THE CITY OF CENTERVILLE
ANOKA COUNTY, MINNESOTA

ORDINANCE NO. 125
SECOND SERIES

AN ORDINANCE TO REVISE CHAPTER 157 STORMWATER MANAGEMENT

The City Council of the City of Centerville hereby ordains:

Section 1. **That Chapter 157 shall be amended, as follows:**

CHAPTER 157: STORMWATER MANAGEMENT

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Post-Construction Stormwater Management

157.15 Stormwater Management Plan
157.16 Design Standards
157.17 Drainage
157.18 Calculations
157.19 Volume Control and Pollutant Management
157.20 Impaired Waters and Total Maximum Daily Loads
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157.24 through 157.31 reserved for future use
157.32 Alterations to and Use of Public and Private Stormwater Ponds
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157.35 Rain Gardens in Road Right of Way
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157.99 Penalty

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§ 157.17 MINIMUM CONSTRUCTION SITE BEST MANAGEMENT PRACTICES.

The City hereby adopts and incorporates by reference the erosion, sediment, and waste control standards established by the Minnesota Pollution Control Agency's NPDES/SDS Construction Stormwater General Permit

MNR100001 (CSW Permit) as now constituted and from time to time amended.

Post-Construction Stormwater Management

157.20 Stormwater Management Plan

(A) General Criteria. A stormwater management plan shall be required of all new development, redevelopment and land disturbance projects greater than one (1) acre in parcel size or part of a greater plan of development. This plan shall be designed to reduce and/or minimize the impervious area of the site, control the peak flow rate, and minimize the volume of stormwater runoff from the same as required in the LSWMP and this Code. Plans must be submitted to the City for review and approval prior to the start of construction. Each project will construct, implement and maintain all best management practices (BMP) that are deemed necessary to achieve the goals of this Chapter, including post-construction stormwater management BMPs. Prior to the start of construction, all projects shall be in possession of any and all permits required for the project including, but not limited to:

1. Rice Creek Watershed District,
2. City of Centerville,
3. U.S. Army Corps of Engineers,
4. National Pollutant Discharge Elimination System (NPDES), and
5. Wetland restoration or mitigation plan approval.

Projects smaller than one (1) acre in size are encouraged to implement BMPs that will promote infiltration and contribute to improved water quality. The City reserves the right to require erosion prevention measures to land-disturbing activities of less than one acre, when in the judgment of the City's Public Works Director, the land disturbing activities are likely to result in discharge of sediment or other pollution into the City's stormwater system, or into Waters of the State.

157.21 Design Standards.

Minimal Impact Design Standards (MIDS) shall be followed to achieve the best stormwater management. The BMPs used should seek to mimic the natural hydrology, utilize pervious areas for stormwater treatment and infiltrate stormwater runoff from driveways, sidewalks, rooftops, parking lots, and landscaped areas to the maximum extent practical to provide treatment for both water quality and quantity. The Minnesota Stormwater Manual (MN Pollution Control Agency), the Minnesota Urban Small Sites BMP Manual (Metropolitan Council), Local Road Research Board BMP Maintenance Guide, and Protecting Water Quality in Urban Areas (MPCA) are resources that provide guidance in achieving these goals.

(A) Implementation. Low Impact Development, Better Site Design, or Green Infrastructure design techniques are the preferred methods of achieving stormwater management. Mimicking the natural topography and land cover as they exist in the pre-developed condition to meet the standards and requirements of the City and other regulatory agencies shall be the first consideration.

(B) Recommended Practices. Practices and methods used to achieve the intent of the above paragraph shall include, but not be limited to, the following:

(1) rain gardens
(2) green roofs
(3) bio-retention practices
(4) pervious pavements or pavers

(5) plots of native vegetation and/or buffers in place of sod
(6) reforestation and revegetation
(7) trees and tree box filters
(8) reduction of impervious area
(9) rain water harvesting

(C) Other Practices. Other traditional stormwater BMPs may be approved on a site by site basis to achieve the goals of water quality and quantity, and rate control. These practices shall conform to the standards outlined in the resources referenced above.

(D) All stormwater runoff shall be pre-treated prior to discharge to any surface water.

(E) Maintenance Plan. A plan shall be established to maintain all temporary and permanent BMPs in a working and efficient condition. This may include removal of invasive species, sediment, debris, or any other foreign or obstructive object or condition that prevents the BMPs from performing as designed.

(F) Exemption. The mill and overlay or rehabilitation of a public roadway that does not create additional impervious surfaces; and sidewalk or trail projects are exempt from these stormwater requirements. These projects may be subject to other regulations.

