Stormwater Pollution Prevention Plan (SWPPP)

City of Eagle Lake, Minnesota

Permit Number: MNR 040000

Date: October 17, 2022

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TABLE OF CONTENTS

APPENDICES

INTRODUCTION

The City of Eagle Lake first obtained coverage from the Minnesota Pollution Control Agency (MPCA) Small Municipal Separate Storm Sewers System (MS4) under the National Pollutant Discharge Elimination System (NPDES/State Disposal System (SDS) Program General Permit on June 15, 2017. The MPCA revised and reissued the MS4 General Permit in November 2020. The City was reauthorized for coverage under this permit October 22, 2021 and was required to obtain compliance with all provisions of the permit by October 22, 2022.

This Stormwater Pollution Prevention Plan (SWPPP) outlines all of the permit requirements by reference and a specific BMP that the City has completed or will undertake as part of regular operations in order to satisfy permit requirements.

MINIMUM CONTROL MEASURE 1: PUBLIC OUTREACH AND EDUCATION

BMP ID	BMP Title	2020 Permit Reference
1-1	Distribute Educational Materials – Two specific topics	16.2,16.3, 16.7
1-2	Distribute Educational Materials – IDDE	16.2, 16.4, 16.7
1-3	Distribute Educational Materials - Salt	16.2, 16.5
1-4	Distribute Educational Materials – Pet Waste	16.2, 16.6, 16.7
1-5	Target Audience	16.2, 16.7
1-6	Documentation	16.2, 16.3, 16.7, 16.8
1-7	Annual Assessment	16.2, 16.3, 16.4, 16.5, 16.6, 16.7, 16.8, 16.9

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 1-Public Education and Outreach
MS4 Permit Sections: 16.3
BMP Number: 1-1

BMP Title: Distribute Education Materials – Two Specific Stormwater Related Topics

BMP Description:
Educational material on two specific stormwater related topics selected by the city will be distributed via newsletter, the city website, and a city-wide email through the permit period ending 2025.

Measurable Goals:

1. Select two high priority stormwater issues:
    a. Pesticides
    b. Cleaning up yard waste (grass clippings & fall leaves)
    c. Washing car in driveway
    d. Changing oil in driveway / proper oil disposal.
    e. Lawn chemicals broadly (fertilizer, herbicides, etc.)
    f. Household chemicals
2. Identify target audience
    a. Residents
    b. Industrial
    c. Commercial
3. Identify distribution method(s)
    a. Quarterly newsletter
    b. Website
    c. Email
4. Develop educational material
5. Distribute educational material
    a. Submittal of Newsletter or other outreach mechanism

Implementation Timeline/Schedule:

1. Annually, coordinated with BMPs 1-2 through 1-4
2. Annually, coordinated with BMPs 1-2 through 1-4
3. Annually, coordinated with BMPs 1-2 through 1-4
4. Annually, coordinated with BMPs 1-2 through 1-4
5. Annually, coordinated with BMPs 1-2 through 1-4

BMP Specifics/Notes:
During the permit term, the city will distribute educational materials or equivalent outreach focused on at least two (2) specifically selected stormwater-related issues of high priority to the permittee (e.g., specific TMDL reduction targets, changing local business practices, promoting adoption of residential BMPs, lake improvements through lake associations, household chemicals, yard waste, etc.). The topics must be different from those described in items 16.4 through 16.6. [Minn. R. 7090]

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 1-Public Education and Outreach
MS4 Permit Sections: 16.4
BMP Number: 1-2

BMP Title: Distribute Education Materials – Illicit Discharge

BMP Description:
Annually, distribute educational materials or equivalent outreach focused on illicit discharge recognition and reporting illicit discharges to the City.

The City will distribute education material focused on illicit discharge recognition and reporting annually.

Measurable Goals:

1. Identify target audience
    a. Residents
    b. Commercial/Industrial businesses
2. Identify distribution method(s)
    a. Quarterly newsletter
    b. Email
    c. Website
3. Develop educational material
4. Distribute educational material
    a. Submittal of Newsletter or other outreach mechanism

Implementation Timeline/Schedule:

1. Annual
2. Annual
3. Annual
4. Annual

BMP Specifics/Notes:
At least once each calendar year, the city must distribute educational materials or equivalent outreach focused on illicit discharge recognition and reporting illicit discharges to the Target audience(s) (e.g., residents, businesses, commercial facilities, institutions, and local organizations; consideration should be given to low-income residents, people of color, and non-native English-speaking residents.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 1-Public Education and Outreach
MS4 Permit Sections: 16.5
BMP Number: 1-3

BMP Title: Distribute Education Materials – Deicing

BMP Description:
Annually, distribute education materials or equivalent outreach to residents, business, commercial facilities, and institutions, focused on (1) impacts of deicing salt use on receiving waters, (2) methods to reduce deicing salt use, and (3) proper storage of salt or other deicing materials.

Measurable Goals:
1. Identify target audience
    a. Residents
    b. Commercial/Industrial businesses
2. Identify distribution method(s)
    a. Website and Flyers
3. Develop educational material
4. Distribute educational material

Implementation Timeline/Schedule:
1. Annual
2. Annual
3. Annual
4. Annual

BMP Specifics/Notes:
For cities and townships, at least once each calendar year, the permittee must distribute educational materials or equivalent outreach to residents, businesses, commercial facilities, and institutions, focused on the following:
a. impacts of deicing salt use on receiving waters;
b. methods to reduce deicing salt use; and
c. proper storage of salt or other deicing materials. [Minn. R. 7090]

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 1-Public Education and Outreach
MS4 Permit Sections: 16.6
BMP Number: 1-4

BMP Title: Distribute Education Materials – Pet Waste

The City will distribute educational materials focused on (1) impacts of pet waste on receiving waters, (2) proper management of pet waste, and (3) any existing permittee regulatory mechanism(s) for pet waste annually.

Measurable Goals:

1. Identify target audience
2. Identify distribution method(s)
    a. Newsletter
    b. Email
    c. Website
3. Develop educational material
4. Distribute educational material

Implementation Timeline/Schedule:

1. Annual
2. Annual
3. Annual
4. Annual

BMP Specifics/Notes:

For cities and townships, at least once each calendar year, the permittee must distribute educational materials or equivalent outreach focused on pet waste. The educational materials or equivalent outreach must include information on the following:

a. impacts of pet waste on receiving waters;
b. proper management of pet waste; and
c. any existing permittee regulatory mechanism(s) for pet waste. [Minn. R. 7090]

Target audience(s) (e.g., residents, businesses, commercial facilities, institutions, and local organizations; consideration should be given to low-income residents, people of color, and non-native English-speaking residents.

Responsible Party for this BMP:

Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 1-Public Education and Outreach
MS4 Permit Sections: 16.7
BMP Number: 1-5

BMP Title: Distribute Education Materials – Education and Outreach Plan

BMP Description:
The City will develop and implement an education and outreach plan that consists of the following:

a. target audience(s) (e.g., residents, businesses, commercial facilities, institutions, and local organizations; consideration should be given to low-income residents, people of color, and non-native English-speaking residents. A resource to help identify these areas is available on the Agency's environmental justice website);
b. name or position title of responsible person(s) for overall plan implementation;
c. specific activities and schedules to reach each target audience; and
d. a description of any coordination with and/or use of stormwater education and outreach programs implemented by other entities, if applicable.

Measurable Goals:

1. Submit outreach and education on selected topics to targeted audiences
2. Assess effectiveness of plan annually
3. Modify or update plan if deemed necessary following outcomes of Measurable Goal #2

Implementation Timeline/Schedule:

1. Annual
2. Annual
3. Annual

BMP Specifics/Notes:
Outreach and Education Plan is provided in Appendix A.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 1-Public Education and Outreach
MS4 Permit Sections: 16.8
BMP Number: 1-6

BMP Title: Distribute Education Materials – Documentation
BMP Description: The City will document the following: 1. A description of all specific stormwater-related issues identified by the permittee in item 16.3 2. All information required under the permittee's education and outreach plan in item 16.7 3. Activities held, including dates, to reach each target audience 4. Quantities and descriptions of educational materials distributed, including dates distributed 5. Estimated audience (e.g., number of participants, viewers, readers, listeners, etc.) for each completed education and outreach activity.
Measurable Goals: 1. Documentation of information including notes as necessary describing effectiveness of each measurable goal
Implementation Timeline/Schedule: 1. Annual
BMP Specifics/Notes:
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 1-Public Education and Outreach
MS4 Permit Sections: 16.9
BMP Number: 1-7

BMP Title: Annual Assessment
BMP Description: The City will conduct an annual assessment of the public education program to evaluate program compliance, the status of achieving the measurable requirements in Section 16, and determine how the program might be improved.
Measurable Goals: 1. Summary of annual assessment discussion to improve program.
Implementation Timeline/Schedule: 1. Annual
BMP Specifics/Notes: Measurable requirements are activities that must be documented or tracked as applicable to the MCM (e.g., education and outreach efforts, implementation of written plans, etc.). The city will perform the annual assessment prior to completion of each annual report and document any modifications made to the program as a result of the annual assessment. [Minn. R. 7090]
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

MINIMUM CONTROL MEASURE 2: PUBLIC PARTICIPATION AND INVOLVEMENT

BMP ID	BMP Title	2020 Permit Reference
2-1	Public Input on SWPPP	17.2,17.3
2-2	Provide Access to SWPPP and supporting documents	17.2, 17.4
2-3	Consider Public Input	17.2, 17.5
2-4	Public Involvement Activity	17.2, 17.6
2-5	Documentation	17.2, 17.3, 17.6, 17.7
2-6	Annual Assessment	17.2, 17.3, 17.4, 17.6, 17.

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 2-Public Participation and Involvement
MS4 Permit Sections: 17.3
BMP Number: 2-1

BMP Title: Public Participation and Involvement – Public Input
BMP Description: The City will hold an annual public meeting to provide the opportunity for the public to have input on the adequacy of the SWPPP. The appropriate local public notice requirements will be followed so that the public will be given the opportunity to review and comment on the SWPPP
Measurable Goals: 1. Hold a public meeting which must allow the public opportunity to review and comment on the SWPPP 2. Satisfy local public notice requirements by advertising the opportunity 14 days prior to event in local newspaper for **June meeting**
Implementation Timeline/Schedule: 1. Annual 2. Annual
BMP Specifics/Notes:
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 2-Public Participation and Involvement
MS4 Permit Sections: 17.4
BMP Number: 2-2

BMP Title: Public Participation and Involvement – Public Access
BMP Description: The City will provide access to the SWPPP Document, annual reports, and other documentation that supports or describes the SWPPP (e.g., regulatory mechanism(s), etc.) for public review, upon request. All public data requests are subject to the Minnesota Government Data Practices Act.
Measurable Goals: 1. Provide access to SWPPP and supporting documents.
Implementation Timeline/Schedule: 1. At all times- upon request
BMP Specifics/Notes:
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 2-Public Participation and Involvement
MS4 Permit Sections: 17.5
BMP Number: 2-3

BMP Title: Public Participation and Involvement – Consideration of Public Input
BMP Description: The City will consider public input, oral and written, regarding the SWPPP submitted to the City.
Measurable Goals: 1. Document all public input, oral and written 2. Document the amendments to SWPPP as a result of public input
Implementation Timeline/Schedule: 1. Annual 2. Annual
BMP Specifics/Notes:
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 2-Public Participation and Involvement
MS4 Permit Sections: 17.6
BMP Number: 2-4

BMP Title: Public Participation and Involvement – Public Event
BMP Description: Each calendar year the City will provide a minimum of one (1) public involvement activity that includes a pollution prevention or water quality theme (e.g., rain barrel distribution event, rain garden workshop, cleanup event, storm drain stenciling, volunteer water quality monitoring, adopt a storm drain program, household hazardous waste collection day, etc.).
Measurable Goals: 1. Plan public involvement activity 2. Hold public involvement activity
Implementation Timeline/Schedule: 1. Annual 2. Annual
BMP Specifics/Notes:
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 2-Public Participation and Involvement
MS4 Permit Sections: 17.7
BMP Number: 2-5

BMP Title: Public Participation and Involvement – Documentation

BMP Description:
The City will document the following information:

a. All relevant written input submitted by persons regarding the SWPPP.
b. All responses from the permittee to written input received regarding the SWPPP, including any modifications made to the SWPPP as a result of the written input received.
c. Date(s), location(s), and estimated number of participants at events held for purposes of compliance with item 17.3.
d. Notices provided to the public of any events scheduled to meet item 17.3, including any electronic correspondence (e.g., website, e-mail distribution lists, notices, etc.).
e. Date(s), location(s), description of activities, and estimated number of participants at events held for the purpose of compliance with item 17.6.

Measurable Goals:

1. Documentation of information

Implementation Timeline/Schedule:

1. Annual

BMP Specifics/Notes:

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 2-Public Participation and Involvement
MS4 Permit Sections: 17.4
BMP Number: 2-6

BMP Title: Public Participation and Involvement – Annual Assessment

BMP Description:
The City will conduct an annual assessment of the Public Participation/Involvement program to evaluate program compliance, the status of achieving the measurable requirements, and determine how the program might be improved. The City will document any modifications made to the program as a result of the annual assessment.

Measurable Goals:
1. Document of recommendation and any modifications as a result of the assessment

Implementation Timeline/Schedule:
1. Annual

BMP Specifics/Notes:
The city will conduct an annual assessment of the Public Participation/Involvement program to evaluate program compliance, the status of achieving the measurable requirements in Section 17, and determine how the program might be improved. Measurable requirements are activities that must be documented or tracked as applicable to the MCM (e.g., public input and involvement opportunities, etc.). The permittee must perform the annual assessment prior to completion of each annual report and document any modifications made to the program as a result of the annual assessment. [Minn. R. 7090]

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

MINIMUM CONTROL MEASURE 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

BMP ID	BMP Title	2020 Permit Reference
3-1	Stormwater Infrastructure Mapping	14.2, 18.3
3-2	Regulatory Control Program	3.2,18.4,18.5,18.6
3-3	Staff IDDE Training	18.8, 18.9
3-4	Priority IDDE areas	18.10, 18.11
3-5	IDDE Investigations	18.11, 18.12
3-6	Spill Response	18.13
3-7	IDDE ERPs	18.14
3-8	IDDE Documentation	18.8, 18.9,18.11, 18.14, 18.15, 18.16, 18.17
3-9	IDDE Annual Assessment	18.8, 18.9,18.11, 18.14, 18.15, 18.16, 18.17

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.3
BMP Number: 3-1

BMP Title: Stormwater Infrastructure Mapping
BMP Description: The City will continue to maintain and update GIS based mapping of stormwater infrastructure.
Measurable Goals: 1. Maintain GIS Map Data
Implementation Timeline/Schedule: 1. Annual
BMP Specifics/Notes: The City will update, as necessary, a storm sewer system map that depicts the following: A. All pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes. B. Outfalls, including a unique identification (ID) number assigned by the permittee, and associated geographic coordinates. C. Structural stormwater BMPs that are part of the permittee's MS4; and all receiving waters
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.4, 18.5, 18.6
BMP Number: 3-2

BMP Title: Regulatory Control Program

BMP Description:
The City will develop, implement, and enforce a regulatory mechanism(s) that prohibits illicit discharges into the permittee's MS4, except those non-stormwater discharges authorized in item 3.2. The regulatory mechanism(s) must also include items 18.5 and 18.6

Measurable Goals:
1. Enforce city ordinance/s prohibiting illicit discharges
2. Amend existing ordinance to require owners or custodians of pets to remove and properly dispose of feces on permittee owned land areas
3. Amend existing ordinance to require the following:
    a. Designated salt storage areas must be covered or indoors;
    b. Designated salt storage areas must be located on an impervious surface; and
    c. Implementation of practices to reduce exposure when transferring material in designated salt storage areas (e.g., sweeping, diversions, and/or containment). [Minn. R. 7090].

Implementation Timeline/Schedule:
1. Annual
2. Completed
3. Completed

BMP Specifics/Notes:

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.8, 18.9
BMP Number: 3-3

BMP Title: Staff IDDE Training

BMP Description:
At least once each calendar year, the City will train all field staff in illicit discharge recognition (including conditions which could cause illicit discharges) and reporting illicit discharges for further investigation. Field staff includes, but is not limited to, police, public works, and parks staff. Training for this specific requirement may include, but is not limited to, videos, in-person presentations, webinars, training documents, and/or emails.

Measurable Goals:
1. Conduct annual all field staff training / Track attendance.
2. Conduct refresher training every 3 years / Track attendance.

Implementation Timeline/Schedule:
1. Annual
2. Annual or as needed based on the 3-year refresher requirement

BMP Specifics/Notes:
The City will ensure that individuals receive training commensurate with their responsibilities as they relate to the permittee's IDDE program. Individuals includes, but is not limited to, individuals responsible for investigating, locating, eliminating illicit discharges, and/or enforcement. The permittee must ensure that previously trained individuals attend a refresher training every three (3) calendar years following the initial training.

Responsible Party for this BMP:
Position: City Administrator/Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.10, 18.11
BMP Number: 3-4

BMP Title: Priority IDDE areas

BMP Description:
The City will develop and maintain a mapped inventory of priority areas identified as having a higher likelihood for illicit discharges. The City will conduct additional inspections in priority areas.

Measurable Goals:
1. Map inventory of Priority Areas.
2. Maintain Map.
3. Conduct additional illicit discharge inspections in Priority Areas.

Implementation Timeline/Schedule:
1. Complete
2. Annual
3. Annual

BMP Specifics/Notes:
The City will evaluate the following for potential inclusion in the inventory.
A. Land uses associated with business/industrial activities.
B. Areas where illicit discharges have been identified in the past.
C. Areas with storage of significant materials that could result in an illicit discharge.

To the extent allowable under state or local law, the City will conduct additional illicit discharge inspections in Priority areas identified.

Priority IDDE areas are provided in Appendix B.

Responsible Party for this BMP:
Position: Public Works
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.11, 18.12
BMP Number: 3-5

BMP Title: IDDE Investigations

BMP Description:
The City will develop and follow written procedures for investigating, locating, and eliminating the source of illicit discharges.

Measurable Goals:
1. Develop Written Procedures for IDDE
2. Investigate IDDE

Implementation Timeline/Schedule:
1. Completed
2. within 24 hrs of receiving report

BMP Specifics/Notes:
The written procedures must include:

A. A timeframe in which city staff will investigate a reported illicit discharge.
B. Use of visual inspections to detect and track the source of an illicit discharge.
C. Tools available to investigate and locate an illicit discharge (e.g., mobile cameras, collecting
D. and analyzing water samples, smoke testing, dye testing, etc.).
E. Cleanup methods available to remove an illicit discharge or spill.
F. The Public Works Director is the responsible person(s) for investigating, locating, and eliminating an illicit discharge.

The IDDE Program Manual is located in Appendix C.

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.13
BMP Number: 3-6

BMP Title: Spill Response

BMP Description:
The City will implement written procedures for responding to spills, including emergency response procedures to prevent spills from entering the MS4.

Measurable Goals:
1. Develop Written Procedures for Spill response

Implementation Timeline/Schedule:
1. Complete

BMP Specifics/Notes:
The written procedures must also include the immediate notification of the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area), if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. 115.061.

The IDDE Program Manual is located in Appendix C.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.14
BMP Number: 3-7

BMP Title: IDDE ERPs

BMP Description:
The City will develop and maintain written Enforcement Response Procedures (ERPs) to compel compliance with the City Code as it relates to IDDE.

Measurable Goals:
1. Develop Written enforcement Response Procedures (ERPs) for IDDE

Implementation Timeline/Schedule:
1. Complete

BMP Specifics/Notes:
The written procedures must include:
A. A description of enforcement tools available and guidelines for the use of each tool.
B. Timeframes to complete corrective actions.
C. Name or position title of responsible person(s) for conducting enforcement

The IDDE Program Manual is located in Appendix C.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.8, 18.9,18.11, 18.14,
18.15, 18.16, 18.17
BMP Number: 3-8

BMP Title: IDDE Documentation

BMP Description:

The City will document the following related to reports of IDDE:

A. Date(s) and location(s) of IDDE inspections conducted in accordance with items 18.7 and 18.11.
B. Reports of alleged illicit discharges received, including date(s) of the report(s), and any follow-up
C. action(s) taken by the City.
D. Date(s) of discovery of all illicit discharge
E. Identification of outfalls, or other areas, where illicit discharges have been discovered.
F. Sources (including a description and the responsible party) of illicit discharges (if known).
G. Action(s) taken by the permittee, including date(s), to address discovered illicit discharges.

Additionally, the City will document the following related to IDDE training in BMP 18.8:

A. General subject matter covered.
B. Names and departments of individuals in attendance.
C. Date of each event.

The City will document any enforcement conducted pursuant to the ERPs in item 18.14, including verbal warnings. At a minimum, the City will document the following:

A. Name of the person responsible for violating the terms and conditions of the permittee's regulatory
B. mechanism(s).
C. Date(s) and location(s) of the observed violation(s).
D. Description of the violation(s).
E. Corrective action(s) (including completion schedule) issued by the City.
F. Referrals to other regulatory organizations (if any).
G. F. Date(s) violation(s) resolved.

