

MCM 4 and 5 – Standard Operating Procedures – Construction Site Erosion and Sediment Control and Post Construction Stormwater Management

City of Brainerd

501 Laurel Street, Brainerd, MN 56401

I. INTRODUCTION

The City of Brainerd owns and operates an MS4 (Municipal Separate Storm Sewer System). The Minnesota Pollution Control Agency requires that the City of Brainerd develop written procedures for the purpose of eliminating pollutants associated with construction activity and due to new development and redevelopment on project with land disturbance greater or equal to 1 acre, including projects that are less than one acre that are part of a common plan of development or sale.

These SOPs (Standard Operating Procedures) assist the City in meeting the stormwater regulation according to the MS4 General Permit by incorporating guidance on the following topics:

- Plan Review
- Training
- Inspections
- Long-term Operations and Maintenance

These SOPs are intended to provide guidance on Construction site erosion and sediment control. Post construction stormwater management as per the City Code found in section 430 and 725. The following list below is a general outline of what these SOP's will provide City staff:

- Plan review procedures
- Prioritize where construction site inspections may need to occur on a more frequent basis
- Construction site inspection guidelines
- Maintenance of post construction stormwater BMPs to help ensure their longevity
- Dealing with non-compliant construction sites
- BMP operation and maintenance

In the event of any conflict between this guideline and the City ordinances/code, the ordinance/code shall govern.

II. PLAN REVIEW PROCESS AND APPROVAL

Plans that are submitted to the City for approval will have a review process to guarantee that erosion and sediment control standards and post construction stormwater standards are being met.

City staff will review all City Ordinances related to Sediment and Erosion Control, Stormwater and Urban Runoff Pollution Control, and Stormwater Management (Sections 430, 720, and 725 respectively). City staff will also review the requirement as per the MPCA (Minnesota Pollution Control Agency)

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Construction General Permit and the MS4 post construction stormwater rules and regulations. The City will be responsible for enforcement of their stormwater rules and regulations.

When comments are submitted by the City to the applicant, City staff will follow up in 7-10 business days to insure all comments were addressed by the applicant. The City has 60 days to make a final decision on a development or redevelopment plan.

The following will be the minimum documentation for each plan submittal:

- Keep logs of number of plan reviews per calendar year in City files.
- Copies of plans, BMP quantities, proposed BMPs.
- Logs of maintenance agreements that get filed with the City, along with their locations.
- Any correspondence with the applicant in regards to the above.

III. TRAINING

Training of City staff is important so that they are aware of the importance of erosion and sediment control BMPs and well as proper installation techniques of post stormwater BMPs. The training provided will include knowledge in installation and inspection techniques along with good record keeping and maintenance activities. It is important for City staff to be able to recognize deficiencies in BMPs at construction sites. City staff will be responsible for the tracking and enforcing of permit requirements.

Employee training will consist of general PowerPoint presentations prepared by the City, Minnesota Department of Transportation erosion and sediment control certification courses, and a hands on process to discuss and teach the activities that are occurring in the field and how these activities can impact the City's MS4.

IV. INSPECTIONS

Construction site inspections will determine compliance with the City's regulatory mechanism(s).

The following is a list of preparation techniques before a construction site stormwater inspection:

- Identify priority sites for inspections based upon topography, soil characteristics, type of receiving waters, stage of construction, compliance history, weather conditions, or other local characteristics and issues.

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- Ensure City staff has proper training pertaining to erosion and sediment control techniques and post construction stormwater BMPs.

The process for the actual inspection of the site should follow the general guidelines below:

- Identify sites that require erosion and sediment control inspections. Develop a map of all private stormwater BMPs and a program with an inspection schedule.
- Perform the inspection using the Outfall Inspection Form, Pond/Sediment Basin Inspection Form/or the Construction Site Erosion Control Inspection Form.
- Document construction activities and follow up with the site permittee/owner the findings from the inspection. If feasible, prior to leaving the site, talk with the responsible person to ensure corrections will be made in a timely fashion.
- Perform a follow up inspection of site if deficiencies are found during the initial inspection. Ensure the correction items have been completed.
- Failure to comply with the permit requirements may require initiating enforcement action as described in the City's Enforcement Response Plan (ERP).

The following is the minimum documentation for each site:

- All logs and inspection records and track the number of inspections performed at each site.
- Record all correspondence and documentation with the permittee/owner.
- Keep records of escalations and penalties.
- Informal Notices (IN).
- Written Notice of Violations (NOV).
- Stop Work Orders (SWO).
- Criminal Penalties (CP).
- Abatement of Violation (AB) and record of time/hours.
- Referrals to other Departments/Agencies (RF).
- Non-Compliance Inspection Charges (IC)
- Suspensions of Service (SS).

