

CHAPTER 13

STORM WATER MANAGEMENT REGULATIONS

<i>SECTION 13.01. PURPOSE AND INTENT</i>	383
<i>SECTION 13.02. DEFINITIONS</i>	383
<i>SECTION 13.03. GENERAL PROVISIONS</i>	386
<i>Subd. 1. Applicability</i>	386
<i>Subd. 2. Exemptions</i>	386
<i>Subd. 3. Waiver</i>	387
<i>SECTIONS 13.04 THROUGH 13.09, INCLUSIVE, RESERVED FOR FUTURE EXPANSION</i>	387
<i>SECTION 13.10. STORM WATER MANAGEMENT PLAN APPROVAL PROCEDURES</i>	387
<i>Subd. 1. Application</i>	387
<i>Subd. 2. Storm Water Management Plan</i>	388
<i>SECTIONS 13.11 THROUGH 13.19, INCLUSIVE, RESERVED FOR FUTURE EXPANSION</i>	389
<i>SECTION 13.20. PLAN REVIEW PROCEDURE</i>	389
<i>Subd. 1. Process</i>	389
<i>Subd. 2. Duration</i>	390
<i>Subd. 3. Conditions</i>	390
<i>Subd. 4. Performance Bond</i>	390
<i>Subd. 5. Fees</i>	390
<i>SECTIONS 13.21 THROUGH 13.29, INCLUSIVE, RESERVED FOR FUTURE EXPANSION</i>	390
<i>SECTION 13.30. APPROVAL STANDARDS</i>	390
<i>Subd. 1. Approval Standards</i>	391
<i>Subd. 2. Site Dewatering</i>	391
<i>Subd. 3. Waste and Material Disposal</i>	391
<i>Subd. 4. Tracking</i>	391

Subd. 5. Drain Inlet Protection..... 391

Subd. 6. Site Erosion Control 391

Subd. 7. Storm Water Management Criteria For Permanent Facilities 393

Subd. 8. Design Standards 394

Subd. 9. Wetlands 398

Subd. 10. Steep Slopes..... 399

Subd. 11. Catch Basins..... 399

Subd. 12. Drain Leaders 399

Subd. 13. Inspection and Maintenance 399

Subd. 14. Models/Methodologies/Computations 400

Subd. 15. Watershed Management Plans/Groundwater Management Plans ... 400

Subd. 16. Easements 400

SECTIONS 13.31 THROUGH 13.39, INCLUSIVE, RESERVED FOR FUTURE EXPANSION..... 400

SECTION 13.40. LAWN FERTILIZER REGULATIONS..... 400

Subd. 1. Use of Impervious Surfaces 400

Subd. 2. Unimproved Land Area 400

Subd. 3. Phosphorus Use Restricted 400

Subd. 4. Buffer Zone 401

SECTIONS 13.41 THROUGH 13.49, INCLUSIVE, RESERVED FOR FUTURE EXPANSION..... 401

SECTION 13.50 REGULATIONS FOR ILLICIT STORM WATER DISCHARGE AND DETECTION..... 401

Subd. 1. Findings and Purpose 401

Subd. 2. Administration 401

Subd. 3. Illegal disposal and dumping..... 401

Subd. 4. Illicit discharges..... 401

Subd. 5. Illicit Connections 402

Subd. 6. General provisions 403

Subd. 7. Industrial activity discharges 404

Subd. 8. Notification of spills 404

Subd. 9. Access. 404

Subd. 10. Suspension of Storm Sewer System Access. 405

SECTIONS 13.51 THROUGH 13.59, INCLUSIVE, RESERVED FOR FUTURE

EXPANSION..... 405

SECTION 13.60. OTHER CONTROLS..... 405

SECTIONS 13.61 THROUGH 13.69, INCLUSIVE, RESERVED FOR FUTURE

EXPANSION..... 405

SECTION 13.70. SEVERABILITY..... 405

SECTIONS 13.71 THROUGH 13.98, INCLUSIVE, RESERVED FOR FUTURE

EXPANSION..... 405

SECTION 13.99. VIOLATION..... 405

CHAPTER 13

STORM WATER MANAGEMENT REGULATIONS

SECTION 13.01. PURPOSE AND INTENT. This chapter is adopted for the following purposes:

- A. To promote a more efficient and desirable utilization of land by recognizing special land features, such as topography, soils, vegetation, wetland areas, and wildlife;
- B. Conserving and developing natural resources and maintaining a high standard of environmental quality;
- C. Minimizing pollution of all types.

SECTION 13.02. DEFINITIONS. The following words, terms and phrases, when used in this chapter shall have the meanings ascribed to them in this section, except when the context clearly indicates a different meaning:

- A. **“Applicant”** - The owner of land proposed to be subdivided or rezoned, or his/her legal representative.
- B. **“Best Management Practice or BMP”** - Erosion and sediment control and water quality management practices that are the most effective and practicable means of controlling, preventing, and minimizing degradation of surface water, including construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, and other management practices published by state or designated area-wide planning agencies.
- C. **“Control Measure”** - A practice or combination of practices to control erosion and attendant pollution.
- D. **“Detention Facility”** - A permanent natural or man-made structure, including wetlands, for the temporary storage of runoff which contains a permanent pool of water.
- E. **“Discharge”** - Adding, introducing, releasing, leaking, spilling, casting, throwing, or emitting any pollutant, or placing any pollutant in a location where it is likely to pollute public waters.
- F. **“Erosion”** - The process by which ground surface is worn away by action of wind, water, ice, or gravity.
- G. **“Flood Fringe”** - The portion of the floodplain outside the floodway.

