

## **STORM WATER AND EROSION AND SEDIMENT CONTROL ORDINANCE**

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### **150.270 STATUTORY AUTHORIZATION.**

This subchapter is adopted pursuant to the authorization and policies contained in M.S. Chs. 103B, 103F.401, 103F.441, and 462 and Minnesota Rules Chs. 7050, 7090, and 8410. This subchapter is intended to meet the current construction site erosion and sediment control and post-construction storm water management regulatory requirements for construction activity and small construction activity (NPDES Permit) as defined in 40 CFR pt. 122.26(b)(14)(x) and (b)(15), respectively.

### **150.271 FINDINGS.**

The City of Lake Elmo finds that uncontrolled storm water runoff and construction site erosion from land development and land disturbing activity can have significant adverse impacts upon local and regional water resources diminishing the quality of public health, safety, public and private property, and natural resources of the City. Specifically, uncontrolled construction site erosion and storm water runoff can:

- (A) Threaten public health, safety, property, and general welfare by increasing runoff volume peak flood flows, and overburdening storm sewers, drainage ways, and other storm drainage systems;

- (B) Diminish the capacity of lakes and streams to support fish, aquatic life, recreational, and water supply uses by increasing pollutant loadings of total sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens, and other urban pollutants;
- (C) Degrade physical stream habitat by increasing stream bank erosion, increasing stream bed scour, diminishing groundwater recharge, diminishing stream base flows, and increasing stream temperatures;
- (D) Undermine floodplain management efforts by increasing the incidence and levels of flooding;
- (E) Alter wetland communities by changing wetland hydrology and increasing pollutant loading; and
- (F) Generate airborne particulate concentrations that are health threatening or may cause other damage to property or the environment.

**150.272 PURPOSE.**

- (A) The general purpose of this subchapter is to set forth regulatory requirements for land development and land disturbing activities aimed at minimizing threats to public health, safety, public and private property and natural resources within the city from construction site erosion and post-construction storm water runoff.
- (B) Specific purposes are to establish performance standards that will:
  - (1) Protect life and property from dangers associated with flooding;
  - (2) Protect public and private property and the natural resources from damage resulting from runoff and construction site erosion;
  - (3) Protect functional values of all types of natural water bodies (e.g., rivers, streams, wetlands, lakes, seasonal ponds);
  - (4) Sustain or enhance biodiversity (native plant and animal habitat) and support riparian ecosystems;
  - (5) Protect water quality from nutrients, heavy metals, bacteria, pathogens, debris, thermal stress, and other urban pollutants;
  - (6) Promote infiltration and groundwater recharge;
  - (7) Regulate storm water runoff volumes and peak rates for land development and land disturbing activities;
  - (8) Promote regional storm water management by watershed; and
  - (9) Provide a single, consistent set of performance standards that apply to all land development and land disturbing activities.

**150.273      APPLICABILITY.**

*(A) Storm Water Management.*

- (1) A storm water management (SWM) plan shall be required for all proposed land development activity, unless otherwise exempted in this subchapter, which meets any or all of the following:
  - (a) Any land development activity that increases and/or replaces impervious surface with a surface area exceeding 1 acre, including smaller individual sites that are part of a common plan of development that may be constructed at different times; and/or
  - (b) A subdivision consisting of 3 or more lots; and/or
  - (c) Any land development activity, regardless of size, that the city determines would otherwise cause an adverse impact to an environmentally sensitive area.
- (2) *Exemptions.* The following land development activities will be exempt from the storm water management requirements of this subchapter:
  - (a) Mining activities regulated by Chapter 90 of the City Code; and
  - (b) Reconstruction of existing public trails and construction of new public trails that are not a part of a proposed land development activity as defined in division (A) (1) above; and
  - (c) Reclamation and maintenance of existing public streets.

