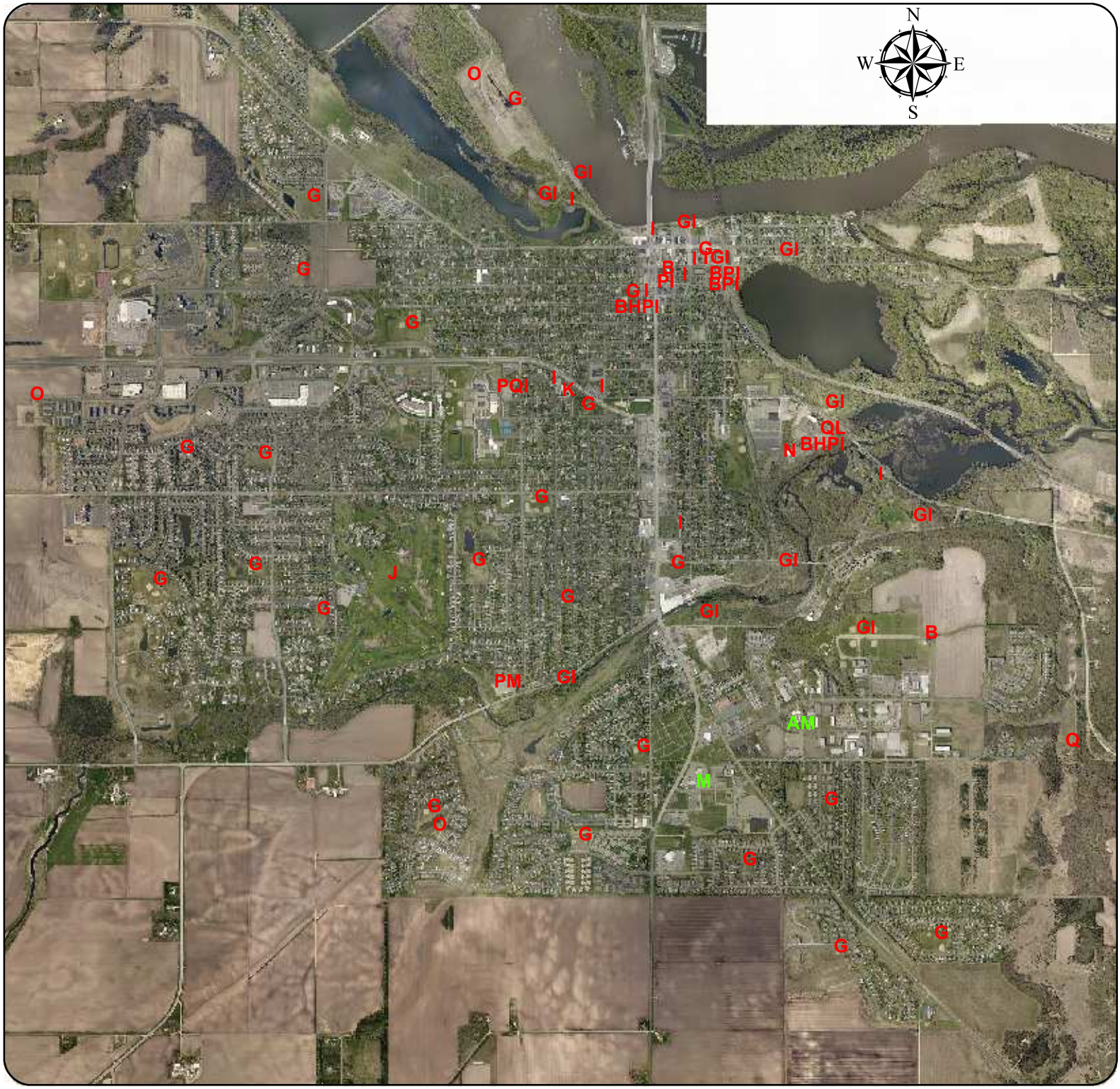
The City annually televises a portion of their sanitary sewer lines per year. Public Works employees rod or jet problem lines. The Principal Engineer reviews the televised sewer for the next year's reconstruction project and sanitary sewer lining program. (see Appendix G2)

Should an unfortunate and rare spill or other issue arise, the City's enforcement response plan (ERP) can be found under Illicit Discharge section (see Appendix D6)

Storage, handling, and disposal inspections are available upon request. The City has assessed the effectiveness of the program again this year and will continue to manage these assets to the same schedule.

Mapped Inventory of City Owned Facilities
MS4 Permit 21.3
Potential Pollutant Loading to Stormwater Discharges

RED: PUBLIC
MAGENTA: PRIVATE



A: Composting
B: Equipment Storage & Maintenance
C: Hazardous Waste Disposal
D: Hazardous Waste Handling & Transfer
E: Landfills
F: Solid Waste Handling & Transfer
G: Parks
H: Pesticide Storage
I: Pubic Parking Lots
J: Public Golf Courses
K: Public Swimming Pools
L: Public Work Yards
M: Recycling
N: Salt Storage
O: Snow Storage
P: Vehicle Storage & Maintenance (Fueling & Washing)
Q: Materials Storage Yards

Storage, Handling & Disposal
City of Hastings Facility Inspection Checklist

Date Inspected: (Quarterly Inspections Required)[5]	Inspector: (Forward Results to John Caven, Engineering)

Department/Facility (check one):

	Public Works Facility	Police Garage	Fire Station	City Hall Building	UBC Building	Leduc
	Hydroplant	Parks Facility	Civic Arena	Aquatic Center	Vets Complex	

Activity	Does Not Apply[1]	Acceptable[2]	Maintenance Required[3]	Describe Maintenance[4]
Equipment Storage				
Vehicle Washing				
Vehicle Fueling				
Vehicle Maintenance				
Hazardous Material & Chemical Storage				
Salt Storage & Handling				
Stockpiles				
Waste Disposal/Dumpsters				
Recycling				
Parking Lots/Streets				
Road Maintenance				
Right of Way Maintenance				
Lawn Maintenance				
Wells				
Sanitary Sewer Lines				

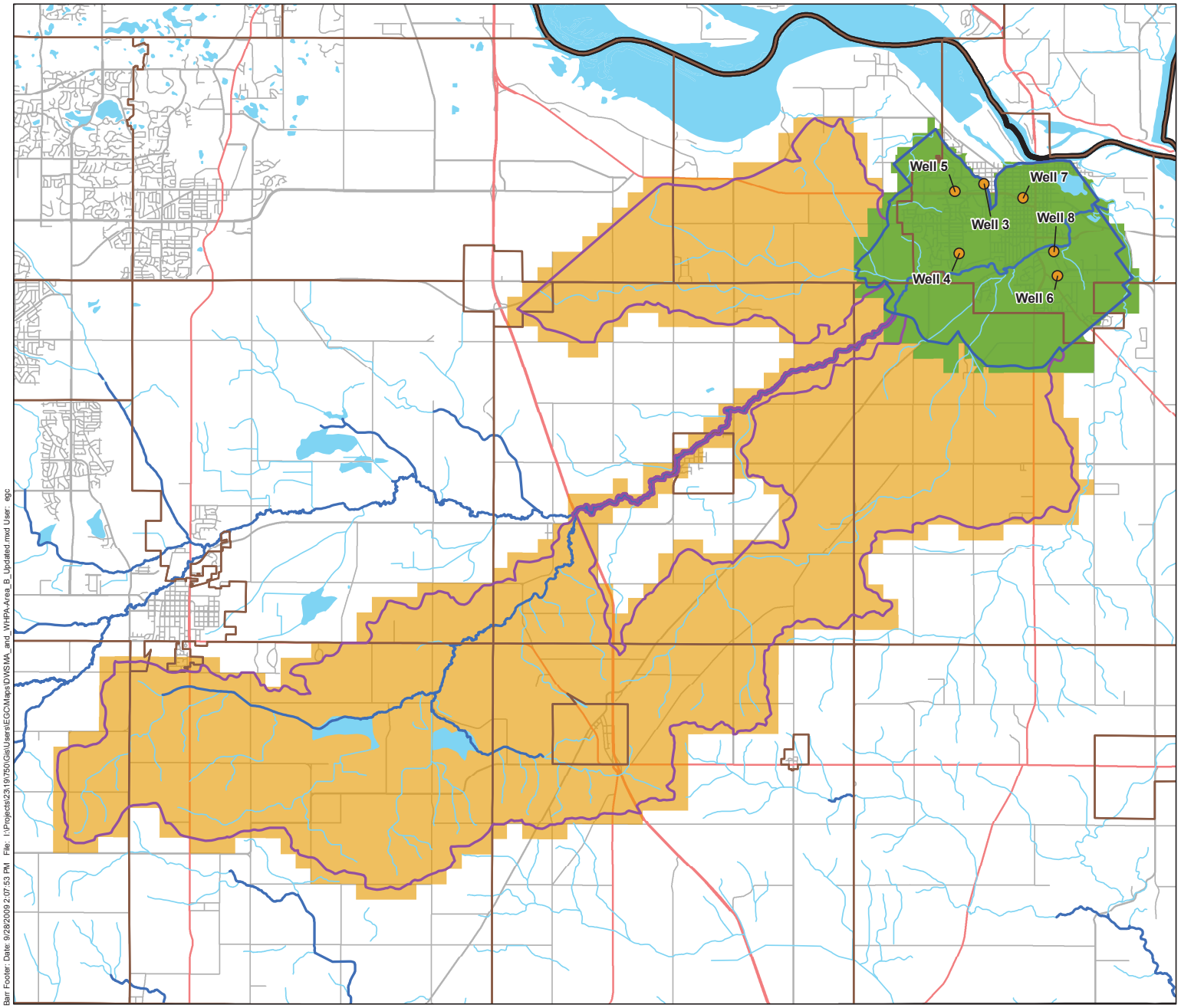
[1] Does Not Apply: Check box if the activity does not occur at the facility

[2] Acceptable: Check box if the storage, handling, and disposal techniques are properly contained as discribed in Appendix E6 (Satisfying Part III(D)(6)(a-b))

[3] Maintenance Required: Check box if the storage, handling, and disposal techniques need to be corrected to comply with Appendix E6 (Satisfying Park III(D)(6)(a-b))

[4] Describe Maintenance: Describe measures taken to meet activity goals and/or contain activity to an acceptable level.

[5] Quarterly Inspections: Aim for one inspection per meteorological season (ie. Dec 1, Mar 1, Jun 1, Sept 1)



DWSMA Area A
(Groundwater Contribution Area)

DWSMA Area B
(Surface Water Contribution Area)

Hastings Supply Well

WHPA Area A

WHPA Area B

Muncipal Boundaries

County Boundary

Perennial Stream

Non-Perennial Stream
(intermittent, drainage ditch, etc.)