Measurable Goals:

1. Document information related to IDDE

Implementation Timeline/Schedule:

1. Procedure in draft / Report annually

BMP Specifics/Notes:

Responsible Party for this BMP:

Position: Public Works
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 3-Illicit Discharge Detection and Elimination (IDDE)
MS4 Permit Sections: 18.8, 18.9,18.11, 18.14,
18.15, 18.16, 18.17
BMP Number: 3-9

BMP Title: IDDE Annual Assessment
BMP Description: The City will conduct an annual assessment of the IDDE program to evaluate program compliance, the status of achieving the measurable requirements in Section 18 and determine how the program might be improved. Measurable requirements are activities that must be documented or tracked as applicable to the MCM (e.g., trainings, inventory, inspections, enforcement, etc.).
Measurable Goals: 1. Documentation of evaluation and recommendations to improve program.
Implementation Timeline/Schedule: 1. Annual
BMP Specifics/Notes: The City will perform the annual assessment prior to completion of each annual report and document any modifications made to the program as a result of the annual assessment.
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

MINIMUM CONTROL MEASURE 4: CONSTRUCTION SITE STORMWATER RUNOFF

BMP ID	BMP Title	2020 Permit Reference
4-1	Construction Site Runoff Control Ordinance	19.2, 19.3, 19.4, 19.5
4-2	Site Plan Review Procedure	19.2, 19.5, 19.6, 19.13
4-3	Construction Site Inspection Program	19.2, 19.7, 19.8, 19.9
4-4	Public Reports of Noncompliance	19.10
4-5	Training - Construction Site stormwater Runoff Control	19.11, 19.14
4-6	ERP Construction Site Stormwater Runoff Control	19.2, 19.12
4-7	ERP Enforcement Documentation	19.12, 19.15
4-8	Annual Assessment	19.2, 19.16

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 4-Construction Site Stormwater Runoff
MS4 Permit Sections: 19.2, 19.3, 19.4, 19.5
BMP Number: 4-1

BMP Title: Construction Site Stormwater Runoff Ordinance

BMP Description:
The City will develop, implement, and enforce a regulatory mechanism(s) that establishes requirements for erosion, sediment, and waste controls that is at least as stringent as the MPCAs most current Construction Stormwater General Permit (CSW) (Permit: MNR100001). The City will enforce the regulations written in City Code Chapter 18

Measurable Goals:
1. Revise Ordinance
2. Adopt Ordinance
3. Issue erosion and sediment control and stormwater management permits to projects that disturb more than one acre, including projects less than one acre that are part of a lager common plan of development or sale.
4. Revise City Code to be at least as stringent as current CSW

Implementation Timeline/Schedule:
1. Complete
2. Complete
3. Ongoing
4. Complete

BMP Specifics/Notes:

Chapter 18 of City Code requires that owners and operators of construction activity develop site plans that must be submitted to the City for review and confirmation that code requirements have been met, prior to the start of construction activity. When the CSW Permit is reissued, the City must revise their regulatory mechanism(s), if necessary, within 12 months of the issuance date of that permit, to be at least as stringent as the requirements for erosion, sediment, and waste controls described in the CSW Permit.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 4-Construction Site Stormwater Runoff
MS4 Permit Sections: 19.2, 19.5, 19.6, 19.13
BMP Number: 4-2

BMP Title: Site Plan Review Procedure

BMP Description:
The City has developed written procedures for site plan reviews conducted by the City prior to the start of all construction activity, to ensure compliance with requirements of City Code Chapter 18. The City will review plans for projects that disturb more than one acre prior to start of construction activities.

Measurable Goals:
1. Review and approve plans for projects that disturb more than one acre or are less than one acre that part of a larger common plan of development.
2. Maintain checklist for plan review in line with most current CSW permit.

Implementation Timeline/Schedule:
1. Ongoing
2. Within 12 months of coverage under the MS4 permit

BMP Specifics/Notes:
This procedure includes:
A. Written notification to owners and operators proposing construction activity, including projects less than one acre that are part of a larger common plan of development or sale, of the need to apply for and obtain coverage under the CSW Permit;
B. Use of a written checklist, consistent with the requirements of the regulatory mechanism(s), to document the adequacy of each site plan required in item 19.5. [Minn. R. 7090]

The Chapter 18 of City Code requires that site plans incorporate the following erosion, sediment, and waste controls that are at least as stringent as described in the CSW Permit:
A. Erosion prevention practices.
B. Sediment control practices.
C. Dewatering and basin draining.
D. Inspection and maintenance.
E. Pollution prevention management measures.
F. Temporary sediment basins.
G. Termination conditions. [Minn. R. 7090]

The City will maintain its checklist to be used in conjunction with plan review to ensure it is aligned with the most current CSW permit.

The Site Plan Review Procedure is located in Appendix D.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 4-Construction Site Stormwater Runoff
MS4 Permit Sections: 19.2, 19.4, 19.8, 19.9
BMP Number: 4-3

BMP Title: Construction Site Inspection Program

BMP Description:
The City has developed a program for inspection of construction sites to determine compliance with City Code Chapter 18. This program has identified criteria to classify sites as high priority and low priority. Included in the City's site inspection program is a checklist to be utilized during the site inspection.

Measurable Goals:
1. Inspect High priority sites once a week.
2. Inspect Low priority sites once a month.
3. Develop checklist to be used in conjunction with site inspections

Implementation Timeline/Schedule:
1. Ongoing
2. Ongoing
3. Complete

BMP Specifics/Notes:

The Construction Site Inspection Procedure is located in Appendix E.

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 4-Construction Site Stormwater Runoff
MS4 Permit Sections: 19.10
BMP Number: 4-4

BMP Title: Public Reports of Noncompliance

BMP Description:
The City has developed written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public to the city.

Measurable Goals:
1. Establish written procedures for reporting Noncompliance
2. Accept and respond to reports when submitted.

Implementation Timeline/Schedule:
1. Completed
2. Ongoing

BMP Specifics/Notes:

The City of Eagle Lake considers all reports of noncompliance or other stormwater related information on construction activity. The following procedures shall be followed by the City upon receiving a report of noncompliance or other stormwater related information.

1. Reports received shall be directed to City Hall
2. Public input shall be documented by the City of Eagle Lake
3. The City of Eagle Lake City Administration shall proceed with the following actions:
    a. Direct the appropriate staff to respond as necessary to the location of reported concern
    b. Based on field observations, determine next steps, including but not limited to:
        i. No further action needed
        ii. Verbal Warning
        iii. Written Warning
        iv. Written Violation
        v. Stop Work Order
        vi. Notification to other regulatory organizations
    c. Report back to the person who made initial report or direct appropriate staff to report back
    d. Verify that the City of Eagle Lake documentation is completed and filed properly with MS4 documentation.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 4-Construction Site Stormwater Runoff
MS4 Permit Sections: 19.11, 19.14
BMP Number: 4-5

BMP Title: Training - Construction Site stormwater Runoff Control

BMP Description:
The City will ensure that individuals receive training commensurate with their responsibilities as they relate to the City's Construction Site Stormwater Runoff Control program.

Measurable Goals:
1. All individuals attend training commensurate with their responsibilities
2. All previously trained individuals attend a refresher-training every three (3) calendar years

Implementation Timeline/Schedule:
1. At time of hire or new responsibilities
2. Every three years

BMP Specifics/Notes:

Maintain current training for City Staff responsible for conducting site plan reviews, site inspections, and/or enforcement. The City will ensure that previously trained individuals attend a refresher-training every three (3) calendar years following the initial training.

For each training document the following:
A. General subject matter covered.
B. Names and departments of individuals in attendance.
C. Date of each event.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 4-Construction Site Stormwater Runoff
MS4 Permit Sections: 19.2, 19.12
BMP Number: 4-6

BMP Title: ERP- Construction Site stormwater Runoff Control

BMP Description:
The City has developed an Enforcement Response Procedure (ERP) related to its Construction Site Stormwater Runoff Control program in order to compel compliance.

Measurable Goals:
1. Maintain Enforcement Response Procedure

Implementation Timeline/Schedule:
1. Annual

BMP Specifics/Notes:
The City of Eagle Lake's Enforcement Response Procedure is as follows:

1. The City shall follow the established site plan review process. The City Administration shall withhold permit approvals until stormwater and erosion control management features have been planned and designed to meet, at a minimum, the City's requirements.

2. Until the project is completed, the City shall follow the established construction site inspection process. If the City has been notified or has observed that the proper maintenance has not been completed, the City shall:
    a. Ensure that the appropriate measures are taken to promptly eliminate the violation
    b. Evaluate the severity of the violation
    c. Issue the appropriate notice to the violator
    d. Direct the appropriate staff to oversee and verify compliance actions are completed

4. The violation, enforcement, and actions taken to resolve the violation shall be documented including:
    a. Name or the person responsible for violating the terms and conditions of the City's Regulatory Mechanism(s)
    b. Date(s) and location(s) of the observed violation(s)
    c. Description of the violation(s), including references(s) to relevant Regulatory Mechanism(s)
    d. Corrective actions (including completion schedule)
    e. Date(s) and type(s) of enforcement used to compel compliance (e.g., written notice, citation, stop work order, withholding of local authorizations, etc.)
    f. Referrals to other regulatory organizations (if any)
    g. Date(s) violation(s) resolved

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 4-Construction Site Stormwater Runoff
MS4 Permit Sections: 19.12, 191.5
BMP Number: 4-7

BMP Title: ERP Enforcement Documentation

BMP Description:
The City will document ERP Enforcement completed under BMP 4-6 as required by City Code Chapter 18.

Measurable Goals:
1. Documentation of each ERP Enforcement

Implementation Timeline/Schedule:
1. Ongoing

BMP Specifics/Notes:
This procedure includes documenting the following:
A. Name of the person responsible for violating the terms and conditions of the permittee's regulatory mechanism(s).
B. Date(s) and location(s) of the observed violation(s).
C. Description of the violation(s).
D. Corrective action(s) (including completion schedule) issued by the permittee.
E. Referrals to other regulatory organizations (if any).
F. Date(s) violation(s) resolved.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 4-Construction Site Stormwater Runoff
MS4 Permit Sections: 19.2, 19.3, 19.4, 19.5
BMP Number: 4-8

BMP Title: Construction Site Stormwater Runoff Program
BMP Description: The City will conduct an annual assessment of the CONSTRUCTION SITE RUNOFF CONTROL program to evaluate program compliance, the status of achieving the measurable requirements in Section 19 and determine how the program might be improved. Measurable requirements are activities that must be documented or tracked as applicable to the MCM (e.g., inventory, trainings, site plan reviews, inspections, enforcement, etc.).
Measurable Goals: 1. Documentation of evaluation and recommendations to improve program
Implementation Timeline/Schedule: 1. Annual
BMP Specifics/Notes: The City will perform the annual assessment prior to completion of each annual report and document any modifications made to the program as a result of the annual assessment.
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

MINIMUM CONTROL MEASURE 5: POST-CONSTRUCTION STORMWATER MANAGEMENT

BMP ID	BMP Title	2020 Permit Reference
5-1	Regulatory Mechanism - Post Construction Stormwater Management	20.3-20.15
5-2	Mapping of Private BMPs	20.16
5-3	Site Plan Review – Post Construction Stormwater Management	20.4 – 20.15, 20.17
5-4	Training – Post Construction Stormwater Management	20.4 – 20.21
5-5	Enforcement Response Procedures (ERPs) – Post Construction Stormwater Management	20.4 - 20.19
5-6	Documentation – Post Construction Stormwater Management	20.4 – 20.24
5-7	Annual Assessment – Post Construction Stormwater Management	20.3 – 20.23

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 5-Post-Construction Stormwater Management
MS4 Permit Sections: 20.3 – 20.15
BMP Number: 5-1

BMP Title: Post Construction Stormwater Management – Ordinance Adoption
BMP Description: The City will revise the City Code to incorporate items 20.4 through 20.15 of the MS4 stormwater general permit.
Measurable Goals: 1. Revise ordinance that addresses permit items 20.4-20.15 2. Adopt Ordinance
Implementation Timeline/Schedule: 1. Completed 2. Completed
BMP Specifics/Notes: 20.5 – Treatment for one acre of new or fully reconstructed surface 20.6 – Water Quality volume equal to one-inch times the sum of new or fully reconstructed impervious (excluding linear Projects) 20.7 – Water quality volume equals the greater of one-inch times the new impervious or one-half inch times the fully reconstructed impervious (linear Projects) 20.8 – Volume reduction practices considered first. 20.9 – Infiltration prohibited in certain circumstances. 20.10 – off-site treatment for nonlinear projects. 20.11 – Off-site treatment requirements 20.12 – Off-site treatment must be new structural BMPs or retrofit existing BMPs. 20.13 – Off-site treatment must be completed within 24 months of start of original site work. 20.14 – Payments related to offsite treatment. 20.15 – maintain rights for the City to inspect, maintain private BMPs as needed.
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 5-Post-Construction Stormwater Management
MS4 Permit Sections: 20.16
BMP Number: 5-2

BMP Title: Mapping of Private BMPs

BMP Description:
The City will maintain a mapped inventory of structural stormwater BMPs not owned or operated by the City that meet all of the following criteria:

A. The structural stormwater BMP includes an executed legal mechanism(s) between the City and owners responsible for the long-term maintenance, as required in item 20.15.
B. The structural stormwater BMP was implemented on or after August 1, 2013.

Measurable Goals:

1. Assemble GIS based map.
2. Update map with newly constructed Private BMPs

Implementation Timeline/Schedule:

1. Complete
2. Annual

BMP Specifics/Notes:

There are no private BMPs in the City of Eagle Lake as of 10/17/22.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 5-Post-Construction Stormwater Management
MS4 Permit Sections: 20.4 – 20.15, 20.17
BMP Number: 5-3

BMP Title: Site Plan Review – Post Construction Stormwater Management
BMP Description: The City will implement written procedures for site plan reviews conducted by the City prior to the start of construction activity, to ensure compliance with requirements of the City Code.
Measurable Goals: 1. Written Procedure 2. Conduct Review of Construction Projects
Implementation Timeline/Schedule: 1. Completed 2. As projects are submitted
BMP Specifics/Notes: *The Post-Construction Site Plan Review Procedure is located in Appendix F.*
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 5-Post-Construction Stormwater Management
MS4 Permit Sections: 20.4 – 20.21
BMP Number: 5-4

BMP Title: Training – Post Construction Stormwater Management
BMP Description: The City will ensure that individuals receive training commensurate with their responsibilities as they relate to the City's Post-Construction Stormwater Management program. Individuals includes, but is not limited to, individuals responsible for conducting site plan reviews and/or enforcement.
Measurable Goals: 1. Maintain Training for all staff involved in Post Construction Stormwater Management
Implementation Timeline/Schedule: • Completed • Refresher training every three years
BMP Specifics/Notes:
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 5-Post-Construction Stormwater Management
MS4 Permit Sections: 20.4-20.19
BMP Number: 5-5

BMP Title: Enforcement Response Procedures (ERPs) – Post Construction Stormwater Management

BMP Description: Written enforcement response procedures (ERPs) to compel compliance with the permittee's regulatory mechanism(s) required in Section 20 for post-construction stormwater management.

Measurable Goals:

1. Establish ERPs related to Post Construction Stormwater Management
2. Review with Annual Review of Post Construction Stormwater Management

Implementation Timeline/Schedule:

1. Completed
2. Annual

BMP Specifics/Notes:

The City of Eagle Lake's Enforcement Response Procedure is as follows:

1. The City shall follow the established site plan review process which includes a review and approval of the post-construction stormwater management practices. The City Administration shall withhold permit approvals until post-construction management features have been planned and designed to meet, at a minimum, the City's requirements.

2. The stormwater infrastructure remains the responsibility of the developer until the project is completed to the satisfaction of the City, is conveyed and accepted by the City.

3. Until the project is complete and conveyed to the City, the City shall follow the established construction site inspection process which includes construction inspections of the permanent, post-construction stormwater practices and features. If the City has been notified or has observed that the proper maintenance has not been completed, the City shall:
    a. Ensure that the appropriate measures are taken to promptly eliminate the violation
    b. Evaluate the severity of the violation
    c. Issue the appropriate notice to the violator
    d. Direct the appropriate staff to oversee and verify compliance actions are completed

4. The violation, enforcement, and actions taken to resolve the violation shall be documented including:
    h. Name or the person responsible for violating the terms and conditions of the City's Regulatory Mechanism(s)
    i. Date(s) and location(s) of the observed violation(s)
    j. Description of the violation(s), including references(s) to relevant Regulatory Mechanism(s)
    k. Corrective actions (including completion schedule)
    l. Date(s) and type(s) of enforcement used to compel compliance (e.g., written notice, citation, stop work order, withholding of local authorizations, etc.)
    m. Referrals to other regulatory organizations (if any)
    n. Date(s) violation(s) resolved

5. The City Administration shall withhold final acceptance and conveyance of the post-construction stormwater management features until the following have been completed:
    - As-built drawings have been submitted to the City
    - Documentation certifying that the features have been constructed in accordance with design specifications provided by the City
    - A final inspection has been completed by City Staff or a City Representative

Violations shall be documented with the City of Eagle Lake Enforcement Action Documentation Tracking form.

Responsible Party for this BMP:

Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 5-Post-Construction Stormwater Management
MS4 Permit Sections: 20.4 – 20.24
BMP Number: 5-6

BMP Title: Documentation – Post Construction Stormwater Management

BMP Description:
The City will maintain documentation on the Post Construction Stormwater Management program.

Measurable Goals:
1. Documentation of activities related to Post Construction Stormwater Management

Implementation Timeline/Schedule:
1. Ongoing

BMP Specifics/Notes:

For each site plan review conducted by the City, the City will document the following:
A. Supporting documentation used to determine compliance with Section 20 of the General Permit, including any calculations for the permanent stormwater treatment system.
B. The water quality volume that will be treated through volume reduction practices (e.g., infiltration or other) compared to the total water quality volume required to be treated.
C. Documentation associated with off-site treatment projects authorized by the permittee, including rationale to support the location of permanent stormwater treatment projects in accordance with items 20.10 and 20.11.
D. Payments received and used in accordance with item 20.14.
E. All legal mechanisms drafted in accordance with item 20.15, including date(s) of the agreement(s) and name(s) of all responsible parties involved.

For each training in item 20.18, the City will document:
A. General subject matter covered.
B. Names and departments of individuals in attendance.
C. Date of each event.

The City will document any enforcement conducted pursuant to the ERPs in item 20.19, including verbal warnings. At a minimum, the City will document the following:
A. Name of the person responsible for violating the terms and conditions of City Code.
B. Date(s) and location(s) of the observed violation(s).
C. Description of the violation(s).
D. Corrective action(s) (including completion schedule) issued by the City.
E. Referrals to other regulatory organizations (if any).
F. Date(s) violation(s) resolved.

Responsible Party for this BMP:
Position: City Administrator
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 5-Post-Construction Stormwater Management
MS4 Permit Sections: 20.3 – 20.23
BMP Number: 5-7

BMP Title: Annual Assessment – Post Construction Stormwater Management
BMP Description: The City will conduct an annual assessment of the POST CONSTRUCTION STORMWATER MANAMGEMENT program to evaluate program compliance, the status of achieving the measurable requirements in Section 20 and determine how the program might be improved. Measurable requirements are activities that must be documented or tracked as applicable to the MCM.
Measurable Goals: 1. Documentation of evaluation and recommendations to improve program.
Implementation Timeline/Schedule: 1. Annual
BMP Specifics/Notes: The City will perform the annual assessment prior to completion of each annual report and document any modifications made to the program as a result of the annual assessment.
Responsible Party for this BMP: Position: City Administrator Phone: 507-257-3218

MINIMUM CONTROL MEASURE 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

BMP ID	BMP Title	2020 Permit Reference
6-1	City Owned / Operated Facilities	21.2, 21.3
6-2	City Operations	21.2, 21.4
6-3	City Operations / Salt Storage	21.5
6-4	Snow and Ice Management Policy	21.6
6-5	Snow and Ice Management Policy Training	21.6, 21.7
6-6	Pond TSS / TP effectiveness	21.8
6-7	Inspection of Structural Pollution Control Devices	21.9
6-8	Inspection of Ponds and Outfalls	21.10
6-9	Maintenance of Structural Pollution Control Devices and Outfalls	21.9, 21.10, 21.11
6-10	Training / Good Housekeeping	18.8,18.9,19.11,20.18,21.7,21.12
6-11	Documentation / Good Housekeeping	21,9, 21.10, 21.11, 21.13, 21.14
6-12	Annual Assessment – Good Housekeeping	21.2-21.15
6-13	Inspection of All Exposed Stockpile, Storage and Material Handling Areas	21.4

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.2, 21.3
BMP Number: 6-1

BMP Title: City Owned / Operated Facilities

BMP Description:
The City will maintain a written or mapped inventory of City owned/operated facilities that contribute pollutants to stormwater discharges. The City will implement BMPs that prevent or reduce pollutants in stormwater discharges from all inventoried facilities.

Measurable Goals:
1. Maintain a mapped or written inventory
2. Implement BMPs that prevent pollutants

Implementation Timeline/Schedule:
1. Annually
2. Ongoing

BMP Specifics/Notes:
Facilities to be inventoried may include, but is not limited to:
A. Composting
B. Equipment storage and maintenance
C. Hazardous waste disposal
D. Hazardous waste handling and transfer
E. Solid waste handling and transfer
F. Parks
G. Pesticide storage
H. Public parking lots
I. Public works yards
J. Recycling
K. Salt storage
L. Snow storage
M. Vehicle storage and maintenance (e.g., fueling and washing) yards
N. Materials storage yards.