*(B) Erosion and Sediment Control.*

- (1) An erosion and sediment control (ESC) plan shall be required for all proposed land disturbing activity, unless otherwise exempted in this subchapter, which meets any or all of the following:
  - (a) Meets the permit requirements of an excavation and grading permit per Section 151.017 of the City Code;
  - (b) New dwelling permits;
  - (c) A subdivision of any size;
  - (d) Involves the laying, repairing, replacing, or enlarging of an underground utility, pipe or other facility, or the disturbance of road ditch, grass swale or other open channel for a distance of 500 feet or more;

- (e) Is a land disturbing activity, regardless of size, that the city determines would otherwise cause an adverse impact to an environmentally sensitive area, or may violate any erosion and sediment control standard set forth in this subchapter.
- (2) *Exemptions.* The following land disturbing activities will be exempt from the erosion and sediment control plan requirements of this subchapter:
- (a) Cemetery graves;
  - (b) Mining activities regulated by Chapter 90 of the City Code;
  - (c) Tilling, planting, or harvesting of agricultural, horticultural or silvicultural (forestry) crops;
  - (d) Emergency work necessary to protect life, limb, or property; and
  - (e) City, county, state, or federal agency project whose plans and specifications meet the requirements of this subchapter and are reviewed and approved by the city under a separate process.

**150.274      DEFINITIONS.**

For the purposes of this subchapter, all terms, phrases, words, and their derivatives shall have the meanings as stated in Chapter 11 of the City Code.

**150.275      INCORPORATION BY REFERENCE.**

- (A) The following are incorporated into this subchapter by reference:
  - (1) The Local Surface Water Management Plan; and
  - (2) The City Engineering Design Standards.
- (B) All storm water mitigation and management technologies shall be consistent with the most current versions of the City Engineering Design Standards.

**150.276      PLAN REVIEW PROCEDURE.**

- (A) *Plan approval required* - The applicant shall not commence any construction activity subject to this subchapter until plan approval has been authorized by the city and all fees, escrows and securities have been paid and filed with the city.
- (B) *Plan Submittal* - The applicant must submit the required plans and documentation to fully address all provisions of this subchapter and demonstrating conformance to the current versions of the City Engineering Design Standards.
- (C) *Plan review and authorization* - The city shall review the plan submittal for completeness and compliance with standards. If the city determines that the plan does not meet the requirements of this subchapter, the city shall notify the applicant that the submittal is incomplete and request changes or additional information. The plan(s) must be revised to correct the deficiencies and resubmitted for approval before the land disturbance activity

begins. If the city determines that the storm water management plan and/or erosion and sediment control plan meet the requirements of this subchapter, the city shall issue a plan approval valid for a specified period of time that authorizes the land activity contingent on the implementation and completion of this plan. The city may approve the plans subject to compliance to conditions reasonable and necessary to insure that the requirements in this subchapter are met.

(D) *Construction initiation and first compliance inspection* – No work shall begin on a site until a preconstruction meeting has been conducted (if required by the city as part of the plan approval). Once work is authorized to begin, the applicant or agent shall install all erosion and sediment control devices as required by the approved plan and shall inform the city that they are in place. The city will complete an initial site inspection to determine compliance with the plan and to authorize the land disturbance activity to begin.

(E) *Adherence to the approved plans and plan modifications* – Once approved by the city, the storm water management plan and/or erosion and sediment control plan must be followed throughout the duration of the land disturbance or land development activity. The approved plans shall not be modified or altered without receiving written authorization from the city. Plan amendments will be required by the city whenever:

- (1) A change in design, construction, operation, maintenance, weather, or seasonal conditions that has a significant effect on the discharge or pollutants to surface waters or underground waters;
- (2) Inspections or investigations indicate the plans are not effective in eliminating or significantly minimizing the discharge or pollutants to surface waters or underground waters or that the discharges are causing water quality degradation;
- (3) The plan is not achieving the general objectives of minimizing pollutants in storm water discharges associated with construction activity; or
- (4) The plan is found to not be consistent with the terms and conditions of this subchapter.

(F) *Variance Requests*. The city may grant a variance on a case-by-case basis. The content of a variance is specified in the zoning code.

## **150.277 PERFORMANCE AND DESIGN STANDARDS.**

(A) *Storm Water Management Plan*.