- H. **“Flood Plain”** - The land adjacent to a body of water which has been or may be hereafter covered by flood water, including that land covered by the regional flood.
- I. **“Floodway”** - The minimum channel of a watercourse and those portions of the floodplain adjoining the channel that is reasonably required to discharge the regional flood.
- J. **“Groundwater”** - Water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near surface unconsolidated sediment or in rock formations deeper underground.
- K. **“Hydric Soils”** - Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.
- L. **“Hydrophytic Vegetation”** - Macrophytic plant life growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.
- M. **“Illicit Connection”** - Either of the following:
 - 1) Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system (including any nonstormwater discharge) including sewage, process wastewater, and wash water and any connections to the storm drain system from indoor drains and sinks, regardless of whether the drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency; or
 - 2) Any drain or conveyance connected from a residential, commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.
- N. **“Illicit Discharge”** - Any direct or indirect nonstormwater discharge to the storm sewer system, except as exempted herein in section 51.24(B).
- O. **“Land Disturbing or Development Activities”** - Any change of the land surface including removing vegetative cover, excavating, filling, grading, and the construction of any structure.
- P. **“MPCA”** - The Minnesota Pollution Control Agency.
- Q. **“Municipal Separate Storm Sewer System or MS4”** - The system of conveyances (including sidewalks, roads with drainage systems, municipal streets, catchbasins, curbs, gutters, ditches, manmade channels, or storm

drains) owned and operated by the city and designed or used for collecting or conveying stormwater, and which is not used for collecting or conveying sewage.

- R. **“NPDES”** - The National Pollutant Discharge Elimination System, which is the program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits under the Clean Water Act (Section 301, 318, 402, and 405) and United States Code of Federal Regulations Title 33, Section 1317, 1328, 1342, and 1345 authorizing the discharge of pollutants to water of the United States.
- S. **“Person”** - Any individual, firm, corporation, partnership, franchisee, association or governmental entity.
- T. **“Pollutant”** - Any substance which, when discharged has potential to or does any of the following:
 - 1) Interferes with state designated water uses;
 - 2) Obstructs or causes damage to public waters;
 - 3) Changes water color, odor, or usability as a drinking water source through causes not attributable to natural stream processes affecting surface water or subsurface processes affecting groundwater;
 - 4) Adds an unnatural surface film on the water;
 - 5) Adversely changes other chemical, biological, thermal, or physical condition, in any surface water or stream channel;
 - 6) Degrades the quality of ground water; or
 - 7) Harms human life, aquatic life, or terrestrial plant and wildlife.

Pollutant includes but is not limited to dredged soil, solid waste, incinerator residue, garbage, wastewater sludge, chemical waste, biological materials, radioactive materials, rock, sand, dust, industrial waste, sediment, nutrients, toxic substance, pesticide, herbicide, trace metal, automotive fluid, petroleum-based substance, and oxygen-demanding material.

- U. **“Pollute”** - To discharge pollutants into public waters.
- V. **“Pollution”** - The direct or indirect distribution of pollutants into public waters.
- W. **“Public Waters”** - Waters of the state, as defined in Minn. Stat. Sec. 103G. 005, Subd. 15.

- X. **“Regional Flood”** - A flood that is representative of large floods known to have occurred generally in the state and reasonably characteristic of what can be expected to occur on an average frequency in the magnitude of a 100-year recurrence interval.
- Y. **“Retention Facility”** - A permanent natural or man-made structure that provides for the storage of storm water runoff by means of a permanent pool of water.
- Z. **“Sediment”** - Solid matter carried by water, sewage, or other liquids.
- AA. **“State Designated Water Uses”** - Uses specified in state water quality standards.
- BB. **“Structure”** - Anything constructed or erected, the use of which requires more or less permanent location on the ground or attachment to something having a permanent location on the ground. When a structure is divided into separate parts by an unpierced wall, each part shall be deemed a separate structure.
- CC. **“Storm Sewer System”** - A conveyance or system of conveyances that is owned and operated by the city or other entity and designed or used for collecting or conveying stormwater.
- DD. **“Stormwater”** - Defined under Minnesota Rule 7077.0105, subpart 41(b), and means precipitation runoff, stormwater runoff, snow melt runoff and any other surface runoff and drainage.
- EE. **“Surface Waters”** - All public waters other than ground waters, which include ponds, lakes, rivers, streams, tidal and nontidal wetlands, public ditches, tax ditches, and public drainage systems except those designed and used to collect, convey, or dispose of sanitary sewage.
- FF. **“Wetlands”** - Land which is annually subject to periodic or continuing inundation by water and commonly referred to as a bog, swamp, or marsh.

SECTION 13.03. GENERAL PROVISIONS.

Subd. 1. Applicability. Even applicant for a building permit, subdivision approval, or a permit to allow land disturbing activities must submit a storm water management plan to the City. No building permit, subdivision approval, or permit to allow land disturbing activities shall be issued until approval of the storm water management plan or a waiver of the approval requirement has been obtained in strict conformance with the provisions of this ordinance. The provisions of section 13.40 of this ordinance apply to all land, public or private, located within the City of Lexington.

Subd. 2. Exemptions. The provisions of this ordinance do not apply to:

- A. Any part of a subdivision if a plat for the subdivision has been approved by the City Council on or before the effective date of this ordinance;
- B. Any land disturbing activity for which plans have been approved by the watershed management organization within six months prior to the effective date of this ordinance;
- C. A lot for which a building permit has been approved on or before the effective date of this ordinance;
- D. Installation of fence, sign, telephone, and electric poles and other kinds of posts or poles; or
- E. Emergency work to protect life, limb, or property.