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.2, 21.4
BMP Number: 6-2

BMP Title: City Operations

BMP Description:
The City will implement BMPs that prevent or reduce pollutants in stormwater discharges from municipal operations that may contribute pollutants to stormwater discharges

Measurable Goals:
1. Maintain an inventory of operations
2. Implement BMPs that prevent pollutants

Implementation Timeline/Schedule:
1. Annually
2. Ongoing

BMP Specifics/Notes:
Operations to be inventoried and implement BMPs on:
A. Waste disposal and storage, including dumpsters.
B. Management of temporary and permanent stockpiles of materials such as street sweepings, snow, sand, and sediment removal piles (e.g., effective sediment controls at the base of stockpiles on the downgradient perimeter).
C. Vehicle fueling, washing, and maintenance.
D. Routine street and parking lot sweeping.
E. Emergency response.
F. Cleaning of maintenance equipment, building exteriors, dumpsters, and the disposal of associated waste and wastewater.
G. Use, storage, and disposal of significant materials.
H. Landscaping, park, and lawn maintenance.
I. Road maintenance, including pothole repair, road shoulder maintenance, pavement marking, sealing, and repaving.
J. Right-of-way maintenance, including mowing.
K. Application of herbicides, pesticides, and fertilizers.

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.5
BMP Number: 6-3

BMP Title: City Operations/Salt Storage
BMP Description: The City will implement BMPs associated with salt storage that prevent or reduce pollutants in stormwater discharges from municipal operations.
Measurable Goals: 1. Cover or store salt indoors 2. Store salt on an impervious surface 3. Implement practice to reduce exposure when transferring materials
Implementation Timeline/Schedule: 1. Complete 2. Complete 3. Complete
BMP Specifics/Notes:
Responsible Party for this BMP: Position: Public Works Director Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.6
BMP Number: 6-4

BMP Title: Snow and Ice Management Policy
BMP Description: The City will implement a written snow and ice management policy for individuals that perform winter maintenance activities for the permittee. The policy will establish practices and procedures for snow and ice control operations (e.g., plowing or other snow removal practices, sand use, and application of deicing compounds).
Measurable Goals: 1. Develop a written snow and ice management policy
Implementation Timeline/Schedule: 1. Completed
BMP Specifics/Notes: The City has developed and adopted this policy on January 4, 2016.
Responsible Party for this BMP: Position: Public Works Director Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.6, 21.7
BMP Number: 6-5

BMP Title: Snow and Ice Management Policy Training

BMP Description:
Each calendar year, The City will ensure all individuals that perform winter maintenance activities for the permittee receive training

Measurable Goals:
1. Conduct Training

Implementation Timeline/Schedule:
1. Annually

BMP Specifics/Notes:
Training will include:
A. The importance of protecting water quality.
B. BMPs to minimize the use of deicers (e.g., proper calibration of equipment and benefits of pretreatment, pre-wetting, and anti-icing).
C. Tools and resources to assist in winter maintenance (e.g., deicing application rate guidelines, calibration charts, Smart Salting Assessment Tool).

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.8
BMP Number: 6-6

BMP Title: Pond TSS / TP effectiveness

BMP Description:
The City will maintain written procedures for the purpose of determining the TSS and TP treatment effectiveness of all permittee owned/operated ponds constructed and used for the collection and treatment of stormwater.

Measurable Goals:
1. Complete initial pond assessment to establish baseline conditions and assign pond rating
2. Conduct periodic pond assessment following written procedures

Implementation Timeline/Schedule:
1. No fewer than two existing ponds each calendar year until all ponds have received an initial pond assessment. New ponds shall be assessed within one year of pond completion.
2. Follow schedule specified in Written Procedures

BMP Specifics/Notes:
The frequency of periodic pond assessments shall depend on each pond's rating as follows:

A. Excellent – assessed at least once every four years
B. Good – assessed at least once every three years
C. Fair – assessed as least once every two years
D. Poor – assessed every year

The Stormwater Assessment and Effectiveness Procedures and Schedule are located in Appendix G.

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.9
BMP Number: 6-7

BMP Title: Inspection of Structural Pollution Control Devices

BMP Description:
The City will inspect structural stormwater BMPs (excluding stormwater ponds) to determine structural integrity, proper function, and maintenance needs.

Measurable Goals:
1. Inspect Structural Pollution Control Devices

Implementation Timeline/Schedule:
1. Annual or modified frequency if conditions met below

BMP Specifics/Notes:
Inspections to be done annually unless:
A. Complaints received or patterns of maintenance indicate a greater frequency is necessary.
B. Maintenance or sediment removal is not required after completion of the first two calendar year inspections; in which case the permittee may reduce the frequency of inspections to once every two (2) calendar years.

There are no structural BMPs in the City of Eagle Lake as of 10/17/22.

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.10
BMP Number: 6-8

BMP Title: Inspection of Ponds and Outfalls
BMP Description: The City will inspect all Ponds and Outfalls to determine structural integrity, proper function, and maintenance needs at least once prior to expiration date of the General Permit.
Measurable Goals: 1. Inspect all stormwater ponds 2. Inspect all outfalls
Implementation Timeline/Schedule: 1. Prior to expiration of the General Permit 2. Prior to expiration of the General Permit
BMP Specifics/Notes:
Responsible Party for this BMP: Position: Public Works Director Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.9, 21.10, 21.11
BMP Number: 6-9

BMP Title: Maintenance of Structural Pollution Control Devices and Outfalls
BMP Description: Based on inspection findings, the permittee must determine if repair, replacement, or maintenance measures are necessary in order to ensure the structural integrity and proper function of structural stormwater BMPs and outfalls. The permittee must complete necessary maintenance as soon as possible. If the permittee determines necessary maintenance cannot be completed within one year of discovery, the permittee must document a schedule(s) for completing the maintenance.
Measurable Goals: 1. Complete maintenance identified during inspections. 2. Document reason maintenance was not completed.
Implementation Timeline/Schedule: 1. As soon as possible, at a minimum of within one year of discovery. 2. Within one year of discovery.
BMP Specifics/Notes:
Responsible Party for this BMP: Position: Public Works Director Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 18.8,18.9,19.11,20.18,21.7,21.12
BMP Number: 6-10

BMP Title: Training / Good Housekeeping

BMP Description:
The City will implement a stormwater management training program commensurate with individual's responsibilities as they relate to the permittee's SWPPP, including reporting and assessment activities.

Measurable Goals:
1. Conduct Initial Training for Public Works Staff
2. Conduct refresher training for Public Works Staff
3. Conduct Training for Seasonal Employees

Implementation Timeline/Schedule:
1. Within 12 months of approval of the permit
2. Every 3 years
3. Each year during the summer within a week of when seasonal employees begin work.

BMP Specifics/Notes:
The permittee may use training materials from the United States Environmental Protection Agency (USEPA), state and regional agencies, or other organizations as appropriate to meet this requirement. Training must include:

A. Address the importance of protecting water quality.
B. Cover the requirements of the permit relevant to the responsibilities of the individual not already addressed in items 18.8, 18.9, 19.11, 20.18, and 21.7.
C. Include a schedule that establishes initial training for individuals, including new and/or seasonal employees, and recurring training intervals to address changes in procedures, practices, techniques, or requirements.

Training requirements and schedule are located in appendix H.

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21,9, 21.10, 21.11, 21.13, 21.14
BMP Number: 6-11

BMP Title: Documentation / Good Housekeeping

BMP Description:
The City will document the following information associated with the operations and maintenance program.

Measurable Goals:
1. Document Inspections, maintenance, and training.
2. Document Pond Excavations.

Implementation Timeline/Schedule:
1. Annually
2. Annually

BMP Specifics/Notes:
Specific information related to inspections, maintenance and training that will be documented include:
A. Date(s) and description of findings, including whether or not an illicit discharge is detected, for all inspections conducted in accordance with items 21.9 and 21.10.
B. Any adjustments to inspection frequency as authorized in item 21.9.
C. Date(s) and a description of maintenance conducted as a result of inspection findings, including whether or not an illicit discharge is detected.
D. Schedule(s) for maintenance of structural stormwater BMPs and outfalls as required in item 21.11.
E. Stormwater management training events, including general subject matter covered, names and departments of individuals in attendance, and date of each event. [Minn. R. 7090]

Additionally, the City will document pond sediment excavation and removal activities, including:
A. A unique ID number and geographic coordinates of each stormwater pond from which sediment is removed.
B. The volume (e.g., cubic yards) of sediment removed from each stormwater pond.
C. Results from any testing of sediment from each removal activity.
D. Location(s) of final disposal of sediment from each stormwater pond.

Responsible Party for this BMP:
Position: Public Works Director
Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.2-21.15
BMP Number: 6-12

BMP Title: Annual Assessment – Good Housekeeping
BMP Description: The City will conduct an annual assessment of the operations and maintenance program to evaluate program compliance, the status of achieving the measurable requirements in Section 21 and determine how the program might be improved. Measurable requirements are activities that must be documented or tracked as applicable to the MCM (e.g., inventory, trainings, inspections, maintenance activities, etc.). The permittee must perform the annual assessment prior to completion of each annual report and document any modifications made to the program as a result of the annual assessment.
Measurable Goals: 1. Conduct annual assessment of good housekeeping program
Implementation Timeline/Schedule: 1. Annually prior to completion of each annual report
BMP Specifics/Notes:
Responsible Party for this BMP: Position: Public Works Director Phone: 507-257-3218

BMP Summary Sheet
MS4 Name: City of Eagle Lake, Minnesota
Minimum Control Measure: 6-Pollution Prevention/Good Housekeeping
MS4 Permit Sections: 21.4
BMP Number: 6-13

BMP Title: Inspection of All Exposed Stockpile, Storage and Material Handling Areas
BMP Description: The City has developed an inventory list of all exposed stockpiles, storage and handling areas. All exposed stockpiles, storage and handling areas are inspected quarterly to identify potential storm water pollution problems.
Measurable Goals: 1. Identity all material stockpiles, storage, and handling areas. 2. Inspect all material stockpiles and handling areas on a regular basis. 3. Record inspection date and follow-up maintenance actions required. 4. Record and track major maintenance activities related to stockpiles and handling areas.
Implementation Timeline/Schedule: 1. Annually 2. Quarterly 3. Ongoing/Annually 4. Ongoing/Annually
BMP Specifics/Notes:
Responsible Party for this BMP: Position: Public Works Director Phone: 507-257-3218

Appendix A: Education Plan

MS4 Education and Outreach Plan

The City of Eagle Lake is committed to improving storm water management within the city. The following plan determines the public education and involvement focus for the current permit cycle through 2025 and the programs and tools to be implemented in educating the public about their roles in the protection, preservation, and management of water resources. This plan outlines the public education and involvement components of the City's storm water management efforts.

Public education and participation key principles:

- The City will seek out organizations in the community to partner with to fulfill education, outreach, and public participation goals.
- The City will leverage other community events to provide educational materials and information on stormwater and water quality topics.
- The City will target the following audience(s)
    - Residents
    - Businesses
    - Commercial facilities
    - Institutions
    - Local Organizations / Nonprofits
    - Consideration should be given to low-income residents, people of color, and non-native English-speaking residents.

Quarterly

- The City of Eagle Lake will develop articles for the City newsletter to inform private residents and businesses about stormwater issues. Currently the newsletter is published quarterly, and articles related stormwater are included in every issue. The City will publish articles that discuss Stormwater Pollution Prevention and generally cover such issues concerning illicit discharge, pet waste, de-icing salt, rain barrels, rain gardens, and yard waste; however, other topics will be covered as necessary.

    - □ Pesticides
    - □ Cleaning up yard waste (grass clippings & fall leaves)
    - □ Washing car in driveway
    - □ Changing oil in driveway / proper oil disposal.
    - □ Lawn chemicals broadly (fertilizer, herbicides, etc.)

Annually

□ The City of will conduct annual employee training for the public works staff to educate employees on how to prevent and reduce stormwater pollution from activities such as park and open space maintenance, and MS4 maintenance activities in general.

□ The City staff will prepare a presentation to the City Council, or provide an update to the City Administrator, on an annual basis to explain the past progress towards implementing the SWPPP provisions and what is planned for the upcoming year. This presentation will be used as an opportunity to increase Council, and/or City Administrator, on awareness of storm water runoff issues and justify the importance of implementing the SWPPP provisions. The City will cover issues relating to each of the six minimum control measures in the presentation.

□ The City will conduct an annual public meeting to receive public opinion on the adequacy and effectiveness of the SWPPP program and serve as an opportunity to provide public awareness of stormwater runoff issues.

□ The City will conduct at least one (1) public involvement activity that includes a pollution prevention or water quality theme.

Ongoing

□ The City will maintain a stormwater web page, which provides the audience with general information regarding the effects of polluted stormwater, prevention techniques, and resources for additional information. As a goal, the City will provide information on the website to address each of the six minimum control measures. Also, the City plans to post the approved SWPPP on the website for public viewing.

□ The City will accept phone calls and other correspondence to report illicit discharge, provide comments regarding the SWPPP, and report construction site sedimentation and erosion violations. All comments received will be routed to the appropriate staff person. Comments will be received will be routed to the appropriate staff person. Comments will be reviewed by City staff, SWPPP revisions will conducted as appropriate, and responses to each comment will be provided in the annual report. Also, the City will incorporate their existing complaint procedures and filing system to document calls.

□ The city will document all educational activities, including data, audiences, etc. The city will review the E&O outreach activities from the previous year on an annual basis and update the implementation table to improve opportunities to achieve outcomes.

□ The City will conduct an annual assessment of the public education program to evaluate program compliance, the status of achieving the measurable requirements in Section 16 and determine how the program might be improved.

□ Measurable requirements are activities that must be documented or tracked as applicable to the MCM (e.g., education and outreach efforts, implementation of written plans, etc.). The City will perform the annual assessment prior to completion of each annual report and document any modifications made to the program as a result of the annual assessment. [Minn. R. 7090]

Purpose: This plan covers MCM1 and MCM2
Responsible party: Jennifer Bromeland, City administrator

Education and Public Participation Schedule (As of 8/19/22)

Subject/Event	Delivery Method	Targeted Audience	Frequency	Timing	Tracking (date/# of recipients) 2022	2023	2024	2025
MCM 1								
Illicit Discharge (Permit Requirement 16.4) - recognition and reporting	Newsletter Article	Residents	1/year	Fall	Spring 2022 (Help keep stormdrains clean)			
	Website Page	Residents Businesses Commercial Facilities Institutions						
Deicing Salt (Permit Requirement 16.5) - impacts on receiving waters - methods to reduce deicing salt use - proper storage of salt or other deicing materials	Newsletter Article	Residents Businesses Commercial Facilities Institutions	1/year	Winter				
	Website Page	Residents Businesses Commercial Facilities Institutions						
Pet Waste (Permit Requirement 16.6) Must include: - Impacts on receiving waters - proper management - City of Eagle Lake regulation information	Newsletter Article	Residents	1/year	Summer	Spring 2022 (scoop the poop)			
	Email Blast	Residents	1/year	Spring				
	Website Page	Residents Businesses Commercial Facilities Institutions						
High Priority Stormwater Issues (Permit Requirement 16.3) Unique topics, not related to 16.4-16.6, that are specific to stormater related issues that are high priority (yard waste, residential BMPs, lake improvements, etc.)	Newsletter Article	Residents	2 over 5-year year permit		Summer 2022 - yard waste/grass clippings			
	Website Page	Residents Businesses Commercial Facilities Institutions						

MCM 2								
SWPPP Public Meeting (Permit Requirement 17.3)	Public Meeting/ Workshop	Public	1/year	June	6-Jun-22			
Public Involvement Activity (Permit Requirement 17.6) Potential leveraging partners/activities:								
- Stormdrain Stenciling	W/Eagles Club			September				
- City forester								
- Demonstration site								
- Master Gardener booth								
- Electronics Collection (May)								
- Spring Clean Up								
- Tator Days								
- Winter Days								

Appendix B: IDDE Priority Area

Legend

Storm Discharge Points

- All MS4 Outfalls
- All Non-MS4 Outfalls
- All Catch Basins in MS4 Boundary
- All Storm Manholes in MS4 Boundary
- All Storm Gravity Pipes in MS4 Boundary
- MS4 Boundary
- Storm Detention Areas
- DNR Public Water Basins
- DNR Public Watercourses
- Emergency Response Area
- Wellhead Protection Area
- DWSMA Vulnerability - Very Low
- Priority IDDE Sites

ISG

IDDE Priority Sites

Eagle Lake, Minnesota

Source:

Orthophotograph (Blue Earth County, 2016)
Parcels (Blue Earth County, 2/4/2016)
Lakes (MN DNR, July, 2008)
Major Stream (MN DNR, July 2008)
Counties (MN DNR, July 2013)
PLSS (MnGeo/USGS)

N W E S

0 250 500 1,000 Feet

1 inch = 1,042 feet

Nicollet County
Le Sueur County
Brown County
Waseca County
Watonwan County
Blue Earth County
Martin County
Faribault County

Appendix C: IDDE Procedures and Ordinance

City of Eagle Lake

ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

Version 1.0

August 22, 2022

TABLE OF CONTENTS

Illicit Discharge Detection and Elimination Program

Introduction

The purpose of the Illicit Discharge Detection and Elimination (IDDE) Program is to detect and eliminate sources of pollution to the municipal separate storm sewer system (MS4) as required by the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) permit program, permit number: MNR040000.

The goal of this plan is to identify and then eliminate illicit discharges. Examples of illicit discharges include:

- Direct or indirect sanitary wastewater discharges that connect to the storm sewer or watercourse, such as a shop floor drain connected to a storm drain, a cross-connection between the municipal sewer and storm sewer systems, a damaged sanitary sewer line that is leaking sewage into a cracked storm sewer line, or a failing septic system that is leaking into a water course.
- Materials (e.g., used motor oil) that have been dumped illegally into a storm drain catch basin or other stormwater facility.
- Improper home or business owner activities such as washing paint brushes into a catch basin, washing new textured concrete driveways into a storm drain, draining swimming pools to the storm system (swimming pools have high pH and chlorine), excess use of fertilizers, or washing cars with chemicals that enter the storm drain system.

Additional goals of the IDDE program include:

- Improve water-quality in local waterways by reducing incidences of pollution to MS4s
- Increase awareness among municipal employees, businesses, and the general public of the direct connection between the MS4 and local waterways
- Educate municipal employees, businesses, and the general public of the hazards associated with illicit discharges and the best management practices (BMPs) available
- Facilitate consistency in response to incidences of discharges of pollutants to City's stormwater system through a coordinated system of procedures and training of municipal employees,

The NPDES Permit sets forth the minimum elements of the plan which are listed below. These minimum elements are described throughout the remainder of this document.

- Municipal Storm Sewer System Mapping (Part III.D.3.a)
- Ordinances (that effectively prohibit illicit discharges) (Part III. D.3.b)
- Incorporating IDDE into Maintenance and Inspection Activities (Part III.D.3.c)
- Visual IDDE Inspections (Part III.D.3d)
- Staff Training (Part III.D.3e)
- Locating Priority Areas (Part III.D.3.f)
- Response Procedures (Part III.D.3.g)
- Incident Reporting (Part III.D.3.h)

Section 1: Municipal Storm System Mapping

The NPDES Phase II Permit outlines minimum information that should be included in the City's municipal storm sewer system map:

- Location of all known municipal storm sewer conveyances 12" or greater in diameter, including the stormwater flow direction in the pipes,
- Outfalls, including a unique identification (ID) number assigned by the City, and an associated geographic number,
- Structural stormwater BMPs that are part of the City's small MS4,
- All receiving waters.

The City has completed GIS mapping of the city's stormwater system, including all basins, pipes, ditches and stormwater facilities, including outfall identification. Updating and maintenance is ongoing. This map will be used to schedule and track maintenance activities and plan for capital improvement projects.

The GIS map information is currently not available on-line. A wall map showing the mapped system to date is available at Public Works.

All City owned stormwater facilities have been identified. Outfalls have been mapped. Stormwater BMPs are in the process of being mapped (on-going process).

Section 2: City Ordinance

Current Ordinance
Section 18.030 of the City's current municipal code prohibits illicit discharges. Connections to the stormwater system must contain only stormwater and groundwater, otherwise they are to be eliminated. The section references the fines and penalties that can be levied against violators in accordance with Subd. 9. The IDDE ordinance is included in the appendix for reference.

Section 3: Incorporating IDDE into Maintenance and Inspection Activities

Purpose
Potential illicit discharge problems can be revealed through outfall inspections or reports from staff, tenants, or the public as described in Section 4. When a complaint is reported, the Phase II Permit requires that a follow-up investigation be initiated within seven (7) days, on average. The follow-up investigation could include a site visit to look at the problem area, review of mapping information, review of past complaints or investigations at the location, or other data collection and review. Once a problem has been verified (either through a routine outfall inspection or follow-up to a called-in complaint) the City will begin an official illicit discharge investigation, following the procedures outlined in this section.