Water Body

N

Miles
0 2 4

Kilometers
0 3 6

BARR

Figure 9

DWSMA AND WHPA
AREA B
WHPP Amendment
City of Hastings
Dakota County, MN

Barr Footer: Date: 9/28/2009 2:07:53 PM File: I:\Projects\23\19750\Gis\Users\EGC\Maps\DWSMA_and_WHPA-Area_B_Updated.mxd User: egc

APPENDIX E7
Maintenance Plan
2007-2021

Target Audience:
City Staff
Responsible Persons for Implementation:
Public Works Dept: Cleaning/Repair
Assistant City Engineer: Reporting
Activities to Reach Goals:
Inspect/Clean/Repair
Schedules:
Inspect/Clean/Repair as required/needed
Evaluation Method:
The effectiveness of the maintenance plan is measured by the number sump manholes, outfalls, ponds, stockpiles, structural stormwater treatment systems, storage handling maintenance, sanitary sewer line analysis, street sweeping practices, and rain garden practices. The City assessed the effectiveness of the program again this year and will continue on the same schedule.

1) Sump manhole, outfall, pond, stockpiles, structural storm water treatment systems
Inspections identify condition of sump manhole, outfall, pond, stockpiles, structural storm water treatment systems. Infrastructure requiring maintenance is put on a list and maintained. See the following Appendices for more information:
Sump Manholes - for maintenance summary see Appendix E1
Outfalls - for maintenance summary see Appendix E2
Ponds/Wetlands - for maintenance summary see Appendix E3
Stockpiles - for maintenance summary see Appendix E4
Structural Storm Water Treatment System – for maintenance summary see Appendix E5
Storage, Handling, and Disposal – for maintenance summary see Appendix E6

2) Storage, Handling and Disposal
Inspections are made on a quarterly basis that formalize proper storage, handling and storage of City equipment, chemicals, and practices. The Public Works Maintenance Supervisor and Facilities Manager provide quarterly documentation of their inspection. For further information see Appendix E6.

3) Sanitary Sewer Lines
In efforts to eliminate old and suspect sanitary sewer lines producing non-point source pollution, the City purchased, in 2007, a sanitary utility televising unit. The City is currently working on replacing old and suspect sanitary lines located within its annual reconstruction project. In addition, in 2016 the City has started a sanitary sewer lining program that would accelerate replacing the mileage of the most problematic main. Reconstruct projects are chosen for not only the surface pavement condition but also the quality of the utilities below. The City of Hastings has approximately 90 miles of

sanitary sewer to maintain. The annual reconstruction project contains an average of 1.90 centerline miles of street. A varying amount of services and mains are replaced each year. The sanitary sewer lining program has averaged 2.0 miles since its inception. For further information see Appendix G2.

4) Sweeping

Using 1-2 sweepers, the City of Hastings sweeps its streets from snow melt to snow fall. The City accomplishes a minimum of 2 sweepings per year per street. In some cases many more; up to 6 times. According to a 2008 study researched by the Local Technical Assistance Program (LTAP), sweeping 2-3 times per year is on par with the surrounding Minnesota community's sweeping frequencies.

Sweeping is an important component to the City's operations and TMDL reporting. The South Metro Mississippi TSS TMDL and Lower Vermillion River Watershed Turbidity TMDL requires the City to reduce TSS discharges. Timely additional sweepings are conducted in neighborhoods with heavy tree canopy that abut with direct discharges to the Vermillion River and Mississippi River. Spring tree liter and fall leave droppings are swept up as soon as possible in neighborhoods such as Westwood, Bohlken Estates, and others.

For further sweeping information see Appendix G1.

5) Rain Gardens

Private infiltration basins are maintained by the private property owner and new construction is memorialized using a recorded Storm Water Maintenance Agreement. Public rain gardens have an annual nominal budget item for removal of woody vegetation and a periodic increased budget for a control burn and re-seeding/planting.

APPENDIX F1
Storm Sewer Map System
2007-2021

Target Audience:
City Field Staff
Responsible Persons for Implementation:
Engineering Technician: Continuous updating of GIS map
Assistant City Engineer: Reporting
Activities to Reach Goals:
Annually update map
Schedules:
2007-present
Evaluation Method:
Effectiveness of the map is measured by the accuracy of the map. Changes to the map are made periodically throughout the year, as necessary.

The City maps its entire public and known private storm sewer, watermain, and sanitary sewer system on GIS. This includes pipe, catch basins, manholes, outfalls, and ponds. An additional special layer identifies the inspection cycle of outfalls and ponds.

Copies of the new GIS mapping system and inspection cycles are available upon request.

APPENDIX F2
24/7 Duty Phone
2007-2021

Target Audience:
General Public
Responsible Persons for Implementation:
Public Works Streets and Utility Operators: Phone carried on a rotation basis
Assistant City Engineer: Reporting
Activities to Reach Goals:
A trained public works employee is required to have access to a duty phone 24/7 and be within a 10 mile radius of the City at all non-working hour times. In this way, staff would be able to respond to an emergency discharge should one arise.
Schedules:
24/7
Evaluation Method:
The City continually evaluates the best means for non-working hour call outs. The duty phone is an effective means to ensure the public has a continual line of communication available to them should an emergency arise.

APPENDIX F3
RV Dump Station
2007-2021

Target Audience:
General Public
Responsible Persons for Implementation:
Public Works: Maintain Availability
Assistant City Engineer: Reporting
Activities to Reach Goals:
Maintain availability
Schedules:
24/7
Evaluation Method:
The effectiveness of the RV dump station is measured by the number of days in service. The City continues to monitor the functionality of the dump station. The station has proven to be a great success.

The City allows residents to dump effluent at the RV dump station located at the City's Public Works facility. In 2008, the City redesigned the RV dump station, as part of their Public Works expansion project, to better serve the public. The regularly utilized RV Dump station has remained in full service in all subsequent years.

APPENDIX F4
City GreenDisk Technotrash Can
2007-2021

Target Audience:
City Employees
Responsible Persons for Implementation:
Assistant City Engineer: Reporting
Activities to Reach Goals:
Maintain availability
Schedules:
City Hall office hours
Evaluation Method:
The City has made the trash can available for many years. The site has proven to be successful.

The City of Hastings is committed to training their employees in the knowledge and practice of handling and disposing of materials such as CDs, disks, tapes, printer cartridges, rechargeable batteries, "mystery" cords, dead cell phones etc. In 2008, the City had made available a GreenDisk Technotrash Can in City Hall to collect all used technotrash for proper disposal.

APPENDIX F5
Organics Program
2019-2021

Target Audience:
- City Employees
- Residents

Responsible Persons for Implementation:
- Recreation Programming Specialist: Coordinating
- Assistant City Engineer: Reporting

Activities to Reach Goals:
- Maintain availability

Schedules:
- Participating City facilities
- 24/7 Access to Dumpster at Dakota County facility

Evaluation Method:
- How many green bins of compostable material has been snatched from the depths of the ordinary trash can. One bin per week per facility.

The City of Hastings has teamed up with Tennis Sanitation to provide a pilot program commencing April 1, 2019 to collect organics at Hastings City Hall. Success with the pilot program may expand the program to other City facilities. Labeled green bins with compostable bags were added to the lunch/break rooms to collect food, paper towels, napkins, coffee grounds, coffee liners, wooden stir sticks, compostable plates, cups, forks, knives, and spoons. Additional bins are obtained to serve large meetings and events.

The City of Hastings has also teamed up with Tennis Sanitation and Dakota County to provide an organic drop off location at the Dakota County shop located off CSAH 46 west of Pine St.

Evaluation Summary: A waste sort was conducted at Hastings City Hall in 2017. According to the findings 27% of the trash was organics. By adding compost bins, the City can reduce their regular trash containment by a quarter. And, by adding a Citywide compost dumpster then participating residents can reduce their organic waste by similar margin.

APPENDIX G1
Street Sweeping
2007-2021

Target Audience:
Public Works Dept
Responsible Persons for Implementation:
Public Works Employee: Street Sweeping
Assistant City Engineer: Reporting
Activities to Reach Goals:
Sweep streets to remove sediment and debris. The objective is to:
1) Sweep all streets at least twice per year
    a. Spring after snow melt
    b. Fall after leaves fall
2) Sweep streets an additional time or two in:
    a) Areas adjacent to construction (City and/or Developers)
    b) Areas of high tree debris
    c) Areas draining directly to high quality waters
    d) Areas on annual chip seal project

Schedules:
Sweep streets in spring, summer, and fall
Evaluation Method:
The effectiveness of street sweeping is measured by the number of times a street is swept and the amount of debris picked up.

Using its own two sweepers, the City of Hastings sweeps its streets from snow melt to snow fall. The City accomplishes a minimum of 2 sweepings per year per street. In some cases many more; up to 6 times. According to a 2008 study researched by the Local Technical Assistance Program (LTAP), sweeping 2-3 times per year is on par with the surrounding Minnesota community's sweeping frequencies. Typically, the Tymco is run full time throughout town from Spring to Fall. The Elgin is run in the spring until everything has been swept. Then fired up again during the chip seal project in June. Then again in the fall to keep up with leaf control.

In 2012, the City began utilizing GPS devices by Force America, Inc to track progress on its equipment, including its Tymco sweeper. Using the query feature for any given time period (ie. day), the GPS device can play or replay the time stamped route, track how many times the sweeper dumped its load (4 CY), and miles driven. Drivers additionally log their day's whereabouts and approximate material dumped using the trusted clip board method. Prior to 2012, each sweeper had a hard copy of a 24"x36" map of the City. Basic highlighters showed daily progress.

YEAR	START	STOP	COMMENTS
2007	April 17	November 19	
2008	April 14	November 18	
2009	Mid-April	Mid-November	
2010	March	November	
2011	April	November	
2012	April	November	
2013	May	Mid-November	Very late spring
2014	End April	November 10	Late spring
2015	March 27	November	
2016	End March	November	
2017	March	November	Early spring. A week in February too.
2018	May	November	Very late spring
2019	Early April	November 15	
2020	End March	October, Spot Nov	Early snow storms
2021	End March	End of November	
2022	Early April		Late spring

Street sweeping maps/records, log sheets, precise tracking program, and MNDOT's 2008 Resource for Implementing a Street Sweeping Best Management Practice is available upon request.