Subd. 3. Waiver. The City Council, upon recommendation of the Planning Commission, may waive any requirement of this ordinance upon making a finding that compliance with the requirement will involve an unnecessary hardship and the waiver of such requirement will not adversely affect the standards and requirements set forth in Section 13.10. The City Council may require as a condition of the waiver, such dedication or construction, or agreement to dedicate or construct as may be necessary to adequately meet said standards and requirements.

SECTIONS 13.04 THROUGH 13.09, INCLUSIVE, RESERVED FOR FUTURE EXPANSION.

SECTION 13.10. STORM WATER MANAGEMENT PLAN APPROVAL PROCEDURES.

Subd. 1. Application. A written application for storm water management plan approval, along with the proposed storm water management plan, shall be filed with the City and shall include a statement indicating the grounds upon which the approval is requested, that the proposed use is permitted by right or as an exception in the underlying zoning district, and adequate evidence showing that the proposed use will conform to the standards set forth in this ordinance. Prior to applying for approval of a storm water management plan, an applicant may have the storm water management plans reviewed by the appropriate departments of the City.

- A. Two sets of clearly legible blue or black lined copies of drawings and required information shall be submitted to the City and shall be accompanied by a receipt evidencing the payment of all required fees for processing and approval as set forth in Section 13.20, and a bond when required by Section 13.20 in the amount to be calculated in accordance with that section. Drawings shall be prepared to a scale appropriate to the site of the project and suitable for the review to be performed. At a minimum the scale shall be 1 inch equals 100 feet.

Subd. 2. Storm Water Management Plan. At a minimum, the storm water management plan shall contain the following information.

- A. Existing site map. A map of existing site conditions showing the site and immediately adjacent areas, including:
- 1) The name and address of the applicant, the section, township and range, north point, date and scale of drawing and number of sheets;
 - 2) Location of the tract by an insert map at a scale sufficient to clearly identify the location of the property and giving such information as the names and numbers of adjoining roads, railroads, utilities, subdivisions, towns and districts or other landmarks;
 - 3) Existing topography with a contour interval appropriate to the topography of the land but in no case having a contour interval greater than 2 feet;
 - 4) A delineation of all streams, rivers, public waters and wetlands located on and immediately adjacent to the site, including depth of water, a description of all vegetation which may be found in the water, a statement of general water quality and any classification given to the water body or wetland by the Minnesota Department of Natural Resources, the Minnesota Pollution Control Agency, and/or the United States Army Corps of Engineers;
 - 5) Location and dimensions of existing storm water drainage systems and natural drainage patterns on and immediately adjacent to the site delineating in which direction and at what rate storm water is conveyed from the site, identifying the receiving stream, river, public water, or wetland, and setting forth those areas of the unaltered site where storm water collects;
 - 6) A description of the soils of the site, including a map indicating soil types of areas to be disturbed as well as a soil report containing information on the suitability of the soils for the type of development proposed and for the type of sewage disposal proposed and describing any remedial steps to be taken by the developer to render the soils suitable;
 - 7) Vegetative cover and clearly delineating any vegetation proposed for removal; and
 - 8) 100 year floodplains, flood fringes and floodways.
- B. Site construction plan. A site construction plan including:
- 1) Locations and dimensions of all proposed land disturbing activities and any phasing of those activities;

- 2) Locations and dimensions of all temporary soil or dirt stockpiles;
 - 3) Locations and dimensions of all constructions site erosion control measures necessary to meet the requirements of this ordinance;
 - 4) Schedule of anticipated starting and completion date of each land disturbing activity including the installation of construction site erosion control measures needed to meet the requirements of this ordinance; and
 - 5) Provisions for maintenance of the construction site erosion control measures during construction.
- C. Plan of final site conditions. A plan of final site conditions on the same scale as the existing site map showing the site changes including:
- 1) Finished grading shown at contours at the same interval as provided above or as required to clearly indicate the relationship of proposed changes to existing topography and remaining features;
 - 2) A landscape plan, drawn to an appropriate scale, including dimensions and distances and the location, type, size and description of all proposed landscape materials which will be added to the site as part of the development;
 - 3) A drainage plan of the developed site delineating in which direction and at what rate storm water will be conveyed from the site and setting forth the areas of the site where storm water will be allowed to collect;
 - 4) The proposed size, alignment and intended use of any structures to be erected on the site;
 - 5) A clear delineation and tabulation of all areas which shall be paved or surfaced, including a description of the surfacing material to be used; and
 - 6) Any other information pertinent to the particular project which in the opinion of the applicant is necessary for the review of the project.

SECTIONS 13.11 THROUGH 13.19, INCLUSIVE, RESERVED FOR FUTURE EXPANSION.

SECTION 13.20. PLAN REVIEW PROCEDURE.

Subd. 1. Process. Storm water management plans meeting the requirements of Section 13.10 shall be submitted by the City to the Planning Commission for review in accordance with the standards of Section 13.30. The Commission shall recommend

approval, recommend approval with conditions, or recommend denial of the storm water management plan. Following Planning Commission action, the storm water management plan shall be submitted to the City Council at its next available meeting. City Council action on the storm water management plan must be accomplished within 60-120 days following the date the application for approval is filed and accepted by the City.

Subd. 2. Duration. Approval of a plan submitted under the provisions of this ordinance shall expire one year after the date of approval unless construction has commenced in accordance with the plan. However, if prior to the expiration of the approval, the applicant makes a written request to the City for an extension of time to commence construction setting forth the reasons for the requested extension, the planning department may grant one extension of not greater than one single year. Receipt of any request for an extension shall be acknowledged by the City within 15 days. The City shall make a decision on the extension within 30 days of receipt. Any plan may be revised in the same manner as originally approved.

