

City of Shakopee

Storm Drainage System Maintenance Policy

Adopted: September 7, 2010 by Resolution No. 7040

STORM DRAINAGE SYSTEM MAINTENANCE POLICY FOR THE CITY OF SHAKOPEE

I. Purpose

The purpose of this policy is to provide the City of Shakopee's procedures for storm drainage system inspection and maintenance. The City believes it is in the best interest of the residents for the City to assume the basic responsibility of inspecting and maintaining its public storm drainage system. Reasonable inspection and maintenance is necessary for the protection of property, vehicle and pedestrian safety, water quality issues, environmental concerns and to comply with requirements set forth by the City's Comprehensive Surface Water Resource Management Plan and its storm water permit with the Minnesota Pollution Control Agency (MPCA). The City will provide these services in a cost-effective manner, keeping in mind safety, budget, personnel and environmental concerns. The City will use its own employees, equipment and/or private contractors to provide this service. Completion dates are dependent upon weather conditions, personnel and equipment availability. The Public Works Director, the Public Works Superintendent or their assigns will be responsible for scheduling of personnel and equipment.

II. Operations

1. Storm Water Basins and Wetlands Inspection. It should be noted this section is intended to encompass wetlands since they perform in a comparable manner to storm water basins. Storm water basin inspection and maintenance will begin in earnest when weather conditions allow, usually mid-March, but some activities can be undertaken in the winter months. The City's goal is to inspect a minimum of 20% of its storm water basins each year, resulting in all of them being inspected in a five (5) year period. However, some storm water basins may be inspected on a more frequent basis. Priority will be given to those as they appear on the most recent version of the City's storm drainage hotspot map (on file at the office of the Public Works Director) and as determined by the Public Works Director, the Public Works Superintendent or their assigns. Storm water basin maintenance will be scheduled based on priority rankings as determined by the Public Works Director, the Public Works Superintendent or their assigns. See the Procedures section for details concerning inspection activities and inspection frequencies.
2. Infiltration Basins and Trenches Inspection. Infiltration areas include storm water basins with an infiltration component, vegetated filter/buffer strips, raingardens and rock filter trenches. Infiltration area inspection and maintenance will begin in earnest when weather conditions allow, usually mid-March. The City's goal is to inspect a minimum of 20% of its infiltration areas each year, resulting in all of them being inspected in a five (5) year period. However, some infiltration areas may be inspected on a more frequent basis. Priority will be given to those as they appear on the most recent version of the City's storm drainage hotspot map (on file at the office of the Public Works Director) and as determined by the Public Works Director, the Public Works Superintendent or their assigns. Infiltration area maintenance will be scheduled based on priority rankings as determined by the Public Works Director, the Public Works Superintendent or their assigns. See the Procedures section for details concerning inspection activities and inspection frequencies.

3. Maintained Ditches Inspection. Maintained ditch inspection and maintenance will begin in earnest when weather conditions allow, usually mid-March. The City's goal is to inspect its ditches on an annual basis. However, the Upper Valley Drainage Ditch may be inspected on a more frequent basis. Priority will be given to those as they appear on the most recent version of the City's storm drainage hotspot map (on file at the office of the Public Works Director) and as determined by the Public Works Director, the Public Works Superintendent or their assigns. Maintained ditch maintenance will be scheduled based on priority rankings as determined by the Public Works Director, the Public Works Superintendent or their assigns. See the Procedures section for details concerning inspection activities and inspection frequencies.
4. Storm Sewer Inspection. It should be noted this section is intended to cover manholes, catch basins, outfalls, inlets/outlets, lids, grates, pipe, swales and spillways. Storm sewer inspection and maintenance will begin in earnest when weather conditions allow, usually mid-March. The City's goal is to inspect a minimum of 100% of its sump manholes and 20% of its outfalls each year, resulting in all outfalls being inspected in a five (5) year period. An outfall is defined as the point source where a municipal separate storm sewer system discharges from a pipe, ditch or other discrete conveyance to receiving waters, or to other municipal separate storm sewer systems. It does not include diffuse runoff or conveyances which connect segments of the same stream or water systems. The remainder of the storm sewer components will be inspected on an as needed basis. However, some areas may be inspected on a more frequent basis. Priority will be given to areas draining directly into higher priority water bodies such as the downtown business district, old urban Shakopee, industrial zones, those as they appear on the most recent version of the City's storm drainage hotspot map (on file at the office of the Public Works Director) and as determined by the Public Works Director, the Public Works Superintendent or their assigns. Storm sewer maintenance will be scheduled based on priority rankings as determined by the Public Works Director, the Public Works Superintendent or their assigns. See the Procedures section for details concerning inspection activities and inspection frequencies.
5. High Priority Inspection (Hotspots). In order to address areas requiring additional attention, the City has developed a storm drainage hotspot map to supplement its comprehensive storm drainage system map. Please refer to these maps, which are on file at the office of the Public Works Director, for high priority inspection locations and their associated inspection frequencies.
6. Subdivision Storm Drainage System Inspection. Prior to the City inspecting, approving and accepting a storm drainage system associated with the subdivision of land, the inspection and maintenance activities are the responsibility of the developer, contractor and/or property owner. Except in case of emergencies, deficiencies need to be corrected within twenty-four (24) hours of receiving instructions and notice from the Public Works Director, the Public Works Superintendent, the Building Official or their assigns. If the developer, contractor and/or property owner fail to perform this work within the time specified or in the case of an emergency, the City reserves the right to perform the work and charge the associated cost to the appropriate party.

