



# Minnesota's Municipal Separate Storm Sewer System (MS4) Storm-water Permit

## Inspection and Record Keeping

### Inspection goals

1. Determine and record whether a component is in good working condition and able to perform its intended function. *It is important that the person in the field conducting the inspection know the intended function of the component.*
2. Determine and record whether a component itself is a source of pollution. *An example of this would be significant scouring or sediment buildup caused by flows from an outfall. It could also be that the pollution control device has created a problem, such as the anoxic decay of organic matter in a sump or pond.*
3. Detect and eliminate illicit discharge. *Dry weather flows or the presence of non-storm-water related liquids, stains, odors and other abnormal conditions are indicators of illicit discharge into the system.*

### Forms and procedures

In order to provide flexibility for each municipality, the MPCA has not developed forms or storm-water system component inspection procedures for regulated municipalities. It is strongly recommended that each MS4 develop standardized forms and procedures which allow it to address:

- Permit requirements
- Types of components
- Intended function of each type of component
- Inspections goals for each type of component

### Record keeping

Inspection findings are records of your permit activities. As such, these materials are subject to the record keeping and retention requirements of the permit.

As you are aware, the MS4 General Permit requires each permittee to "Operate and maintain your storm-water system in a manner so as to minimize (reduce) the discharge of pollutants." (Section V.G.6.b.1) In order to meet this requirement, more detailed inspection and record keeping requirements are set forth in Sections V.G.6.b.2 through 6.

- Sub-sections 2 and 3 list frequencies for the inspection of various components of a storm-water system.

- Sub-section 4 provides details on actions that may be necessary based on the results of the inspections. Please note that Section 6 requires that you “keep records of “...any maintenance performed or recommended.”
- Sub-section 5 lists reporting requirements.
- Sub-section 6 lists record keeping requirements, and it allows for adjustments in the frequency of inspections.

In Section VI.D.1 of the MS4 General Permit, it is stated that each MS4’s annual report must summarize “the status of compliance with permit conditions, including an assessment of the appropriateness of your identified best management practices and progress towards achieving your identified measurable goals for each of the minimum control measures. Your assessment must be based on results of information collected and analyzed, including monitoring (if any), inspection findings and public input received during the reporting period.”

For more information contact

Lou Flynn  
Minnesota Pollution Control Agency  
520 Lafayette Road N.  
St. Paul, MN 55155-4194  
[Louis.flynn@pca.state.mn.us](mailto:Louis.flynn@pca.state.mn.us)  
651-296-6575

## Inspection requirements and guidance

What	When	How
<b>Structural pollution control devices</b> (Part V.G.6.b.2) including grit chambers, swirl separators, oil and grease separators, filters, infiltration trenches, flammable traps, storm-water inlet traps, and a variety of other devices	All annually	<ul style="list-style-type: none"> <li>• Determine if the device is in good working condition and able to perform its intended function.</li> <li>• Measure/estimate and record any material collected.</li> <li>• Measure/estimate and record remaining storage capacity.</li> <li>• Identify clogged, overloaded and full devices.</li> <li>• Identify materials within the device that are deteriorating and releasing pollution.</li> <li>• Identify and record erosion, significant sedimentation, or other problems at or around the device.</li> <li>• Immediately schedule and conduct needed maintenance.</li> <li>• Record anticipated and actual work dates.</li> <li>• Use collected data to determine a maintenance and material removal schedule for each device.</li> </ul>
<b>Outfalls</b> (Part V.G.6.b.3) where storm water leaves an MS4 system in a discrete conveyance, not as overland flow	20% annually, all within 5 years	<ul style="list-style-type: none"> <li>• Determine if the outfall structure is in good working condition and able to perform its intended function, the free flow of storm water.</li> <li>• Identify and record erosion, sediment build up, or other problems at or around the device.</li> <li>• Immediately schedule and conduct needed maintenance.</li> <li>• Record anticipated and actual work dates.</li> </ul>
<b>Basins and ponds</b> (Part V.G.6.b.3) including storm-water ponds and infiltration basins	20% annually, all within 5 years	<ul style="list-style-type: none"> <li>• Determine if basin or pond inlet(s) and outlet(s) are in good working condition and able to perform their intended function.</li> <li>• Identify and record scour, erosion, significant sedimentation, or other problems at or around the pond banks, inlets or outlets.</li> <li>• Where the basin or pond is intended to provide storm-water quality treatment, in most cases, treatment is accomplished primarily through settling of sediment particles. The depth of various portions of the basin or pond should be determined, recorded and tracked over time. This data determines when the basin or pond will be too shallow to perform its function and allows for appropriate action. Measuring the depth of the pond at a few consistent locations through the ice in the winter may be sufficient to determine the depth of the pond for this purpose.</li> <li>• In some cases, storm-water quality treatment is accomplished through biological (such as plant uptake,) or chemical actions (such as alum addition,) or physical diversion to other systems. In these cases, inspection and recording procedures should be established to determine whether the basins or ponds systems are able to perform these functions.</li> <li>• Identify and record materials within the device that are deteriorating and releasing pollution into the storm-water system.</li> <li>• Immediately schedule and conduct needed maintenance.</li> <li>• Record anticipated and actual work dates.</li> <li>• Additional information is available in Metropolitan Council Environmental Services - <i>Urban Small</i></li> </ul>