Note: Developers are required to sweep the tracking off of the streets next to their projects. City inspectors enforce compliance. See Appendix D3 for more information.

Hastings Street Sweeper Fleet

Tymco 500X Air Sweeper – 4CY per dump

Elgin Pelican

APPENDIX G2
Televise Sanitary Sewer Service Lines
2007-2021

Target Audience:
Public Works Dept
Responsible Persons for Implementation:
Public Works Employee: Televising Sanitary Sewer Lines
Assistant City Engineer: Reporting
Activities to Reach Goals:
Televise next year's proposed reconstruction area in addition to segments determined by the crews when jetting and flushing out the system.
Schedules:
Spring, Summer, Fall
Evaluation Method:
The effectiveness of televising sanitary sewer lines is the number of dilapidated sanitary sewer feet replaced per year.

Deteriorating sanitary sewers can pose an environmental problem through unintended infiltration of effluent into the soil and groundwater. Old sewers can unfortunately leak when the pipes get cracked or damaged. Common ways a pipe can be damaged include:

1) Settling through years of freeze/thaw cycle
2) Settling through poor compaction
3) Infiltration of tree roots
4) Hit line from above ground digging, excavating, or other earthwork

In efforts to eliminate old and suspect sanitary sewer lines producing non-point source pollution, the City purchased, in 2007, a sanitary utility televising unit. The City is currently working on replacing old and suspect sanitary lines located within its annual reconstruction project. In addition, in 2016 the City has started a sanitary sewer lining program that would accelerate replacing the mileage of the most problematic main. Reconstruct projects are chosen for not only the surface pavement condition but also the quality of the utilities below. The City of Hastings has approximately 90 miles of sanitary sewer to maintain. The annual reconstruction project contains an average of 1.90 centerline miles of street. The following sanitary sewer lining projects have been completed.

1) 2021 Sanitary Sewer Lining Program – 1.29 mi
2) 2020 Sanitary Sewer Lining Program – 0.00 mi
3) 2019 Sanitary Sewer Lining Program – 1.33mi
4) 2018 Sanitary Sewer Lining Program – 0.25 mi
5) 2017 Sanitary Sewer Lining Program – 0.57 mi
6) 2016 Hastings Veteran's Home Sanitary Sewer Rehabilitation – 0.84 mi
7) 2016 Sanitary Sewer Lining Program – 1.26 mi

APPENDIX H1
Reconstruction Projects
2007-2021

Target Audience:
Contractors, City staff
Responsible Persons for Implementation:
Engineering Technician/Principal Engineer: Erosion and Sediment Control Inspector (Reconstruction Projects)
Assistant City Engineer: Reporting
Activities to Reach Goals:
Implement and enforce erosion control regulations on road reconstruction projects. The City promptly performs site visits with all active construction sites conforming to NPDES Phase II permit guidelines, construction specifications, and standard plates.
Schedules:
Inspections are conducted daily, but at a minimum of, once every seven days during the active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours. Silt fence, construction entrances, and/or other suitable perimeter erosion control measures are required to be installed prior to the start of any grading or land disturbing activity. Street sweeping is also a required practice as the situation dictates.
Evaluation Method:
The effectiveness of the reconstruction projects will be measured by the number of compliant construction sites.

Once a reconstruction project is approved through City Council, the City Engineering Technicians under the oversight of the Principal Engineer maintain daily field notes, including notes pertaining to erosion and sediment control issues. The City works closely with the contractor's foreman and project supervisor to maintain a stable work site. The City requires a Construction Inspection Checklist be submitted weekly to the City. Typically, the contractor chooses to utilize the MPCA checklist found at the following location:
http://www.pca.state.mn.us/index.php/view-document.html?gid=20686
The inspection notes documenting the inspections and enforcement actions for each project are available upon request.

Every summer, the City selects approximately 1.5-3 miles of dilapidated roads to be reconstructed, as well as various other projects. Dating back to 2006, a list of successful projects include:

1) 15th St Infrastructure Improvements Phase II (2021)
2) Hwy 316 Reconstruction Project (2021)
3) Neighborhood Infrastructure Improvements (2020)
4) Neighborhood Infrastructure Improvements (2019)
5) Neighborhood Infrastructure Improvements (2018)
6) Neighborhood infrastructure Improvements (2017)
7) Neighborhood Infrastructure Improvements (2016)
8) Minnesota Veterans Home Sanitary Sewer Reconstruction & Rehabilitation (2016)
9) Riverfront Renaissance Improvements Phase III (2016)

10) Vermillion Greenway Trail Connection (2016)
11) Riverfront Renaissance Improvements Phase II (2015)
12) Neighborhood Infrastructure Improvements (2014)
13) 10th St & Progress Dr Improvement (2013)
14) 18th St / Trunk Hwy 291 Improvements (2013)
15) Infrastructure Improvements (2012)
16) Block 16 Parking Lot (2012)
17) Infrastructure Improvements (2011)
18) Infrastructure Improvements (2010)
19) Industrial Park Area Improvements (2009)
20) Three Rivers Stormwater Diversion (2009)
21) North Vermillion Area Improvements (2008)
22) Downtown Street & Watermain Improvements (2008)
23) 5th Street Area Improvements (2007)
24) 3rd Street Area Improvements (2006)
25) North Frontage Road Improvements (2006)
26) Commerce Drive Improvements (2006)

These projects incorporated the latest erosion control and best management practices as per its construction SWPPP. Furthermore, the 2009 Industrial Park Area Improvement Project won second place for the Environmental Stewardship Award given by the American Public Works Association's (APWA) annual conference award committee. This project, in conjunction with its geographical adjacent "sister project," the 2009 Three Rivers Stormwater Diversion project, incorporated specific sizable "front line" best management measures. For further project information, see Appendix H2.

APPENDIX H2
Projects
2007-2021

Target Audience:
City of Hastings
Responsible Persons for Implementation:
Public Works and Engineering Dept
Assistant City Engineer: Reporting
Activities to Reach Goals:
Perform projects that remove pollutants from storm water system.
Schedules:
Perform projects as time, money, and resources allow
Evaluation Method:
The effectiveness of the projects will be measured by the number of projects initiated and the environmental benefit achieved.

Projects are performed on an annual basis that remove pollutants from the storm sewer system. These projects range in size and complexity and are performed as time, money, and resources allow. Pollutants highlighted in active TMDL allocations are given emphasis (TSS and Fecal Coliform). Phosphorus is another pollutant targeted.

A) Reconstruction Projects
    1) Neighborhood Infrastructure Improvements (2021)
        a) Sump manholes (TSS)
    2) Hwy 316 Reconstruction Project (2021)
        a) Sump manholes (TSS)
    3) Neighborhood Infrastructure Improvements (2020)
        a) Sump manholes (TSS)
    4) Neighborhood Infrastructure Improvements (2019)
        a) Sump manholes (TSS)
    5) Neighborhood Infrastructure Improvements (2018)
        b) Sump manholes (TSS)
    6) Neighborhood Infrastructure Improvements (2017)
        a) Sump manholes (TSS)
    7) Neighborhood Infrastructure Improvements (2016)
        a) Sump manholes (TSS)
    8) 2015 Street Improvements (2015)
        a) Sump manholes (TSS)
    9) Riverfront Renaissance Improvements Phase II (2015)
        a) Infiltration basins, parking lot (TSS, Ph)
    10) Neighborhood Infrastructure Improvements (2014)
        a) Sump manholes (TSS)
    11) 10th St & Progress Dr Improvements (2013)
        a) Sump manholes (TSS)
    12) 18th St / Trunk Hwy 291 Improvements (2013)

a) Sump manholes (TSS)
b) Grass swale (TSS, Ph)
c) Infiltration basin (TSS, Ph)
d) HPTRM on ditch channels (TSS)

10) Hastings Mississippi Bridge (2013)
    a) Stormceptors (TSS)
11) Infrastructure Improvements (2012)
    a) Sump manholes (TSS)
12) Block 16 Parking Lot (2012)
    a) Sump manholes (TSS)
    b) Hydroguard manhole (TSS)
    c) Rain Garden (TSS, Ph)
    d) Rain Guardian (TSS)
13) Infrastructure Improvements (2011)
    a) Sump manholes (TSS)
14) Infrastructure Improvements (2010)
    a) Sump manholes (TSS)
15) Industrial Park Area Improvements (2009)
    a) Informal raingardens (TSS, Ph)
    b) Infiltration basin (TSS, Ph)
    c) HPTRM on ditch channels (TSS)
16) Three Rivers Stormwater Diversion (2009)
    a) Diversion structure to infiltration basin (TSS, Ph)
17) North Vermillion Area Improvements (2008)
    a) Sump manholes (TSS)
18) Downtown Street & Watermain Improvements (2008)
19) 5th Street Area Improvements (2007)
    a) Sump manholes (TSS)
20) 3rd Street Area Improvements (2006)
    a) Sump manholes (TSS)
21) North Frontage Road Improvements (2006)
    a) Sump manholes (TSS)
    a. Commerce Drive Improvements (2006)
    a) Ditch protection (TSS)

B) Miscellaneous Projects

1) PW Expansion Project – Building
   2007-2008

   In 2007 the City of Hastings began the Public Works Expansion project aimed at expanding the existing Public Works building/site to accommodate moving the Engineering staff from City Hall to Public Works, as well as improving the exterior of the Public Works property to gain more efficient functionality while simultaneously improving the stormwater quality and environment as a whole. The project was constructed in two phases. The building expansion began in 2007 and was completed during the summer of 2008. The grounds began in 2008, worked on in 2009, but the final “'t' was not crossed and 'i' dotted" until the rain garden plants were

installed on May 24, 2010. The 7,520 square foot building expansion was designed with the environment in mind. First, over-sized energy efficient windows and skylights were incorporated to reduce the amount of florescent lighting required. Second, the more energy efficient radiant heating was installed to reduce the necessity of the adjoining forced air units. Third, condensing boilers were installed instead of water boilers in able to reduce the amount of water usage. And lastly, an energy management system adjusting the temperatures in each individual room according to its function and use was installed to eliminate wasted production of heat or air conditioning.

The City of Hastings plans for the PW Expansion Project are available upon request.

2) PW Expansion Project – Grounds (TSS, Ph)
2008-2011

Simultaneous to constructing the Public Works building in 2008, engineering staff designed and improved the Public Works grounds to include two rain gardens (660sf, 1,160sf), sixteen permeable paver public parking stalls (2,900sf), one irrigated stormwater pond dredged for increased volume (8900CY below rip rap EOF with 7450CY below 4" SDR reduced flow outlet pipe), seven 30"x30"/ 14"x30" storage bins designed for stockpile containment, a re-designed sanitary RV dump station to better contain effluent and better serve the community, and planted numerous new trees. Much of the storm water was designed to flow through a treatment chain of roof-raingarden-stormwater pond with irrigation pump or roof-permeable pavers-raingarden. No water will reach the Lower Vermillion River without first being treated.