7. Storm drainage system inspection and maintenance within County road right-of-way is the responsibility of the Scott County Highway Department. Storm drainage system inspection and maintenance within State right-of-way is the responsibility of the Minnesota Department of Transportation (MnDoT). The City may assist in their inspection and maintenance under emergency conditions or cooperative maintenance agreements with Scott County or MnDOT.
8. Storm drainage systems considered to be privately owned will not be inspected or maintained by the City unless there is the potential of damage to property or if there is a safety concern.
9. Yard swales will not be maintained, re-graded or re-established by the City unless there is the potential of damage to property or if there is a safety concern. The City reserves the right to perform the work and charge the associated cost to the appropriate party.
10. The City may be responsible for the general maintenance of roadside ditches that are in public rights-of-way. If a ditch is not draining properly due to City operations, the City may excavate the area to re-establish positive drainage. If a ditch is not draining properly due to property owner activities, the City reserves the right to excavate the area to re-establish positive drainage and charge the associated cost to the appropriate party.
11. The City will not replace driveway culverts that are deteriorated, nor will the City replace those associated with a property owner's driveway maintenance or replacement. The City may replace driveway culverts if there is the potential of damage to property or if there is a safety concern. The City reserves the right to replace the culvert and charge the associated cost to the appropriate party.
12. For the restoration associated with large scale maintenance projects in areas where the City and adjacent property owners desire to minimize the amount of mowing, the City will investigate the feasibility of buffer/filter strips, wetland vegetation plantings and native prairie grass plantings. Meetings should be held with affected property owners to determine the feasibility of such an activity.
13. Citizen requests for storm drainage system inspection and maintenance will be evaluated by the Public Works Director and the Public Works Superintendent and they will determine the priority.

III. Procedure

1. Storm drainage system inspection and maintenance will primarily take place from mid-March to mid-October. However, as weather conditions allow additional inspection and maintenance may take place. Inspections such as measuring sediment depth in storm water basins during the winter months may be easier through the ice than in open water during the summer months. The City will use its own employees, equipment and/or private contractors to complete the inspections and maintenance.

2. Priorities/Frequencies. The City has developed a comprehensive storm drainage system map (on file at the office of the Public Works Director). This map shows the City's storm water basins, wetlands, infiltration areas, manholes, catch basins, outfalls, inlets/outlets, overflow structures and pipe. Additionally, the City has developed a storm drainage hotspot map (on file at the office of the Public Works Director) which shows areas that may require additional attention during significant rainfall/runoff events. These maps, the City's GIS System and a comprehensive list of inspection activities provide the user tools to adequately perform and record inspections, schedule and perform maintenance activities and generate valuable reports. See the inspection activities and inspection frequencies in attachment A.
3. Storm Water/Infiltration Basin Cleaning. By nature, storm water/infiltration basins can develop wetland type vegetation (e.g. Cattails) or they can collect enough sediment that can result in the reduction of the sediment removal capacities. Should a storm water/infiltration basin inspection result in an unusually high number of "unsatisfactory" for these reasons, the person that performed the inspection shall contact the Public Works Director and the Public Works Superintendent to discuss the next course of action prior to scheduling any maintenance activities.
4. Weather Conditions. Inspection and maintenance will be conducted when weather conditions permit. Factors that may delay these activities may include temperatures below thirty-two (32) degrees Fahrenheit, wind, rain, snow and frozen storm drainage systems.
5. Work Schedule. Inspection and maintenance is performed in conjunction with and can be impacted by other maintenance operations. Inspection and maintenance will typically be conducted during a regular eight (8) hour workday. Extended workdays and shift changes may be necessary for spring runoff events and emergency conditions to provide maximum efficiency. For safety reasons, no operator will work more than a twelve (12) hour shift in any twenty-four (24) hour period.
6. Safety Concerns. Unexpected ponding water can create a dangerous condition for vehicles, motorcyclists, bicyclists, pedestrians and property. It is not practical to sign all areas for potentially dangerous conditions. During such events, warning signs indicating a hazard may be placed in the vicinity and other areas as deemed necessary by the Public Works Director and the Public Works Superintendent. These signs will remain in place until the situation has subsided.
7. Training. The City will provide training and information on a regular basis to employees involved in the inspection and maintenance of the City's storm drainage system. At a minimum, training and information will cover:
 - Inspection/maintenance procedures
 - Reasons for inspection/maintenance
 - Erosion and sediment control inspection/maintenance practices
 - Daily, intermediate and long-term preventative inspection/maintenance
 - Major/minor repairs
 - Vegetation inspection

- Storm water basins versus wetlands
 - Public storm water basins versus private storm water basins.
 - Storm water basins with vegetation requiring additional inspection/maintenance
8. Complaints. Complaints concerning the storm drainage system will be taken during normal working hours and after normal working hours by those designated as emergency contacts. Problems requiring immediate attention will be handled on a priority basis as determined by the Public Works Director and the Public Works Superintendent. The City will document all complaints and upgrade this policy as necessary while giving consideration to the constraints of available resources.
 9. Documentation. The City will document all of its inspection, maintenance, complaint and emergency responses. The inspection activities and inspection frequencies in attachment A clearly outlines all inspection activities associated with each component of the storm drainage system. All findings, determinations and courses of action will be properly entered into the City's GIS system. The City will also document circumstances that limit its ability to comply with this policy. The City will also develop a list of storm drainage system components that appear to be functioning well and prove to be beneficial and those that do not appear to be doing so. These records will be kept in accordance with the City's record retention schedule.
 10. This policy is a guide for City staff and residents of the community. The City Administrator, the Public Works Director, the Police Chief and the Fire Chief may deviate from this policy if they feel it is in the best interest of the City while considering unusual circumstances and emergency conditions.

Attachment A

Inspection and Maintenance Activities