- (1) All storm water management plans shall meet ~~or exceed the most stringent of the performance and design standards of this subchapter and shall be consistent with minimum requirements of the National Construction Stormwater Permit (Permit No. MNR100001), Pollution Discharge Elimination Permit (NPDES) requirements, the minimum requirements of the watershed(s) having jurisdiction over the site(s), the City Engineering Design Standards, and the filing or approval requirements of relevant watershed districts (Brown's Creek, South Washington, and/or Valley Branch), Washington County, Minnesota Department of Natural Resources,~~

~~Minnesota Pollution Control Agency, U.S. Army Corps of Engineers, and other regulatory agencies. A storm water management plan must be submitted to the city for review and approval concurrently with the submittal to the watershed(s) having jurisdiction over the site(s).~~

~~(2) Storm Water Criteria.~~

~~(a) Storm water management plans will be assessed for stormwater rate control, stormwater volume control and storm water quality management to reduce the impacts of the land activity, by maintaining pre-development hydrological conditions in the following ways:~~

- ~~1. Decrease runoff volume.~~
- ~~2. Decrease erosion and sedimentation.~~
- ~~3. Decrease flow frequency, duration, and peak runoff rates.~~
- ~~4. Increase infiltration (groundwater recharge).~~
- ~~5. Maintain existing flow patterns.~~
- ~~6. Reduce time to peak flows by increasing the time of concentration to and through drainage ways and storm sewers.~~
- ~~7. Storage of storm water runoff on site.~~

8. ~~Avoid channel erosion.~~

~~(b)(a) Rate control requirements. The stormwater management plan shall demonstrate that all rate control requirements of the NPDES Construction Stormwater Permit (Permit No. MNR100001) and the watershed(s) having jurisdiction over the site(s) are met. Storm water best management practices to meet this requirement shall be designed and constructed in accordance with the most current version of the City Engineering Design Standards. The City Engineer retains the authority to require the above conditions to apply to the rate of storm water runoff discharging at any point leaving the site.~~

- ~~1. The rate of storm water runoff discharging from a proposed site shall not be greater than the rate of storm water runoff discharging prior to the proposed site alteration for the 2 , 10 , and 100-year storm events. Storm water best management practices to meet this requirement shall be designed and constructed in accordance with the most current version of the City Engineering Design Standards. The City Engineer retains the authority to require the above conditions to apply to the rate of storm water runoff discharging at any point leaving the site.~~
- ~~2. The analyses for the rate of storm water runoff shall be calculated using the Soil Conservation Service Type II time distribution for the 2 , 10, and 100-year 24-hour storm events. The rate of storm water runoff prior to the proposed development shall be calculated at the pre-settlement condition as defined in the *State of Minnesota Stormwater Manual* for a “meadow” condition based on the applicable hydrologic soil group(s) for the development (see Table 1).~~

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(b) ~~Volume Water Quality Control Requirements.~~ The stormwater management plan shall demonstrate that all water quality control requirements of the NPDES Construction Stormwater Permit (Permit No. MNR100001) and the watershed(s) having jurisdiction over the site(s) are met. Storm water best management practices to meet this requirement shall be designed and constructed in accordance with the most current version of the City Engineering Design Standards. The City Engineer retains the authority to require the above conditions to apply to the rate of storm water runoff discharging at any point leaving the site.

~~(e)~~

- ~~1. The volume of storm water runoff discharging from a proposed site shall not be greater than the volume of storm water runoff discharging prior to the proposed site alteration for the 2-, 10-, and 100-year storm events. Storm water best management practices to meet this requirement shall be designed and constructed in accordance with the most current version of the City Engineering Design Standards. The City Engineer retains the authority to require the above conditions to apply to the volume of storm water runoff discharging at any point leaving the site.~~
- ~~2. The analyses for the volume of storm water runoff shall be calculated using the Soil Conservation Service Type II time distribution for the 2-, 10-, and 100-year 24-hour storm events. The volume of storm water runoff prior to the proposed development shall be calculated at the pre-settlement condition as defined in the *State of Minnesota Stormwater Manual* for a “meadow” condition based on the applicable hydrologic soil group(s) for the development (see Table 1).~~

~~(d) Table 1. Curve Number for Pre-Settlement Condition~~

<del>Hydrologic Soil Group</del>	<del>Runoff Curve Number</del>
<del>A</del>	<del>30</del>
<del>B</del>	<del>58</del>
<del>C</del>	<del>71</del>
<del>D</del>	<del>78</del>

~~(e) (3) Drainage-Related Easements.~~ Drainage easements must be acquired on behalf of the city and legally recorded at the county for all permanent storm water facilities to allow for proper access and maintenance activities. At a minimum, drainage easements shall meet the following criteria.