In 2009, the City planned to complete the installation of the raingarden plants. Simultaneously, while partnering with Dakota County Soil and Water Conversation District (DCSWCD), the City planned to install a 5HP submersible pump with forty 3.5 inch irrigation heads, replete with timer, designed to irrigate the surrounding compost-amended grassy knoll using the stormwater runoff captured in the newly dredged pond. As a result, barring a 100 year storm event, nitrate and phosphorus would be replenished back into the nearby soil instead of being directly discharged to the Vermillion River. With matching grant opportunity secured through the DCSWCD, economic conditions thwarted and abolished the funds necessary to complete both the raingardens and submersible pump project.

In 2010, the City acquired another grant opportunity through the Friends of the Mississippi (FMR) to fund the purchase and installation of raingarden plants for the two raingarden cells. May 24, 2010, on an unusually humid 90 degree day, 30 volunteers, representing FMR (5), St Paul Home Energy Squad (7), Hastings High School biology teacher and students (13), National Parks Service (1), and City of Hastings (5) donated their time and hard spent energy to install the two raingarden cells. Root structures continued to establish and stabilize themselves throughout the

2010 growing season to provide increased infiltration properties for stormwater runoff.

In 2011, the City acquired another grant opportunity through the Friends of the Mississippi to fund the replacement plants required to fill in the voids left from a harsh Minnesota winter. Similar to the previous grant, almost a score of volunteers on July 14, 2011 enthusiastically swarmed both raingarden cells to assist with weeding, transplanting, and planting. Many hands made surprisingly light work!

In subsequent years, raingarden weeding occurs as time, money, and resources allow. The plant selections utilized for the two raingarden cells are available upon request.

3) Public Works Expansion Project Outreach
2010-2011

In 2010, the City acquired a grant opportunity through the Friends of the Mississippi to fund the purchase and installation of raingarden plants for two raingarden cells at the Public Works facility. This grant not only provided the monetary means to complete the Public Works expansion project but allowed an opportunity for the public to volunteer their time to plant and see how a raingarden should function and be maintained properly. Dozens of volunteers helped plant the two raingardens on May 24, 2010. In 2011, the City acquired another grant opportunity through the Friends of the Mississippi to fund the replacement plants required to fill in the voids left from a harsh Minnesota winter. Similar to the previous grant, almost a score of volunteers on July 14, 2011 enthusiastically swarmed both raingarden cells to assist with weeding, transplanting, and planting. Many hands made surprisingly light work! Today, the rain gardens are actively displayed as an object lesson of good stewardship and water quality.

4) Spot Restoration
2009

On an as needed basis, Public Works crews prioritize and perform small tree trimming, rip rap improvement, and channel restoration projects stabilizing and maintaining storm sewer systems, open channel storm conveyance systems, and other identified problem areas. For an example, during the week of June 1-5, 2009, the Public Works Department regraded the swale located within the Riverwood development from Vista Drive to Riverwood Drive. Various clearing and grubbing of small trees/brush were cleared and the channel was properly restored to its original design of a sod swale to prevent erosion. All silt, debris, and trash were cleaned out of the channel, FES and rip rap. The project protected the nearby Vermillion River as provided flood protection for nearby residents. On another occasion in August 2009, City crews regraded a swale and added new rip rap located in Featherstone Basin and removed all silt, debris, and trash from the channel, FES, and rip rap.

Locations of recent project areas are available upon request.

5) Industrial Park Area Improvements & Three Rivers Project (TSS, Ph)
2009

2009-2 Three Rivers Pond project developed as an unfunded segment of a larger 2009-1 Industrial Park Area reconstruction project. Industrial Park Project integrated the City's annual road reconstruction project with proposed solutions to restoring a severely eroded ravine leading to the TMDL Vermillion River. Four water quality and rate control concepts were chosen amongst 11 scenarios investigated. The four solutions included 1) Installation of ravine channel stabilization with turf reinforcing material to manage 240 acres of an existing and mostly built out industrial park area. 2) Installation of an extended detention pond at the upstream end of the ravine. The basin would be constructed with an earthen berm running across the ravine to control rate simultaneously allowing time for particles to settle. The berm would be constructed with a 12" low flow outlet, 10' overflow weir, and an emergency overflow cut into the berm. 3) Installation of a flow diversion to redirect 33 current tributary acres to the ravine and discharge, via gravity flow storm sewer, toward an existing Three Rivers Pond North pond. In order to divert runoff from the storm sewer in 31st St, special diversion structures, including overflow weirs and low flow extended detention orifice would need to be constructed. According to Barr Engineering, in an average rainfall year the overall reduction of TSS for diversion is 19%, the overall reduction of TP is 12%, and total net volume reduction is 7%. 4) Installation of rainwater gardens along various best-fit locations along the 1.75 mi of reconstructed road right-of-way. With construction costs exceeding necessary funding capacity and unfortunate project downsizing in the crosshairs, the City approached the Vermillion River Watershed Joint Powers Organization (VRWJPO) and Dakota County Soil and Water Conservation District (DCSWCD) for storm water quality funding assistance. With full support of the project, the VRWJPO's limited dollars resurrected and helped partially fund the ravine stabilization, ravine detention pond, and raingarden components of the project. Still in the crosshairs, financial Assistance for the diversion to Three Rivers Pond North was applied for through the MN Clean Water State Revolving Fund. A form of stimulus money was approved but the City declined acceptance due to timing and requirement issues. Industrial Park Area Improvements was completed by November 2009 as well as the separate Three Rivers Pond North project. According to Barr, in an average rainfall year the overall project reduction of TSS is 56%, the overall reduction of TP is 30%, and total net volume reduction is 22%. Presentation for VR Watershed Tour: 7/21/10. Monitoring in subsequent years has remained positive.

Barr's March 10, 2009 technical memo summarizing the water quality benefits of the eleven scenarios, and the final project plans are available per request.

6) ConAgra Stormwater Project (TSS, Ph)
2008-2010

In 2008 ConAgra, teamed with S.E.H. Consulting, approached the VRJPO, SWCD, Friends of the Mississippi, and the City for insight as well as possible funding for a site improvement project aimed at greatly reducing direct parking lot runoff into the Vermillion River by re-directing impervious runoff into a filtration pond and raingardens prior to discharging remaining, but much cleaner, water into the storm sewer system. The final plans and specifications can be obtained from ConAgra. Construction was completed in the October/November 2009. The biofiltration project was one of seven projects on the agenda for the Vermillion River Watershed Tour, held on July 21, 2010. The first annual tour is aimed at spurring interest and awareness of water quality projects in Dakota County by highlighting past successful projects. The tour was open to government agencies, watershed, and any interested public. Approximately 30 people were in attendance for the on-site tour.

7) Malcolm Avenue Improvements (TSS)
2013

The storm water utility fee funded a neighborhood project adding in five sump catch basins and a restored property line swale to better treat and move water from yards and street which ponded water on a fairly regular basis. Storm water improvements include:

a) Sump manholes remove TSS
b) Perforated storm pipe infiltrates storm water into naturally sandy soils
c) Sandy replacement soils to aid in infiltration along property line

8) Conzemius Ravine Improvements (TSS, Ph)
2013

The project restored a quarter mile ravine with HPTRM, improved infiltration basins, and installed new storm sewer to reduce the risk of further erosion by reducing the amount of water discharging down the ravine. Conzemius Ravine is located north of 14th St, south of Bahls Dr, east of Park Lane, and west of Westview Dr.

9) Lower Vermillion River Linear Park Natural Resource Management Plan (TSS)
2013-present

Friends of the Mississippi River approached the City requesting support for improving the corridor of the Vermillion River south of CSAH 46 and west of Hwy 61. The four phase plan, spread of six years, aims to remove all non-native vegetation from the bypass channel and riverbank area, and restore it back to native prairie. Eroded riverbank slopes would be restored using soft armoring techniques such as willow staking. The project would stabilize the ¾ mile bypass channel area.

10) 21st St Water Quality Improvements
2020

The City of Hastings partnered with Dakota County to secure Vermillion River Watershed and BWSR Clean Water Funds through the Watershed Based Funding Program. The project installed a hydrodynamic separator at Hwy 61 and 21st St, partnered with Cemstone to install pretreatment and sand filter with underdrain, and partnered with MNDOT to remove accumulated sediment within a ravine and to increase its dead storage and revegetation. Modeling projects 17,786 lb/yr of TSS removal and 20.4 lb/yr of TP.

APPENDIX I1
Lower Mississippi River Basin TMDL
2007-2021

Target Audience:
City of Hastings
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Each TMDL project contains a Waste Load Allocation (WLA). To meet the WLA, the TMDL project shall:
1) Assess how the WLA will be met
List BMPs applied to achieve WLA. Each structural BMP shall include:
Unique ID number
Geographical Coordinate
2) Provide progress report of implementation
3) Provide an estimate of how much the BMPs will reduce the pollutant loading
Schedules:
The Lower Mississippi River Basin TMDL was officially approved on April 5, 2006. The City will continuously seek to improve strategies for reducing fecal coliform within the WLA.
Evaluation Method:
The effectiveness will be measured by the number of BMPs reducing the WLA.

The Lower Mississippi River Basin violates Minnesota water quality standards for its levels of fecal coliform. Bacteria can be transferred to water bodies from storm water systems, areas with field-applied manure fertilizer or storage, non-compliant septic systems, connected water bodies, or feedlots. Potential areas of increased source bacteria include:
1) Rivers, lakes, ponds, wetlands
2) Parks, trails, public spaces
3) Rivertown Dog Park

The City of Hastings will partake in the basin wide effort to remove pollutants. With its December 27, 2013 submittal for extended permit coverage (page 18 of 19 or Part II(D)(6)(f-g), the City commits to participate in reducing fecal coliform discharge. The activities include an implementation date of June 30, 2015. The end goal of achieving the full WLA will take many more years.
1) Sump Manholes: Install new sump manholes within annual reconstruct projects (see Appendix E1)
2) Street Sweeping: Sweep minimum 2 times per year with higher frequency in sensitive areas (see Appendix G1)
3) Public Education: Provide Fecal Coliform education materials in newsletters and social media (see Appendix A2, A3, A4)
4) Reconstruct Projects: Review opportunities to implement infiltration/water quality components (see Appendix H2)

5) Ordinance: Review ordinance for compliance for illicit discharge criteria (see Appendix C7)
6) Development/Redevelopment: Review ordinance for compliance with permit requirements (see Appendix C7)
7) Raingardens: Promote Blue Thumb Raingarden Initiative (see Appendix B5)

A TMDL Annual Report Form was completed on May, 15, 2015 and is an annual attachment to the SWPPP submittal due each subsequent June 30th. The first reporting year is June 30, 2015. The form documents progress towards achieving the TMDL listing structural and non-structural BMPs and its quantitative and qualitative effectiveness.