When an illegal dumping or illicit discharge problem is directly observed by a member of the City staff, it is generally not necessary to follow these investigation procedures. In those scenarios, the source of the

problem discharge is already known. Problems revealed through direct observation are referred directly to the corrective action information in Section 7. In the event that a reported problem does not have a defined source, the procedures in this section should be followed to trace the source of the illicit discharge.

Section 4: Visual Illicit Discharge Detection Inspection Procedures

4.1 Tracing the Source

This section outlines the basic tools that can be used to trace the source of a suspected illicit discharge. Source tracing begins when a suspected problem area is identified through outfall inspections, field assessment/testing, or a complaint call. When the source of the non-stormwater discharge is not known, one of two primary methods can be used to locate the source of an illicit discharge:

- Method A – Storm Drain Network Investigations
- Method B – Drainage Area Investigations

The method used will depend on the type of information collected or reported, level of understanding of the drainage network, and existing knowledge of operations and activities on the surrounding properties. All source tracing investigations should be documented and recorded.

4.1.1 Start a File

When problems are identified, a report should be started, and assigned an incident number, creation date, case description and the primary staff contact/investigator. A report is created listing the property name, person responsible, and tracking all information related to the observed or suspected problem. The investigator assigned to the case shall keep an accurate log of labor, materials and costs associated with the investigation for invoicing the responsible party. The report should be started prior to completing any additional field work unless the nature of the discharge necessitates immediate response. In addition to filling out the report, the file should include copies of the following, if applicable:

- GIS Inspection Map;
- Photographs;
- Field notes;
- Lab testing results;
- Compliance letters sent and responses received;
- Correspondence (mail, email, telephone logs);
- Proof of corrected problems (contract and invoice or clean field investigation report).

Any field investigations, photographs, corrective actions, or other activities associated with the suspected problem area should be documented in the case log. This becomes the City's official record of the IDDE investigation. Additional record keeping information is included in Section 8.

4.1.2 Method A – Storm Drain Network Investigations

The source of some illicit connections or discharges can be located by systematically isolating the area from which the polluted discharge originates. This method involves progressive investigation at manholes in the storm drain network to narrow down the location where the illegal discharge is entering the drainage system. This method is best used to identify constant or frequent discharge sources such as an illicit connection from a sewer system or sink drain into the storm drainage network. One-time illegal discharges (such as a surface spill or intentional dumping into the storm drain system) should be investigated using Method B described later in this section.

Field crews should work progressively upstream from the outfall and inspect manholes until indicators reveal the discharge is no longer present. Manhole observations can be time consuming, but they are generally a necessary step before conducting other tests. In particularly large storm drain systems, it may be helpful to first identify major branches of the system and test one manhole at the downstream end of each branch. This can help to reduce the area that must be investigated.

Storm drain network investigations include the following steps:

1. Consult the drainage system map and identify the major branches. If a drainage system map is not available or major branches cannot be identified, then sketches of the system shall be made and the system shall be identified in the GIS project queue for adding to the City's drainage system map.
2. Starting from the outfall, observe the next upstream manhole or junction to see if there is evidence of polluted discharge. As with the outfall inspections, field crews are looking for the presence of flow during dry weather, foul odors, colors or stained deposits, oily sheen, floatable materials, and/or other unusual observations.
3. Repeat observations at each upstream manhole or junction until a junction is found with no evidence of discharge; the discharge source is likely located between the junction with no evidence of discharge and the next downstream junction.
4. Work downstream from the "clean" manhole or junction to isolate the location where the polluted discharge is entering the storm drain system.
5. If discharge is evident from private property initiate private property site entry procedures.
6. Document all findings in field notes and keep them in the file.

When visual inspections are not enough to isolate the source of the illegal discharge, a number of additional field tests can be performed. These include:

- Dye testing,
- Video Testing/Televising,
- Smoke testing,

The Center for Watershed Protection's Illicit Discharge Detection and Elimination: A Guidance Manual provides instructions for employing these testing techniques. The relevant pages from that manual are included in Appendix C.

Confirmed illicit discharge sources should be referred to the follow-up actions and corrective action procedures described at the end of this section and in Section 7.

4.1.3 Method B – Drainage Area Investigations

The source of some illegal discharges can be determined through a survey or analysis of the drainage area of the problem outfall. Drainage area investigations are particularly useful when the discharge observed at the outfall has a distinct or unique characteristic that can allow field crews to quickly determine the type of activity or non-point source that is generating the discharge. However, drainage area investigations are generally not helpful in tracing sewage discharges, since they are not related to a specific land use.

Drainage area investigations should begin with a discussion between the field crews, inspectors, engineers, and other knowledgeable City staff to identify the type of site most likely to produce the observed discharge. Table 4-1 shows some of the activities or land uses most likely associated with specific discharge problems.

Table 4-1
Common Discharges and Potential Sources

Observed Discharge	**Potential Causes**
Clogging Sediment	• Construction activity without proper erosion and sediment controls • Roadway sanding operations • Outdoor work areas or material storage areas
Thick Algae Growth	• Fertilizer leak or spill • Landscaping operations • Hydroseeding following construction • Failing or leaking septic system
Oil	• Refueling operations • Vehicle or machinery maintenance activities
Sudsy Discharge	• Power washing of buildings • Vehicle or equipment washing operations • Mobile cleaning crew dumping • Laundry or Cleaner • Household greywater discharge
Clogged Grease	• Restaurant sink drain connection to stormwater system
Sewage	• Failing or leaking septic systems

Staff should make a list of likely discharge sources and consult City land use and drainage system maps to identify areas of likely pollutions sources near the storm drain network. Field crews should then conduct a windshield survey of the drainage area to confirm and identify potential sources of the discharge. Once potential discharge sites are identified, City staff should conduct individual site inspections to locate the specific source of the illegal discharge.

In some cases, dye testing (See Appendix C) may be needed to confirm that a suspected activity is actually draining into the storm drain network.

All drainage area investigations should be documented in field notes and entered in the report file.

4.1.4 Equipment

Prior to conducting field work, crews should assemble all required equipment (see Table 4-2) and review the outfall inspection records or water quality incident reports from the area to become familiar with the background information and potential pollution sources.

Table 4-2
Field Equipment for Source Investigations

Minimum 2 person crew	• Watch with second hand
Safety Gear – vest, work boots, cones	• Flash light or head lamp
Field Notebook/Pencils	• Tool Box – hammer, tape measure, duct tape, zip ties
Map or Aerial Photo of Inspection Area	• First Aid Kit
Digital camera w/ charged battery	• Clear sample bottles
Cell phone w/ charged battery	• Wide mouth container

4.2 Follow-Up Actions

Once the source of an illicit discharge has been identified, the investigator should notify the property owner or operator of the problem and provide the appropriate educational materials and/or a notice of violation. This is an important first step in the corrective action process. The investigator completes the information to document the findings. The investigator can then begin working through the corrective action steps outlined in Section 7.

Section 5: Training Staff on Implementation of the IDDE Program

The City has developed a training schedule to meet the requirements of the NPDES Phase II Permit. Two primary trainings have been identified related to IDDE:

- Training for all staff that are routinely in the field to educate them on what constitutes an illicit discharge problem and how to report suspected problems.
- Training for illicit discharge responders on proper identification, investigation, clean-up, disposal, and reporting techniques for illicit discharges.

These trainings are generally conducted using materials developed for the IDDE program. General training will primarily include Power Point presentations, webcast material, and printed material distributed to staff at staff meetings. The City has met the permit requirement of developing a program to train all field staff, and the City will schedule follow-up trainings as needed to keep the information fresh or introduce new information acquired during implementation of the IDDE program.

Training for illicit discharge responders will also include distribution and review of this procedure manual as well as a refresher on City spill response procedures. Follow-up trainings for illicit discharge

responders may take the form of debriefings following significant IDDE incidents. Debriefings allow staff to review the actions taken and identify what worked well and what should be modified for future responses.

Section 6 – Locating Priority Areas

Identification of priority areas likely to have illicit discharges, including at a minimum, evaluating land uses associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge. Based on this evaluation, the permittee shall conduct additional illicit discharge inspections in those areas identified as having a higher likelihood for illicit discharges.

6.1 Developing Priority Areas

Identifying priority areas is vital to the development of an IDDE program. This process can be broken down into three fundamental steps:

1. Use all available information to identify where illicit discharges may be found in the community;
2. Conduct dry weather field screenings to locate non-stormwater discharges;
3. Conduct water quality sampling and analysis to determine if non-stormwater discharges are present.

6.2 Locating Priority Areas

The first step in locating priority areas is to identify areas that have a high potential for illicit discharges within your community. These can be broken down into a list of commonly high probability locations where illicit discharges may be or are likely to occur.

1. Locations where there have been repeated problems in the past. This includes locations with known water quality data, as well as locations where numerous complaints have been received. These areas should be known by community officials as well as other agencies that collaborate on specific problem areas. For example: Eagle Lake Utilities works on many sanitary sewer problems that can impact the MS4. Utilities would be a division within Public Works that should be contacted for such information. Likewise, the MDOH, MPCA, county health department, or a variety of other agencies/groups should be contacted when compiling this information.
2. Using existing information to assess where illicit discharges may be found and what waterbodies are particularly sensitive (e.g. drinking water sources, areas containing unique biodiversity, and swimming areas).
3. Older areas of a community may indicate possible locations where there will be illicit discharges detected. These locations may have a higher percentage of illegal connections and/or have deteriorating sewer lines leading to infiltration problems from the older infrastructure found in that area.
4. The commercial and/or industrial areas of the community will tend to have a higher percentage of illicit discharges as well. Historically, these locations have significant numbers of illegal connections and have discharges with a high potential to affect water quality (Tuomari, 1999 and Pitt et al., 1993).

5. Stormwater outfalls and structural pollution control devices should be inspected for illicit discharges during the normal inspection period for these structures/facilities.
6. Areas with storage of large quantities of materials that could result in a spill or areas with many storage vessels of hazardous solids or liquids.

Priority Areas Identified by the City of Eagle Lake:
Using the guidelines provided above, the City of Eagle Lake staff has identified the following priority areas within the city limits:

- City well house at the park
- City salt storage
- Casey's
- Eagle Express
- Superior Wash
- Chuck's Body Shop
- Gene's Repair
- Hughes Automotive

Section 7: Response Procedures

Immediate Response Procedures
The field crew should be prepared to take immediate action in the event of encountering one of the following situations:

- Individuals actively in the process of introducing possible illegal substances or materials to the storm drain system
- Very strong chemical odor emanating from storm drain system
- Presence of fumes or smoke emanating from storm drain system
- Visible significant stream of a controlled chemical or petroleum product flowing in storm system or downstream waters
- Large chemical plume in stream or river downstream of a City outfall
- Any condition that poses or could pose an immediate threat to property, human health or safety, or aquatic life. The crew should take the following steps if one of the above situations is encountered:
- Ensure crew safety and the public by instructing people to stay clear of the area.
- **Call 911 to report a major spill, active illegal dumping or a potential fire incident.**
- The following offices must all be called if an unauthorized discharge of oil or hazardous material such as a spill has occurred:
    a. Non-Emergency Police Dispatch at 507-257-3110
    b. Minnesota Duty Officer at 651-649-5451
- If a spill is encountered the following information should be recorded if possible:
    a. Where is the spill?
    b. What spilled?
    c. How much spilled?
    d. How concentrated is the spilled material?

e. Who spilled the material?
f. Is anyone cleaning up the spill?
g. Are there resource damages (e.g. dead fish or oiled birds)?
h. Who is reporting the spill?
i. Your contact information?

• If possible isolate or contain visible chemical pollution in the effected waterbody with any materials that are accessible. For small discharges earth dams, absorbent pads, and containers may be useful to contain part of the illicit discharge.
• Take detailed notes and photos/video for subsequent investigation by City or other agencies.

At a minimum, follow-up work includes contacting the Minnesota Pollution Control Agency (651-296-6300) to determine if any additional reporting or investigative actions are necessary.

7.1 Corrective Action

7.1.1 Purpose

The City will respond to identified illicit discharges, illicit connections, or illegal dumping activities using progressive enforcement actions. Corrective actions will focus first on education to promote voluntary compliance and escalate to increasingly severe enforcement actions if voluntary compliance is not obtained.

7.1.2 Voluntary Compliance

The preferred approach to address illicit discharge problems is to pursue voluntary compliance through property owner or responsible party education. Often, business operators and property owners are not aware of the existence of illicit connections or activities on their properties that may constitute an illegal discharge. In these cases, providing the responsible party with information about the connection or operation, the environmental consequences, and suggestions on how to remedy the problem may be enough to secure voluntary compliance.

Education begins during the site investigation when the operation or connection is first confirmed. Property owners and operators should be notified that the problems must be corrected in a timely manner and that the City will be conducting a follow-up site visit to verify compliance. Field staff should also provide the property operator with an educational brochure describing illicit discharge violations and a copy of the applicable City code. Field staff should also remind property owners of their obligation to report discharges to the proper agencies.

7.1.3 Operational Problems

Property owners are responsible for correcting operational problems that are leading to illegal discharges to the storm drainage system. This could include moving washing activities indoor or undercover, covering material storage areas, locating an appropriate discharge location for liquid wastes, or other operational modifications. Through site visits and education, the City can provide technical assistance to aid property owners in identifying the required modifications.

7.1.4 Structural Problems

Most illicit connection problems will require a structural modification to correct the problem. Structural repairs can be used to redirect discharges such as sewage, industrial, and commercial cross-connections. Such cross-connections must be re-routed to an approved sanitary sewer system. Correcting structural problems is the responsibility of the property owner, though the City may provide technical assistance throughout the process.

Section 8 – Incident Reporting

8.1 Purpose

Illicit discharges and connections are identified through citizen reporting, interdepartmental or interagency referral, or other routine MS4 inspection activities. The City relies on local citizens, field staff, and inspections to detect potential problem areas quickly, so that they can be addressed before they cause significant water quality degradation.

The Minnesota Duty Officer Hotline number (651-649-5451 or 800-422-0798) is available 24 hours a day to call to report concerns or a spill incident. Residents are encouraged to participate in the reporting process, and this helps the City to receive timely information about problems like illegal dumping, spills, or strong odors. The City's related MS4 maintenance activities provide opportunities to document and identify potential problems that may not be obvious to the general public.

8.2 Incident Reporting

Field staff shall be observant in their daily routines to watch for evidence of illicit discharges or unusual flows from the storm drain systems. Should a suspected discharge be discovered, it must be reported to the City of Eagle Lake at 507-257-3218 (office) or the Minnesota Duty Officer Hotline at (651-649-5451 or 800-422-0798) outside of normal office hours.

When a suspected illicit discharge is observed, the employee may elect to fill out a City of Eagle Lake Stormwater IDDE Report & Response Form (Appendix A). However, if a suspected illicit discharge is observed, to assist the City the information that should be recorded at a minimum is:

- ►Location
- ►Date
- ►Time
- ►License plate number (if applicable)
- ►And take photos

Once this information is submitted to the City a field investigation of the discharge shall occur. The employee initially observing the suspect discharge need NOT approach the potential violator at the time of the incident. However, if the violator does not appear threatening, personal information for the Illicit Discharge Reporting & Tracking Form would be beneficial.

Once recorded, incident information is referred to the appropriate City department and/or staff person for follow-up. In most cases, IDDE problems should be referred to the City for further investigation. Staff will either follow the investigation procedures in Section 6 to identify the source of the problem or, if the source is known, the corrective action procedures outlined in Section 7 will apply.

APPENDIX A

Stormwater IDDE Report & Response Form

City of Eagle Lake Stormwater IDDE Report & Response Form

I. Incident Report Incident Number:_____

Date/Time: _____AM / PM Received By: _____

Location: _____

Initial Report of Conditions: _____

_____

Reported By: _____ Phone: _____

II. Investigation

Date: _____ By: _____

Location Description/Storm Drain ID/Outfall: _____

Discharge Entered Storm Drain System/Receiving Waters? ___Yes ___No

Material Type

- ☐ Hazardous
- ☐ Sediment
- ☐ Wastewater
- ☐ Oil/Grease
- ☐ Other_____
- ☐ Unknown

Est. Quantity: _____

Additional Information: _____

Sample(s) Collected: ____ Yes _____No Photo(s) Taken: ____ Yes _____No

Observed Land Use

- ☐ Residential
- ☐ Commercial/Industrial Stormwater Permit ___Yes ___No ___Unknown
- ☐ Public

Direct/Constructed Connections Found? ___ Yes ___ No

Source Description: _____

Source/Responsible Party: _____

III. Action and Closure

Referred To: _____ Date: _____

Action Taken: _____

_____

Date Closed: _____

APPENDIX B

Enforcement Response Procedures (ERPs)

Stormwater Pollution Prevention Plan
Enforcement Response Procedures

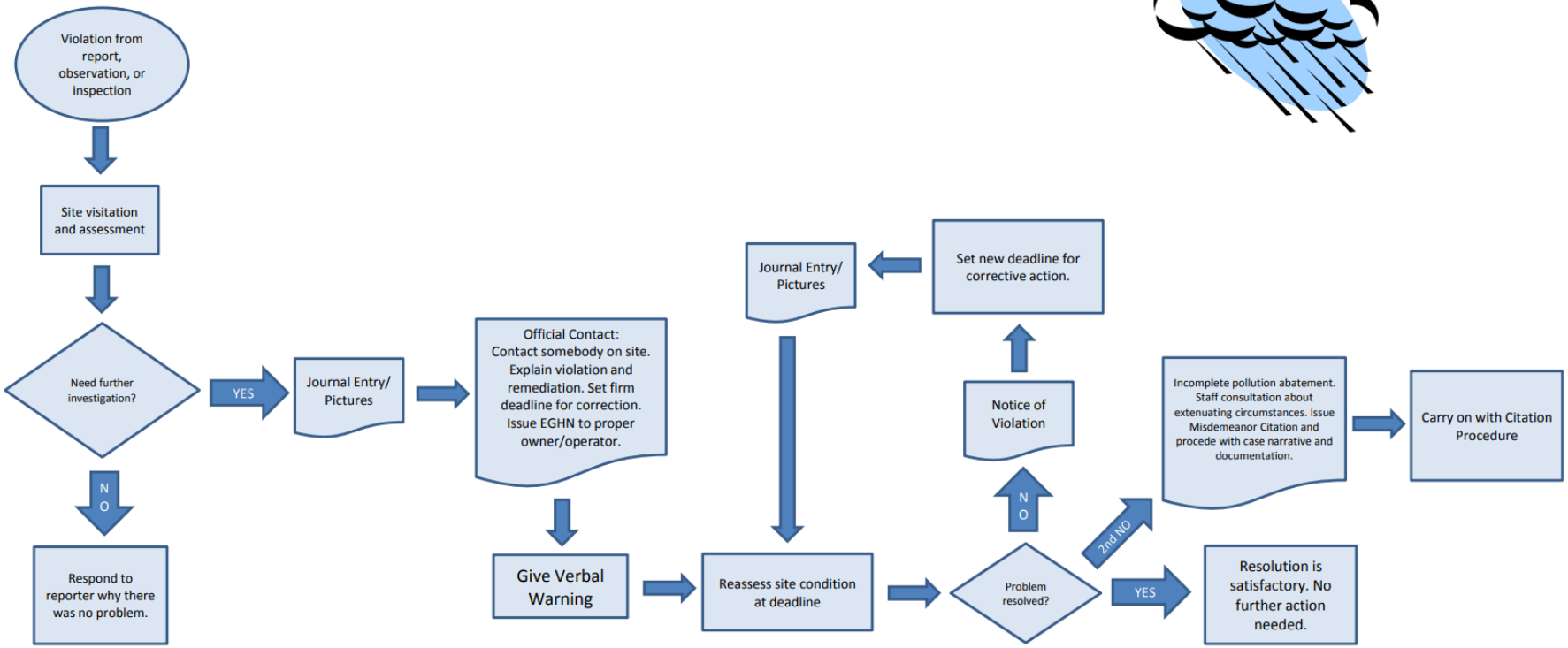


Image courtesy of the City of Red Wing

APPENDIX C

Dye Testing, Video Testing/Televising & Smoke Testing

Excerpts from The Center for Watershed Protection's:

Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments

Table 56: Techniques to Locate the Discharge		
Technique	**Best Applications**	**Limitations**
Dye Testing	• Discharge limited to a very small drainage area (<10 properties is ideal) • Discharge probably caused by a connection from an individual property • Commercial or industrial land use	• May be difficult to gain access to some properties
Video Testing	• Continuous discharges • Discharge limited to a single pipe segment • Communities who own equipment for other investigations	• Relatively expensive equipment • Cannot capture non-flowing discharges • Often cannot capture discharges from pipes submerged in the storm drain
Smoke Testing	• Cross-connection with the sanitary sewer • Identifying other underground sources (e.g., leaking storage techniques) caused by damage to the storm drain	• Poor notification to public can cause alarm • Cannot detect all illicit discharges

TIP

The Wayne County Department of the Environment provides excellent training materials on on-site investigations, as well as other illicit discharge techniques. More information about this training can be accessed from their website: http://www.wcdoe.org/Watershed/Programs___Srvcs_/IDEP/idep.htm.

Figure 63: Dye Testing Plumbing (NEIWPCC, 2003)

Dye Testing

Dye testing is an excellent indicator of illicit connections and is conducted by introducing non-toxic dye into toilets, sinks, shop drains and other plumbing fixtures (see Figure 63). The discovery of dye in the storm drain, rather than the sanitary sewer, conclusively determines that the illicit connection exists.