1. Easements are required for all ponding areas to the basin's 100-year storm high water level elevation.
2. Easements are required for all outlet swales and ditches, and for overland overflow routes located downstream of basins located on site.
3. Easements are required for all storm sewer pipes, throughout its entire length. For storm sewer pipes installed less than 10 feet in depth within private property, the easement shall be a minimum of 20 feet wide. For storm sewer pipes installed greater than 10 feet in depth within private property, the

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easement shall be a minimum of 30 feet wide, or as determined by the city engineer.

4. Easements are required for maintenance vehicle access to all storm water facilities where not directly available on a public road.
5. 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.

(B) *Erosion and Sediment Control Plan.*

- (1) All erosion and sediment control plans shall meet or exceed the most stringent of the performance and design standards of this subchapter and shall be consistent with National Pollution Discharge Elimination Permit (NPDES) requirements, the City Engineering Design Standards, and the filing or approval requirements of relevant watershed districts (Brown's Creek, South Washington, and/or Valley Branch), Washington County, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, and other regulatory agencies.

(2) *Erosion and Sediment Control Criteria.*

(a) Erosion and sediment control plans will be assessed in the following ways:

1. Pollution prevention by minimizing disturbance of natural soil cover and vegetation, and minimizing, in area and duration, exposed soil and unstable soil conditions;
2. Using sediment barriers to protect soil stockpiles, receiving water bodies, wetlands, storm sewer inlets, and adjacent properties from sediment deposition;
3. Minimize off-site sediment transport on trucks and equipment;
4. Minimize work in and adjacent to water bodies and wetlands;
5. Maintain stable slopes;
6. Avoid steep slopes and the need for high cuts and fills;
7. Minimize disturbance to the surrounding soils, root systems and trunks of trees adjacent to site activity that are intended to be left standing;
8. Minimize the compaction of site soils;
9. Using and maintaining temporary and permanent soil stabilization;
10. Controlling site waste through the use of a designated concrete washout area; and
11. Managing site waste of all unused building materials by properly disposed of wastes offsite and not allowing site wastes to be carried by runoff into a receiving channel or storm sewer system.

(b) All sites must be maintained to prevent unreasonable erosion and sedimentation.

(c) Erosion control measures must be in place before any land disturbance activity begins, and measures must remain in place and functional until the site is



permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken.

- (d) Streets shall be cleaned and swept within 24 hours whenever tracking of sediment occurs and before sites are left idle for weekends and holidays.
- (e) All temporary erosion and sediment control measures, such as silt fence and inlet protection devices, shall be removed within 30 days after permanent stabilization is attained. All storm sewer systems and drainage ways must be flushed and cleaned of sediment accumulation and all accumulated sediments must be removed and properly disposed.

#### **150.278 STORM WATER FACILITY MAINTENANCE.**

*(A) Maintenance of publically owned facilities.*

- (1) The city shall perform maintenance of publicly owned storm water facilities within the city as provided for in the local surface water management plan and the City Storm Water Pollution Prevention Plan.
- (2) A final inspection shall be required before the city accepts ownership of the stormwater facilities. Before work under the plan is deemed complete, the applicant must submit as-built record drawings and a maintenance plan demonstrating at the time of final stabilization that the storm water facilities conform to design specifications.

*(B) Maintenance of privately owned facilities.* A maintenance agreement in a form acceptable to the city must be executed and recorded with the county for all permanent storm water facilities to be located on private property. The agreement shall provide a maintenance plan defining the party responsible to conduct maintenance, the type of maintenance and the maintenance intervals.

#### **150.279 MONITORING AND INSPECTIONS.**

*(A) Monitoring and inspection requirements for site construction.* The applicant is responsible for inspections and record keeping in accordance with the approved plan requirements and NPDES permit requirements. The applicant must maintain a copy of the approved storm water management and erosion and sediment control plans at the site at all times including all daily records required by the plan(s). The applicant must monitor site conditions and make any and all necessary repairs and corrections to the erosion control measures to maintain site compliance. The applicant has a duty to report to the city any illegal offsite discharges. Failure to make a report within 24 hours of the discovery of the offsite discharge shall constitute a violation of this subchapter.

*(B) City Inspections.*

- (1) The city shall conduct inspections on a regular basis to ensure that both storm water and erosion and sediment control measures are properly installed and maintained prior to construction, during construction, and at the completion of the project. The city shall not

be responsible for the direct or indirect consequences to the applicant or to third-parties for non-compliant conditions undetected by inspection.