The MPCA posts a plethora of information on its website regarding this TMDL. The following are a few links:

Fact Sheet
http://www.pca.state.mn.us/index.php/view-document.html?gid=8004

MPCA Website
http://www.pca.state.mn.us/index.php/water/water-types-and-programs/minnesotas-impaired-waters-and-tmdls/tmdl-projects/lower-mississippi-river-basin-tmdl/project-lower-mississippi-river-basin-regional-fecal-coliform.html

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

TMDL Annual Report Form

Municipal Separate Storm Sewer Systems (MS4) Program

Doc Type: Annual Report

Form Information

This form is to be completed annually by MS4s in order to track the completed BMP activities and to calculate the cumulative loading reduction for specific pollutants of concern associated with each applicable WLA. Navigate through this form using the tabs at the bottom of the page. All information is collected in accordance with Part III.E of the MS4 Permit.

Green Tabs (REQUIRED): user-input worksheet
Blue Tabs (hidden*): optional user-input worksheet
Yellow Tabs (hidden*): reference worksheet

*Reveal hidden spreadsheet tabs by navigating to Home->Cells->Format->Hide & Unhide->Unhide Sheet

Please refer to the Guidance for Completing the TMDL Reporting Form in the Minnesota Stormwater Manual for additional assistance and instructions. Sections of the guidance are hyperlinked throughout this spreadsheet.

User Information

Date Updated: 2/24/2021

Permittee: Hastings City

Permit ID: MS400240

Contact Name: John Caven

Contact Phone: 651.480.2369

Contact email: jcaven@hastingsmn.gov

Mailing address: 1225 Progress Dr, Hastings, MN 55033

Reporting Year	Data Entry Date	Entered by	Notes
2014	5/15/2015	John Caven	
2015	2/10/2016	John Caven	
2016	3/15/2017	John Caven	
2017	4/12/2018	John Caven	
2018	6/18/2019	John Caven	
2019	5/12/2020	John Caven	
2020	5/27/2021	John Caven	
2021	6/23/2022	John Caven	

BMP - Activities Completed Spreadsheet

For MPCA use only			Required		Optional	Required						Optional		Required: Place an "X" in a cell if the BMP applies to the TMDL shown in the column
														Lower Mississippi River Basin Fecal Coliform Bacteria TMDL
Entry ID	Permittee	MS4 ID	Reporting year	BMP/Activity	BMP Description	Location and ID Information Needed?	BMP ID	y-coord	x-coord	Coordinate system (e.g. lat-long, UTM)	Who owns this BMP/activity?	If applicable, name other owner(s)	Year when BMP was implemented	Note(s)		Lower Mississippi River Basin Fecal Coliform Bacteria TMDL - Fecal Coliform
MS400000-1	Hastings City	MS400240	2014	Swale_or_strip	Grass channel/waterway	Complete columns H through K	1	44.7206	92.845	Lat-long	Permittee (you)	NA	2006	Commerce Dr ditch stabilization		X
MS400000-2	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2006	Recon Project (3rd St) - 38 new sumps		X
MS400000-3	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2007	Recon Project (5th St) - 78 new sumps		X
MS400000-4	Hastings City	MS400240	2014	Supplemental_street_sweeping	Street sweeping	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2007	Street Sweeping		X
MS400000-5	Hastings City	MS400240	2014	Supplemental_public_education_outreach	Publications	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2007	Rivertown Newsletters, Website, City Hall Fliers, Facebook, Electronic Message Board, KDWA Radio, Annual Meeting		X
MS400000-6	Hastings City	MS400240	2014	Supplemental_public_education_outreach	Workshops/Clinics	No ID information needed	NA	NA	NA	NA	Other MS4 permittee	Dakota County	2007	Dakota County Blue Thumb Raingarden Initiative (15 Rain Gardens planted since 2007) - 1-2008, 3-2009, 2-2010, 2-2011, 4-2012, 1-2013, 2-2014		X
MS400000-7	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2008	Recon Project (NVAI) - 39 new sumps		X
MS400000-8	Hastings City	MS400240	2014	Constructed_basin	Wet pond/wet detention pond	Complete columns H through K	2	44.7331	92.3419	Lat-long	Permittee (you)	NA	2008	PW Expansion Project - Pond SW Blg		X
MS400000-9	Hastings City	MS400240	2014	Constructed_basin	Wet pond/wet detention pond	Complete columns H through K	3	44.7344	92.8394	Lat-long	Permittee (you)	NA	2008	PW Expansion Project - Pond 10th St		X
MS400000-10	Hastings City	MS400240	2014	Infiltrator	Bioretention with no underdrain (rain garden)	Complete columns H through K	4	44.44008	92.8422	Lat-long	Permittee (you)	NA	2008	PW Expansion Project - Rain Garden SW		X
MS400000-11	Hastings City	MS400240	2014	Infiltrator	Bioretention with no underdrain (rain garden)	Complete columns H through K	5	44.7342	92.8408	Lat-long	Permittee (you)	NA	2008	PW Expansion Project - Rain Garden N		X
MS400000-12	Hastings City	MS400240	2014	Filter	Permeable pavement with underdrain	Complete columns H through K	6	44.7339	92.8411	Lat-long	Permittee (you)	NA	2008	PW Expansion Project - Permeable Pavers		X
MS400000-13	Hastings City	MS400240	2014	Infiltrator	Bioretention with no underdrain (rain garden)	Complete columns H through K	7	44.72	92.8406	Lat-long	Permittee (you)	NA	2009	Recon Project (Industrial Park) - Informal Rain Gardens		X
MS400000-14	Hastings City	MS400240	2014	Constructed_basin	Wet pond/wet detention pond	Complete columns H through K	8	44.7208	92.8386	Lat-long	Permittee (you)	NA	2009	Recon Project (Industrial Park) - Ravine Pond		X
MS400000-15	Hastings City	MS400240	2014	Swale_or_strip	Grass channel/waterway	Complete columns H through K	9	44.7225	92.8425	Lat-long	Permittee (you)	NA	2009	Recon Prroject (Industrial Park) - Ravine ditch stabilization		X
MS400000-16	Hastings City	MS400240	2014	Infiltrator	Infiltration basin	Complete columns H through K	10	44.7164	92.8364	Lat-long	Permittee (you)	NA	2009	Three Rivers SW Diversion - Divert to ex-Infiltration Basin		X
MS400000-17	Hastings City	MS400240	2014	Filter	Bioretention with underdrain (rain garden)	Complete columns H through K	11	44.7267	92.8464	Lat-long	Other	NA	2009	ConAgra Filtration Basin		X
MS400000-18	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2010	Recon Project (Pleasant) - 4 new sumps		X
MS400000-19	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2011	Recon Project (14th St) - 45 new sumps		X
MS400000-20	Hastings City	MS400240	2014	Establish_ordinance	Illicit discharges	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2011	Recon Project (17th St) - 47 new sumps		X
MS400000-21	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2012	Ordinance: Illicit Discharge 9/6/11		X
MS400000-22	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2012	Block 16 Parking Lot - 4 new sumps		X
MS400000-23	Hastings City	MS400240	2014	Manufactured_device	Hydrodynamic separator	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2012	Block 16 Parking Lot - Hydroguard MH		X
MS400000-24	Hastings City	MS400240	2014	Infiltrator	Bioretention with no underdrain (rain garden)	Complete columns H through K	12	44.7436	92.8478	Lat-long	Permittee (you)	NA	2012	Block 16 Parking Lot - Rain Garden		X
MS400000-25	Hastings City	MS400240	2014	Manufactured_device	Water quality inlet	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2012	Block 16 Parking Lot - Rain Guardians (2)		X
MS400000-26	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2013	Recon Project (10th St) - 11 new sumps		X
MS400000-27	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2013	Recon Project (18th St) - 33 new sumps		X
MS400000-28	Hastings City	MS400240	2014	Swale_or_strip	Grass channel/waterway	Complete columns H through K	13	44.7292	92.835	Lat-long	Permittee (you)	NA	2013	Recon Project (18th St) - Grass Swale leading to basin		X
MS400000-29	Hastings City	MS400240	2014	Constructed_basin	Wet pond/wet detention pond	Complete columns H through K	14	44.7292	92.834	Lat-long	Permittee (you)	NA	2013	Recon Project (18th St) - Infiltration Basin		X
MS400000-30	Hastings City	MS400240	2014	Swale_or_strip	Grass channel/waterway	Complete columns H through K	15	44.729	92.832	Lat-long	Permittee (you)	NA	2013	Recon Project (18th St) - HPTRM ditch stabilzation		X
MS400000-31	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2013	Malcolm Ave - 4 new sumps		X
MS400000-32	Hastings City	MS400240	2014	Swale_or_strip	Grass channel/waterway	Complete columns H through K	16	44.7342	92.875	Lat-long	Permittee (you)	NA	2013	Conzemius Park - HPTRM Ravine Stabilzation		X
MS400000-33	Hastings City	MS400240	2014	Constructed_basin	Dry pond/dry detention pond	Complete columns H through K	17	44.7338	92.873	Lat-long	Permittee (you)	NA	2013	Conzemius Park - Pond: Above & Below Berm		X
MS400000-34	Hastings City	MS400240	2014	Constructed_basin	Dry pond/dry detention pond	Complete columns H through K	18	44.734	92.871	Lat-long	Permittee (you)	NA	2013	Conzemius Park - Park Swale		X

TMDL report form for MS4 Permittee (to be submitted with Annual Report)

