7 Rule F: Steep Slopes Rule

7.1 Policy

It is the District's policy to

A. protect water quality down gradient of steep slopes from sediment, nutrients, bacteria, and other contaminant pollutant loadings;

B. maintain stability of steep slopes, shorelines, and other areas prone to erosion;

C. sustain and enhance the biological and ecological functions of noninvasive vegetation on steep slopes as outlined in the Lower Minnesota River Watershed District Vegetation Management Plan;

D. minimize impacts to and preserve the natural character and topography of steep slopes;

E. protect properties and waterbodies adjacent to steep slopes from erosion, sedimentation, flooding, and other damage; and

F. promote public safety by requiring certification from qualified individuals before land-disturbing activities and other changes to land on steep slopes.

7.2 Regulation

A Municipal or Individual Project Permit must be obtained for the following activities within the Steep Slopes Overlay District, as shown on the Lower Minnesota River Watershed District—Steep Slopes Overlay District Map (Figure 2):

A. Land-disturbing activities that involve the excavation of 50 cubic yards or more of earth or displacement or removal of 5,000 square feet or more of surface area or vegetation

B. Activities requiring municipal/LGU permits for grading, building, parking lot, and foundation construction that result in a net increase in impervious surface within or stormwater runoff to the Steep Slopes Overlay District, as illustrated on Figure 2

7.3 Exceptions

A steep slopes permit is not required for the following activities:

A. New impervious areas associated with driveway widenings that drain to the street where a municipal storm sewer system manages runoff water

B. Maintenance, repair, or in-kind replacement of existing structures, public roads, utilities, and drainage systems within the Steep Slopes Overlay District

C. Disturbances that are part of an approved local water plan to repair, grade, or reslope existing steep slopes that are eroding or unstable to establish stable slopes and vegetation

D. Native plantings that enhance natural vegetation of steep slopes

E. Selective removal of noxious, exotic, or invasive vegetation, using locally recognized methods to control and/or minimize their spread

F. Pruning of trees or vegetation that are dead or diseased or pose a public hazard and removal of vegetation in emergency situations from steep slopes

G. Maintenance of existing lawns, landscaping, and gardens

H. Agricultural and forestry activities

7.4 CRITERIA

All permitted projects under the Steep Slopes Rule must comply with the following regulations:

7.4.1 Land-Disturbing Activities

Land-disturbing activities as regulated in this section may occur within the Steep Slopes Overlay District provided that a qualified professional/professional engineer registered in the state of Minnesota certifies the area's suitability for the proposed activities, structures, or uses resulting from the proposed activities and that the following requirements are addressed:

A. Minimum erosion and sediment control BMPs include site stabilization and slope restoration measures to ensure the proposed activity will not result in:

   i. adverse impacts to adjacent and/or downstream properties or water bodies;

   ii. unstable slope conditions; and

   iii. degradation of water quality from erosion, sedimentation, flooding, and other damage.

B. Preservation of existing hydrology and drainage patterns.

C. Land-disturbing activities may not result in any new water discharge points on steep slopes or along the bluff.

7.4.2 Soil Saturation-Type Features

Stormwater ponds, swales, infiltration basins, or other soil saturation–type features shall not be constructed within a Steep Slopes Overlay District.

7.4.3 Maintenance and Easement

The permittee is responsible for developing and adhering to a maintenance plan for the permitted project, including the acquisition of all necessary easements.

A. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity so that they continue to function as designed.

B. A maintenance plan shall identify and protect the design, capacity, and functionality of on-site and off-site stormwater management facilities; specify the methods; and schedule responsible parties for maintenance for every stormwater management facility.

C. The maintenance agreement shall be recorded with the applicable county (Carver, Dakota, Hennepin, Scott, or Ramsey) as part of the LGU or other development approval process. The District may require that stormwater management structures and facilities be publicly dedicated or placed in a conservation easement, giving rights of enforcement to an LGU, the District, or other appropriate public authority.

D. A public entity assuming a maintenance obligation may submit a written executed agreement in lieu of the recorded maintenance agreement.