(2) Right of entry. The issuance of an approved plan under this subchapter constitutes a right of entry for the city or its contractor to enter upon the construction site for the purpose of obtaining information, examination of records, conducting investigations, inspections or surveys, including the right to bring such equipment to perform such surveys and investigations. The City Inspector may copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of this site, and may inspect the storm water pollution control and erosion control measures including any sampling and monitoring pertaining to the compliance requirements for the site.

(3) Construction shall not occur on the site at any time when the city has identified conditions of non-compliance or a stop work order has been issued.

(4) Construction activities undertaken by an applicant prior to resolution of all discrepancies specified by the city shall constitute a violation of this subchapter.

(5) Whenever there is insufficient evidence of compliance with any of the provisions of this subchapter or evidence that any material or construction does not conform to the requirements of the approved plans, the city may require tests as proof of compliance to be made at no expense to the city. Test methods shall be as specified by recognized test standards, or in the absence thereof, by the city.

**150.280 ENFORCEMENT.**

(A) *Enforcement.* The city shall be responsible for enforcing this subchapter.

(B) *Penalties.* Any person, firm or corporation failing to comply with or violating any of the provisions of this subchapter, shall be deemed guilty of a misdemeanor, and each day during which any violation of any of the provisions of this subchapter is committed, continued or permitted, shall constitute a separate offense. All land use and building permits shall be suspended until the applicant has corrected any and all violations.

(C) *Enforcement by Stop Work Order.*

(1) Whenever a city inspector finds any violation of this subchapter, the inspector will fill out an inspection form noting the observed violations and a stop work order will be issued.

(2) The stop work order shall be in writing and shall be given to the applicant or the applicant's agent.

(3) Upon issuance of the stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order.

(4) The applicant must immediately begin corrective actions to remedy the violations. Once the violations have been corrected the applicant must contact the city to schedule a re-inspection.

(5) The applicant may commence further activity at the site after a re-inspection is provided by the city and the city determines that the site is in compliance, and all fees associated with the violation are paid in full.

(6) If the applicant fails to correct the violations in a timely manner, the City may correct the cited violations and draw down the escrow to cover the costs.

*(D) Enforcement Actions to Ensure Compliance.*

(1) The city can take the additional following actions in the event of a failure by applicant to meet the terms of this subchapter.

- (a) Withhold inspections or issuance of certificates or approvals.
- (b) Revoke any permit issued by the city to the applicant.
- (c) Conduct remedial or corrective action on the development site or adjacent site affected by the failure.
- (d) Recover from applicant all costs associated with correcting the failure or remediating damage from the failure, by drawing down any escrow funds. If the costs exceed the escrow funds the city may invoice the applicant with payment due immediately. All payments by applicant must be made prior to resuming work on the site.
- (e) Bring other actions against the applicant to recover costs of remediation or meeting the terms of this subchapter.

**150.281 FINANCIAL SECURITIES.**

(A) *Financial securities.* The applicant shall provide security for the performance of the work in the amount established in the city's fee schedule, and in a form acceptable to the City.

(B) *Action against the financial security.* The city may access the financial security to conduct work necessary to correct any violations in a timely manner and in accordance with the provisions of this subchapter. The city shall use the security to finance remedial work undertaken by the city, or a private contractor under contract to the City including a fee to the city for processing equal to 10% of the any contractor(s) invoice for materials and services, to reimburse the City for all costs incurred in the process of remedial work including, but not limited to, staff time, engineering fees and attorney's fees.

(C) *Maintenance of financial security.* If at any time the financial security is drawn upon, the applicant will be required to submit additional security to restore the security to the full amount as originally established. Restoring the full security is a requirement prior to resuming work on the site.

**150.282 STORM WATER UTILITY.**

Please refer to Chapter 53 in the City Code.

**150.283 LAWN FERTILIZER REGULATIONS.**

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.

**150.284 OTHER CONTROLS.**

- (A) In the event of any conflict between the provisions of this subchapter and the provisions of any other city ordinance adopted by the city council, the more restrictive standard prevails.
- (B) The city retains the right to impose supplemental or additional conditions or requirements to prevent erosion or undesired runoff.