Subd. 3. Conditions. A storm water management plan may be approved subject to compliance with conditions reasonable and necessary to insure that the requirements contained in this ordinance are met. Such conditions may, among other matters, limit the size, kind or character of the proposed development, require the construction of structures, drainage facilities, storage basins and other facilities, require replacement of vegetation, establish required monitoring procedures, stage the work over time, require alteration of the site design to insure buffering, and require the conveyance to the City of Lexington or other public entity of certain lands or interests therein.

Subd. 4. Performance Bond. Prior to approval of any storm water management plan, the applicant shall submit an agreement to construct such required physical improvements, to dedicate property or easements, or to comply with such conditions as may have been agreed to. Such agreement shall be accompanied by a bond to cover the amount of the established cost of complying with the agreement. The agreement and bond shall guarantee completion and compliance with conditions within a specific time, which time may be extended in accordance with Section 13.20.

The adequacy, conditions and acceptability of any agreement and bond shall be determined by the Lexington City Council or any official of the City of Lexington as may be designated by resolution of the Lexington City Council.

Subd. 5. Fees. All applications for storm water management plan approval shall be accompanied by a processing fee established by the City.

SECTIONS 13.21 THROUGH 13.29, INCLUSIVE, RESERVED FOR FUTURE EXPANSION.

SECTION 13.30. APPROVAL STANDARDS.

Subd. 1. Approval Standards. No storm water management plan which falls to meet the standards contained in this section shall be approved by the City Council.

Subd. 2. Site Dewatering. Water pumped from the site shall be treated by temporary sedimentation basins, grit chambers, sand filters, up flow chambers, hydro-cyclones, swirl concentrators or other appropriate controls as appropriate. Water may not be discharged in a manner that causes erosion or flooding of the site or receiving channels or a wetland.

Subd. 3. Waste and Material Disposal. All waste and unused building materials (including garbage, debris, cleaning wastes, wastewater, toxic materials or hazardous materials) shall be properly disposed of off-site and not allowed to be carried by runoff into a receiving channel or storm sewer system.

Subd. 4. Tracking. Each site shall have graveled roads, access drives and parking areas of sufficient width and length to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by street cleaning (not flushing) before the end of each workday.

Subd. 5. Drain Inlet Protection. All storm drain inlets shall be protected during construction until control measures are in place with a straw bale, silt fence or equivalent barrier meeting accepted design criteria, standards and specifications contained in the MPCA publication "Protecting Water Quality in Urban Areas," as amended.

Subd. 6. Site Erosion Control. Erosion and sedimentation control devices and techniques shall be consistent with the MPCA's "Protecting Water Quality in Urban Areas," as amended. The following criteria (a. through d.) apply only to construction activities that result in runoff leaving the site.

- A. Channelized runoff from adjacent areas passing through the site shall be diverted around disturbed areas, if practical. Otherwise, the channel shall be protected as described below. Sheet flow runoff from adjacent areas greater than 10,000 square feet in area shall also be diverted around disturbed areas, unless shown to have resultant runoff rates of less than 0.5 ft./sec. across the disturbed area for the one year storm. Diverted runoff shall be conveyed in a manner that will not erode the conveyance and receiving channels.
- B. All activities on the site shall be conducted in a logical sequence to minimize the area of bare soil exposed at any one time.
- C. Runoff from the entire disturbed area on the site shall be controlled by meeting either subsections land 2 or land 3.

- 1) All disturbed ground left inactive for fourteen or more days shall be stabilized by seeding or sodding (only available prior to September 15) or by mulching or covering or other equivalent control measure.
 - 2) For sites with more than ten acres disturbed at one time, or if a channel originates in the disturbed area, one or more temporary or permanent sedimentation basins shall be constructed. Each sedimentation basin shall have a surface area of at least one percent of the area draining to the basin and at least three feet of depth and constructed in accordance with accepted design specifications. Sediment shall be removed to maintain a depth of three feet. The basin discharge rate shall also be sufficiently low as to not cause erosion along the discharge channel or the receiving water.
 - 3) For sites with less than ten acres disturbed at one time, silt fences, straw bales, or equivalent control measures shall be placed along all side slope and down slope sides of the site. If a channel or area of concentrated runoff passes through the site, silt fences shall be placed along the channel edges to reduce sediment reaching the channel. The use of silt fences, straw bales, or equivalent control measures must include a maintenance and inspection schedule.
- D. Any soil or dirt storage piles containing more than ten cubic yards of material should not be located with a down slope drainage length of less than 25 feet from the toe of the pile to a roadway or drainage channel. If remaining for more than seven days, they shall be stabilized by mulching, vegetative cover, tarps or other means. Erosion from piles which will be in existence for less than seven days shall be controlled by placing straw bales or silt fence barriers around the pile. In-street utility repair or construction soil or dirt storage piles located closer than 25 feet of a roadway or drainage channel must be covered with tarps or suitable alternative control, if exposed for more than seven days, and the storm drain inlets must be protected with straw bale or other appropriate filtering barriers.
- E. Construction, inspection and testing. All land disturbing activities shall be subject to inspection by the city. Inspection of land disturbance operations and special testing shall be performed by the applicant as set forth in this chapter.
- F. Inspector. The inspector acting on behalf of the applicant shall be a qualified person who shall demonstrate his competence, to the satisfaction of the city, for inspection of the particular type of land disturbing activity, testing procedure or operation requiring inspection.

Duties and responsibilities of the inspector.

- 1) The inspector shall observe the work assigned for conformance with the reviewed design drawings and specifications.

2) All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority and to the city.

3) The inspector shall submit inspection reports stating whether the work or test requiring inspection was in conformance with the reviewed plans and specifications. The inspection reports shall be furnished to the city and other designated persons as required in the approved land disturbance plan.