7.5 REQUIRED INFORMATION AND EXHIBITS

The following exhibits must accompany the permit application (one hardcopy set of plans [11 inches by 17 inches] and one set as electronic files in a format acceptable to the District):

7.5.1 Narrative

A cover letter and narrative that includes the following:

A. Total amount of disturbance proposed by project, both in terms of surface area (SF) and volume (CY)

B. An explanation of existing and proposed conditions

C. The name, address, and telephone number(s) of all property owners

D. The name, address, and telephone number(s) for all contractors undertaking land-disturbing activities as part of the proposed project

E. The signature of the property owner

F. A statement granting the District and its authorized representatives' access to the site for inspection purposes

G. Designation of an individual who will remain liable to the District for performance under this rule from the time the permitted activities commence until vegetative cover is established and the District has certified its satisfaction with erosion and sediment control requirements

7.5.2 Erosion and Sediment Control Plan

An erosion and sediment control plan including the following:

A. Topographic maps of existing and proposed conditions that clearly indicate all hydrologic features and areas where grading will expose soils to erosive conditions as well as the flow direction of all runoff (single-family home construction or reconstruction projects may comply with this provision by providing satellite imagery or an oblique map acceptable to the District)

B. Tabulation of the construction implementation schedule for all projects, except construction or reconstruction of a single-family home

C. Name, address, and phone number of the individual responsible for inspection and maintenance of all erosion and sediment control measures

D. Temporary erosion and sediment control measures that will remain in place until vegetation is established

E. All final erosion control measures and their locations

F. Staging areas, as applicable

G. Delineation of any floodplain and/or wetland area changes

H. Documentation of the project's NPDES Construction Stormwater Permit status, if applicable

7.5.3 Stormwater Modeling

Stormwater management system modeling in a form acceptable to the District and that uses the most recent applicable precipitation reference data (e.g., Atlas 14), for example, HydroCAD, SWMM, MIDS calculator, or P8 for all discharge locations and clearly demonstrates no changes to existing drainage patterns, rates, and volumes.

7.5.4 Site Plan

A site plan showing the following:

A. Property lines and delineation of lands under ownership of the applicant

B. Existing and proposed elevation contours

C. Identification of existing and proposed normal and ordinary 100-year and high water elevations on-site

7.5.5 Stormwater Management Plan

A stormwater management plan, including, at a minimum:

A. Proposed and existing stormwater facilities location, alignment, and elevation

B. Delineation of existing wetlands, marshes, shoreland, and/or floodplain areas on-site or to which any portion of the project parcel drains; except that where a project will not alter or change the hydrology of a wetland, the wetland need only be identified on the plan.

C. Geotechnical analysis, including soil borings, at all proposed stormwater management facility locations

D. If infiltration of runoff is proposed, data must be submitted showing the following:

   i. No evidence of groundwater or redoximorphic soil conditions within three (3) feet of the bottom of the facility, practice, or system

   ii. Soil conditions within five (5) feet of the bottom of any stormwater treatment facility, practice, or system

   iii. If requested by the engineer, site-specific infiltration capacity of soils at the bottom of the facility, practice, or system. In addition, the District engineer may require submission of a phase I environmental site assessment and/or other documentation to facilitate analysis by the District of the suitability of the site for infiltration.

E. Construction plans and specifications for all proposed stormwater management facilities, including design details for outlet control structures

F. Stormwater runoff volume and rate analyses for the 2-, 10-, and 100-year 24-hour critical events, existing and proposed conditions, using Atlas 14 nested distribution

G. All hydrologic, water quality, and hydraulic computations completed to design the proposed stormwater management facilities

H. Narrative addressing incorporation of retention BMPs

I. Platting or easement documents showing sufficient drainage and ponding/flowage easements over hydrologic features, such as floodplains, storm sewers, ponds, ditches, swales, wetlands, and waterways, if required by the municipality with jurisdiction

J. Documentation of the project's NPDES Construction Stormwater Permit status, if applicable

K. If a stormwater harvest and reuse practice is proposed to meet applicable requirements, submission of:

   i. An analysis using a stormwater reuse calculator or equivalent methodology approved by the District engineer;

   ii. Documentation of the adequacy of soils, storage capacity, and delivery systems;

   iii. Delineation of green space area to be irrigated, if applicable; and

   iv. A detailed irrigation or usage plan showing compliance with the District volume-retention requirements.

7.5.6 Off-Site Stormwater Facilities

If off-site stormwater or regional conveyance systems are proposed, the applicant must provide documentation that the applicant holds the legal rights necessary to discharge to any off-site stormwater facility/facilities used for compliance, that the proposed design is in compliance with the original off-site stormwater facility design assumptions and capacity constraints, and that the facility/facilities are subject to a maintenance document satisfying the requirements of this Rule

7.5.7 Maintenance

For any structural stormwater BMPs that may be constructed as part of the proposed activities, the applicant must provide a maintenance plan and applicable maintenance agreements (note that in many cases a municipal stormwater agreement may be acceptable in lieu of a separate agreement with the District).

7.5.8 Certification

Construction plans and specifications certifying construction on the steep slope by a registered professional engineer. The certification must indicate that the slope is suitable to withstand proposed construction.