CITY OF
EAGLE LAKE
WHERE OPPORTUNITY SOARS

RE: Erosion and Sediment Control Permit and Stormwater Management Permit

Dear Building Permit Applicant,

The City of Eagle Lake requires two permits for each building site. These permits and their associated fees are discussed below.

Erosion and Sediment Control Permit

Ordinance 18.020 requires that an erosion and sediment control permit be obtained prior to any construction activity disturbing one acre or more of soil or less than one acre of soil if that activity is part of a larger "common plan of development or sale" that covers more than one acre. In order to obtain a permit, an erosion and sediment control plan conforming to the standards set forth by city code, shall be submitted, reviewed and approved by the City of Eagle Lake.

As the erosion and sediment control permit holder (also the building permit holder), you are responsible for ensuring that adequate Best Management Practices (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 a uniform, perennial vegetative cover of 70 percent over the entire lot area.

Attached is a sample erosion and sediment control plan.

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

Stormwater Management Permit

A Stormwater Management Permit is required for owners or operators of any construction activity disturbing one acre or more of soil or less than one acre of soil if that activity is part of a larger "common plan of development or sale" that covers more than one acre. To obtain a Stormwater Management Permit from the city of Eagle Lake, you must provide documentation of MPCA construction stormwater permit coverage. If you purchased a lot or lots within a subdivision, otherwise known as a common plan of development, contact the original owner of the development to obtain MPCA construction stormwater permit coverage. The original owner and the new owner/contractor will need to submit a subdivision registration or permit transfer form, depending on the situation, to the MPCA to transfer coverage to the new owner/contractor. Additionally, the original owner must provide you with a compliant SWPPP that addresses the

remaining construction activities for your lot. Please refer to the attached printout from MPCA for more information.

Fees:

- Less than 1 acre $50
- More than 1 acre $100
- Applicants for development review (planned unit development, conditional use permit, or similar type of development) must also pay for the costs incurred from staff, legal, engineering, or other persons involved in the review.

If violations occur and additional inspections are needed, an administrative penalty may be issued.

Please contact us at 507-257-3218 with any questions. Thank you.

Sincerely,

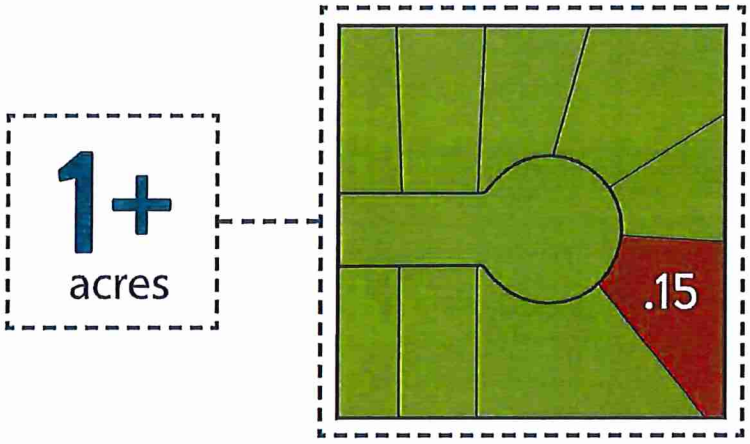
City of Eagle Lake

July 2022

DON'T FORGET!

Does your project disturb:

- One or more acres?
- Less than one acre, but part of a larger plan?



Obtain your construction stormwater permit **BEFORE** construction begins

www.pca.state.mn.us/water/construction-stormwater
651-296-6300 or 800-657-3864

MINNESOTA POLLUTION CONTROL AGENCY

Construction stormwater

Developing the next Construction Stormwater permit. The current CSW permit is set to expire in July 2023, and the MPCA is working on a draft permit for public comment. Over the summer, the MPCA will be meeting with stakeholder groups and reviewing comments collected during the permit cycle. The draft permit will go on public notice around January 2023. The MPCA will hold a public information meeting during the public comment period to provide an overview of the proposed changes and an opportunity to ask questions to better inform your comments.