Before commencing dye tests, crews should review storm drain and sewer maps to identify lateral sewer connections and how they can be accessed. In addition, property owners must be notified to obtain entry permission. For industrial or commercial properties, crews should carry a letter to document their legal authority to gain access to the property. If time permits, the letter can be sent in advance of the dye testing. For residential properties, communication can be more challenging. Unlike commercial properties, crews are not guaranteed access to homes, and should call ahead to ensure that the owner will be home on the day of testing.

Communication with other local agencies is also important since any dye released to the storm drain could be mistaken for a spill or pollution episode. To avoid a costly and embarrassing response to a false alarm,

crews should contact key spill response agencies using a "quick fax" that describes when and where dye testing is occurring (Tuomari and Thomson, 2002). In addition, crews should carry a list of phone numbers to call spill response agencies in the event dye is released to a stream.

At least two staff are needed to conduct dye tests – one to flush dye down the plumbing fixtures and one to look for dye in the downstream manhole(s). In some cases, three staff may be preferred, with two staff entering the private residence or building for both safety and liability purposes.

The basic equipment to conduct dye tests is listed in Table 57 and is not highly specialized. Often, the key choice is the type of dye to use for testing. Several options are profiled in Table 58. In most cases, liquid dye is used, although solid dye tablets can also be placed in a mesh bag and lowered into the manhole on a rope (Figure 64). If a

Table 57: Key Field Equipment for Dye Testing
(Source: Wayne County, MI, 2000)

Maps, Documents
- Sewer and storm drain maps (sufficient detail to locate manholes)
- Site plan and building diagram
- Letter describing the investigation
- Identification (e.g., badge or ID card)
- Educational materials (to supplement pollution prevention efforts)
- List of agencies to contact if the dye discharges to a stream.
- Name of contact at the facility

Equipment to Find and Lift the Manhole Safely (small manhole often in a lawn)
- Probe
- Metal detector
- Crow bar
- Safety equipment (hard hats, eye protection, gloves, safety vests, steel-toed boots, traffic control equipment, protective clothing, gas monitor)

Equipment for Actual Dye Testing and Communications
- 2-way radio
- Dye (liquid or "test strips")
- High powered lamps or flashlights
- Water hoses
- Camera

Figure 64: Dye in a mesh bag is placed into an upstream manhole (left); Dye observed at a downstream manhole traces the path of the storm drain (right)

longer pipe network is being tested, and dye is not expected to appear for several hours, charcoal packets can be used to detect the dye (GCHD, 2002). Charcoal packets can be secured and left in place for a week or two, and then analyzed for the presence of dye. Instructions for using charcoal packets in dye testing can be accessed at the following website: http://bayinfo.tamug.tamu.edu/gbeppubs/ms4.pdf.

The basic drill for dye tests consists of three simple steps. First, flush or wash dye down the drain, fixture or manhole. Second, pop open downgradient sanitary sewer manholes and check to see if any dye appears. If none is detected in the sewer manhole after an hour or so, check downgradient storm drain manholes or outfalls for the presence of dye. Although dye testing is fairly straightforward, some tips to make testing go more smoothly are offered in Table 59.

Table 58: Dye Testing Options

Product	Applications
Dye Tablets	• Compressed powder, useful for releasing dye over time • Less messy than powder form • Easy to handle, no mess, quick dissolve • Flow mapping and tracing in storm and sewer drains • Plumbing system tracing • Septic system analysis • Leak detection
Liquid Concentrate	• Very concentrated, disperses quickly • Works well in all volumes of flow • Recommended when metering of input is required • Flow mapping and tracing in storm and sewer drains • Plumbing system tracing • Septic system analysis • Leak detection
Dye Strips	• Similar to liquid but less messy
Powder	• Can be very messy and must dissolve in liquid to reach full potential • Recommended for very small applications or for very large applications where liquid is undesirable • Leak detection
Dye Wax Cakes	• Recommended for moderate-sized bodies of water • Flow mapping and tracing in storm and sewer drains
Dye Wax Donuts	• Recommended for large sized bodies of water (lakes, rivers, ponds) • Flow mapping and tracing in storm and sewer drains • Leak detection

Table 59: Tips for Successful Dye Testing
(Adapted from Tuomari and Thompson, 2002)

Dye Selection
- Green and liquid dyes are the easiest to see.
- Dye test strips can be a good alternative for residential or some commercial applications. (Liquid can leave a permanent stain).
- Check the sanitary sewer before using dyes to get a "base color." In some cases, (e.g., a print shop with a permitted discharge to the sanitary sewer), the sewage may have an existing color that would mask a dye.
- Choose two dye colors, and alternate between them when testing multiple fixtures.

Selecting Fixtures to Test
- Check the plumbing plan for the site to isolate fixtures that are separately connected.
- For industrial facilities, check most floor drains (these are often misdirected).
- For plumbing fixtures, test a representative fixture (e.g., a bathroom sink).
- Test some locations separately (e.g., washing machines and floor drains), which may be misdirected.
- If conducting dye investigations on multiple floors, start from the basement and work your way up.
- At all fixtures, make sure to flush with plenty of water to ensure that the dye moves through the system.

Selecting a Sewer Manhole for Observations
- Pick the closest manhole possible to make observations (typically a sewer lateral).
- If this is not possible, choose the nearest downstream manhole.

Communications Between Crew Members
- The individual conducting the dye testing calls in to the field person to report the color dye used, and when it is dropped into the system.
- The field person then calls back when dye is observed in the manhole.
- If dye is not observed (e.g., after two separate flushes have occurred), dye testing is halted until the dye appears.

Locating Missing Dye
- The investigation is not complete until the dye is found. Some reasons for dye not appearing include:
- The building is actually hooked up to a septic system.
- The sewer line is clogged.
- There is a leak in the sewer line or lateral pipe.

Video Testing

Video testing works by guiding a mobile video camera through the storm drain pipe to locate the actual connection producing an illicit discharge. Video testing shows flows and leaks within the pipe that may indicate an illicit discharge, and can show cracks and other pipe damage that enable sewage or contaminated water to flow into the storm drain pipe.

Video testing is useful when access to properties is constrained, such as residential neighborhoods. Video testing can also be expensive, unless the community already owns and uses the equipment for sewer inspections. This technique will not detect all types of discharges, particularly when the illicit connection is not flowing at the time of the video survey.

Different types of video camera equipment are used, depending on the diameter and condition of the storm sewer being tested.

Field crews should review storm drain maps, and preferably visit the site before selecting the video equipment for the test. A field visit helps determine the camera size needed to fit into the pipe, and if the storm drain has standing water.

In addition to standard safety equipment required for all manhole inspections, video testing requires a Closed-Circuit Television (CCTV) and supporting items. Many commercially available camera systems are specifically adapted to televise storm sewers, ranging from large truck or van-mounted systems to much smaller portable cameras. Cameras can be self-propelled or towed. Some specifications to look for include:

- The camera should be capable of radial view for inspection of the top, bottom, and sides of the pipe and for looking up lateral connections.
- The camera should be color.
- Lighting should be supplied by a lamp on the camera that can light the entire periphery of the pipe.

When inspecting the storm sewer, the CCTV is oriented to keep the lens as close as possible to the center of the pipe. The camera can be self-propelled through the pipe using a tractor or crawler unit or it may be towed through on a skid unit (see Figures 65 and 66). If the storm drain has ponded water, the camera should be attached to a raft, which floats through the storm sewer from one manhole to the next. To see details of the sewer, the camera and lights should be able to swivel both horizontally and vertically. A video record of the inspection should be made for future reference and repairs (see Figure 67).

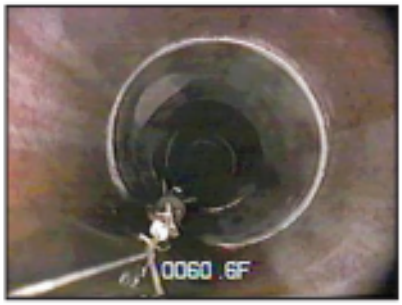


Figure 65: Camera being towed

Smoke Testing

Smoke testing is another "bottom up" approach to isolate illicit discharges. It works by introducing smoke into the storm drain system and observing where the smoke surfaces. The use of smoke testing to detect illicit discharges is a relatively new application, although many communities have used it to check for infiltration and inflow into their sanitary sewer network. Smoke testing can find improper

Figure 66: Tractor-mounted camera

Figure 67: Review of an inspection video

connections, or damage to the storm drain system (Figure 68). This technique works best when the discharge is confined to the upper reaches of the storm drain network, where pipe diameters are to small for video testing and gaining access to multiple properties renders dye testing infeasible.

Notifying the public about the date and purpose of smoke testing before starting is critical. The smoke used is non-toxic, but can cause respiratory irritation, which can be a problem for some residents. Residents should be notified at least two weeks prior to testing, and should be provided the following information (Hurco Technologies, Inc., 2003):

- Date testing will occur
- Reason for smoke testing
- Precautions they can take to prevent smoke from entering their homes or businesses
- What they need to do if smoke enters their home or business, and any health concerns associated with the smoke
- A number residents can call to relay any particular health concerns (e.g., chronic respiratory problems)

Program managers should also notify local media to get the word out if extensive smoke testing is planned (e.g., television, newspaper, and radio). On the actual day of testing, local fire, police departments and 911 call centers should be notified to handle any calls from the public (Hurco Technologies, Inc., 2003).

The basic equipment needed for smoke testing includes manhole safety equipment, a smoke source, smoke blower, and sewer plugs. Two smoke sources can be used for smoke testing. The first is a smoke "bomb," or "candle" that burns at a controlled rate and releases very white smoke visible at relatively low concentrations (Figure 69). Smoke bombs are suspended beneath a blower in a manhole. Candles are available in 30 second to three minute sizes. Once opened, smoke bombs should be kept in a dry location and should be used within one year.

The second smoke source is liquid smoke, which is a petroleum-based product that is injected into the hot exhaust of a blower where it is heated and vaporized (Figure 70). The length of smoke production can vary depending on the length of the pipe being

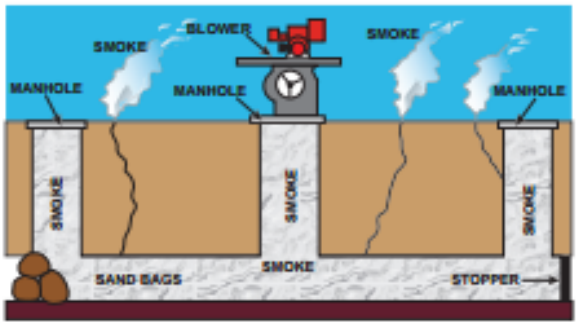


Figure 68: Smoke Testing System Schematic

Figure 69: Smoke Candles

Figure 70: Smoke blower

tested. In general, liquid smoke is not as consistently visible and does not travel as far as smoke from bombs (USA Blue Book).

Smoke blowers provide a high volume of air that forces smoke through the storm drain pipe. Two types of blowers are commonly used: "squirrel cage" blowers and direct-drive propeller blowers. Squirrel cage blowers are large and may weigh more than 100 pounds, but allow the operator to generate more controlled smoke output. Direct-drive propeller blowers are considerably lighter and more compact, which allows for easier transport and positioning.

Three basic steps are involved in smoke testing. First, the storm drain is sealed off by plugging storm drain inlets. Next, the smoke is released and forced by the blower through the storm drain system. Lastly, the crew looks for any escape of smoke above-ground to find potential leaks.

One of three methods can be used to seal off the storm drain. Sandbags can be lowered into place with a rope from the street surface. Alternatively, beach balls that have a diameter slightly larger than the drain can be inserted into the pipe. The beach ball is then placed in a mesh bag with a rope attached to it so it can be secured and retrieved. If the beach ball gets stuck in the pipe, it can simply be punctured, deflated and removed. Finally, expandable plugs are available, and may be inserted from the ground surface.

Blowers should be set up next to the open manhole after the smoke is started. Only one manhole is tested at a time. If smoke candles are used, crews simply light the candle, place it in a bucket, and lower it in the manhole. The crew then watches to see where smoke escapes from the pipe. The two most common situations that indicate an illicit discharge are when smoke is seen rising from internal plumbing fixtures (typically reported by residents) or from sewer vents. Sewer vents extend upward from the sewer lateral to release gas buildup, and are not supposed to be connected to the storm drain system.

13.4 Septic System Investigations

The techniques for tracing illicit discharges are different in rural or low-density residential watersheds. Often, these watersheds lack sanitary sewer service and storm water is conveyed through ditches or swales, rather than enclosed pipes. Consequently, many illicit discharges enter the stream as indirect discharges, through surface breakouts of septic fields or through straight pipe discharges from bypassed septic systems.

The two broad techniques used to find individual septic systems—on-site investigations and infrared imagery—are described in this section.

APPENDIX D

Illicit Discharge Ordinance

(c) *Other actions to ensure compliance.* The city can take any combination of the following actions in the event of a failure by applicant to meet the terms of this ordinance:

(1) Withhold inspections or issuance of certificates or approvals.

(2) Revoke any permit issued by the city to the applicant.

(3) Conduct remedial or corrective action on the development site or adjacent site affected by the failure.

(4) Charge applicant for all costs associated with correcting the failure or remediating damage from the failure; if payment is not made within 30 days, payment will be made from the applicant's financial securities.

(5) Bring other actions against the applicant to recover costs of remediation or meeting the terms of this chapter.

Section 18.0211 Penalty.

(a) Violation and misdemeanor. Every person or legal entity who violates a section, subdivision, paragraph, or provision of this chapter when they perform an act thereby prohibited or declared unlawful or fails to act when such failures thereby prohibited or declared unlawful, or performs an act prohibited or declared unlawful by a code adopted by reference in this chapter, and upon conviction thereof, shall be punished as a misdemeanor.

(b) Each day that a separate violation exists shall constitute a separate offense.

SECTION 18.030 STORMWATER ILLICIT DISCHARGE AND CONNECTION

(07-02-2018)

Subd. 1. Purpose, Intent, and Applicability.

A. Purpose/Intent: The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of the City of Eagle Lake through the regulation of non-storm water discharges to the stormwater system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process.

B. Applicability: This ordinance shall apply to all water entering the stormwater system generated on any developed or undeveloped lands unless explicitly exempted by an authorized enforcement agency.

Subd. 2. Definitions. Unless specifically defined below, words or phrases used in this Chapter shall be interpreted so as to give them the same meaning as they have in common usage and to give this Chapter its most reasonable application. For the purpose of this Chapter, the words

"must" and "shall" are mandatory and not permissive. For the purposes of this ordinance, the following shall mean:

A. Authorized Enforcement Agency: the City of Eagle Lake, Blue Earth County, State of Minnesota, or United States Environmental Protection Agency.

B. Best Management Practices (BMPs): schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

C. City: any City of Eagle Lake official with authority such as but not limited to Administration, City Council, City Engineer (or designated staff), Law Enforcement and Public Works Officials.

D. Hazardous Materials: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

E. Illegal or Illicit Discharge: Any direct or indirect non-storm water discharge to the stormwater system, MS4, or Waters of the State, except as exempted in Subd. 3.C of this ordinance.

F. Illicit Connection(s): An illicit connection is defined as any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the stormwater system including, but not limited to, any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the stormwater system and any connections to the stormwater system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, any drain or conveyance connected from a commercial or industrial land use to the stormwater system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

G. Industrial Activity: Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

H. MPCA: The Minnesota Pollution Control Agency.

I. Municipal Separate Storm Sewer System (MS4): A stormwater conveyance or unified stormwater conveyance system (including without limitation roads with drainage systems,

municipal streets, catch basins, stormwater detention facilities, curbs, gutters, ditches, natural or manmade channels or storm drains that are located within the corporate limits of Eagle Lake, Minnesota and are owned or operated by the City of Eagle Lake, Blue Earth County, State of Minnesota, or other public body.

J. National Pollutant Discharge Elimination System (NPDES): the program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits under the Clean Water Act (Sections 301, 318, 402, and 405) and United States Code of Federal Regulations Title 33, Sections 1317, 1328, 1342, and 1345.

K. "Non-Storm Water Discharge" Any discharge to the stormwater system that is not composed entirely of storm water.

L. Person or Discharger: means any individual, association, organization, partnership, firm, corporation or other entity recognized by law and action as either the owner or as the owner's agent.

M. Pollutant: Any man-made or man-induced alteration of the chemical, physical, biological, thermal and/or radiological integrity of any Waters of the State or the MS4, which has the potential to harm human life, aquatic life, terrestrial plant life and/or wildlife, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

N. Premises: Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

O. Stormwater System: Public and Privately-owned facilities and systems by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

P. Stormwater: Natural precipitation runoff, stormwater runoff, snow melt runoff, and any other surface runoff and drainage.

Q. Stormwater Pollution Prevention Plan (SWPPP): A document(s) which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

R. Wastewater: Any water or other liquid waste, other than uncontaminated stormwater, that has been used, such as for washing, flushing, or in a manufacturing process, and so contains waste products, discharged from a facility and collected in a sewer system and conveyed to a sewage treatment plant.

S. Waters of the State: all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the State of Minnesota or any portion thereof.

T. Wetland or Wetlands: those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

U. Mobile Cosmetic Cleaning power washing, steam cleaning and any other mobile cosmetic cleaning operation of vehicles, and/or exterior surfaces engaged for commercial purposes.

Subd. 3. Stormwater Runoff Control and Discharge Prohibitions. All water entering the stormwater system will be protected from illegal disposal/dumping and illicit discharges and connections. No person shall discharge or cause to be discharged into the MS4 or stormwater system any materials, including pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards.

A. Prohibition of Illegal Discharges. A person commits a violation if the person introduces or causes to be introduced into the MS4 or stormwater system any discharge of harmful substance(s) that is not composed entirely of stormwater.

1. No person shall cause any illicit discharge to enter the MS4 or a Stormwater System.

2. No person shall throw, dump, drain, or otherwise discharge, cause or allow others under its control to throw, dump, drain, or otherwise discharge into the MS4 or Stormwater System any pollutants or waters containing pollutants other than stormwater.

B. Prohibition of Illicit Connections.

1. No person shall use any illicit connection to intentionally convey non-stormwater to the MS4 or a Stormwater System.

2. The construction, use, maintenance or continued existence of illicit connections to the MS4 or Stormwater System is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of the connection.

3. A person is considered to be in violation of this ordinance if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

C. Exemptions. The following discharges are exempt from discharge prohibitions established by this ordinance:

1. Discharge of non-stormwater discharge that is authorized by an NPDES permit, Notice of Intent, waiver, or wastewater discharge order issued to the discharger and administered under authority of the U.S. Environmental Protection Agency (EPA) or MPCA, provided the discharger is in full compliance will all requirements of the permit, waiver, or order and written approval to discharge into the MS4 or stormwater system has been granted.

2. Diverted stream or ditch flows that have a valid permit from the Minnesota Department of Natural Resources, MPCA, Agricultural drain tile systems and other stormwater runoff.

3. Street wash water or cosmetic cleaning that does not contain soap, detergent, degreaser, solvents, emulsifier, dispersant, or other harmful cleaning substances, and that is necessary for health or safety purposes and not in violation of any other provisions of city code, uncontaminated groundwater or surface water pumping, dewatering, or basin draining, uncontaminated groundwater infiltration, foundation or footing drains and crawl space pumps that discharge uncontaminated surface waters and groundwater.

4. Air conditioning condensation that is unmixed with water from cooling towers, emission scrubber, emissions filter, or any other source of pollutants.

5. Swimming pools containing no harmful quantities of chlorine (if dechlorinated with less than one Parts Per Million) or other chemicals. Discharge of swimming pool filter backwash is prohibited,

6. Firefighting activities or other activities necessary to protect public health and safety.

7. Dye testing, with prior written notification to the City of Eagle Lake.

8. Water line flushing or disinfection that contains no harmful quantity of total residual chlorine or any other chemical used in line disinfection, or flushing of other potable water sources.

9. Landscape irrigation or lawn watering.

10. Noncommercial residential vehicle washing.

11. Natural surface or groundwater flows from rising lakes, streams, ditches, wetlands, springs, and riparian habitats.

12. Any other water source not containing a pollutant.

Subd. 4. Pubic Waters Protection. Every person owning property through which Public Waters pass, as defined in Minn. Stat. §1030.005, Subd. 15, or such person's lessee, shall keep and maintain that part of the public waters within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the public waters. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to public waters, so that such structures will not become a hazard to the use, function, or physical integrity of the public waters.

Subd. 5. Best Management Practices and Duty to Report.

A. No person shall leave, deposit, discharge, dump or otherwise introduce pollutants in an area where discharge to public streets, the MS4, or Stormwater system occurs.

B. For pools greater than 1,000 gallons in maximum capacity, water shall sit untreated and uncovered (exposed to sunlight) for a minimum of seven (7) consecutive days without the addition of chlorine to allow for chlorine to evaporate before discharge.

C. Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit including the creation of a current Stormwater Pollution Prevention Plan (SWPPP). Proof of compliance with said permit may be required (upon request) in a form acceptable to the City of Eagle Lake prior to the allowing of discharges to the MS4 or Stormsewer System.

D. As soon as any person responsible for a facility or operation has information of any known or suspected release of materials that are resulting or may result in illegal discharges or pollutants discharging into a Stormwater System, said person shall take steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the City in person or by phone or facsimile no later than the next business day.