V. EROSION AND SEDIMENT CONTROL BMPs

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City projects that disturb any amount of soil will use proper erosion and sediment control BMPs.

The City will ensure staff has the proper erosion and sediment control certification and/or have been trained by a certified staff person on proper erosion and sediment control techniques.

The following are the minimum control required on all City construction projects:

- Construction projects that have the potential to impact the MS4 system or any natural resource will have BMPs available prior to the construction activity.
- All perimeter control BMPs are required to be fixed, substituted, or enhanced if they are no longer working or sediment fills one-half (1/2) of the height of the BMP. This must be done by the end of the next business day or as soon as the site conditions permit.
- Temporary or permanent sediment basins are required to be drawn down and have sediment removed when the depth of the captured sediment reaches one-half (1.2) the storage volume of the basin.
- Tracked sediment from the construction site entrance/exit is required to be removed from all paved surfaces both on and off the site. This must be done as soon as possible within 24 hours of being found.
- Install down gradient perimeter controls where needed on the site.
- Block adjacent inlets and outlets, if necessary to prevent sediment and debris from discharging into the storm sewer.
- Stabilize all exposed soil areas upon completion of the work. If work is not complete, temporary stabilization methods will be used.
- After work is completed, clean out sediment that might have entered the MS4 system
- Encourage the use of structural and non-structural BMPs, structural or hard engineering techniques and bio-engineering.
- Require wet and dry stormwater detention ponds when surface drainage discharges into receiving waters.

The following is the minimum documentation for each site:

- Keep logs showing when the BMPs were inspected and properly maintained during the active construction period until the period where final stabilization has been achieved.
- Sites should be inspected weekly or after a rainfall event greater than 0.5 inches in 24 hours when the soil disturbance is equal or greater than 1 acre.

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- Document maintenance performed on perimeter control, erosion control BMPS, stabilization methods, sediment control BMPs.
- If applicable, record the amount of waste collected, the number of catch basins cleaned, and the area they were cleaned. Keep any notes or comments of any problems.
- If applicable, document the final location of where material was disposed of and any paperwork received from the disposal location.

VI. PRIVATE PROJECTS

Private projects that require a building permit, demolition permit, grading/excavation, and tree removal will use the proper sediment and erosion control BMPs. Depending on the proposed improvements, these sites may also be required to install BMPs for post-construction stormwater management. Building officials and the Engineering Department will be responsible for inspecting building permit activities and sites that require state NPDES permits.

The City has staff that actively inspects construction sites throughout the City's jurisdiction. The City also oversees the installation of BMPs for post construction stormwater management.

Any private projects that are within City limits will be inspected by a qualified City employee. Inspections will occur at a frequency that is commensurate of the activities being performed. The field inspector should use the field erosion control inspection form. Using the standardized inspection form will create consistency in all inspections.

The following is the minimum documentation for each private site:

- Keep track of private projects locations and obtaining contact information for owners and operators at the City offices.
- Keep records of long term maintenance agreements on file.
- Keep records of inspections should the City be required to perform compliance erosion/sediment control inspections.
- Keep records of escalation penalties (Informal Notice, Notice of Violation, Stop Work Orders)

VII. PRIVATE PROJECT LONG TERM OPERATION AND MAINTENANCE

All permanent stormwater management BMPs for the purpose of meeting post construction stormwater management are required to develop maintenance agreements and maintenance plans. After the maintenance agreement is executed, the City is required to ensure the conditions for post construction stormwater management continue to be met.

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The City may conduct inspections of post construction stormwater BMPs once during each MS4 permit cycle to determine if the system(s) are functioning and permitted. The City will notify the owners of the post construction stormwater BMPs of the deficiencies and determine a proper repair plan and timeline. If the post construction stormwater BMP is repaired in the required timeline set forth by City staff, the City's Enforcement Response Plan may take effect.

The following is the minimum documentation for each private post construction stormwater BMP:

- Keep logs of all maintenance agreements that are filed with the City, along with their BMP locations.
- Annually update the GIS system to include public and private structural BMPs installed within the City.
- Obtain as-built plans for all the public and private post construction stormwater BMPs that are installed within the City.
- Keep copies of inspection reports on file.

VIII. CONCLUSION

The guidelines provided are intended as a tool to be used by City staff as a guide to the practices of construction site erosion and sediment control along with post construction stormwater management.

The City has the authority to revise this guideline at any time. The City also has the authority to make special guidelines and responses where circumstances justify a special guideline.