4) Periodic inspection. Some inspections may be made on a periodic basis and satisfy the requirements of continuous inspection, provided this periodic scheduled inspection is performed as outlined in the land disturbance plans and specifications and approved by the city.

G. Storm water pollution prevention plan items shall be inspected as required by this manual. At a minimum, these inspections shall be done weekly by the applicant and within 24 hours after every rainfall event 0.5 inches or greater in 24 hours. Inspection reports shall include , at a minimum, date and time of inspection, name of person conducting inspection, findings of inspection including any recommended corrective actions, corrective actions taken since previous inspection, and the date and amount of rainfall

Subd. 7. Storm Water Management Criteria For Permanent Facilities.

- A. An applicant shall install or construct, on or for the proposed land disturbing or development activity, all storm water management facilities necessary to manage increased runoff so that the two-year, ten-year, and 100-year storm peak discharge rates existing before the proposed development shall not be increased and accelerated channel erosion will not occur as a result of the proposed land disturbing or development activity. An applicant may also make an in-kind or monetary contribution to the development and maintenance of community storm water management facilities designed to serve multiple land disturbing and development activities undertaken by one or more persons, including the applicant.
- B. The applicant shall give consideration to reducing the need for storm water management facilities by incorporating the use of natural topography and land cover such as wetlands, ponds, natural swales and depressions as they exist before development to the degree that they can accommodate the additional flow of water without compromising the integrity or quality of the wetland or pond.
- C. The following storm water management practices shall be investigated in developing a storm water management plan in the following descending order of preference:

- 1) Natural infiltration of precipitation on-site;
 - 2) Flow attenuation by use of open vegetated swales and natural depressions;
 - 3) Storm water retention facilities; and
 - 4) Storm water detention facilities.
- D. A combination of successive practices may be used to achieve the applicable minimum control requirements specified in subsection (A) above. Justification shall be provided by the applicant for the method selected.

Subd. 8. Design Standards. Storm water detention facilities constructed in the City of Lexington shall be designed according to the most current technology as reflected in the Environmental Protection Agency's "Nationwide Urban Runoff Program (NTJRP)" and the MPCA publication "Protecting Water Quality in Urban Areas," as amended, and shall contain, at a minimum, the following design factors:

- A. A permanent pond surface area equal to two percent of the impervious area draining to the pond or one percent of the entire area draining to the pond, whichever amount is greater;
- B. An average permanent pool depth of four to ten feet;
- C. A permanent pool length-to-width ratio of 3:1 or greater;
- D. A minimum protective shelf extending ten feet into the permanent pool with a slope of 10:1, beyond which slopes should not exceed 3:1;
- E. A protective buffer strip of vegetation surrounding the permanent pool at a minimum width of one rod (16.5 feet);
- F. All storm water detention facilities shall have a device to keep oil, grease, and other floatable material from moving downstream as a result of normal operations;
- G. Storm water detention facilities for new development must be sufficient to limit peak flows in each subwatershed to those that existed before the development for the 10-year storm event. All calculations and hydrologic models/information used in determining peak flows shall be submitted along with the storm water management plan;
- H. All storm water detention facilities must have a fore bay to remove coarse grained particles prior to discharge into a watercourse or storage basin.

- I. Stormwater Management shall require the use of any combination of BMPs, with highest preference given to Green Infrastructure techniques and practices (e.g ., infiltration, evapotranspiration, reuse/harvesting , conservation design, urban forestry, green roofs, etc .), necessary to meet the following conditions on the site of a construction activity to the Maximum Extent Practicable (MEP).

For new development projects - no net increase from pre-project conditions (on an annual average basis) of:

- Stormwater discharge Volume
- Stormwater discharges of Total Suspended Solids (TSS)
- Stormwater discharges of Total Phosphorus (TP)

For redevelopment projects - a net reduction from pre-project conditions (on an annual average basis) of:

- Stormwater discharge Volume
- Stormwater discharges of TSS
- Stormwater discharges of TP

1) New Development Sites:

(a) Retain a runoff volume equal to one inch times the area of the proposed increase of impervious surfaces on-site.

(b) Design and construct stormwater management practices that manage rainfall on-site, and prevent the off-site discharge of the precipitation from the first one inch of runoff from the new impervious surfaces created by the project. Discharge volume reduction can be achieved by engineered infiltration, canopy interception, soil amendments, evaporation, rainfall harvesting, and/or evapotranspiration and any combination of the aforementioned practices. This first one inch of rainfall must be 100% managed with no discharge to surface water.

(c) Where re-use of stormwater is implemented, such as use with an irrigation system, volumes captured shall be given equal credit toward the volume reduction requirement by the City . All re-use measures must be fully documented in the post-construction stormwater management program maintained by the City.

2) Redevelopment Sites:

(a) For redevelopment projects, the MS4 Permit requires a net reduction in the amount of TP, TSS and stormwater runoff volume (unless precluded by one of the prohibitions or restrictions listed below) leaving the site as compared with pre-project conditions. Most redevelopment projects contain

both impervious and pervious land cover. Impervious cover types include pavement, buildings, gravel, stockpiles and other types of highly impacted cover in which the native hydrology has been greatly altered. The MS4 Permit defines any site with less than 15% of existing impervious surfaces prior to the commencement of construction activity as new development and the new development treatment conditions would apply as if the site had no impervious surfaces prior to construction. The percentage of impervious cover is calculated by dividing the area of the existing impervious cover by the limits of disturbance of the construction activities, not by the size of the property itself.

(b) For redevelopment projects (those with more than 15% impervious surface prior to construction) where the project proposer intends to add more impervious surfaces, the new development treatment requirements must be applied to the net increase of impervious surfaces. Additional treatment must also be included to reduce the volume (unless precluded by the limits or exceptions listed below), TP and TSS loads from the existing impervious surfaces.