Entry ID	Permittee	MS4 ID	Reporting year	BMP/Activity	BMP Description	Location and ID Information Needed?	BMP ID	y-coord	x-coord	Coordinate system (e.g. lat-long, UTM)	Who owns this BMP/activity?	If applicable, name other owner(s)	Year when BMP was implemented	Note(s)		Lower Mississippi River Basin Fecal Coliform Bacteria TMDL - Fecal Coliform
MS400000-35	Hastings City	MS400240	2014	Manufactured_device	Hydrodynamic separator	No ID information needed	NA	NA	NA	NA	Other MS4 permittee	Dakota County	2013	Hastings Mississippi Bridge - Stormceptor		X
MS400000-36	Hastings City	MS400240	2014	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2014	Recon Project (Behind M&H) - 55 new sumps		X
MS400000-37	Hastings City	MS400240	2015	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2015	Recon Project (Bahls/SFR) - 5 new sumps		x
MS400000-38	Hastings City	MS400240	2015	Infiltrator	Bioretention with underdrain (rain garden)	Complete columns H through K	19	44.745	92.8506	Lat-long	Permittee (you)	NA	2015	Riverfront Renaissance Project Phase II Parking Lot RG		x
MS400000-39	Hastings City	MS400240	2016	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2016	Recon Project (Bailley Dr) - 10 new sumps		X
MS400000-40	Hastings City	MS400240	2017	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2017	Recon Project (North of Tennis Courts 1of2		X
MS400000-41	Hastings City	MS400240	2017	Constructed_basin	Dry pond/dry detention pond	Complete columns H through K	20	44.7395	92.8944	Lat-long	Other	NA	2017	Development: Allina Clinic		X
MS400000-42	Hastings City	MS400240	2017	Filter	Underground sand filter	Complete columns H through K	21	44.7449	92.8483	Lat-long	Other	NA	2017	Development: Artspace		X
MS400000-43	Hastings City	MS400240	2018	Infiltrator	Bioretention with no underdrain (rain garden)	Complete columns H through K	22	44.7311	92.8597	Lat-long	Other	NA	2018	Development: United Methodist Church		X
MS400000-44	Hastings City	MS400240	2018	Infiltrator	Bioretention with no underdrain (rain garden)	Complete columns H through K	23	44.7164	92.8494	Lat-long	Other	NA	2018	Development: Caturi Funeral Home		X
MS400000-45	Hastings City	MS400240	2018	Infiltrator	Infiltration basin	Complete columns H through K	24	44.7078	92.8412	Other	Other	NA	2018	Development: South Pines 9th:		X
MS400000-46	Hastings City	MS400240	2018	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2018	Recon Project (North Tennis Ct) - 10 new sumps		X
MS400000-47	Hastings City	MS400240	2019	Filter	Bioretention with underdrain (rain garden)	Complete columns H through K	25	44.7452	92.8543	Lat-Long	Other	NA	2019	Development: Confluence		x
MS400000-48	Hastings City	MS400240	2019	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Other	NA	2019	Development: Confluence - 1 new sump		X
MS400000-49	Hastings City	MS400240	2019	Infiltrator	Infiltration basin	Complete columns H through K	26	44.722	92.827	Lat-long	Other	NA	2019	Development: Voyageur Estates Apts - 1 Infiltration Basin		X
MS400000-50	Hastings City	MS400240	2019	Infiltrator	Infiltration basin	Complete columns H through K	27	44.718	92.865	Lat-long	Other	NA	2019	Development: Vermillion Shores Apts - 1 Infiltration Basin		X
MS400000-51	Hastings City	MS400240	2019	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Other	NA	2019	Development: Wallin 16th (Cobblestone Ct)		X
MS400000-52	Hastings City	MS400240	2019	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2019	Recon: (Louis, Lester/Leroy) - 5 new sumps		X
MS400000-53	Hastings City	MS400240	2020	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2020	Recon: (15th St: Pine to Tyler) - 1 new summp		x
MS400000-54	Hastings City	MS400240	2020	Manufactured_device	Hydrodynamic separator	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2020	21st St Water Quality Improvements - Hydrodynamic Separator		X
MS400000-55	Hastings City	MS400240	2020	Filter	Media filter	Complete columns H through K	28	44.723846	92.847813	Lat-long	Permittee (you)	NA	2020	21st St Water Quality Improvements - Cemstone		X
MS400000-56	Hastings City	MS400240	2020	Infiltrator	Infiltration basin	Complete columns H through K	29	44.724632	92.842328	Lat-long	Permittee (you)	NA	2020	21st St Water Quality Improvements - Ravine by MNDOT		X
MS400000-57	Hastings City	MS400240	2021	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Permittee (you)	NA	2021	Recon: (15th St: Pine to Pleasant) - 0 nerw sump		x
MS400000-58	Hastings City	MS400240	2021	Infiltrator	Infiltration basin	Complete columns H through K	30	44.717465	92.840793	Lat-long	Other	NA	2021	Development: Custom Sawdust - 1 Infiltration Basin		x
MS400000-59	Hastings City	MS400240	2021	Infiltrator	Underground infiltration	Complete columns H through K	31	44.737292	92.850681	Lat-long	Other	NA	2022	Development: The Quill Senior Living - 1 UG Infiltration System		X
MS400000-60	Hastings City	MS400240	2021	Infiltrator	Infiltration basin	Complete columns H through K	32	44.717136	92.836073	Lat-long	Other	NA	2021	Development: Quality One Woodwoking - 2 Infiltration Basins		x
MS400000-61	Hastings City	MS400240	2021	Infiltrator	Infiltration basin	Complete columns H through K	33	44.727311	92.894154	Lat-long	Other	NA	2021	Development: Heritage Ridge 1-4 - 4 Infiltration Basins		x
MS400000-62	Hastings City	MS400240	2021	Filter	Surface sand filter	Complete columns H through K	34	44.72418	92.894196	Lat-long	Other	NA	2021	Development: Heritage Ridge 1-4 - 1 Filtration Basin		x
MS400000-63	Hastings City	MS400240	2021	Constructed_basin	Wet pond/wet detention pond	Complete columns H through K	35	44.724342	92.897918	Lat-long	Other	NA	2021	Development: Heritage Ridge 1-4: 2 Wet Ponds		x
MS400000-64	Hastings City	MS400240	2021	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Other	NA	2021	Development: Heritage Ridge 1-4: 7 new sumps		x
MS400000-65	Hastings City	MS400240	2021	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Other	NA	2021	Development: Wallin 19th: 5 new sumps		x
MS400000-66	Hastings City	MS400240	2021	Infiltrator	Infiltration basin	Complete columns H through K	36	44.722655	92.883376	Lat-long	Other	NA	2021	Development: Villas at Pleasant - 4 Infiltration Basins		x
MS400000-67	Hastings City	MS400240	2021	Filter	Surface sand filter	Complete columns H through K	37	44.72269	92.881646	Lat-long	Other	NA	2021	Development: Villas at Pleasant - 1 Filtration Basin		x
MS400000-68	Hastings City	MS400240	2021	Manufactured_device	Sump manhole	No ID information needed	NA	NA	NA	NA	Other	NA	2021	Development: Villas at Pleasant - 3 new sumps		x
MS400000-69																
MS400000-70																
MS400000-71																
MS400000-72																
MS400000-73																
MS400000-74																
MS400000-75																

Cumulative Reductions Spreadsheet

Category 1: Summary of quantitative reductions (Annual Pollutant Load Reduction).												Optional	
Permittee	MS4 ID	TMDL project	Units	2014	2015	2016	2017	2018	2019	2020	2021	Calculation method	Notes
Hastings City	**MS400240**	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL - Fecal Coliform	% load reduction	1.42	1.43	1.43	1.68	1.86	2.18	3.02	4.06	MPCA Estimator, MIDS Calculator, BARR Engineering Technical Memo	

Category 2: Summary of qualitative reductions (# of BMPs).											Optional
Permittee	MS4 ID	TMDL project	2014	2015	2016	2017	2018	2019	2020	2021	Notes
Hastings City	**MS400240**	Lower Mississippi River Basin Fecal Coliform Bacteria TMDL - Fecal Coliform	18	19	20	21	24	27	29	37	

Non-implemented activities (BMP Inventory)

Permittee	MS4 ID	BMP description	Status	Reporting year	Notes (Optional)	Place an "X" in a cell if the activity applies to the TMDL shown in the column: Lower Mississippi River Basin Fecal Coliform Bacteria TMDL - Fecal Coliform
Hastings City	**MS400240**	Sump Manholes: Install new sump manholes within annual reconstruct & Development	Planned	2021	Completed, and continue to implement new sump manholes on annual reconstruct project .	X
Hastings City	**MS400240**	**Street Sweeping: Sweep minimum 2 times per year with higher frequency in sensitive areas**	Planned	2021	Completed, and continue to sweep, as described. . .	X
Hastings City	**MS400240**	**Public Education: Provide TSS & Fecal Coliform educational materials in newsletters and social media**	Planned	2021	Completed, and continue to provide new educational materials in public education program, as described . .	X
Hastings City	**MS400240**	**Reconstruct Projects: Review opportunities to implement infiltration/water quality components**	Planned	2021	Completed, and continue to implement environmentally friendly components to projects, where possible . .	X
Hastings City	**MS400240**	**Ordinance: Review ordinance for compliance for illicit discharge criteria**	Planned	2021	Completed, and continue to strengthen ordinance, as necessary . .	x
Hastings City	**MS400240**	**Development/Redevelopment: Review ordinance for compliance with permit requirements**	Planned	2021	Completed. Adopted 4/6/15 Continue to strengthen ordinance, as necessary . .	x

Hastings City	**MS400240**	**Raingardens: Promote Blue Thumb Rain Garden Initiative**	Planned	2021	Completed, and continue to support Dakota County Blue Thumb program in Hastings area .	X
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					
Hastings City	**MS400240**					

Provide an up-dated narrative describing any adaptive management strategies used (including projected dates) for making progress toward achieving each
The City of Hastings will continue to make progess towards meeting the Lower Mississippi River Basin TM

Mapped Area of Potential Sources of Bacteria
MS4 Permit 22.3

- Rivers, Lakes, Ponds, Wetlands
- Parks, Trails, Public Spaces
- Rivertown Dog Park

Rivertown Dog Park

(See Map) **Mississippi River, Vermillion River, Lake Rebecca, Lake Isabel**

(See Parks & Trail Map) **Hastings Parks & Trails**

3.3 Miles to Schaar's Bluff Trailhead and Spring Lake Park Reserve

Hastings MINNESOTA
Since 1857

PARKS & TRAILS

920 10TH ST W. 651-480-6175 www.hastingsmn.gov

N

Mississippi River
Lake Rebecca
Lake Isabel
Bullfrog Pond
Vermillion River

NININGER RD (CTY 42)
1ST ST W
2ND ST W
HIGHWAY 55
15TH ST W
10TH ST E
18TH ST E
31ST ST E
31ST ST W
36TH ST W
160TH ST E (CTY 46)
4TH ST W
PINE ST
BAILLY ST
VERMILLION ST (HWY 61)
LILLEHEI AVE (HWY 61)
PLEASANT DR
WESTVIEW DR
RIVERWOOD DR
NORTHRIDGE DR
GENERAL SIEBEN DR
RAVENNA TRL (CTY 54)
RED WING BLVD (HWY 316)
SPIRAL BLVD
TIFFANY DR
TUTTLE DR