Subd. 6. Inspection, Monitoring, and Testing.

A. The city shall be permitted to enter and inspect all Stormwater Systems as necessary to determine compliance with this ordinance. If security measures are in force which require proper identification and clearance before entry into its premises, the discharger shall make necessary arrangements to allow access to representatives of the City.

B. Facility operators shall allow the city ready access to all parts of its Stormwater System for the purposes of inspection, sampling, testing, examination and copying of records that must be kept under the conditions of a NPDES Permit to discharge stormwater.

C. The city shall have the right to set up at any Stormwater System devices necessary in the opinion of the City to conduct monitoring, sampling and/or dye testing of the facility's stormwater discharge.

D. The city has the right to require the discharger to install monitoring equipment as the City deems necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.

E. If the city has been refused reasonable access to any Stormwater System and the City is able to demonstrate probable cause to believe that there may be a violation of this section, or that there is a need to inspect and/or sample to verify compliance with this chapter or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the city may seek issuance of a search warrant from any court of competent jurisdiction.

Subd. 7. Violations and Penalties. It shall be unlawful to violate any provision or fail to comply with any of the requirements of this ordinance.

A. The city may, without prior notice, suspend Stormwater System access to any building/site when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the storm sewer system or surface waters.

B. In the event the violation constitutes an immediate danger to public health or safety, the City is authorized to enter upon the subject property without giving prior notice to take any and all measures necessary to abate the violation and/or restore the property.

C. Failure to comply with a suspension order issued in an emergency will result in any process deemed necessary to prevent or minimize damage to the storm sewer system or surface waters, or to minimize danger to persons.

Subd. 8. Violation deemed a Public Nuisance. In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this ordinance is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

Subd. 9. Cost of Abatement of the Violation. Within 30 days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within 7 days. If the amount due is not paid within a timely manner as determined by the decision of the Eagle Lake City Council or by the expiration of the time in which to file an

appeal, the City may assess the charges against the property. Any person violating any of the provisions of this article shall become liable to the city by reason of such violation.

Subd. 10. Remedies not Exclusive. The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the city to seek cumulative remedies. The City may recover all attorney's fees court costs and other expenses associated with enforcement of this ordinance, including sampling and monitoring expenses.

Subd. 11. Compatibility with Other Regulations. This ordinance is not intended to modify or repeal any other ordinance, rule, regulation, or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation, or other provision of law, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

Subd. 12. Severability. The provisions of this ordinance are severable, and if any provisions of this ordinance or application of any provision of this ordinance to any circumstance is held invalid by a court of competent jurisdiction, the remaining provisions of this ordinance shall not be affected.

Subd. 13. Ultimate Responsibility. The standards set forth herein and promulgated pursuant to this ordinance are minimum standards; therefore, this ordinance does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

Subd. 14. Abrogation and Greater Restrictions. It is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only.

Section 18.040 Animal and Pet Waste

(July 11, 2022)

Subd. 1. Definitions. The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Animal: A dog, cat or other animal kept for amusement or companionship.

Appendix D: Written Procedures and Checklist for Site Review

Site Plan Review Procedures

Section 18.0205 of City Ordinances requires an Erosion and Sediment Control (ESC) permit to be obtained prior to any proposed land disturbing activity greater than 1 acre or part of a larger common plan of development or sale. An owner is required to include a site plan when applying for an ESC permit. Upon receipt of an ESC permit application by an owner to the City of Eagle Lake, the following procedures shall be followed:

1. Proposed permit application and site plan submittal information shall be directed to the City Administrator.

2. The City Administrator shall take the following actions:
    a. Forward the information to the appropriate entities for review and approval. This may include, but not limited to one or all of the following:
        i. City Staff
        ii. Public Works Director
    b. Oversee review process.
    c. Notify owner of approval, disapproval, or required resubmittal of submitted information.
    d. Ensure City permit application is acceptable and complete prior to permit approval. ESC permit includes the need to apply and obtain coverage under the MPCA general permit to Discharge Stormwater Associated with Construction Activity, if applicable.

3. The reviewing entities shall complete the following actions:
    a. Review submitted information against the City's current ordinances, policies, and design standards.
    b. Provide written comments and recommendations of approval, disapproval and/or required resubmittal of site plan information to the City Administrator.
    c. Reviewer may utilize site plan review checklists, documentation standards and procedures.

4. File completed City of Eagle Lake ESC Plan Requirement checklist and any supporting documentation used to determine compliance.

ESC Plan Requirements checklist is located in the Eagle Lake Residential Lot Information Packet

CITY OF
EAGLE LAKE
WHERE OPPORTUNITY SOARS

Erosion & Sediment Control (ESC) Information and Standards

Version 1.1
July 2022

Erosion and Sediment Control Permit + Stormwater Management Permit

All single family residential construction projects are required under the City of Eagle Lake Stormwater Management Ordinance (Section 18.020) to apply for an Erosion and Sediment (ESC) permit and a Stormwater Management Permit.

The City of Eagle Lake, as specified by the Minnesota Pollution Control Agency (MPCA), is a Designated MS4 (Municipal Separate Storm Sewer System) due to its proximity to the City of Mankato, which is deemed as an "urbanized area" according to the US Census Bureau. A Designated MS4 is a municipally owned utility system that includes ditches, curbs, gutters, storm sewers, and similar means of collecting or conveying runoff that do not connect with a wastewater collection system or treatment plant.

The Stormwater Program for MS4s is designed to reduce the amount of sediment and pollution that enters surface and ground water from storm sewer systems to the maximum extent practicable. Stormwater discharges associated with MS4s are regulated through the use of National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) construction stormwater permits. NPDES/SDS permits are legal documents. Through this permit, the owner or operator is required to develop a stormwater pollution prevention plan (SWPPP) that incorporates best management practices (BMPs) applicable to their MS4.

The City will verify that all information submitted on the Erosion and Sediment Control permit and the Stormwater Management Permit is in compliance with Minnesota Pollution Control Agency (MPCA) Municipal Separate Storm Sewer System (MS4) General Permit (MNR040000) and the City of Eagle Lake's Stormwater Pollution Prevention Plan.

Erosion and Sediment Control Permit and Stormwater Management Permit submission must include completed:

1. Erosion and Sediment Control Plan.
2. MPCA Subdivision Registration.
3. Stormwater Pollution Prevention Plan (SWPPP) for Subdivision.
4. All above information is to be submitted for review with the Building Permit Application.

Introduction

This booklet contains standard procedures and plans sufficient for typical residential building construction in the City of Eagle Lake. It is not intended to address all circumstances.

Since our streets and storm sewers are conduits for draining storm water it is important to keep soil on the lots rather than tracked or eroded onto streets, adjacent properties, as well as area wetlands, lakes, and rivers.

Our primary objective is to eliminate or reduce the amount of sediments and other pollutants leaving a residential home construction site. To accomplish this goal, steps and procedures called Best Management Practices (BMPs) are undertaken. When properly implemented, these erosion and sediment controls are very effective.

The subdivision in which you are building should already have an overall Storm Water Pollution Prevention Plan (SWPPP) and Minnesota Pollution Control Agency (MPCA) permit. That permit remains in effect until all the lots are developed. BMPs related to that permit and plan are in place and should not be removed or compromised. **You will need to submit a Subdivision Registration to MPCA if you are not the subdivision developer, or working for the subdivision developer.**

The erosion and sediment control permit and stormwater management permit holder is responsible for ensuring that adequate BMPs are in place on the individual lot and functioning until the project is completed. A project is defined as completed only when the lot has been re-vegetated over 70 percent of the lot area.

When reviewing the standards presented in this publication and considering implementation on your construction project, keep in mind the intent of the standard is “to prevent erosion and to minimize sediments from leaving the lot.” Failure to do so can result in damage to adjacent property, damage to the City’s storm sewer system, as well as contributing to the pollution of stormwater ponds, creeks and Eagle Lake.

If any questions or concerns arise, please feel free to contact the City at 507-257-3218. We are committed to helping all of those involved with the implementation of these construction procedures.

Table of Contents

BEST MANAGEMENT PRACTICES
INSTALLATION SEQUENCING

BMPs — Examples include, but are not limited to, temporary construction entrance, sediment (silt) fence, erosion control mat, straw mulch, sod, seed and fiber mulch.

1. **Existing Vegetation/Sediment Buffer** — Ensure that the existing buffer strips along the curb line (and if present at the rear yard) are not disturbed. Temporary fencing or protection should be used to keep vehicles and material storage from disturbing these buffers.

2. **Inlet Protection** — Ensure that the curb or rear yard inlets that receive runoff water from your lot have inlet protection.

3. **Perimeter Control** — Install perimeter controls along the common lot lines where the adjacent lot receives runoff water from your lot **and** the adjacent lot has been graded, sodded or seeded. Sediment (silt) fence, biorolls, and mulch berms are examples of perimeter control BMPs.

4. **Temporary Construction Entrance** — Required (see detail). The temporary construction entrance must be used by all trades and delivery personnel entering the property. Acceptable materials for the entrance will be rock or gravel.

5. **Rough Grading/Excavating** — Install all BMPs prior to any grading or excavation.
   - Take special care when stripping and stockpiling the topsoil from the lot to avoid disturbing the grass buffer strips (which should be fenced by this time).
   - When excavating for sewer and water connections, the grass buffer strip may be unavoidably disturbed. The grass buffer strip must be restored or a BMP installed in the area disturbed. Sediment (silt) fence or wattles are acceptable.

6. **Soil Stockpiles** — Install BMPs to stabilize stockpiles and prevent erosion of sediments onto adjacent lots or into rear yard or curb inlets. Use sediment (silt) fence, wattles, straw bales or mulch.

7. **Street Sweeping** — All debris tracked onto the street from the contractor or their subcontractors must be removed within 24 hours.

8. **Dewatering** — Water pumped from the site must be filtered to ensure that no silt or pollutants are being discharged into the City's storm sewer.

9. **Backfill & Final Grading** — BMPs may be removed to complete final lot grading. However, if the lot is to remain without vegetation for an extended period, the BMPs must remain in place and final grading should be delayed to coincide with seeding or sodding. During final grading, back dragging soil onto the street must be avoided. Any soil placed on the street must be removed and the street swept immediately.

10. **Seeding or Sodding** — The right-of-way (boulevard) along the curb must receive one of the following within 5 days after final grading has been completed:
   - Sod
   - Seed with erosion control blanket
   - Seed with sprayed fiber mulch (hydromulch)
   - Seed with anchored straw mulch

11. **Maintenance** — The grading/erosion control and stormwater management permit holder (also the building permit holder) is responsible for ensuring that adequate BMPs are in place and functioning until the project is completed.

CONTRACTOR RESPONSIBILITES

1. The grading/erosion control and stormwater management permit holder (also the building permit holder) is responsible for ensuring that adequate BMPs are in place and functioning until the project is completed.

2. Periodic inspection shall be at least once a week or more frequently following rainfalls to ensure that erosion and sediment control measures are functioning as designed. In addition to standard periodic inspections, city ordinance requires inspections that comply with Minnesota Pollution Control Agency (MPCA) permits. MPCA currently requires that an inspection be conducted after every rain event of 0.5 inches or more within a 24 hour period. Any problems noted during these inspections should be corrected immediately. A log of the inspections and remedial measures undertaken must be kept for future reference.

3. Once construction has commenced, the permit holder is responsible for maintenance of erosion and sediment control measures protecting area inlets on their lots, as well as curb inlets along the street frontage. It is critical that sediment not be allowed to enter the storm sewer system.

4. The temporary construction entrance provides a place for entering and leaving the construction site. The intent of the requirement is to provide a stable surface for vehicles entering and leaving the lot where mud is not likely to be tracked onto the street. The contractor is responsible for ensuring that all employee and delivery vehicles use this entrance and do not disturb the protected grass buffer strips along the curb. Proper maintenance of the temporary construction entrance is required until such time as a permanent driveway can be put in place.

5. **During the entire construction period, the permit holder is responsible for ensuring that mud, dirt, rocks and other debris are not allowed to erode or be blown onto City streets or sidewalks, nor to be tracked onto streets by vehicles leaving the construction site.** Should any mud or other debris be tracked or eroded onto the street, the contractor shall take immediate steps to have it removed.

6. Contractor must maintain all erosion and sediment control measures of Single Family Residential Grading/ Erosion & Sediment Control Standards.

7. Once construction is complete, the site will need to be stabilized before removing best management practices. Just because construction is complete does not remove your liability for erosion caused by site construction. Permanent vegetation and landscaping should be established as soon as possible on all disturbed soils where grading is complete using seed mixes and plant varieties that best suit the soil conditions and exposure of the site. Natural rainfall should be supplemented with sufficient irrigation to ensure adequate cover is established.

CITY OF EAGLE LAKE INSPECTIONS

1. A City of Eagle Lake authorized agent will normally inspect erosion and sediment control measures in conjunction with routine inspections. Inspections will ensure that appropriate erosion and sediment control measures are in place and properly installed.

2. The first inspection will typically occur prior to groundbreaking. As noted in the previous section on BMPs Installation Sequencing, there are a number of items to check. This inspection will concentrate on the following:
   - **a)** Existing Vegetation/ Sediment Buffer
   - **b)** Inlet Protection
   - **c)** Perimeter Control
   - **d)** Temporary Construction Entrance
   - **e)** Grading/ Excavating
   - **f)** Soil Stockpiles

3. If BMPs are not installed, or are improperly installed, the footing inspection will be denied until they are installed. If sediment is found to be eroding off the construction site or BMPs are not properly installed, the inspector will issue a violation notice. Contractor must repair, replace, or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day. The inspector will return in 3 days of violation notice to re-inspect. If the contractor has not satisfied the corrective actions, the City may issue a stop work order until the corrections have been made and proper BMPs are established.

4. It is anticipated that when the underground plumbing rough-in inspection is requested, the foundation backfilling and rough grading of the lot will have been completed. At this time all BMPs should be in place (except for seed or sod). If sediment is found to be eroding off the construction site or BMPs are not properly installed, the inspector will issue a violation notice. Contractor must repair, replace, or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day. The inspector will return in 3 days of violation notice to re-inspect. If the contractor has not satisfied the corrective actions, the City may issue a stop work order until the corrections have been made and proper BMPs are established.

5. At all subsequent requested inspections (e.g. framing, insulation and final) the in-place BMPs will be subject to re-inspection. If BMPs are not installed, or are improperly installed, the requested inspection as well as the erosion and sediment control inspection may be denied. If sediment is found to be eroding off the construction site or BMPs are not properly installed, the inspector will issue a violation notice. Contractor must repair, replace, or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day. The inspector will return in 3 days of violation notice to re-inspect. If the contractor has not satisfied the corrective actions, the Storm Water Manager may issue a stop work order until the corrections have been made and proper BMPs are established.

6. Throughout the construction process, city inspectors will be making visual inspections of all BMPs on project sites. If violations exist, contactors will be notified via phone and will be faxed/or emailed a violation notice.

7. Upon completion of construction and prior to issuance of final certificate of occupancy the City will review the site to ensure that the final grades are in accordance with the grading/ erosion & sediment control plan as submitted with the grading/ ESC permit. If grades are in compliance, the grading/ ESC permit will be closed. **ALL ESC IS TO REMAIN IN PLACE UNTIL STABILIZATION IS COMPLETE.**

City staff will be available to discuss erosion and sediment control measures for any lot and the sequencing for installation. If you have questions or concerns contact the City at 507-257-3218.

Erosion and Sediment Control Plan Requirements

1. Site Plan must show:

- ☐ Project Address and Legal Description (Lot, Block, etc.)
- ☐ Property lot corners with elevations.
- ☐ Property Lines and Utility/ Drainage Easements.
- ☐ Existing surface features such as roads, trees, and other buildings in the area.
- ☐ Identify all utility information such as culverts, drain tiles, gas and electric lines.
- ☐ Identify all other site features that may be impacted by the project.

2. Drainage information shown on plan must include:

- ☐ Draw directional flow arrows for proposed drainage wherever water flows onto, across, or off of the project site.
- ☐ Identify drainage features such as ponds, wetlands, infiltration areas, ditches, and drainageways.
- ☐ Identify all steep slopes, ravines, and top of bluffs.
- ☐ Show delineated wetlands.
- ☐ List the normal water level and the 100 yr. flood elevation of wetlands, flood plains and water bodies. Grade adjacent to the building is at least 1' above any overflow elevation, and at least 2' above any pond 100 yr. water level.

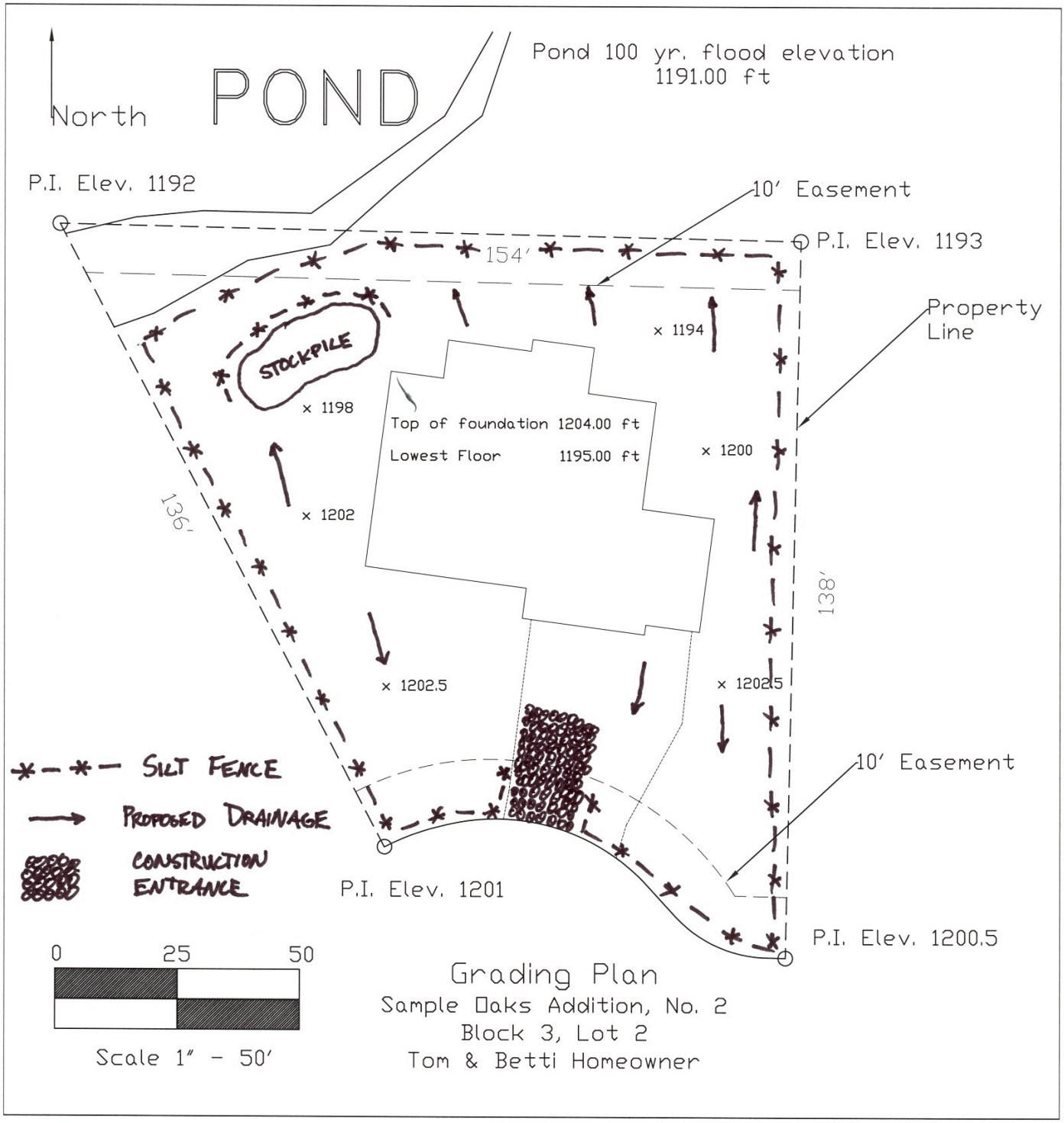
3. Accurately draw everything to be built:

- ☐ New driveway and building locations. List the top of foundation and the lowest floor elevations of the proposed structure.
- ☐ Show the locations and elevations of all proposed (or future) accessory structures such as retaining walls, pools, sheds, etc. Indicate the lowest floor elevations of the proposed structures.
- ☐ Identify ditch grades and culvert information.
- ☐ Lot overflow elevations clearly defined.
- ☐ Show special grading needed to coordinate drainage and elevations with adjacent properties.

4. In addition to identifying property, site, and drainage information as indicated in Steps 1-3 above, the following information must be drawn onto the site plan prior to approval of the Erosion and Sediment Control Permit:

- ☐ North arrow, Drawing Scale, and Legend.
- ☐ Locate and label stockpile locations.
- ☐ Show perimeter BMPs at the downhill edge of land disturbances and stockpiles.
- ☐ Show temporary rock entrances.
- ☐ Add riprap at culvert outlets if applicable (including driveway culverts).
- ☐ Inlet controls such as rock logs, biologs, silt fences etc.
- ☐ Show ditch bottoms stabilization (i.e. erosion control blankets, ditch checks, etc.)
- ☐ Show an undisturbed grass filter strip along the edges of wetlands and watercourses.
- ☐ Identify areas and methods of temporary or permanent soil stabilization such as seed and straw mulch, hydroseed, sod, etc.
- ☐ Identify all trees to be "Saved" or "Removed".