		<p><i>Sites Best Management Practices Manual</i> at <a href="http://www.metrocouncil.org/environment/Watershed/bmp/manual.html">www.metrocouncil.org/environment/Watershed/bmp/manual.html</a> and in the MPCA best management practices manual <i>Protecting Water Quality in Urban Areas</i> at <a href="http://www.pca.state.mn.us/water/pubs/sw-bmpmanual.html">www.pca.state.mn.us/water/pubs/sw-bmpmanual.html</a></p>
<p><b>Other sources of storm-water contamination</b> (Parts I., V.B and V.G.6.b.1) including tanks, stockpiles, oil, gasoline or chemical storage areas, salt piles, coal piles and lumber storage areas</p>	<p>Seasonally or annually as appropriate</p>	<ul style="list-style-type: none"> <li>• Determine if there are potential pollution problems related to storm-water runoff or infiltration into the groundwater.</li> <li>• Identify and record any discernable leaking, leachate or runoff.</li> <li>• Install additional BMPs, such as secondary containment, impervious cover, runoff collection areas and other BMPs as needed.</li> <li>• Immediately schedule and conduct needed maintenance or BMP installation.</li> <li>• Record anticipated and actual work dates.</li> </ul>
<p><b>Illicit discharges</b> (Part V.G.3)</p>	<p>Each inspection</p>	<ul style="list-style-type: none"> <li>• Identify, record and characterize any dry weather flow into or through the device.</li> <li>• Describe the material (color, odor, etc.), its effects (corrosion, pipe etching, burning eyes, etc) or, if appropriate, analyze chemically.</li> <li>• Investigate any potential upstream sources that may be contributing non-storm-water flow.</li> <li>• Record clear, unpolluted dry weather flows observed during outfall inspections. If there is clear, dry weather flow, the discharge may be coming from unregulated sources. Unless they are a significant contributor of pollutants (see part V.G.3.e,) these may not be regulated, however they must be recorded.</li> <li>• Determine further action needed.</li> </ul>
<p><b>Construction activity</b></p>		<ul style="list-style-type: none"> <li>• Establish and follow procedures that are appropriate for the local construction storm-water program.</li> <li>• Parallel the MPCA construction storm-water permit when possible.</li> <li>• Determine if pollution control devices are in good working condition and able to perform their intended function.</li> <li>• Identify any potential pollution problems related to storm-water runoff or infiltration into the groundwater.</li> <li>• Determine if any additional BMPs, such as silt fence, temporary ponds or other BMPs may be appropriate.</li> <li>• Keep construction inspections records for 3 years after permit expiration.</li> <li>• Summarize inspections for annual reports as requested on those forms.</li> <li>• Determine further action needed.</li> <li>• Immediately schedule and conduct needed maintenance or BMP installation.</li> <li>• Record anticipated and actual work dates.</li> </ul>