When stormwater drains off a construction site, it carries sediment and other pollutants that can harm lakes, streams, and wetlands. The U.S. Environmental Protection Agency estimates that 20 to 150 tons of soil per acre are lost every year to stormwater runoff from construction sites. MPCA issues coverage to construction site owners and their operators under the Construction Stormwater general permit to prevent stormwater pollution during and after construction, and protect Minnesota's water resources.

Who needs a permit?

You need permit coverage if you are the owner or operator for any construction activity disturbing:

- One acre or more of soil
- Less than one acre of soil, if that activity is part of a larger "common plan of development or sale" that covers more than one acre

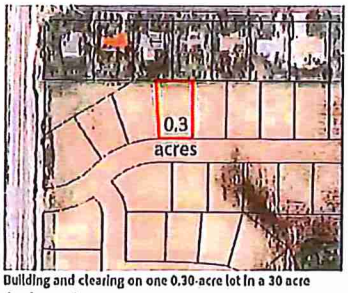
Common plan of development or sale

A common plan of development or sale — such as a subdivision, phased project, or combination of construction activities — is an area where multiple, contiguous, separate land-disturbing activities may happen on different schedules, but under one proposed plan.

Check if you need construction stormwater subdivision registration from the MPCA before construction begins. If a portion of a permitted project is sold, such as a single lot in a residential development, use the subdivision registration form (see table below) to transfer permit coverage to the new owner/contractor. This process allows a single permit covering an entire site to be broken up or "subdivided" to cover many different builders and sites.

- Common plan of development (wq-strm2-22)

Examples of common plan of development activities that require permit coverage



Building and clearing on one 0.30-acre lot in a 30 acre development


Building and clearing on 12 lots in a 30-acre development

Apply for coverage

See the Steps to construction page for full details on what to do before you apply. Apply for construction stormwater permit coverage online. For assistance, refer to Getting started with MPCA e-Services or email us: onlineservices.pca@state.mn.us.

Reminder: All required wetland permits or determinations must be complete before application.

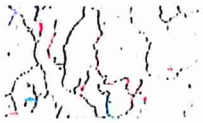
Permit and program forms

Permit/application	Summary	Instructions and fact sheets
2018 NPDES/SDS permit for construction activity (wq-strm2-80a)	Permit Number: MN R 100001, issued on August 1, 2018.	Construction Stormwater Permit Overview

Online Stormwater permit application	Complete and submit online. Permit coverage will begin one business day after submitting a complete application.	For assistance, refer to the fact sheet Getting started with MPCA e-Services (p-gen1-17), visit the e-Services webpage, or email us at onlineservices.pca@state.mn.us. Permit application FAQs If the project is located in a Tribal Reservation, you will need to obtain permit coverage from the U.S. Environmental Protection Agency.
Permit modification form (wq-strm2-60c)	For modifying information provided on the original application	Guidance for stormwater permit forms (wq-strm2-60i)
Subdivision registration form (wq-strm2-60a)	For transferring permit coverage on a portion of a site already covered by the permit	See Guidance for stormwater permit forms above
Transfer form (wq-strm2-60b)	For transferring permit coverage for an entire site to a new owner or contractor	See Guidance for stormwater permit forms above
Notice of termination	For terminating permit coverage	Permit terminations must be done electronically using e-services. If you are new to this process, refer to this guidance document: Notice of termination online: Construction Stormwater Permits (wq-strm2-108)

Special waters and impaired waters

NPDES/SDS permits for construction sites with a discharge point that flows towards, and is within one mile (aerial radius measurement) of specially protected and impaired waters require additional controls and conditions as outlined in section 23 of the General Stormwater Permit.



Special and Impaired waters search tool
Use this map tool to identify if your construction site is within one mile of a special or impaired water in Minnesota.