Erosion and Sediment Control Sample Plan



Example of Grading/Erosion & Sediment Control (ESC) Plan

Existing Vegetation/ Sediment Buffer

Preventing soils from becoming disturbed from their location is the most efficient and cost effective way to avoid soils from being lost from the construction site.

Used as a sediment buffer, existing vegetation can increase the effectiveness of other sediment control methods and provide added protection around important resource areas. Preserving existing vegetation is a low-cost BMP that will improve the effectiveness of sediment control devices. Existing vegetation will also reduce runoff volume and help capture sediment before leaving the construction site.

If there is existing vegetation around the project site, make efforts to preserve the area and not damage it.

If no BMPs (ex. silt fence or silt fence w/ vegetation buffer), silt can run off and enter the storm sewer system as pictured left.

Additional protection such as a bio-log (right) can be added to ensure that silt does not enter into the existing vegetation. Buffer strip standing alone will not stop silt from leaving the site.

Inlet Protection

Storm drain inlets must be protected with sediment capture devices prior to soil disturbing activities. The term “storm drain inlet” refers to manholes, catch basins, curb inlets and other drop-type inlets constructed to accept stormwater into and through underground drainage systems. Effective storm drain inlet protection must be provided throughout the project until all sources with potential for discharging to an inlet have been paved or stabilized. As the conditions or operations change during a project, the sediment control Best Management Practice (BMP) protecting the storm drain inlet may need to be modified to ensure proper effectiveness for sediment capture.

Inlet protection devices need to be inspected and cleaned out regularly especially if the road is open to traffic. All inlet devices should have an emergency overflow feature equivalent in sized to the apparent grate opening size. Captured sediment may reduce the flow rate of the inlet projection device and can result in flooding conditions. For safety reasons, inspect for proper drainage during a rain event to ensure the road is passable to traffic.

Inlet protection devices need to be installed just prior to disturbing soil areas that would drain directly into the inlet. Installation should be such that the device fits the inlet properly. Devices that sit on top of the inlet need to be secured to the ground to keep the device from floating away.

There are three primary types of inlets:

- Drop structures: used in median areas, field inlets, and other areas where vegetation will be established.
- Drive over inlet: used in parking lots, streets and other paved areas.
- Catch basin inlet: used in and adjacent to streets, parking lots, and other areas that will be paved.

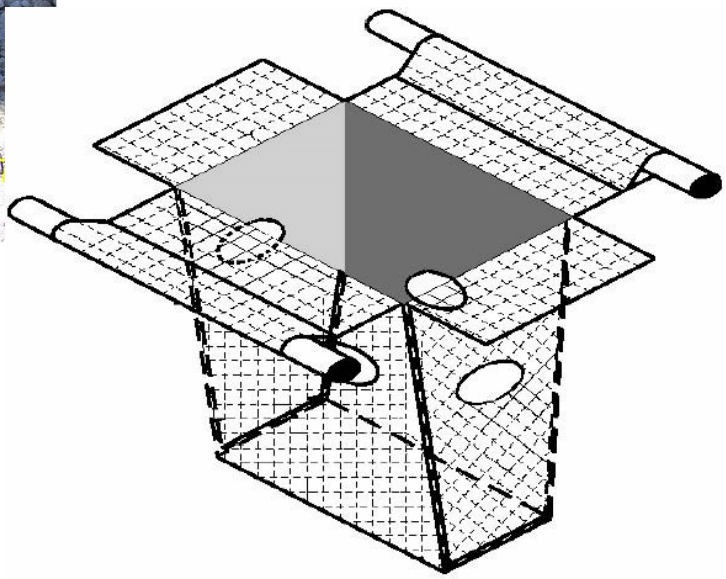
Acceptable inlet protection types are:

- Rock logs
- Compost logs
- Silt fence ring & rock filter
- Drop-in prefabrication protection
- Filter bag inserts

Geotextile fabric places under the catch basin

(above & left) are unacceptable storm drain inlet protection.

Inlet Protection Examples



Perimeter Control

Perimeter sediment control BMPs are used as the last line of defense after controlling runoff and minimizing erosion. Silt fence is intended to slow the velocity, settle sediment, filter water from sheet flow run-off and protect the adjacent areas. **It is not intended for concentrated runoff.**

Installation Method:

- Silt fence should not be used for perimeter control in high flow areas. See ditch check BMPs.
- Install the silt fence in the ground a minimum of six (6) inches deep.
- After trenching silt fence embedment, make sure the soils are compacted properly.
- Give the silt fence a good tug to make sure it is installed properly.
- Make sure that silt fence is attached to the posts with three (3) "zip ties" located within the top eight (8) inches.
- To be effective, silt fence needs to be installed with the contour of the land, not across the contours.
- Posts need to be spaced a maximum of six (6) feet apart.
- Fabric must be tight and not sagging between posts.

The photo to the right is an example of improper installation of silt fence. The fence is not trenched into the ground 6".

The photo to the left shows proper installation of silt fence. Silt fence is trenched in, compacted, with posts being spaces a maximum of 6', and fabric is not sagging between posts.

Temporary Construction Entrance

Each building site must have a designated construction entrance. The construction entrance reduces the amount of sediment transported onto paved roads by vehicles and construction equipment. The construction exit does this by knocking mud off the vehicle tires before entering the street.

Temporary construction entrance should include all of the following:

- Minimum of 50’ in length from back of curb
- Minimum of 20’ in width
- 6” of 1.5”-3” crushed rock
- See following page for detailed drawing

If lot cannot accommodate a full size construction entrance:

- Sediment control requirements do not change. Vehicles are not permitted to track sediment into street.
- A thicker layer of clean rock can be added to increase sediment capacity.
- Supplemental street sweeping can be used as a back up BMP.

Constructions sites without temporary construction entrances (right) can easily track mud and debris into the street.

Temporary construction entrances (left) help keep debris onsite and can provide a suitable subbase for future driveway paving.

Temporary Construction Entrance

*See page 14 if lot cannot accommodate a full size construction entrance.

Rough Grading / Excavation

Clearing and grading at a site should be limited to the minimum amount needed to build. Reducing clearing and grading is important in protecting the quality of existing site resources and functions and preventing future impacts to water features while maintaining healthy functioning of existing native soils.

When clearing and grading is necessary, phasing should be used whenever feasible. All disturbed areas should be re-vegetated as soon as possible. **Stabilization must be initiated immediately and complete no later than 14 calendar days.**

Prior to grading, review the project site to sequence construction activities so that the soil is not exposed for long period of time.

"Cat tracking" (right) also known as horizontal slope grading, significantly reduces the erosion potential.

Smooth rough grading (left) is to be used when the final topsoil grade has not been established and temporary erosion control products or temporary seeding must be installed. The photo does show the smooth rough grading, however perimeter control must be installed at down slope near the retaining wall.

Soil Stockpiles

ALL stockpiles associated with your project (regardless of location) must have silt fence or other effective sediment control measures and cannot be placed in natural buffers, roadways, or surface waters.

Stockpiles are commonly protected by silt fence. However, when stockpiles become massive, silt fence alone cannot be expected to hold back soil loss during a rain event. No matter what the size of the stockpile, silt fence should never be placed at the immediate toe. Silt fence should be placed at a minimum of 8' from the toe.

Soil stockpiles at a minimum should be hydromulched to reduce erosion due to wind and rain. If stockpiles are going to remain for periods longer than 14 days the stockpile must be seeded.

The photo to the right shows how **NOT** to stockpile on a project. No perimeter control is present and the soil is going directly into the storm sewer catch basin.

Stockpiles that remain for periods longer than 14 days must be seeded as photo to the left shows.

Street Sweeping

Street sweeping is an important housekeeping measure. When sediment is deposited onto a street by vehicle tracking or slope erosion, it needs to be cleaned up immediately. Sediment left on the street can cause unsafe conditions for the traveling public. It also has to be removed for NPDES compliance.

All controls must be reinstalled if removed for temporary access.

Two types of mechanical street sweepers exist, dry sweepers and pickup sweepers. Dry sweepers sweep the material off the side with a brush. Dry sweepers produce large amounts of dust. For this reason, the pickup sweeper is preferred. A pickup sweeper uses water and a vacuum to collect the sediment. No dust clouds are produced with this sweeper.

The photo to the right shows how mud and debris can be tracked onto the street from construction traffic.

Street sweepers like the one pictured at the left must be used to remove all debris from the road within 24 hours.

Dewatering

Dewatering is a common occurrence when building homes. Discharges should be directed into a temporary or permanent sediment basin when possible. When it is not possible, other treatment measures must be used so that the discharged water does not create excess sediment into the receiving water.

Pumping sediment laden water directly into the gutters is NOT allowed (right). Pollutants must be removed from water before entering the City's stormwater system.

Dewatering bags (left) or dewatering socks (below) are ideal for pumping sediment laden water into where silt is filtered and water passes through the nonwoven geotextile fabric.

Final Grading

Final grading is extremely important, as it affects drainage of the site and drainage of adjacent properties. Final grading shall slope away from the perimeter of the building at a minimum slope of two percent (2%). This requirement shall also apply to all flatwork and landscaped areas adjacent to the structure.

Permanent soil erosion control measures (seeding or sodding) must be accomplished within seven (7) days after final grading or upon completion of the final earth change. If it is not possible to permanently stabilize the final grade, then maintain temporary soil erosion and sedimentation control measures until permanent soil erosion control measures are in place and the area is stabilized.

When final grading, prevent damage to adjacent property. No person shall grade on land so close to the property line as to endanger any adjoining public street, sidewalk, alley or any public or private property without supporting and protecting such property from settling, cracking or other damage which might result. Final grading should be carried out in accordance with the approved plans and in compliance with all the requirements of the permit and this document.

Prompt removal is required of all soil, miscellaneous debris or other materials, dumped or otherwise deposited on public streets, sidewalks or other public thoroughfares during transit to and from the construction, where such spillage constitutes a public nuisance or hazard as determined by this enforcing agency.

Final grade (left) is properly sloped away from the home and ready for permanent vegetation.

Seeding/ Sodding

Establishing vegetation is the most important method used to prevent erosion at a project site. Every emphasis should be made to provide the permanent stabilization at the earliest possible stage and each phase of construction.

Existing topsoil can be used at the end of the project to provide a proper medium for growing, establishing, and sustaining healthy vegetation. Using the existing topsoil will be the most cost-effective way to re-establish vegetation and stabilize the site. Permanent stabilization can be accomplished by seeding or sodding.

The permit holder is responsible for both temporary and permanent stabilization of the project site. This responsibility is not transferable upon sale of property. Upon final stabilization of the site, a Minnesota Pollution Control Agency Notice of Termination form must be filled out and submitted to the MPCA.

If adequate topsoil exists on site, seeding (right) is a cost effective manner for establishing permanent stabilization.

Sodding (left) is a quick means of establishing permanent soil stabilization.

Pollution Prevention Management Measures

The pemittee(s) is responsible for the following pollution prevention measures on site:

Storage, handling, disposal of construction products, materials and wastes shall comply with the following to minimize the exposure to stormwater;

- Building products that have the potential to leach pollutants must be under cover to prevent discharge of pollutants
- Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscape materials must be under cover to prevent discharge of pollutants
- Hazardous material and toxic waste including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum based products, wood preservatives, additives, curing compounds, and acids must be properly stored in a sealed container to prevent spills, leaks or other discharges.
- Solid waste must be stored, collected, and disposed of properly in compliance with Minnesota Rule Chapter 7035.
- Portable toilets must be positioned so that they are secure and will not be tipped or knocked over.

The permittee shall take reasonable steps to prevent the discharge of spilled or leaked chemicals, including fuel, from any area where chemicals or fuel will be loaded, unloaded, or stored. The permittee must ensure adequate supplies are available at all times to clean up spills as requiring by Minn Stat 115.061

Vehicle and equipment washing must be limited to a defined area of the site. Run-off from the washing are must be contained in a sediment basin or other similarly effective controls and waste from washing activity must be properly disposed of. No engine degreasing allowed on site.

Concrete and other washout waste; the permittee must provide effective containment of all liquid and solid wastes generated by washout operations (concrete, stucco, paint, form release oils, curing compounds, and other construction materials) related to construction activity. The liquid and solid washout wastes must not contact the ground, and the containment must be designed so that it does not result in run-off from the washout operations areas. Liquid and solid wastes must be disposed of properly and in compliance with Minnesota Rule Chapter 7035.

Maintenance of BMPs

Maintenance is one of the key factors that will ensure the long term reliability of temporary BMPs. It is not enough to just install temporary BMPs, they must be maintained.

1. The NPDES Construction Stormwater Permit Requires all BMPs to be inspected on a weekly basis and after every rainfall greater than 0.5". BMPs need to be inspected if work is being conducted in a critical area where the BMPs are subject to being damaged. Non-functioning BMPs are required to be maintained or replaced within 24-72 hours depending on BMP.

2. Continual maintenance and upkeep of temporary erosion control devices will minimize extensive costs and the need for repairs resulting from slope failures or sediment loss from the project site requiring recovery.

3. All BMPs will need to be maintained through the life of the project or until they are no longer necessary.

4. Sediment must be removed from temporary devices such as waddles, silt fences, ditch checks, and storm-water filter logs when the sediment reaches 1/2 the height of the device. Silt must be removed within 24 hours.

5. Inlet protection devices need to have maintenance performed on a regular basis to ensure that they are fully functional for the next rainfall event.

6. Devices which are damaged during sediment removal must be replaced by the contractor.

7. Sediment will need to be removed from temporary sediment basins once sediment diminishes the storage volume by 50 percent; removals shall occur within 72 hours.

ESC Permit

Erosion & Sediment Control Permit

All Fields Must Be Filled Out

_____
Construction Address or Parcel Number

_____
Subdivision Name

_____
Company Name (Please Print)

_____
Address

_____ _____ _____
City State Zip

_____
Contact Person (Please Print)

_____ _____
Contact Fax # Contact Phone #

_____
Contact e-mail address

I certify that I have reviewed the Erosion and Sediment Control Standards and/or the Storm water Pollution Prevention Plan and I am responsible for implementing, maintaining and monitoring effectiveness of the BMPs during construction and until stabilization has been achieved. I will be responsible for actions of subcontractors and delivery personnel at the worksite related to my construction activity.

_____ _____
Signature Date

Please Check One:

☐ Residential Construction (One and Two Family Dwellings)

☐ Excavation/Utility Construction

☐ Commercial Construction

C000
_____
MPCA Permit Number (Site greater than 1 acre or subdivision)

SUB00
_____
MPCA Subdivision Permit Number (All MPCA Permits must be mailed to the MPCA, submit a copy to the City)

Requires an Erosion Control Plan submitted with permit.

Fees:
Single Family Residential - $150
5,000 square feet to 0.5 acres - $150
More than 0.5 acres to 1 acre - $250
More than 1 acre - $350

For City of Eagle Lake use only

ESC Permit #	
Building Permit #	
ESC Date Issued	
Fee	$
Permit Closed	

_____
Erosion Control Plan Reviewed By Date

City of Eagle Lake Storm water Management Ordinance Chapter 18.020

Stormwater Management Permit

Single Lot, Subdivision

Permit Fee: $50

Permanent stormwater management infrastructure, including stormwater ponds, is required in every subdivision to prevent stormwater pollution from entering wetlands, lakes, and streams. The developer as well as the individuals who purchase lots and build homes are also required to implement erosion and sediment control practices to reduce pollution until permanent vegetation is in place. Once permanent vegetation is established, the permanent stormwater management system is designed to treat sediment and nutrients in stormwater runoff. Stormwater ponds will require routine maintenance to ensure long-term functionality. All residents in the City of Eagle Lake are encouraged to implement pollution prevention measures to ensure that stormwater ponds perform as designed, as well as reduce pollution from entering surface water.

The subdivision developer is required to provide to each lot developer/owner a copy of the Stormwater Pollution Prevention Plan (SWPPP) for the development which provides details on the overall erosion and sediment control plan as well as the permanent stormwater management infrastructure that was implemented.

After construction, owners are encouraged to:

- Properly store pesticides, fertilizers, and treatment chemicals
- Mulch or compost leaves on site or take to a yard waste composting facility
- Reduce runoff onto streets by not overwatering lawns and gardens
- Pick up and dispose of pet waste in the trash

Construction address or parcel number

_____

Subdivision name

_____

Company name (please print)

_____

Address

_____

Contact person (please print)

_____

Contact phone

_____

Contact email

_____

Signature

_____

I certify that I have received and reviewed the Stormwater Pollution Prevention Plan from the developer. I understand that am responsible for implementing, maintaining, and monitoring effectiveness of the BMPs during construction and until stabilization has been achieved. I will be responsible for actions of subcontractors and delivery personnel at the worksite related to my construction activity.

For the City of Eagle Lake use only

Stormwater Management Permit #	
Building Permit #	
Stormwater Mgmt Permit Issued	
Fee Received	

Reviewed/issued by:

_____

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CSW subdivision registration form

NPDES Construction Stormwater (CSW) Permit Program

National Pollutant Discharge Elimination System (NPDES)

Doc Type: Subdivision Registration Form

Purpose: Transfer permit coverage for a ***portion*** of a site already covered under the NPDES Construction Stormwater General Permit to a new owner or contractor or both**.** You will be assigned a new permit number for your site under the parent permit. If the ***entire*** site needs to be transferred to a new owner or contractor, use the transfer/modification form found on the Minnesota Pollution Control Agency (MPCA) website at https://www.pca.state.mn.us/water/construction-stormwater#permit-and-forms-591ec494. Permit numbers can be found using the MPCA's permit search tool. (Found on the MPCA website at https://www.pca.state.mn.us/water/construction-stormwater.)

Submittal: The person who certifies this form can email the completed form to csw.pca@state.mn.us using "Subdivision Application" as the subject line. An auto-reply message will be sent upon the email being received. A manual confirmation email will be sent to the sender of the form via email when issuance is complete. There is no fee associated with this form.

Questions: Email the program at csw.pca@state.mn.us or call the Stormwater Hotline at 651-757-2119 or 800-657-3804 (non-metro only).

1. Parent project information

Enter the project name listed on the parent permit (C000xxxxx) and brief location information of that permit.

Project name: _____ **Parent permit number: C000** ___ ___ ___ ___ ___

Project location description: _____

City: _____ State: MN Zip code: _____ County: _____

2. Subdivision contact information

Enter the name, email address, phone number, and mailing address of the subdivision project owner, alternate owner contact, contractor and alternate contractor contact information. If a contact is the same as another contact, specify which contact it is the same as (for example, when the contractor is the same as the owner, in the contact name for the contractor write "same as owner".)

A. New Owner (required)

Business/Firm name: _____

Last name: _____ First name: _____ Title: _____

Email address: _____ Telephone: (___) _____ Ext. _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Alternate contact (optional)

Last name: _____ First name: _____ Title: _____

Email address: _____ Telephone: (___) _____ Ext. _____

B. New Contractor (required if different than owner)

Business/Firm name: _____

Last name: _____ First name: _____ Title: _____

Email address: _____ Telephone: (___) _____ Ext. _____

Mailing address: _____

City: _____ State: _____ Zip code: _____

Alternate contact (optional)

Last name: _____ First name: _____ Title: _____

Email address: _____ Telephone: (___) _____ Ext. _____

3. Subdivision site description information

Addition/Phase *(if applicable)*: _____ Lot(s): _____ Block: _____

Project location/address: _____

City: _____ State: _____ Zip code: _____

Feel free to list multiple lots and blocks per form. The site name for the subdivision will be based on the lots/blocks and description given on this form. Be advised that you cannot separate lots/blocks once applied for and all must be complete and stabilized as a whole to terminate.

Certification

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. I certify that 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. I am aware that there are significant penalties for submitting false information, including the possibility of civil and criminal penalties.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

By signing my name below, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.

Parent Permit Owner authorized signature (required)

Name: _____

Company name: _____

Signature: _____

Date (mm/dd/yyyy): _____

New Subdivision Owner authorized signature (required)

Name: _____

Company name: _____

Signature: _____

Date (mm/dd/yyyy): _____

New Subdivision Contractor authorized representative *(required if different than subdivision owner)*

Name: _____

Company name: _____

Signature: _____

Date (mm/dd/yyyy): _____

Appendix E: Construction Site Inspection Procedure

Construction Site Inspection Review Procedures

After an Erosion and Sediment Control (ESC) permit and/or stormwater management permit have been issued, the City of Eagle Lake will begin inspections for compliance with Construction Stormwater and MS4 permits according to the timing and priority location listed below. Site inspections will continue until project area is permanently stabilized, 70% vegetative groundcover is established, and owner has submitted notice of termination to MPCA. Additionally, the Public Works Department will conduct regular, visual inspections throughout the city and work to resolve any construction stormwater issues identified.

Timing of inspections:
Inspections shall occur as outlined below.