(c) Stormwater management prohibitions and restrictions. An applicant shall install or construct, on or for the proposed land disturbing or development activity, all stormwater management facilities necessary to manage increased runoff so that the two-year, ten-year, and 1DO-year storm peak discharge rates existing before the proposed development shall not be increased and accelerated channel erosion will not occur as a result of the proposed land disturbing or development activity. An applicant may also make an in-kind or monetary contribution to the development and maintenance of community stormwater management facilities designed to serve multiple land disturbing and development activities undertaken by one or more persons, including the applicant.

(d) A key component of maintaining the volume of stormwater leaving a site is practices that allow infiltration to groundwater. For most sites, meeting the volume reduction requirement will require the use of infiltration. However, there can often be physical site constraints that limit the effectiveness of an infiltration system or site conditions in which stormwater infiltration must be prohibited. If construction activity is proposed on a site that meets one of the prohibitions or restrictions listed below, runoff from the limiting areas may be excluded from meeting the full volume reduction component of the MS4 permit. However the full treatment standard for TSS and TP must still be met on-site or mitigated for off-site.

3) Infiltration prohibitions. The use of infiltration as a stormwater treatment method is prohibited as follows:

- Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the Agency.
- Where vehicle fueling and maintenance occur.
- With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
- Where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater.

4) Infiltration restrictions. The City shall restrict the use of infiltration techniques without a detailed engineering review, to prevent adverse impacts to groundwater, when the infiltration device will receive discharges from, or be constructed in the following:

- Areas of predominately Hydrologic Soil Group D (clay) soils.
- Areas within 1,000 feet up-gradient or within 100 feet down-gradient of active karst features.
- Areas within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R.4720.5100, subp. 13.
- Areas where soil infiltration rates are more than 8.3 inches per hour.

The restrictions above do not preclude proposers of construction activity from infiltrating stormwater. Rather, the restrictions simply require that a higher level of design and review is needed. There may be opportunities to infiltrate in these areas and not impact groundwater or experience a system failure because of one of the site restrictions.

Exception for meeting the volume control standard. A lesser volume reduction requirement than required if the project meets one of the prohibitions or restrictions listed above and if the owner or operator of the construction activity implements to the Maximum Extent Practicable (MEP) other volume reduction techniques such as evapotranspiration, reuse/harvesting, conservation design, green roofs, etc. on site. If other volume reduction techniques are not used, documentation must be provided on why that decision was made and maintained on file at the City.

5) Mitigation provisions. Mitigation provisions are allowed when owners and operators of a construction activity cannot meet the TSS and/or TP reduction requirements on the site of the original construction activity. The mitigation

provisions of the Regulatory Mechanism(s) shall ensure that any stormwater discharges of TSS or TP not addressed on the site of the original construction activity are addressed through mitigation and, at a minimum, shall ensure the following mitigation requirements are met.

- 6) Mitigation project areas are selected in the following order of preference:
 - (a) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.
 - (b) Locations within the same Department of Natural Resource (DNR) catchment area as the original construction activity.
 - (c) Locations in the next adjacent DNR catchment area up-stream.
 - (d) Locations anywhere within the permittee's jurisdiction.

Mitigation projects must involve the creation of new structural stormwater BMPs or the retrofit of existing structural stormwater BMPs, or the use of a properly designed regional structural stormwater BMP.

Routine maintenance of structural stormwater BMPs already required by this permit cannot be used to meet mitigation requirements.

Mitigation projects shall be completed within 24 months after the start of the original construction activity.

The permittee shall determine, and document, who is responsible for long-term maintenance on all mitigation projects.

If the permittee receives payment from the owner and/or operator of a construction activity for mitigation purposes in lieu of the owner or operator of that construction activity meeting the conditions for post-construction stormwater management. The permittee shall apply any such payment received to a public stormwater project.

The permittee must identify priority areas within the various watersheds of its jurisdiction where mitigation projects could occur. If the owner of a construction activity cannot meet the TSS and TP requirements because of site limitations, they may either perform a mitigation project or make an in- lieu-of payment to the City to apply to a mitigation project at a later time.

Subd. 9. Wetlands.

- A. Runoff shall not be discharged directly into wetlands without presettlement of the runoff
- B. A protective buffer strip of natural vegetation at least one rod (16.5 feet) in width shall surround all wetlands.
- C. Wetlands must not be drained or filled, wholly or partially, unless replaced by restoring or creating wetland areas of at least equal public value. Replacement must be guided by the Wetland Conservation Act and the following principles in descending order of priority:
 - 1) Avoiding the direct or indirect impact of the activity that may destroy or diminish the wetland;
 - 2) Minimizing the impact by limiting the degree or magnitude of the wetland activity and its implementation;
 - 3) Rectifying the impact by repairing, rehabilitating, or restoring the affected wetland environment;
 - 4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the activity; and
 - 5) Compensating for the impact by replacing or providing substitute wetland resources or environments.

Subd. 10. Steep Slopes. No land disturbing or development activities shall be allowed on slopes of 18 percent or more.

Subd. 11. Catch Basins. All newly installed and rehabilitated catch basins shall be provided with a sump area for the collection of coarse-grained material. Such basins shall be cleaned when they are half filled with material.

Subd. 12. Drain Leaders. All newly constructed and reconstructed buildings will route drain leaders to pervious areas wherein the runoff can be allowed to infiltrate. The flow rate of water exiting the leaders shall be controlled so no erosion occurs in the pervious areas.

