City of Fairmont Storm Water Pollution Prevention Plan (SWPPP)

Annual Update

November 10, 2014

Why is Water Quality Important?

- Water has always been important to Minnesota and is a key part of our history, culture, economy and recreation. There are more than 13.1 million acres of lakes, rivers, streams and wetlands.
- Fairmont has approximately 1300 acres of lakes, streams, and wetlands within city limits.

Why is Water Quality Important?

- We need to maintain the beneficial uses of our lakes, rivers, creeks, and wetlands.
  - Domestic Water Supply
  - Recreation: Fishing, Swimming, Boating
  - Aquatic Life, Wildlife Habitat
  - Aesthetics: Property Values, Tourism

What is a MS4?

Municipal Separate Storm Sewer System

MS4

- A conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains:
  a. Owned or operated by a state, city, town, county, district, association, or other public body, created by or pursuant to state law, having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, that drain discharges into waters of the state.
  b. Designed or used for collecting or conveying stormwater
  c. That is not a combined sewer; and
  d. that is not part of a publicly owned treatment works

MS4 Permit

- Fairmont is an MS4 Community
  - Designated by Minnesota Pollution Control Agency (MPCA) under federal Clean Water Act (CWA)
- Received National Pollution Discharge Elimination System Permit (NPDES) in 2006 from the MPCA.
- The MPCA developed new permit requirements that became effective August 1, 2013. The permit is effective for a 5 year term, expiring July 31, 2018.

2014 Annual Public Meeting

- The City of Fairmont was approved for the new permit March 17, 2014.
- The city has been given one year to update, revise, and make additions to its Storm Water Pollution Prevention Plan by March 17, 2015.
- All changes to permits, ordinances, rules, standard operating procedures (SOPs), and enforcement response procedures (ERPs) shall be effective March 17, 2015 as well.

Acronyms of the NPDES Permit

- SWPPP - Storm Water Pollution Prevention Plan
  - Primary Component of Permit
- BMP - Best Management Practices
  - Specific SWPPP Action Items
- MCM - Minimum Control Measures
  - 6 MCM's are defined in the SWPPP with specific BMP's for each
- TMDL – Total Maximum Daily Load
  - Maximum nutrient and contaminant levels that will maintain a healthy ecosystem
- WLA – Waste Load Allocation
  - Specific amount of nutrient or contaminant that a source is allowed to discharge to meet the TMDL requirements

MCM #1
Public Education and Outreach

- Permittees shall develop and implement a public education program to distribute educational materials, interact with the public and educate them on why it is important to prevent storm water pollution.

MCM #2
Public Education and Outreach

- Permittees shall develop and implement a plan to solicit public input on the SWPPP required by the permit.
- Provide access to the SWPPP document (will be available at City Hall and the library)
- Document comments from the public
- Hold meeting allowing the public to voice their concerns and comments

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MCM #3
Illicit Discharge Detection and Elimination

- Permittees shall develop, implement, and enforce a program to detect and eliminate illicit discharges into the city's storm sewer system.
- What is an illicit discharge?
  - Any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer, i.e. WWTP) and discharges resulting from firefighting activities. (40 CFR § 122.26(b)(2))

Subd. 13. **Pollution of water, water pollution, or pollute the water.** "Pollution of water," "water pollution," or "pollute the water" means: (a) the discharge of any pollutant into any waters of the state or the contamination of any waters of the state so as to create a nuisance or render such waters unclean, or noxious, or impure so as to be actually or potentially harmful or detrimental or injurious to public health, safety or welfare, to domestic, agricultural, commercial, industrial, recreational or other legitimate uses, or to livestock, animals, birds, fish or other aquatic life; or (b) the alteration made or induced by human activity of the chemical, physical, biological, or radiological integrity of waters of the state.

Subd. 14. MS 1990 [Renumbered subd 20]

MCM #3
Illicit Discharge Detection and Elimination

- Requirements
  - Maintain a map of the storm sewer system
  - Implement regulatory mechanisms the effectively prohibit non-stormwater discharges in the MS4. **(New/Revised Ordinance)**
  - Incorporate illicit discharge detection into all maintenance and inspection activities.
  - Detect and track source of all found illicit discharges.
  - Train all field staff to recognize and report illicit discharges. (Street and Parks Dept, Water and Waste Water Dept, Engineering Dept, Electric Dept, Police Dept, Fire Dept, and Building Inspectors)

MCM #3
Illicit Discharge Detection and Elimination

- Requirements
  - Identify areas where illicit discharges are most likely to occur and conduct additional illicit discharges inspections in these areas.
  - Set up procedures for investigating, locating, and eliminating source of illicit discharges.
  - Set up procedures for responding to spills, and emergency response to hazardous spills.
  - Enforcement Procedures for stopping the illicit discharges and not reporting illicit discharges.
  - Documentation of all illicit discharges, including action taken.