Procedure for prioritizing sites for inspections:
High-priority sites (inspected as required by CSW permit):

- Disturb more than 1 acre at a time
- Discharge to an impaired body of water
- Sites with steep grades and highly erodible soils

Low-priority sites (inspected on a 14-to-21-day schedule):

- Sites disturbing less than 1 acre at a time
- Individual residential lots within subdivisions
- Flat sites with less chance of extreme erosion events.

Procedure for conducting inspections:

1. Inspector shall identify site foreman/owner/operator and request CSW self-inspection records.
2. Inspector shall inspect the temporary BMPs and permanent stormwater treatment systems on the construction site following the MPCA Site Inspection Checklist.
3. Inspector shall take photos of non-compliant BMPs and/or maintained BMPs that were previously noted as non-compliant.
4. Inspector shall note BMP conditions, corrective actions, and dates on the inspection form.

Following inspection:

1. Inspector shall provide a copy of the inspection report to ESC permittee.
2. Inspector shall provide a list of corrective actions that must be completed according to Construction Stormwater Permit timelines.
3. Inspector shall file a copy of the inspection report for city records. Inspection reports must be maintained for 3 years.

Responsible party: Public Works Director or designated trained staff

Appendix F: Permanent Stormwater Site Plan Review Checklist

City of Eagle Lake
Site Plan Review Checklist

1.1	Project/Site Information
Land Disturbance Permit No:	
Project Name:	
Project Location:	
Disturbed Area (in acres):	
Owner:	

1.2	Submission Information
Initial Submission Date:	
Reviewed By:	Date:
Review Verdict	**Date of Owner Notification**
☐ Submittal Not Complete	
☐ Complete and Not Approved – Does Not Meet Standards	
☐ Complete and Approved – With Stipulations	
☐ Complete and Approved	

Follow-up Submission Date (If Required):	
Reviewed By:	Date:
Review Verdict	**Date of Owner Notification**
☐ Submittal Not Complete	
☐ Complete and Not Approved – Does Not Meet Standards	
☐ Complete and Approved – With Stipulations	
☐ Complete and Approved	

Follow-up Submission Date (If Required):	
Reviewed By:	Date:
Review Verdict	**Date of Owner Notification**
☐ Submittal Not Complete	
☐ Complete and Not Approved – Does Not Meet Standards	
☐ Complete and Approved – With Stipulations	
☐ Complete and Approved	

Notes:

City of Eagle Lake
Site Plan Review Checklist

2.1			Stormwater Pollution Prevention Plan (SWPPP) Content
Incorporated			Content
Yes	No	N/A	
☐	☐	☐	Has the SWPPP been developed? The SWPPP shall be completed prior to submitting an Erosion and Sediment Control Permit Application and prior to conducting any land disturbing activities.
☐	☐	☐	Does the SWPPP include the items required and identified in the MPCA Construction Stormwater Permit? Including at a minimum: ▪ Description of land disturbing activities ▪ Knowledgeable person(s)/Chain of Responsibility ▪ Training Documentation ▪ Designs, Calculations, and Narratives
☐	☐	☐	Have SWPPP requirements been incorporated into the project's finals plan, specifications, and/or documents? Including at a minimum: ▪ Existing and final grade contours ▪ Location and type(s) of BMPs ▪ Quantities ▪ Impervious surfaces, pre and post construction ▪ Site map ▪ Areas not to be disturbed ▪ Construction phasing ▪ Maps of surface waters and wetlands within one (1) mile ▪ Final stabilization ▪ BMP design factors ▪ Soil management ▪ Maintenance plan ▪ Chemical treatments, if applicable ▪ Document of infeasibility
☐	☐	☐	Does the SWPPP include stormwater pollution prevention measures identified in environmental reviews or other required reviews?
☐	☐	☐	Does the SWPPP address karst areas, if applicable?
☐	☐	☐	Does the SWPPP address impaired waters and TMDLs?

Notes:

City of Eagle Lake
Site Plan Review Checklist

3.1			Construction Site Stormwater Runoff Controls
Incorporated			Content
Yes	No	N/A	
☐	☐	☐	Has the SWPPP incorporated appropriate erosion prevention practices to eliminate or reduce erosion and protect waters of the state? Addressing at a minimum: ▪ Best Management Practices (BMPs) to protect waters of the state ▪ Locations on site designated not to be disturbed are to be clearly marked ▪ Areas with steep slopes (3:1 of steeper) have been addressed ▪ All exposed soils are required to be stabilized within set timeframe ▪ BMPs to address specified fish spawning time frames, if applicable ▪ BMPs to address stormwater conveyance channels, if applicable ▪ BMPs for permanent drainage ditches or swales, if applicable ▪ Outlets are adequately addressed ▪ Whenever possible, BMP discharges are directed to vegetated areas
☐	☐	☐	Has the SWPPP incorporated appropriate sediment control practices to minimize sediment and other pollutants from entering surface waters, including storm sewer systems? Addressing at a minimum: ▪ Perimeter control ▪ Storm drain inlets ▪ Temporary stockpiles ▪ Vehicle tracking ▪ Temporary sediment basins ▪ Minimize compaction and preserve topsoil ▪ Required buffers, if applicable ▪ Chemical treatments, if applicable
☐	☐	☐	Does the SWPPP properly address dewatering and basin draining activities?
☐	☐	☐	Does the SWPPP properly address the use of temporary sediment basins? If applicable must meet design requirements: • Basin must provide live storage for runoff from 2-year 24-hour storm (min of 1800 ft3 storage/acre) or, 3600 ft3 storage/acre without calculation • Outlets must be designed to remove floating debris • Outlets must be designed to allow complete drawdown • Outlets must be designed to withdraw water from the surface • Basins must be designed to prevent short-circuiting • Provide stabilized emergency overflow • Energy Dissipation for basin outlet • Outlets must have energy dissipation within 24 hours of connecting to a surface water
☐	☐	☐	Does the SWPPP include incorporate pollution prevention management measures to reduce the probability of spills, leaks, and discharges of pollutants? Addressing at a minimum: ▪ Building products that have the potential to leach pollutants ▪ Pesticides, herbicides, insecticides, fertilizers, treatment chemicals, and landscaping materials ▪ Hazardous materials and toxic waste ▪ Solid waste

			▪ Portable toilets ▪ Fuel and chemical loading and unloading operations ▪ Vehicle and equipment washing ▪ Engine degreasing is not allowed ▪ Concrete and other washout operations, including signage
☐	☐	☐	Does the SWPPP include appropriate final stabilization?
☐	☐	☐	Does the SWPPP adequately require site inspections and BMP maintenance?

Notes:

City of Eagle Lake
Site Plan Review Checklist

4.1			Post-Construction Stormwater Management Requirements
Incorporated			Content
Yes	No	N/A	
☐	☐	☐	Does the project require post construction stormwater management? (Post construction stormwater management requirements applies to projects with one (1) or more acre(s) of land disturbance and/or construction activity.). If post construction stormwater management is required, does it meet design requirements for: • Permanent Wet/Dry Ponds ○ Permanent Depth 3-10' ○ Permanent volume 1800 ft3/acre ○ Live storage of min 1" of runoff from new impervious surface ○ Max discharge rate of 5.66 cfs/acre of pond surface ○ Designed to prevent short-circuiting ○ Energy Dissipation for basin outlet ○ Provide stabilized emergency overflow ○ Outlet designed to prevent discharge of floatables ○ Adequate maintenance access is provided • Permanent Infiltration Structures ○ Industrial, vehicle fueling or maintenance area (not allowed) ○ Detailed construction sequencing included (BMP installation, land disturbing activity and stabilization). ○ Area calls for fence/flagging during construction to prevent compaction ○ Include at least one soil poring, test pit or infiltrometer test at location of practice ○ Infiltration rate field measured and divided by two for design ○ Pretreatment device provided (i.e. grass or rock swale/strip) ○ Sized to treat min of 1" runoff from new impervious surface ○ Water quality volume discharge within 48 hours ○ Min 3' separation between basin bottom and ground water level ○ System designed to maintain pre-existing hydrologic conditions of wetlands in the vicinity (e.g. do not breach a perched water table that is supporting a wetland) • Permanent Filtration Structures ○ Designed to remove 80% of total suspended solids (TSS) ○ Filter media is installed before drainage area is fully stabilized with rigorous erosion prevention and sediment control BMPs to keep all runoff and sediment out of filtration practice until drainage area is fully stabilized ○ Pretreatment device provided ○ Water quality volume discharge within 48 hours ○ Min 3' separation between basin bottom and ground water level (unless designed with impermeable layer)
☐	☐	☐	Have Green Infrastructure techniques and practices been considered and been given preference as design options consistent with zoning, subdivision, and PUD requirements? (e.g. infiltration, evapotranspiration, water reuse/harvesting, green roofs, etc.)

☐	☐	☐	Do post-development peak flows rates match or are reduced from pre-development peak flow rates for the 2, 10, and 100-year, 24 hour storm events at each discharge point from the project area?
☐	☐	☐	Have flood control been considered and addressed?
☐	☐	☐	Have hydrological assessments and appropriate modeling been completed to show compliance with the City's water quality and volume control requirements?
☐	☐	☐	Has the City's design computation criteria been used in the design and analysis of stormwater management and conveyance systems?
☐	☐	☐	Has a maintenance agreement been completed?
☐	☐	☐	Has a maintenance plan been developed?

Notes:

City of Eagle Lake
Site Plan Review Checklist

5.1			Special or Impaired Waters	
Incorporated			Does the site drain to the following special or impaired waters?	Additional BMPs required for special and impaired waters?
Yes	No	N/A		
☐	☐	☐	Scenic or Recreational River	C.1, C.2, C.3
☐	☐	☐	Calcareous Fens	C.1, C.2
☐	☐	☐	Impaired Water w/o TMDL or w/ TMDL and no WLA	C.1, C.2
☐	☐	☐	Impaired Water w/ TMDL and WLA	BMPs outlined in TMDL or C.1, C.2
☐	☐	☐	Wetland	Follow Wetland Mitigation Sequence

Yes	No	N/A	If Yes, have the additional BMP requirements been met?	
☐	☐	☐	**C.1**	Stabilization of all exposed soils must be initiated immediately to limit soil erosion but in no case later than seven (7) days after construction activity and temporary sediment basins must be used for five (5) or more acres draining to a common location.
☐	☐	☐	**C.2**	The water quality volume of one (1) inch of runoff from new impervious surfaces must be retained on site by the projects permanent stormwater management system.
☐	☐	☐	**C.3**	Maintain and include an undisturbed buffer zone of not less than 100 linear feet from the special water.
☐	☐	☐	**Wetlands**	Impacts permitted under WCA, DNR, US Army Corps Compliance with MN Rule 7050.0186 is documented and approved by MPCA.

Notes:

Appendix G: Stormwater Pond PT-TSS Effectiveness Procedures

Stormwater Pond Assessment Procedures & Schedule

Purpose: These procedures outline the City's stormwater pond effectiveness evaluation and schedule in accordance with the requirements of the MS4 NPDES/SDS General Stormwater Permit, MNR040000, effective November 16, 2020. The MS4 general permit (Section 21.8) states that permittees "must maintain written procedures for the purpose of determining the TSS and TP treatment effectiveness of all permittee owned/operated ponds constructed and used for the collection and treatment of stormwater."

Wet ponds are constructed basins placed in the landscape to capture stormwater runoff. Wet ponds are designed with storage and outlet structures to meet water quality and rate control requirements as part of urban developments. A permanent pool of water is maintained in a wet pond and the permanent pool elevation is controlled by the primary outlet. Additional storage above the permanent pool provides temporary storage and rate control during and after rainfall events. Both the volume and rate control afforded by the pond provide water quality benefits by allowing sediment and associated pollutants to settle to the bottom of the pond. Pollutants can also be removed within the pond through biological uptake.

The City will use a scientific and literature-based approach to assess stormwater pond effectiveness based on the pond rating. This approach starts with initial pond assessments to establish baseline conditions, periodic pond assessments to assign or update a pond rating (Excellent, Good, Fair, or Poor), and applying the literature-based pollutant removal reduction values to the ponds based on their pond rating. These steps are outlined in detail below.

1. Initial pond assessment

Staff will complete a one-time assessment of each pond to determine if pond construction deviated significantly from the engineer's design and assign a rating to the pond. This one-time assessment will provide a baseline understanding of the pond relative to its design and rules in place at the time of construction. In the absence of pond design and/or construction records, staff will use their judgement to determine compliance with relevant rules at the time of construction. Note that there may be differences in ponds of differing ages based on the prevailing regulations and engineering practices at the time of construction.

Schedule: No fewer than two existing ponds shall receive an initial pond assessment during each calendar year, until such time that all ponds have received an initial pond assessment. New ponds shall be assessed within one year of pond completion.

2. Pond Assessment, Rating, and Pollutant Reduction Guidance

The pond rating established during the Initial pond assessment reflects the pond's general condition, TSS and TP treatment effectiveness, and to evaluate maintenance needs. Staff will consider the following questions when assessing a pond:

a. What is the condition of inlet and outlet structures?

b. Are there sediment deltas at pond inlets or pond outlets?
c. Is sediment visible within 1 to 2 feet of the permanent pool water level in the middle of the pond?
d. What is the condition of the pond's bank? Is there appropriate vegetative cover with no visible signs of erosion?
e. Is there significant emergent vegetation present within the pond?

Staff may also find helpful information for pond assessments following the guidance at the page **Assessing TSS and TP removal efficiency of permittee/owned operated constructed stormwater ponds** at the MPCA's online Minnesota Stormwater Manual.

Rating and prioritization: Staff will assign a rating as part of the pond assessments. Ratings will be assigned as follows:

a. Excellent – a pond that shows no or negligible signs of sediment buildup and no other issues that will require maintenance in the foreseeable future
b. Good – a pond that shows some signs of sediment buildup or other issues that will require maintenance within 3-4 years
c. Fair – a pond showing more significant sediment buildup or other issues that require maintenance within 1-2 years
d. Poor – a pond showing significant sediment buildup such that water quality treatment is significantly reduced; or other issues such that maintenance is required as soon as possible

Schedule: The assigned pond rating establishes the frequency of future pond assessments as follows:

a. Excellent – assessed at least once every four years
b. Good – assessed at least once every three years
c. Fair – assessed as least once every two years
d. Poor – assessed every year

Pond pollutant reduction performance: Default reduction percentages shall be assigned to ponds based on their rating as follows, unless reduced based on staff judgement and experience:

a. Excellent – high removal performance – 90% TSS and 60% TP removal
b. Good – median removal performance – 84% TSS and 50% TP removal
c. Fair – low removal performance – 60% TSS and 34% TP removal
d. Poor – no removal – 0% TSS and 0% TP removal

The pond water quality performance listed above for TSS and TP reduction percentages are scientific and literature-based following values from the MPCA Stormwater Manual (see table below). In any assessment situation the staff may assign a lower pond effectiveness if they determine that the original design and/or construction and/or existing maintenance preclude the pond from effectively removing sediments. Assigned values can range anywhere from 0-90% for TSS and 0-73% for TP.

Removal Performance	TSS Percent Removed	TP Percent Removed
Low	60	34
Median	84	50
High	90	60

Appendix H: Employee Training Requirements and Tracking Sheet

City of Eagle Lake
Required MS4 Employee training tracking

Rule	Narrative Requirement	Frequency	Responsible Party	Training event name	Date of training	Topics covered during training (illicit discharge detection, deicer application, proper turf management, etc.)	Names of employees trained
18.8	At least once each calendar year, the permittee must train **all field staff** in ***illicit discharge recognition*** (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation. Field staff includes, but is not limited to, police, fire department, public works, and parks staff. Training for this specific requirement may include, but is not limited to, videos, in-person presentations, webinars, training documents, and/or emails. [Minn. R. 7090]	Once/year	All Field Staff	Internal Training	9/20/2022	(1st all staff training will address all aspects of the MS4 program, regulary controls, inspections, procedures and ERPs for all staff as related to their responsibilities	
18.9	The permittee must ensure that individuals receive training commensurate with their responsibilities as they relate to the permittee's ***IDDE program*** . Individuals includes, but is not limited to, individuals responsible for investigating, locating, eliminating illicit discharges, and/or enforcement. The permittee must ensure that previously trained individuals attend a refresher-training every three (3) calendar years following the initial training. [Minn. R. 7090]	New staff with responsibilities when hired. Every 3 years refresher thereafter.	**Public Works:** Director + Supervisor- attend MR 1108; provide internal training to other public works employees.	https://erosion.umn.edu/courses-registration/ms1108-illicit-discharge-management	Completed before 8/31/2022		Andrew Hartman - PW Supervisor Mike Nicklay - PW Worker Brian Goettl - PW Director
			Administration - training on program and enforcement.	22-MS1108-1_Illicit Discharge Management (IDDE)	7/20/2022		Jennifer Bromeland – City Administrator
19.11	The permittee must ensure that individuals receive training commensurate with their responsibilities as they relate to the permittee's ***Construction Site Stormwater Runoff Control program*** . Individuals includes, but is not limited to, individuals responsible for conducting site plan reviews, site inspections, and/or enforcement. The permittee must ensure that previously trained individuals attend a refresher-training every three (3) calendar years following the initial training. [Minn. R. 7090]	New staff with responsibilities when hired. Every 3 years refresher thereafter.	**Public Works:** Director - attend MR 4001; provide internal training to other public works employees.	Construction Site Manager Online, Section 23-201	Brian Goettl – Public Works Director; Completed 8/1/22 Andrew Hartman - Public Works Supervisor; Completed 7/21/22 Mike Nicklay – Public Works Worker; Completed 8/1/22		Brian Goettl – Public Works Director Andrew Hartman - Public Works Supervisor Mike Nicklay – Public Works Worker
			Administration: training on program and enforcement.	https://erosion.umn.edu/courses-registration/em2001-construction-site-management-online	Section 201: Open May 31, 2022 to September 12, 2022 with completion by September 16, 2022 Section 202: Open September 13, 2022 to January 16, 2023 with completion by January 20, 2023		Jennifer Bromeland – City Administrator
20.18	The permittee must ensure that individuals receive training commensurate with their responsibilities as they relate to the permittee's ***Post-Construction Stormwater Management program*** . Individuals includes, but is not limited to, individuals responsible for conducting site plan reviews and/or enforcement. The permittee must ensure that previously trained individuals attend a refresher-training every three (3) calendar years following the initial training. [Minn. R. 7090]	New staff with responsibilities when hired. Every 3 years refresher thereafter.	**Public Works:** Director - attend MR 4701 then 4702 as needed for refresher; provide internal training to other public works employees.		Andrew Hartman - Public Works Supervisor; Inspection and Maintenance of Permanent Stormwater Treatment Practices Online, 23-4701-471 – Completed 7/21/22		Andrew Hartman
			Administration: training on program and enforcement.	https://erosion.umn.edu/courses-registration/ms4701-inspection-and-maintenance-permanent-stormwater-treatment-practices	Same training as required by 21.12; in process		Jennifer Bromeland – City Administrator
21.7	Each calendar year, the permittee must ensure all individuals that perform ***winter maintenance activitie s*** for the permittee receive training that includes: a. the importance of protecting water quality; b. BMPs to minimize the use of deicers (e.g., proper calibration of equipment and benefits of pretreatment, pre-wetting, and anti-icing); and c. tools and resources to assist in winter maintenance (e.g., deicing application rate guidelines, calibration charts, Smart Salting Assessment Tool). The permittee may use training materials from the Agency's Smart Salting training or other organizations to meet this requirement. [Minn. R. 7090]	Once/year	**Public Works:** Director attends annually; Crosstrains all public works staff. https://www.pca.state.mn.us/content/salt-symposium-2022-aug-2-3	Smart Salting Symposium	Brian Goettl – Public Works Director Salt Symposium - 2 day online course – In progress (8/2-8/3)		Brian Goettl
			Administrator	Smart Salting Workshop	Jennifer Bromeland – City Administrator Smart Salting Workshop - Online via MPCA – Completed 5/25/22		Jennifer Bromeland – City Administrator
21.12	The permittee must implement a stormwater management training program commensurate with individual's responsibilities as they relate to the ***permittee's SWPPP, including reporting and assessment activities*** **.** The permittee may use training materials from the United States Environmental Protection Agency (USEPA), state and regional agencies, or other organizations as appropriate to meet this requirement. The training program must: a. address the importance of protecting water quality; b. cover the requirements of the permit relevant to the responsibilities of the individual not already addressed in items 18.8, 18.9, 19.11, 20.18, and 21.7; and c. include a schedule that establishes initial training for individuals, including new and/or seasonal employees, and recurring training intervals to address changes in procedures, practices, techniques, or requirements. [Minn. R. 7090]	staff with responsibilities when hired. Every 3 years refresher thereafter.	**Public Works:** Director - attend MR 4701 then 4702 as needed for refresher; provide internal training to other public works employees.	Inspection and Maintenance of Permanent Stormwater Treatment Practices Online, 23-4701-471	Andrew Hartman - Public Works Supervisor; Inspection and Maintenance of Permanent Stormwater Treatment Practices Online, 23-4701-471 – Completed 7/21/22		Andrew Hartman
			Administration: MS4701 Inspection and Maintenance of Permanent Stormwater Treatment Practices Online training on program and enforcement.	https://erosion.umn.edu/courses-registration/ms4701-inspection-and-maintenance-permanent-stormwater-treatment-practices	Same training as required by 21.18; In process		Jennifer Bromeland – City Administrator