157.22. Drainage.

Site alteration, grading, placement and installation of BMPs and other related activities shall be implemented in such a way that drainage from the site shall not exceed the pre-developed rates and will not adversely affect neighboring properties.

157.23 Calculations.

Hydrologic and hydraulic design calculations must be submitted for the pre-development and post-development conditions for the 2, 10, and 100 year events as well as the 10 day snow melt event. Such calculations shall include: (i) description of the design storm frequency, intensity and duration, (ii) time of concentration, (iii) Soil Curve Numbers or runoff coefficients, (iv) peak runoff rates and total runoff volumes for each watershed area, (v) infiltration rates, where applicable, (vi) culvert capacities, (vii) flow velocities, (viii) data on the increase in rate and volume of runoff for the design storms used, and (ix) documentation of sources for all computation methods and field test results.

157.24. Volume Control and Pollutant Management

For non-linear projects, water quality volume (calculated as an instantaneous volume) must be calculated as one (1) inch times the sum of the new and the fully reconstructed impervious surface.

For linear projects, water quality volume (calculated as an instantaneous volume) must be calculated as the larger of one (1) inch times the new impervious surface or one-half (0.5) inch times the sum of the new and the fully reconstructed impervious surface. Where the entire water quality volume cannot be treated within the existing right-of-way, a reasonable attempt to obtain additional right-of-way, easement, or other permission to treat the stormwater during the project planning process must be made. Volume reduction practices must be considered first. Volume reduction practices are not required if the practices cannot be provided cost effectively. If additional right-of-way, easements, or other permission cannot be obtained, the owner/operator of construction activity must maximize the treatment of the water quality volume prior to discharge from the City's MS4.

The requirements of this section may be altered and alternative treatment BMPs approved under the following limitations:

1) Infiltration techniques shall be prohibited when the infiltration structural BMP will receive discharges from or be constructed in areas:

a) Areas that that receive runoff from vehicle fueling and maintenance areas;

b) Areas where infiltrating stormwater may mobilize high levels of contaminants in soil or groundwater;

c) Areas where soil infiltration rates are field measured at more than 8.3 inches per hour unless the soils are amended to slow the infiltration rate below 8.3 inches per hour;

d) Areas 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;

e) Areas of predominately Hydrologic Soil Group type D soils (clay);

f) Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13, if the system will be located:

i. In an Emergency Response Area (ERA) within a DWSMA classified as having high or very high vulnerability as defined by the Minnesota Department of Health; or

ii. In an ERA within a DWSMA classified as moderate vulnerability unless a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater has been approved by the City's MS4; or

iii. Outside of an ERA within a DWSMA classified as having high or very high vulnerability unless a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater has been approved by the City's MS4.

g) Areas within 1,000 feet upgradient or 100 feet downgradient of active karst features; and

h) Areas that receive runoff from the following industrial facilities not authorized to infiltrate stormwater under the NPDES stormwater permit for industrial activities:

i. automobile salvage yards;

ii. scrap recycling and waste recycling facilities;

iii. hazardous waste treatment, storage, or disposal facilities;

iv. wood preserving facilities; or

v. air transportation facilities that conduct deicing activities.

B) If volume and pollutant management controls cannot be constructed on-site, off-site locations where the controls can be met must be identified. Guidance for best management practices and standards for these mitigation processes should follow the Minimal Impact Design Standards (MIDS) Design Sequence Flowchart for flexible treatment options contained in the MN Stormwater Manual.

1) For non-linear projects, where the water quality volume cannot cost effectively be treated on the site of the original construction activity, the remaining water quality volume must be addressed through off-site treatment and meet the following requirements (must be 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 DNR catchment area as the original construction activity.

(c) Locations in the next adjacent DNR catchment area up-stream.

(d) Locations anywhere within the City's jurisdiction.

2) Off-site treatment 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 owned or operated by the City cannot be used to meet this requirement.

3) Off-site treatment projects must be completed no later than 24 months after the start of the original construction activity.

4) The applicant may provide payment to the City in lieu of off-site treatment.

157.25. Impaired Waters and Total Maximum Daily Loads.
If a site drains to a surface water that has been listed as impaired pursuant to section 303(d) of the federal Clean Water Act more stringent water quality measures will be required. If a Total Maximum Daily Load (TMDL) has been written for the impaired water then all best management practices deemed necessary to comply with the requirements of the TMDL must be implemented.