Enforcement Response Procedures

- Will be setting up a schedule of warnings, fines, and billing for clean up.

MCM #4
Construction Site Stormwater Runoff Control

- Permittees shall develop, implement and enforce a construction site stormwater runoff control program which reduces pollutants in stormwater runoff into the MS4 from construction activity.
- The city shall create a mechanism to enforce the owner or contractor to create a SWPPP for construction sites, which includes items such as BMPs to prevent erosion, minimize discharge of sediment and other pollutants, control of dewatering activity, maintenance, management of hazardous chemicals, and inspection of construction sites after rainfall events.
- Grading Permit

MCM #4
Construction Site Stormwater Runoff Control

- Develop a plan review procedure for construction site SWPPPs
- Develop a way for the public to report and comment on noncompliance or other stormwater related information to the permittee.
- Develop written procedures for conducting site inspections. (Prioritizing sites, frequency of inspections, documentation of inspections)

Enforcement Response Procedures

- Will be setting up a schedule of warnings, fines, and billing for clean up when the site is not compliant with its permit, or if maintenance of BMPs are not being completed.

A good example of what not to do.

MCM #5
Post-Construction Stormwater Management

- Permittees shall develop, implement, and enforce a program that prevents or reduces water pollution after construction activity is completed.
  - Sites over 1 acre: Must meet MS4 permit requirements.
  - Sites over ½ acre: Must meet rate runoff requirements in current ordinance, but they will not be subject to MS4 requirements.
- Require that owners and/or operators of construction activity, submit site plans with post-construction stormwater management BMPs to the city for review and approval, prior to the start of construction.
- Grading Permit
- MS4 Requirements Post Construction Stormwater Management
  - New Developments - No net increase in runoff volume, total suspended solids, and total phosphorous.
  - Redevelopments – Net reduction from pre-project conditions (on an annual average basis) of volume, total suspended solids, and total phosphorous.

MCM #5
Post-Construction Stormwater Management

- Long-term Maintenance of structural stormwater BMPs
  - Must establish legal mechanism(s) between permittee and owners or operators responsible for the long-term maintenance of structural stormwater BMPs.
  - The legal mechanisms must establish the right for the permittee to conduct regular inspections of the BMP, perform necessary maintenance, assess costs for those structural stormwater BMPs when the permittee determines that the owner and/or operator has not conducted maintenance.
  - Legal mechanism(s) must transfer with the sale of the property to ensure that inspection and maintenance responsibilities are taken care of.
  - Include conditions that are designed to protect/preserve structural stormwater BMPs and site features that are implemented to comply with MS4 requirements.

MCM #6
Pollution Prevention/Good Housekeeping for Municipal Operations

- The permittee shall develop and implement an operations and maintenance program that prevents or reduces the discharge of pollutants from permittee owned or operated facilities and operations within the MS4.
- Facilities Inventory: Develop an inventory of all facilities or sites that have a potential to contribute to stormwater pollution.
- Develop and implement BMP's that divert, treat, infiltrate, reuse, contain, or otherwise reduce pollutants in stormwater discharges from the city and all inventoried facilities.

MCM #6
Pollution Prevention/Good Housekeeping for Municipal Operations

- Develop and implement SOP's for municipal operations that may contribute pollutants to stormwater.
- Pond Assessment Procedures and Schedule: Permittee needs to develop procedures and a schedule for the purpose of determining the TSS and TP treatment effectiveness of all permittee owned or operated ponds.
- Permittee must inspect all structural stormwater BMPs annually, outfalls at least once per permit cycle, and stockpile, storage and material handling areas at least quarterly for structural integrity, function, and maintenance needs.
- The permittee shall develop a schedule for training of all employees on the importance of water quality, requirements of the permit relevant to each employees job.

TMDL Impacts

- Total Maximum Daily Limits (TMDL) set by MPCA for various pollutants by watersheds
- Apply to storm water discharges from MS4
- Fairmont is within the watershed of the Blue Earth and Upper Minnesota Rivers
- Fecal Coliform TMDL - Approved 2007, MS4 Requirements meet the goals for this TMDL.
  - Minnesota and Blue Earth Rivers
  - Center, Dutch, and Lily Creeks
- Lower Minnesota River Dissolved Oxygen TMDL
  - Required to reduce contribution of phosphorous by 30% based on the year 2000 levels during low flow conditions. During low flow conditions the Fairmont lakes act as a phosphorous sink contributing no phosphorous to the Minnesota River unless water in flowing over the dam.
- Total Suspended Solids TMDL - Pending Approval

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QUESTIONS?

Thank You!

FAIRMONT T.M.