- Special Waters List
- Known Calcareous Fens List
- General Information about Impaired Waters and the Current TMDL List of Impaired Waters

Contact

- Stormwater hotline: 651-757-2119 or 800-657-3804 toll free
- Online permit application: onlineservices.pca@state.mn.us
- Submit a complaint to MPCA
- Technical assistance: Construction Stormwater Compliance and Enforcement Coverage Area Map (wq-strm2-112)

Minnesota Stormwater Manual

Sign up for MN Stormwater News: Click to enter your email and then select "Construction Stormwater"

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): _____

CITY OF
EAGLE LAKE
WHERE OPPORTUNITY SOARS

Erosion & Sediment Control (ESC) Information and Standards

Version 1.1
July 2022

CITY OF
EAGLE LAKE
WHERE OPPORTUNITY SOARS

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.

CITY OF EAGLE LAKE
WHERE OPPORTUNITY SOARS

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.

CITY OF EAGLE LAKE
WHERE OPPORTUNITY SOARS

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WHERE OPPORTUNITY SOARS

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.

CITY OF
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CONTRACTOR RESPONSIBILITIES

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
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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.

CITY OF EAGLE LAKE
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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.

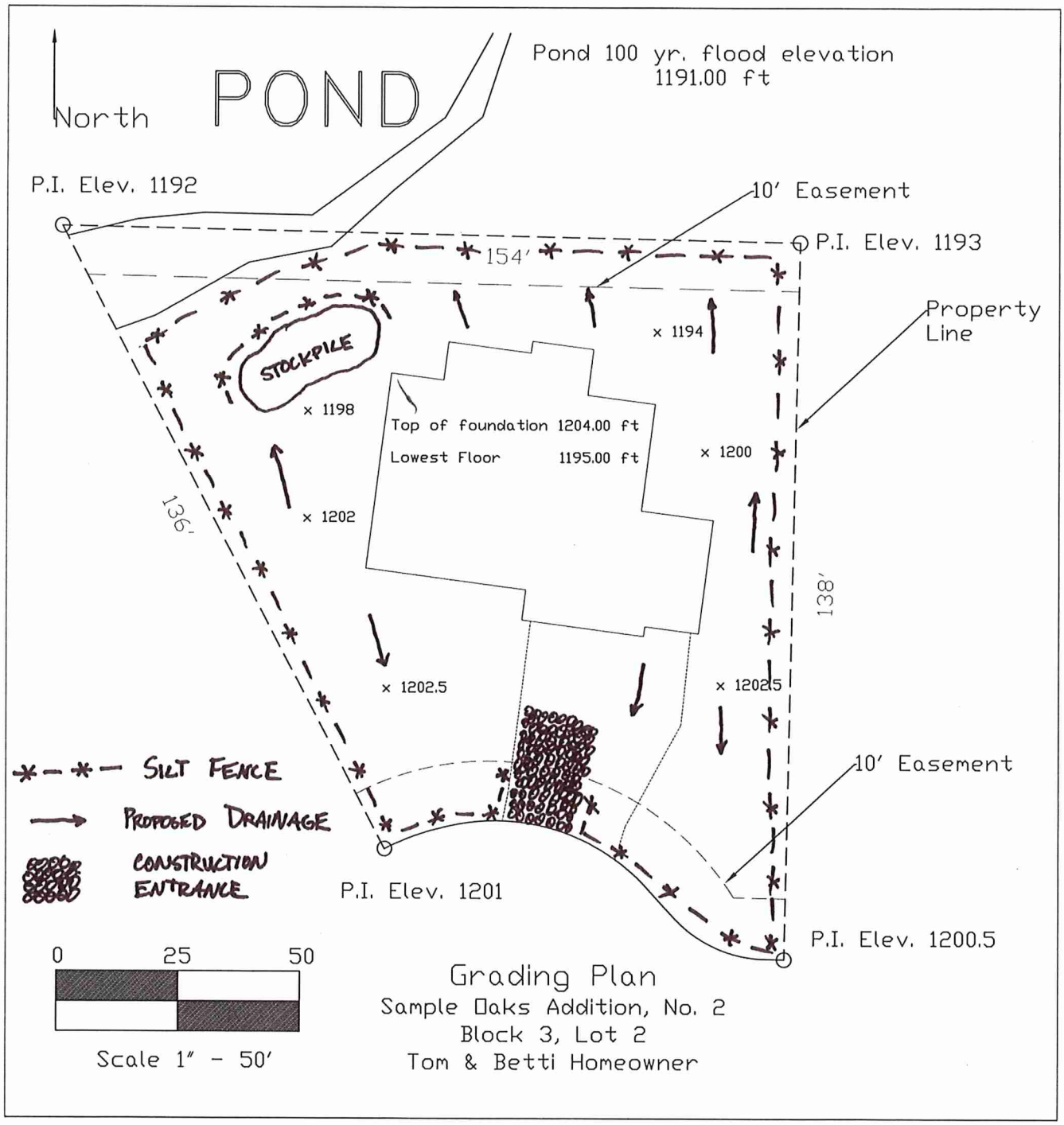
3. Accurately draw everything to be built:

- ☐ 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

CITY OF EAGLE LAKE
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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.

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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.

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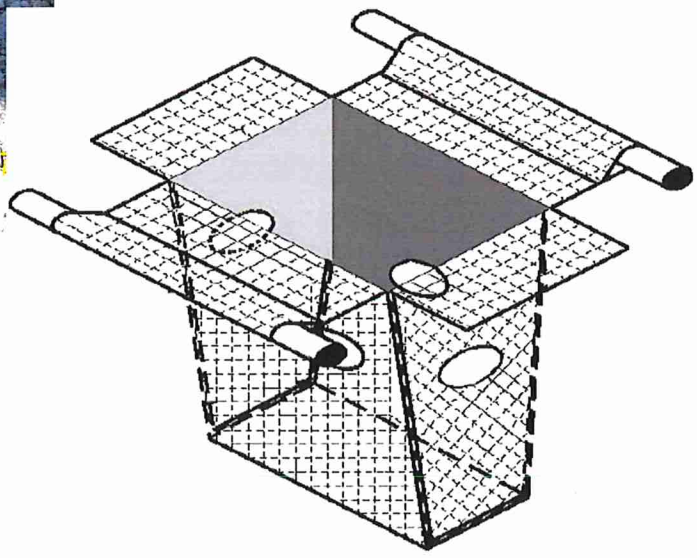
Inlet Protection Examples



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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.

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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