157.26. Industrial Sites.
Certain industrial sites are required to prepare and implement a stormwater pollution prevention plan, and shall file a notice of intent (NOI) under the provisions of the National Pollutant Discharge Elimination System (NPDES) general permit. The stormwater pollution prevention plan requirement applies to both existing and new industrial sites.

157.27. Wetlands.
Runoff shall not be routed directly to wetlands without first passing through an appropriate settling or approved pre-treatment basin. Said basins must meet engineering standards for volume and flow directed to the basin.

(A) A protective buffer strip of natural vegetation at least 15 feet (25 feet is preferred) in width shall surround all wetlands.

(B) Wetlands must not be drained, filled, or altered, wholly or partially, unless in compliance with and permitted under the most current rules adopted by the Minnesota Board of Water and Soil Resources in the Wetland Conservation Act (WCA). Wetland replacement must be guided by the following principles in descending order:

(1) Avoidance
(2) Minimization
(3) Mitigation

(C) Permits to work in wetlands must be obtained from the local water management organizations, acting as local governmental units (LGU), with respective jurisdiction within the City to administer the WCA.

(D) Permanent boundary markers, in the form of signage approved by the City, should be installed prior to final approval of the required clearing and grading plan.

157.28. Maintenance of Stormwater BMP's.
The owner(s) must enter into a long-term maintenance agreement with the City that documents all

responsibilities for long-term operation and maintenance of stormwater treatment practices that are not owned or operated by the City. At a minimum, the long-term maintenance agreement must include provisions that:

(A) Allow the City to conduct inspections of structural stormwater BMPs not owned or operated by the City, perform necessary maintenance, and assess costs for those structural stormwater BMPs when the City determines the owner of that structural stormwater BMP has not ensured proper function;

(B) Are designed to preserve the City's right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by the City, when those responsibilities are legally transferred to another party; and

(C) Are designed to protect/preserve structural stormwater BMPs. If structural stormwater BMPs change, causing decreased effectiveness, new, repaired, or improved structural stormwater BMPs must be implemented to provide equivalent treatment to the original BMP.

157.29-157.31 Reserved

157.32. Alterations to and Use of Public and Private Stormwater Ponds.

(A) No alterations to shorelines or vegetation around stormwater ponds shall be allowed unless authorized by the City.

(B) Fountains or other circulating devices will not be allowed in stormwater ponds unless authorized by the City.

(C) Chemical treatment of stormwater ponds will not be allowed unless authorized by the City.

(D) Structures will not be allowed within the stormwater pond or protective buffer zone. These will include but not be limited to retaining walls, docks, piers, diving platforms, etc.

(E) Recreational activities, including but not limited to boating, swimming, fishing and skating are prohibited on stormwater ponds located on city owned property. These activities are discouraged on all other ponds.

(F) Dumping of yard waste materials in, on or around any stormwater pond is prohibited.

(G) Cattails growing in and around stormwater ponds may be cut with the permission and direction of the City.

157.33. Appropriations from stormwater ponds

Appropriation of water from stormwater ponds for the purpose of private irrigation may be allowed based upon criteria established by the City. City approval must be granted before use begins.

157.34 - Reserved

157.35 Rain Gardens in Road Right of Way

(A) Rain gardens proposed for construction in the right of way must have plans approved by the City Public Works Department. These plans will include illustration of area draining to the rain garden; design details to prove proper sizing/capacity to handle the area of drainage; illustrate property boundaries, location of street features, driveway, house and other structures in relation to the rain garden; and include proof of infiltration potential and ability to drawdown within a 48 hour period.

(B) Rain gardens capturing street runoff would require a curb cut to direct flow into the rain garden. Curb cuts for rain gardens approved in the right of way will be constructed and paid for by the City. All other

construction and maintenance associated with the rain garden is the sole responsibility of the homeowner except where constructed as a required BMP for a street reconstruction, in which case the construction costs may be paid for by the City.

(C) City staff or designee has right of entry to all rain gardens in the right of way to ensure proper function of the feature.

(D) Rain gardens in the right of way will be mapped as part of the City stormwater management system. These features will be counted toward meeting compliance of the City's MS4 permit with the State of Minnesota or other regulatory requirements imposed on the City through state, federal or other government agencies.

(E) The City shall have no liability for a privately constructed rain garden or its associated features.

157.36-157.98 Reserved

Section 2. **Effective Date**. This ordinance takes effect upon its adoption and publication.

ADOPTED by unanimous vote of the City Council of the City of Centerville, Minnesota, this 28th day of September 2022.

[redacted]

D. Love, Mayor

ATTEST:

[redacted]

Teresa Bender, City Clerk

9/29/2022

Dated