Subd. 13. Inspection and Maintenance. All storm water management facilities shall be designed to minimize the need of maintenance, to provide access for maintenance purposes and to be structurally sound. All storm water management facilities shall have a plan of operation and maintenance that assures continued effective removal of pollutants carried in storm water runoff. The director of public works, or designated representative, shall inspect all storm water management facilities during construction, during the first year of operation, and at least once every five years thereafter. The inspection records will be kept on file at the public works department for

a period of 6 years. It shall be the responsibility of the applicant to obtain any necessary easements or other property interests to allow access to the storm water management facilities for inspection and maintenance purposes.

Subd. 14. Models/Methodologies/Computations. Hydrologic models and design methodologies used for the determination of runoff and analysis of storm water management structures shall be approved by the director of public works. Plans, specification and computations for storm water management facilities submitted for review shall be sealed and signed by a registered professional engineer. All computations shall appear on the plans submitted for review, unless otherwise approved by the director of public works.

Subd. 15. Watershed Management Plans/Groundwater Management Plans. Storm water management plans shall be consistent with adopted watershed management plans and groundwater management plans prepared in accordance with Minnesota Statutes section 103B.231 and 103B.255 respectively, and as approved by the Minnesota Board of Water and Soil Resources in accordance with state law.

Subd. 16. Easements. If a storm water management plan involves direction of some or all runoff off of the site, it shall be the responsibility of the applicant to obtain from adjacent property owners any necessary easements or other property interests concerning flowage of water.

SECTIONS 13.31 THROUGH 13.39, INCLUSIVE, RESERVED FOR FUTURE EXPANSION.

SECTION 13.40. LAWN FERTILIZER REGULATIONS.

Subd. 1. Use of Impervious Surfaces. No person shall apply fertilizer to or deposit grass clippings, leaves, or other vegetative materials on impervious surfaces, or within storm water drainage systems, natural drainage ways, or within wetland buffer areas.

Subd. 2. Unimproved Land Area. Except for driveways, sidewalks, patios, areas occupied by structures or areas which have been improved by landscaping, all areas shall be covered by plants or vegetative growth.

Subd. 3. Phosphorus Use Restricted. A person may not apply a fertilizer containing the plant nutrient phosphorus to turf, except under the following conditions:

- A. A tissue, soil, or other test by a laboratory or method approved by the commissioner and performed within the last three years indicates that the level of available phosphorus in the soil is insufficient to support healthy turf growth;
- B. The property owner or an agent of the property owner is first establishing turf via seed or sod procedures, and only during the first growing season.

Subd. 4. Buffer Zone. Fertilizer applications shall not be made within one rod (16.5 feet) of any wetland or water resource.

SECTIONS 13.41 THROUGH 13.49, INCLUSIVE, RESERVED FOR FUTURE EXPANSION.

SECTION 13.50 REGULATIONS FOR ILLICIT STORM WATER DISCHARGE AND DETECTION

Subd. 1. Findings and Purpose.

- A. The city council hereby finds that nonstormwater discharges to the city's municipal separated storm sewer system are subject to higher levels of pollutants that enter into receiving water bodies adversely affecting the public health, safety and general welfare by impacting water quality, creating nuisances, impairing other beneficial uses of environmental resources and hindering the ability of the city to provide adequate water, sewage, flood control and other community services.
- B. The purpose of the ordinance is to promote, preserve and enhance the natural resources within the city and protect them from adverse effects occasioned by nonstormwater discharges by regulating discharges that would have an adverse and potentially irreversible impact on water quality and environmentally sensitive land.

Subd. 2. Administration. The city and its authorized representatives are authorized to administer, implement, and enforce the provisions of this section.

Subd. 3. Illegal disposal and dumping.

- A. No person shall throw, deposit, place, leave, maintain, or keep any substance upon any street, alley, sidewalk, storm drain, inlet, catchbasin conduit or drainage structure, business, or upon any public or private land, so that the same might be or become a pollutant, unless the substance is in containers, recycling bags, or any other lawfully established waste disposal device.
- B. No person shall intentionally dispose of grass, leaves, dirt, or landscape material into a water resource, buffer, street, road, alley, catchbasin, culvert, curb, gutter, inlet, ditch, natural watercourse, flood control channel, canal, storm drain or any fabricated natural conveyance.

Subd. 4. Illicit discharges.

- A. No person shall cause any illicit discharge to enter the storm sewer system or any surface water.

B. Exemptions. The following discharges are exempt from this section:

- 1) Nonstormwater that is authorized by an NPDES point source permit obtain from the MPCA;
- 2) Firefighting activities or other activities necessary to protect public health and safety;
- 3) Dye testing for which the city has provided a verbal notification prior to the time of the test;
- 4) Water line flushing or other potable water sources;
- 5) Landscape irrigation or lawn watering;
- 6) Diverted stream flows;
- 7) Rising ground water;
- 8) Ground water infiltration to storm drains;
- 9) Uncontaminated pumped ground water;
- 10) Foundation or footing drains (not including active groundwater dewatering systems);
- 11) Crawl space pumps, or sump pumps conforming with section 150.30;
- 12) Air conditioning condensation;
- 13) Springs;
- 14) Noncommercial washing of vehicles;
- 15) Natural riparian habitat or wetland flows;
- 16) Dechlorinated swimming pools (for pools to be considered "dechlorinated," water must be allowed to sit seven (7) days without the addition of chlorine to allow for chlorine to evaporate before discharging in an area where drainage to streets or storm sewer systems may occur); or
- 17) Any other water source not containing a pollutant.

Subd. 5. Illicit Connections. No person shall construct, use, or maintain any illicit connection to intentionally convey nonstormwater to the city's storm sewer system.