HASTINGS SENIOR HIGH
CHRISTA McAULIFFE ELEMENTARY
HASTINGS MIDDLE
PINECREST ELEMENTARY
ST ELIZABETH ANN SETON
KENNEDY ELEMENTARY

Dashed Segment Opens Spring 2017

TRAILS

- ASPHALT
- CONCRETE
- OTHER
- MISSISSIPPI RIVER TRAIL (MRT)
- HASTINGS 10-MILE SCENIC CIRCUIT
- MRT CONNECTION

PARKS

1-Eagle Bluff Park
2-River Flats Park
3-Featherstone Park Ponding Basin
4-Lake Rebecca Park
5-Jaycee Park
6-Levee Park
7-Olivers Grove Park
8-Depot Park
9-Lake Isabel Park
10-Crestview Park
11-Public Square
12-Lions Park
13-Wilson Park
14-Roadside Park
15-Rivertown Dog Park
16-Conzemius Park
17-Tierney Park
18-Rosemary Park Ponding Basin
19-C.P. Adams Park
20-Southwest Park Ponding Basin
21-Pioneer Park
22-Wallin Park
23-Pleasant Park
24-Dakota Hills Park
25-Westwood Park
26-Con Agra Park
27-Old Mill Park
28-Vermillion Falls Park
29-Vermillion River Linear Park
30-Veterans Park Athletic Complex
31-Cannon Park
32-Riverwood Park
33-Greten Park
34-Cari Park
35-Sunny Acres Park
36-South Pines Park
37-Tuttle Park

FACILITIES

- PARKING
- SCHOOLS

CITY BUILDINGS

- AQUATIC CENTER
- CHAMBER OF COMMERCE
- CITY HALL
- CIVIC ARENA
- FIRE DEPARTMENT
- PARKS DEPARTMENT
- POLICE DEPARTMENT
- PUBLIC DOCK
- FISHING PIER
- BOAT LANDING

POINTS OF INTEREST

- A-SCENIC OVERLOOK
- B-RIVER DIKE TRAIL
- C-FEDERAL LOCK AND DAM #2
- D-SCENIC OVERLOOK
- E-HASTINGS BRIDGE PLAZA, RIVER OVERLOOK, & TRAILHEAD
- F-OFF LEASH DOG PARK
- G-LEDUC MANSION
- H-DISC GOLF COURSE
- I-VERMILLION RIVER FALLS
- J-WHITE WATER RAFTING
- K-VERMILLION RIVER GORGE BRIDGE
- L-OLD MILL RUINS

0 0.25 0.5 1 Mile

Pond Inventory

Private

ID #	Name	Type		Location	Year Built	Owner	Maintenance Authority	Size	Function					# Inlets	#Outlets
		Natural or Constructed?	Type					(ac)	Water Quality	Rate Control	Flood Control	Infiltration/ Vol Control	No Control		
PP3-1	Hastings Ford Pond	Constructed	Dry Infiltration Pond		2002	Private	Private	0.30	Primary	Primary	Primary	Pipe		1	1
PP3-2	Cari Park Lane Pond	Constructed	Sedimentation Pond		1990	Private	Private	1.03	Primary	Primary	Primary	Landlocked		2	0
PP3-3	Three Rivers Pond North	Constructed	Dry Infiltration Pond		1960	Private	Private	1.86	Primary	Primary	Primary	Pipe		4	1
PP3-4	Three Rivers Pond South	Constructed	Dry Infiltration Pond		1960	Private	Private	3.73	Primary	Primary	Primary	Overland		5	1
PP-3-5	South Pines West Pond	Constructed	Dry Infiltration Pond	L21, B2 South Pines 4th	2003	Private	Private	0.41	Primary	Primary	Primary	Landlocked		3	0
PP3-6	South Pines West Pond	Constructed	Dry Infiltration Pond	L37, B1 South Pines 4th	2003	Private	Private	0.33	Primary	Primary	Primary	Pipe		0	1
PP3-7	South Pines West Pond	Constructed	Dry Infiltration Pond	L37, B1 South Pines 4th	2003	Private	Private	0.09	Primary	Primary	Primary	Pipe		1	1
PP3-8	South Pines West Pond	Constructed	Dry Infiltration Pond	L6, B4 South Pines 6th	2003	Private	Private	0.40	Primary	Primary	Primary	Pipe		1	1
PP4-1	Century South Pond	Constructed	Sedimentation Pond		2001	Private	Private	0.38	Primary	Primary	Primary	Pipe		3	1
PP20-1	Riverdale West Pond	Constructed	Dry Infiltration Pond		2001	Private	Private	0.35	Primary	Primary	Primary	Pipe		2	1
PP20-2	Riverdale East Pond	Constructed	Dry Infiltration Pond		2001	Private	Private	0.12	Primary	Primary	Primary	Pipe		1	1
PP29-1	Walmart Pond	Constructed	Sedimentation Pond		1973	Private	Private	0.66	Primary	Primary	Primary	Pipe		4	1
PP29-2	Featherstone Oaks Pond	Constructed	Dry Infiltration Pond		2006	Private	Private	0.05	Primary	Primary	Primary	Pipe		2	1
PP29-3	Hastings High School Pond	Constructed	Dry Infiltration Pond		2001	Private	Private	1.11	Primary	Primary	Primary	Pipe		2	1
PP29-4	Summit Point Pond	Constructed	Dry Infiltration Pond		1999	Private	Private	0.16	Primary	Primary	Primary	Pipe		2	1
PP29-5	Cub West Pond	Constructed	Dry Infiltration Pond		2002	Private	Private	0.11	Primary	Primary	Primary	Pipe		1	1
PP29-6	Cub South Pond	Constructed	Dry Infiltration Pond		2002	Private	Private	0.22	Primary	Primary	Primary	Landlocked		5	0
PP30-1	Prairie Ridge West Pond	Constructed	Dry Infiltration Pond		2005	Private	Private	0.80	Primary	Primary	Primary	Pipe		0	1
PP30-2	Prairie Ridge East Pond	Constructed	Dry Infiltration Pond		2005	Private	Private	0.59	Primary	Primary	Primary	Pipe		2	1
PP32-1	Wallin Pond	Constructed	Sedimentation Pond		1998	Private	Private	0.54	Primary	Primary	Primary	Pipe		1	1
PP32-2	Wallin Pond	Constructed	Sedimentation Pond		1998	Private	Private	0.90	Primary	Primary	Primary	Pipe		1	1
PP32-3	Wallin Pond	Constructed	Sedimentation Pond		1997	Private	Private	1.02	Primary	Primary	Primary	Pipe		1	1
PP32-4	Wallin Pond	Constructed	Sedimentation Pond		1997	Private	Private	0.55	Primary	Primary	Primary	Pipe		2	1
PP32-5	Wallin Pond	Constructed	Sedimentation Pond		2003	Private	Private	1.35	Primary	Primary	Primary	Pipe		3	1
PP32-6	Wallin Pond	Constructed	Sedimentation Pond		2000	Private	Private	1.00	Primary	Primary	Primary	Pipe		1	1
PP32-7	Wallin Pond	Constructed	Sedimentation Pond		2000	Private	Private	0.69	Primary	Primary	Primary	Pipe		1	1
PP32-8	Wallin Pond	Constructed	Sedimentation Pond		2000	Private	Private	0.75	Primary	Primary	Primary	Pipe		3	1
PP32-9	Wallin Pond	Constructed	Sedimentation Pond		1997	Private	Private	0.52	Primary	Primary	Primary	Pipe		1	1
PP32-10	Wallin Pond	Constructed	Sedimentation Pond		2003	Private	Private	1.27	Primary	Primary	Primary	Pipe		1	1
PP32-11	Country Club Pond	Constructed	Sedimentation Pond	Country Estates 1st	1960	City	City	0.94	Primary	Primary	Primary	Landlocked		0	0
PP33-1	South Oaks West Pond	Constructed	Sedimentation Pond		1997	Private	Private	0.68	Primary	Primary	Primary	Landlocked		0	0
PP33-2	South Oaks East Pond	Constructed	Sedimentation Pond		1997	Private	Private	0.06	Primary	Primary	Primary	Overland		2	0
PP33-3	Country Club Pond	Constructed	Sedimentation Pond	Country Estates 1st	1960	City	City	0.19	Primary	Primary	Primary	Overland		0	0
PP33-4	Country Club Pond	Constructed	Sedimentation Pond	Country Estates 1st	1960	City	City	0.36	Primary	Primary	Primary	Landlocked		0	0
PP33-5	Country Club Pond	Constructed	Sedimentation Pond	Country Estates 1st	1960	City	City	0.40	Primary	Primary	Primary	Landlocked		0	0
PP35-1	Glendale Heights North Pond	Constructed	Dry Infiltration Pond		2004	Private	Private	0.12	Primary	Primary	Primary	Pipe		1	1
PP35-2	Glendale Heights South Pond	Constructed	Dry Infiltration Pond		2004	Private	Private	0.45	Primary	Primary	Primary	Pipe		2	1
PP35-3	Industrial Park Pond	Constructed	Dry Infiltration Pond		1985	Private	Private	2.26	Primary	Primary	Primary	Landlocked		2	0

Note:

Updated: 10/18/10

Drainage areas for the ponding basins can be found on Figure VR-1 (p85) of the City of Hastings Watershed Management Plan (WMP) as adopted in March 2009.
Discharge locations for each drainage area into adjacent rivers/lakes can be found on the City of Hastings GIS mapping system.