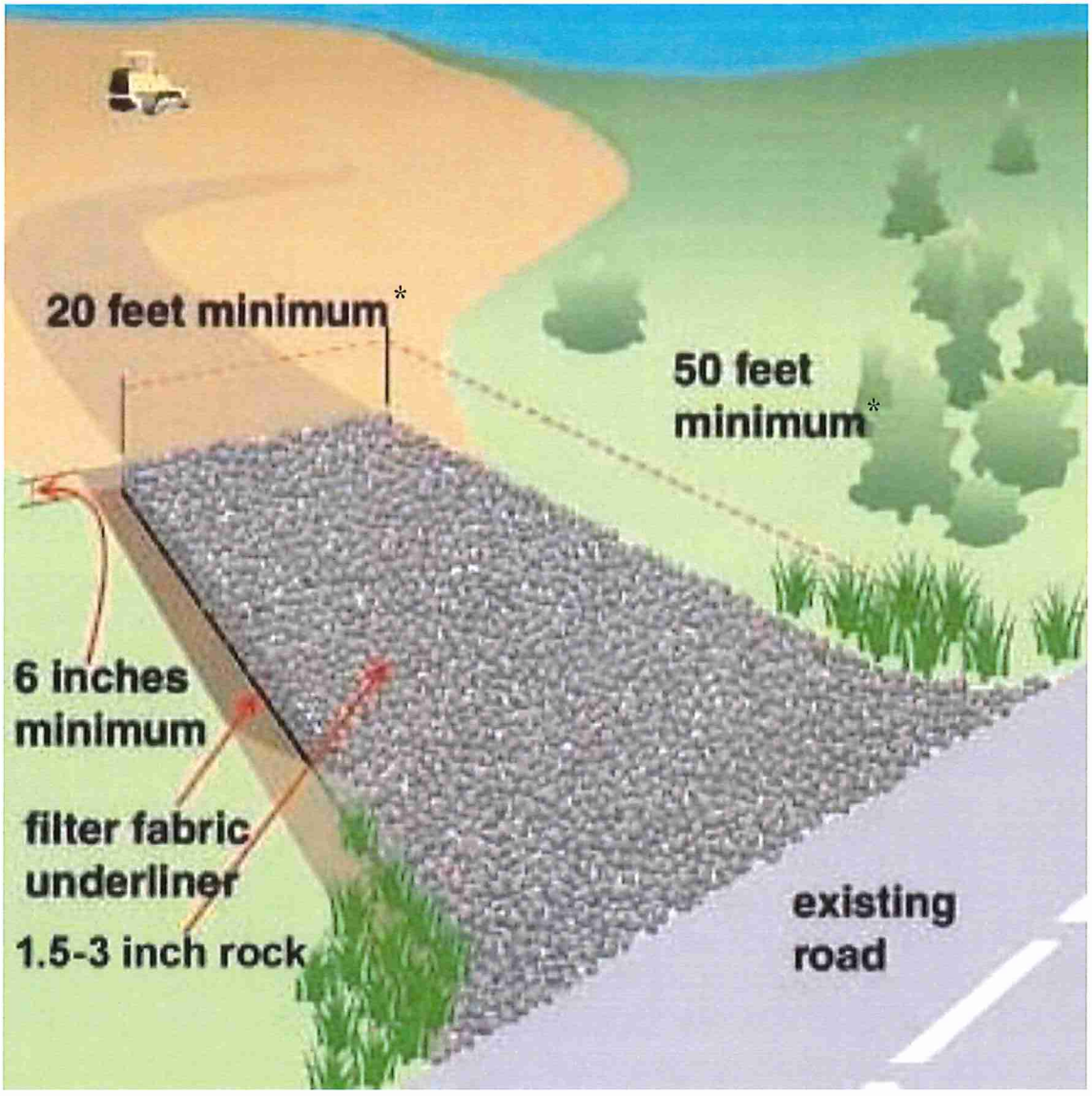
If lot cannot accommodate a full size construction entrance:

- 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.

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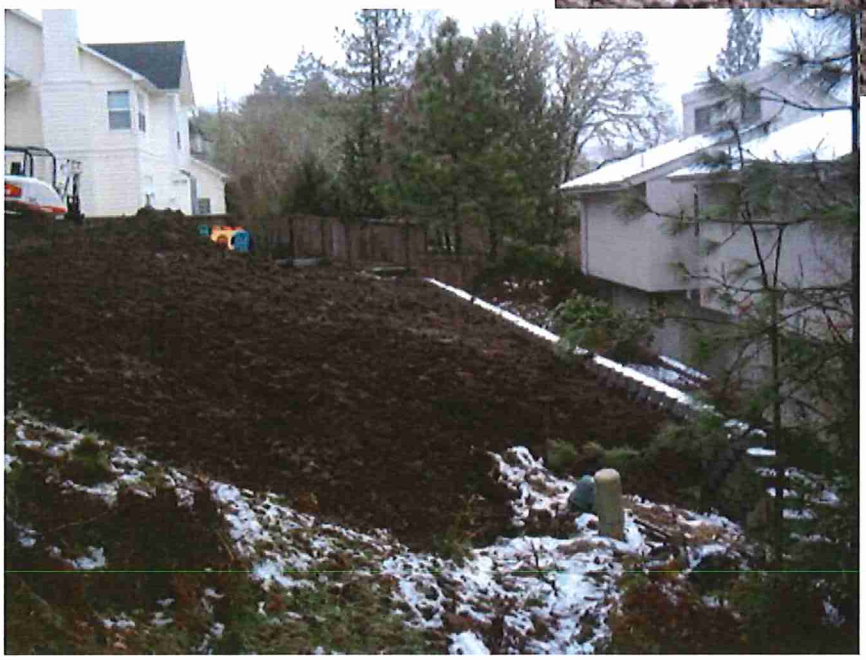
Rough Grading / Excavation

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.

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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.

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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.

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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.

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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.

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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.

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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:

_____