This prohibition expressly includes, without limitation, illicit connections made in the past regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. A person is considered to be in violation of this section if the person connects a line conveying sewage to the storm sewer system, or allows such a connection to continue.

Subd. 6. General provisions. All owners or occupants of property shall comply with the following general requirements:

- A. **Septic systems.** No person shall leave, deposit, discharge, dump, or otherwise expose any chemical or septic waste in an area where discharge to streets or storm sewer system may occur. This section shall apply to both actual and potential discharges.
 - 1) Individual septic systems must be maintained to prevent failure, which has the potential to pollute surface water.
 - 2) No part of any individual septic system requiring on-land or in-ground disposal of waste shall be located closer than 150 feet from the ordinary high water level in the case of DNR protected waters, or the wetland boundary in the case of all other water bodies, unless it is proven by the applicant that no effluent will immediately or gradually reach the water bodies because of existing physical characteristics of the site or the system.
 - 3) Recreational vehicle sewage shall be disposed to a proper sanitary waste facility. Waste shall not be discharged in an area where drainage to streets or storm sewer systems may occur.
- B. **Water runoff.** Runoff of water from residential property shall be minimized to the maximum extent practicable. Runoff of water from the washing down of paved areas in commercial or industrial property is prohibited unless necessary for health or safety purposes and not in violation of any other provisions of the city code.
- C. **Mobile washing businesses.** Business that use significant amounts of water at various locations in the city, such as, but not limited to mobile vehicle washing and carpet cleaning, shall dispose of wastewater into the sanitary sewer at a location permitted by the city. Wastewater must not be discharged where drainage to streets or storm sewer system may occur.
- D. **Motor vehicle repair and maintenance.** Storage of materials, machinery and equipment for motor vehicle repair and maintenance must comply with the following requirements:

- 1) Motor vehicle parts containing grease, oil or other hazardous substances and unsealed receptacles containing hazardous materials shall not be stored in areas susceptible to runoff.
 - 2) Any machinery or equipment that is to be repaired or maintained in areas susceptible to runoff shall be placed in a confined area to contain leaks, spills, or discharges.
- E. Parking lots and private streets. Debris from parking lots and private streets should be swept at least once a year in the spring to remove debris. Such debris shall be collected and properly disposed.
- F. Other. Fuel and chemical residue or other types of potentially harmful material, such as animal waste, garbage or batteries shall be removed as soon as possible and disposed of properly. Household hazardous waste may be disposed of through the county collection program or at any other appropriate disposal site and shall not be placed in a trash container.

Subd. 7. Industrial activity discharges. Any person subject to an industrial activity NPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with the permit may be required in a form acceptable to the city prior to the allowing of discharges to the storm sewer system. Any person responsible for a facility that has stormwater discharges associated with industrial activity, who is or may be the source of an illicit discharge, may be required to implement, at the person's expense, additional structural and nonstructural BMPs to prevent the further discharge of pollutants to the storm sewer system. These BMPs shall be part of a stormwater pollution prevention plan as necessary for compliance with requirements of the NPDES permit.

Subd. 8. Notification of spills. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into the storm sewer system, or public water the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials, the person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of nonhazardous materials, the person shall notify the city no later than the next business day.

Subd. 9. Access. If the city has been refused access to any part of the premises from which stormwater is discharged, and is able to demonstrate probable cause to believe that there may be a violation of this section or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this chapter or any order issued hereunder, or to protect the

overall public health, safety, and welfare of the community, then the city may seek an administrative search warrant from any court of competent jurisdiction.

Subd. 10. Suspension of Storm Sewer System Access.

- A. Suspension due to illicit discharges in emergency situation. The city may, without prior notice, suspend storm sewer system discharge access to a person when such suspension is necessary to stop an actual or threatened discharge that presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the storm sewer or public waters. If the violator fails to comply with a suspension order issued in an emergency, the city may take such steps as deemed necessary to prevent or minimize damage to the storm sewer system or public waters, or to minimize danger to persons.
- B. Suspension due to the detection of illicit discharge. All persons discharging to the storm sewer system in violation of this chapter may have their storm sewer system access terminated if such termination serves to abate or reduce an illicit discharge. It is a violation of this section to reinstate storm sewer system access to premises that have been terminated pursuant to this section without the prior approval of the city.

SECTIONS 13.51 THROUGH 13.59, INCLUSIVE, RESERVED FOR FUTURE EXPANSION.

SECTION 13.60. OTHER CONTROLS.

In the event of any conflict between the provisions of this ordinance and the provisions of an erosion control or shore land protection ordinance adopted by the City Council, the more restrictive standard prevails.

SECTIONS 13.61 THROUGH 13.69, INCLUSIVE, RESERVED FOR FUTURE EXPANSION.

SECTION 13.70. SEVERABILITY.

The provisions of this ordinance are severable. If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this ordinance which can be given effect without the invalid provision or application.

SECTIONS 13.71 THROUGH 13.98, INCLUSIVE, RESERVED FOR FUTURE EXPANSION.

SECTION 13.99. VIOLATION.

A. A violation of this chapter is a public nuisance. When the city finds that a person has violated a prohibition or failed to meet a requirement of this section, the person is deemed to have created a public nuisance subject to abatement and assessment, as provided under Minnesota Statutes Chapter 429 and other pertinent statutes for certification to the County Auditor and collection the following year along with current taxes. In addition, the city may require the following:

1. The performance of monitoring, analysis, and reporting;
2. The implementation of source control or treatment BMPs;
3. Any other requirement deemed necessary.

B. The remedies listed in this chapter are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the City to seek cumulative remedies. The City may recover all attorney's fees, court costs and other expenses associated with enforcement of this chapter, including sampling and monitoring expenses.