Pond Inventory

Public

ID #	Name	Type		Location	Year Built	Owner	Maintenance Authority	Size (ac)	Function					# Inlets	#Outlets
		Natural or Constructed?	Type						Water Quality	Rate Control	Flood Control	Infiltration/ Vol Control	No Control		
1	Pleasant Valley Ponding Basin	Constructed	Sedimentation Pond	Featherstone Ponding Basin	1991	City	City	0.39	Primary	Primary	Primary	Pipe		1	1
2	Pleasant Valley Ponding Basin	Constructed	Sedimentation Pond	Featherstone Ponding Basin	1999	City	City	1.74	Primary	Primary	Primary	Pipe		1	1
3	Pleasant Valley Ponding Basin	Constructed	Sedimentation Pond	Featherstone Ponding Basin	1999	City	City	1.30	Primary	Primary	Primary	Landlocked		5	0
4	Lake Rebecca Ponding Area	Natural	Natural	West of Jaycee Park	-	City	City	4.78	Primary	Primary	Primary	Landlocked		2	0
5	NW Ponding Basin	Constructed	Dry Overland Spillway	Lions Park	1982	City	City	8.65	Secondary	Primary	Primary	Pipe		6	1
6	Bauer's Pond	Constructed	Dry Infiltration Pond	Bauer's 2nd	1993	City	City	0.59	Primary	Primary	Primary	Pipe		1	1
7	14th St Ponding Basin	Constructed	Dry Infiltration Pond	Hastings Marketplace Family Housing	2001	City	City	2.48	Primary	Primary	Primary	Pipe		6	0
8	Conzemius Pond	Constructed	Dry Infiltration Pond	Conzemius Park	1965	City	City	3.10	Secondary	Primary	Primary	Pipe		1	1
9	Rosemary Pond	Constructed	Dry Infiltration Pond	Dakota Hills 5th	1985	City	City	2.15	Primary	Primary	Primary	Pipe		1	1
10	Public Works East	Constructed	Sedimentation Pond	Public Works Building-East side	-	City	City	0.05	Primary	Primary	Primary	Pipe		2	1
11	Public Works West	Constructed	Sedimentation Pond	Public Works Building -West side	-	City	City	0.12	Primary	Primary	Primary	Pipe		1	1
12	291/54 Pond	Constructed	Constructed	SE corner of 18th and Ravenna Trail	-	City	City	0.27	Primary	Primary	Primary	Overland		0	0
13	Wallin Pond	Constructed	Sedimentation Pond	Outlot A, Wallin 1st	1994	City	City	2.18	Primary	Primary	Primary	Pipe		3	1
14	20th St Ponding Basin	Constructed	Dry Infiltration Pond	Pleasant Park	1973	City	City	0.30	Primary	Primary	Primary	Pipe		2	1
15	20th St Ponding Basin	Constructed	Dry Infiltration Pond	Pleasant Park	1973	City	City	0.33	Primary	Primary	Primary	Landlocked		3	0
16	15th St Pond	Constructed	Sedimentation Pond	Southwest Ponding Basin	1965	City	City	1.86	Primary	Primary	Primary	Landlocked		5	0
17	Ravine Pond	Constructed	Dry Infiltration Pond	2009 Industrial Park Area Improvements	2009	City	City	0.38	Primary	Primary	Primary	Pipe		3	1
18	Hwy 91 Pond	Constructed	Sedimentation Pond	E of Glendale Heights, W of Glendale Rd	-	City	City	0.10	Primary	Primary	Primary	Landlocked		0	0
19	Wallin Pond	Constructed	Dry Infiltration Pond	Outlot D, Wallin 10th	2003	City	City	0.42	Primary	Primary	Primary	Pipe		1	1
20	Wallin Pond	Constructed	Dry Infiltration Pond	Outlot E, Wallin 10th	2003	City	City	0.06	Primary	Primary	Primary	Landlocked		0	0
21	Century South Pond	Constructed	Dry Infiltration Pond	Outlot J, Century South 1st	2001	City	City	0.39	Primary	Primary	Primary	Pipe		1	1
22	Century South Pond	Constructed	Sedimentation Pond	Outlot D, Century South 1st	2001	City	City	1.65	Primary	Primary	Primary	Pipe		4	1
23	Cari Park Pond	Constructed	Sedimentation Pond	Cari Park	1989	City	City	0.75	Primary	Primary	Primary	Pipe		4	1
24	South Pines West Pond	Constructed	Dry Infiltration Pond	Outlot A, South Pines 4th	2002	City	City	0.65	Primary	Primary	Primary	Overland		2	0
25	South Pines West Pond	Constructed	Dry Infiltration Pond	Outlot A, South Pines 4th	2002	City	City	1.06	Primary	Primary	Primary	Pipe		3	1
26	South Pines East Pond	Constructed	Sedimentation Pond	Outlot D, South Pines 1st	1994	City	City	0.75	Primary	Primary	Primary	Pipe		1	1
27	Lake Rebecca	Natural	Type IV Wetland	South of Lake Rebecca Park	-	City	City	19.00	Primary	Primary	Primary	Landlocked		0	0
28	Lake Isabel	Natural	Natural	South of Lake Isabel Park	-	City	City	107.79	Primary	Primary	Primary	Overland		0	0
29	Bullfrog Pond	Natural	Natural	East of C.P. Adams Park	-	City/State/Private	City/State/Private	-	Primary	Primary	Primary	Mississippi River Backwater		0	0
31	CP Adams 18th St Pond	Constructed	Dry Infiltration Pond	18th St by CP Adams main parking lot	2013	City	City	0.34	Primary	Primary	Primary	Pipe		3	1
	Vermillion River	Natural	Linear Water	AUID#07040002-502	-	State	State	-	Primary	Primary	Primary	-		-	-

Note:

Updated: 2/28/14

Drainage areas for the ponding basins can be found on Figure VR-1 (p85) of the City of Hastings Watershed Management Plan (WMP) as adopted in March 2009.

Discharge locations for each drainage area into adjacent rivers/lakes can be found on the City of Hastings GIS mapping system.

APPENDIX I2
Lower Vermillion River Watershed TMDL
2009-2021

Target Audience:
City of Hastings
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Each TMDL project contains a Waste Load Allocation (WLA). To meet the WLA, the TMDL project shall:
1) Assess how the WLA will be met
List BMPs applied to achieve WLA. Each structural BMP shall include:
Unique ID number
Geographical Coordinate
2) Provide progress report of implementation
3) Provide an estimate of how much the BMPs will reduce the pollutant loading

Schedules:
The Lower Vermillion River Watershed TMDL was officially approved on September 29, 2009. The City will continuously seek to improve strategies for reducing Total Suspended Solids (TSS) within the WLA.
Evaluation Method:
The effectiveness will be measured by the number of BMPs reducing the WLA.

The Lower Vermillion River Watershed violates Minnesota water quality standards for its levels of TSS.

The City of Hastings will partake in the basin wide effort to remove pollutants. With its December 27, 2013 submittal for extended permit coverage (page 18 of 19 or Part II(D)(6)(f-g), the City commits to participate in reducing fecal coliform discharge. The activities include an implementation date of June 30, 2015. The end goal of achieving the full WLA will take many more years.

1) Sump Manholes: Install new sump manholes within annual reconstruct projects (see Appendix E1)
2) Street Sweeping: Sweep minimum 2 times per year with higher frequency in sensitive areas (see Appendix G1)
3) Public Education: Provide TSS education materials in newsletters and social media (see Appendix A2, A3, A4)
4) Reconstruct Projects: Review opportunities to implement infiltration/water quality components (see Appendix H2)
5) Ordinance: Review ordinance for compliance for illicit discharge criteria (see Appendix C7)
6) Development/Redevelopment: Review ordinance for compliance with permit requirements (see Appendix C7)
7) Raingardens: Promote Blue Thumb Raingarden Initiative (see Appendix B5)

A TMDL Annual Report Form was completed on May, 15, 2015 and is an annual attachment to the SWPPP submittal due each subsequent June 30th. The first reporting year is June 30, 2015. The form documents progress towards achieving the TMDL listing structural and non-structural BMPs and its quantitative and qualitative effectiveness.

The MPCA posts a plethora of information on its website regarding this TMDL. The TMDL can be found at:
http://www.pca.state.mn.us/index.php/water/water-types-and-programs/minnesotas-impaired-waters-and-tmdls/tmdl-projects/lower-mississippi-river-basin-tmdl/project-vermillion-river-watershed-restoration-and-protection-strategy-multiple-imp.html

APPENDIX I3
South Metro Mississippi TMDL
2016 - 2021

Target Audience:
City of Hastings
Responsible Persons for Implementation:
Assistant City Engineer
Activities to Reach Goals:
Each TMDL project contains a Waste Load Allocation (WLA). To meet the WLA, the TMDL project shall:
1) Assess how the WLA will be met
List BMPs applied to achieve WLA. Each structural BMP shall include:
Unique ID number
Geographical Coordinate
2) Provide progress report of implementation
3) Provide an estimate of how much the BMPs will reduce the pollutant loading

Schedules:
The South Metro Mississippi TML was officially approved on April 26, 2016. Effective on the permit cycle following the November 16, 2020 MS4 permit approval, the City is responsible for reporting on the TMDL until it meets the TMDL. The City's first submittal was May 27, 2021 and it met the TMDL requirements. The City will continuously seek ways to improve strategies for reducing Total Suspended Solids (TSS) but ultimately is no longer responsible to submitting annually on the TMDL.

Evaluation Method:
The effectiveness will be measured by the number of BMPs reducing the WLA. The City must not exceed 154 lbs/acre/year of TSS. Based on the Land Area Method, the City has met the TMDL goals by achieving 129 lbs/acre/year.

The South Metro Mississippi River TMDL violates Minnesota water quality standards for its levels of TSS. The City of Hastings is committed to the basin wide effort to remove pollutants:

1) Sump Manholes: Install new sump manholes within annual reconstruct projects (see Appendix E1)
2) Street Sweeping: Sweep minimum 2 times per year with higher frequency in sensitive areas (see Appendix G1)
3) Public Education: Provide TSS education materials in newsletters and social media (see Appendix A2, A3, A4)
4) Reconstruct Projects: Review opportunities to implement infiltration/water quality components (see Appendix H2)
5) Ordinance: Review ordinance for compliance for illicit discharge criteria (see Appendix C7)
6) Development/Redevelopment: Review ordinance for compliance with permit requirements (see Appendix C7)
7) Raingardens: Promote Blue Thumb Raingarden Initiative (see Appendix B5)

A TMDL Annual Report Form was completed for the April 15, 2021 submittal and is an annual attachment to the SWPPP submittal due each subsequent June 30th, until the goals of the TMDL

are met. The first reporting year was June 30, 2021 but no further submittals are necessary as the goals were adequately met. The first documentation form documented progress towards achieving the TMDL listing BMPs and its effectiveness.

The MPCA posts a plethora of information on its website regarding this TMDL. The following are a few links:

Fact Sheet
https://www.pca.state.mn.us/sites/default/files/wq-iw9-12a.pdf

MPCA Website
https://www.pca.state.mn.us/water/tmdl/south-metro-mississippi-turbidity-tmdl-project