

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday April 17, 2019

Agenda Item

Item 6. C. Watershed Management Plan

Prepared By

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Summary

On April 1, draft rules were provided to the Board. The Board is scheduled to have a workshop preceding the April meeting. The Board should direct staff to share the draft rules with stakeholders and hold a meeting of the Technical Advisory Committee and any city that requests a meeting.

A timeline that will be discussed with the Board at the workshop is attached as are the draft rules. A link to the Statement of Need and Reasonableness (SONAR) is included.

Attachments

Rules timeline Draft Rules SONAR for Plan Standards

Recommended Action

Provide direction to staff

Attached are the draft rules produced by Lower Minnesota River Watershed District (District) staff of consultants (Naiad Consulting, Rinke Noonan, and Young Environmental Consulting Group). These rules are supported by the statement of need and reasonableness analysis produced as part of the District's watershed management plan amendment process last year. The rules allow the District to take the following actions:

- issue general permits to municipalities so they can administer the erosion and sediment control, floodplain and drainage alteration, stormwater management, and steep slopes rules
- issue permits for Minnesota Department of Transportation projects as well as projects undertaken in unincorporated areas
- enter into a memorandum of understanding with the Minnesota Department of Natural Resources to assist with the administration of shoreline and streambanks stabilization, water crossing, and water appropriation permits

District staff request authorization to release the draft rules to the technical advisory committee (TAC) and stakeholders for consideration. Staff plan to host a TAC meeting in May 2019 and individual meetings with municipalities, if requested, in May and June 2019. Once District staff have addressed comments (if any) and have generated a final rules draft, they will present the final draft at the June board meeting for authorization of its submittal to the Minnesota Board of Water and Soil Resources (BWSR). Below is the tentative rules adoption schedule:

- May/June 2019: Present final draft rules to the managers and request draft rules release
- June 2019: Submit draft rules to BWSR, all public transportation authorities, TAC, and all statutorily required review entities for the 45-day review period
- September 2019: Address all comments received during the 45-day review period and revise the rules accordingly
- October 2019: Provide notice and hold a public hearing on the revised draft rules
- November 2019:
 - Provide written notice of adopted rules and a copy of the rules to public transportation authorities who have jurisdiction within the District and to the governing body of each municipality affected by the rules
 - File a copy of the adopted rules with the county recorder of each county affected by the District and with BWSR

Lower Minnesota River Watershed District

Draft Rules

April 2019

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Definitions

Regarding these Rules, unless the context otherwise requires, the following terms are defined below. References in these Rules to specific sections of the Minnesota Statutes or Minnesota Rules include amendments, revisions, or recodifications of such sections. The words "shall" and "must" indicate a mandatory rule, and the word "may" indicates a permissive rule. The following definitions and acronyms apply to the District rules and accompanying guidance materials.

Abstractions: Removal of stormwater from runoff by such methods as infiltration; evaporation; transpiration by vegetation; and capture and reuse, such as capturing runoff for use as irrigation water.

Agricultural Activity: The use of land for the growing and/or production of agronomic, horticultural, or silvicultural crops, including nursery stock, sod, fruits, vegetables, flowers, cover crops, grains, Christmas trees, and grazing.

Alteration or Alter: When used in connection with public waters or wetlands, is any activity that will change or diminish the supply, course, current, or cross section of public waters or wetlands.

Atlas 14: Precipitation frequency estimates released by the National Oceanic and Atmospheric Administration's National Weather Service Hydrometeorological Design Studies Center. The information supersedes precipitation frequency estimates in Technical Paper No. 40 (1961), National Weather Service HYDRO-35 (1977), and Technical Paper No. 49 (1964).

Base Flood Elevation: The computed elevation to which floodwater is anticipated to rise during the base flood. Base flood elevations are shown on flood insurance rate maps (FIRMs) and on the flood profiles.

Best Management Practices, or BMPs: Structural or nonstructural methods used to treat runoff, including such diverse measures as ponding, street sweeping, filtration through a rain garden, and infiltration to a gravel trench.

Bioengineering: Various shoreline and stream bank stabilization techniques using aquatic vegetation and native upland plants along with techniques such as willow wattling, brush layering, and willow posts.

Buffer Zone: An area consisting of perennial vegetation, excluding invasive plants and noxious weeds, adjacent to a waterbody that protects water resources from runoff pollution; stabilizes soils, shores, and banks; and protects or provides riparian corridors.

Compensatory Storage: Excavated volume of material below the floodplain elevation required to offset floodplain fill.

Construction Activity: Disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and nonvegetative), or existing soil topography that may result in accelerated stormwater runoff, leading to soil erosion and the movement of sediment into surface waters or drainage systems.

Development: The construction of any public or private improvement project, infrastructure, structure, street, or road or the subdivision of land.

Dewatering: The removal of water for construction activity.

Drain or Drainage: Any method for removing or diverting water from waterbodies, including excavation of an open ditch and installation of subsurface drainage tile, filling, diking, or pumping.

Easement: The right to use another owner's land for a specified use, which may be granted for the purpose of constructing and maintaining walkways, roadways, subsurface sewage treatment systems, utilities, drainage, driveways, and other uses.

Erosion: The wearing away of the ground surface as a result of wind, flowing water, ice movement, or land-disturbing activities.

Erosion and Sediment Control Plan: A plan of BMPs or equivalent measures designed to control runoff and erosion and to retain or control sediment on land during the period of land-disturbing activities in accordance with the applicable Rule.

Excavation: The intentional removal of soil or other earth material.

Existing Conditions: Site conditions at the time of application consideration by the LGU or District before any of the work has commenced, except that, when impervious surfaces have been fully or partially removed from a previously developed parcel but no intervening use has been legally or practically established, "existing conditions" denotes the parcel's previously established developed use and condition.

FEMA: Federal Emergency Management Agency.

Fens: Rare and distinctive wetlands characterized by a substrate of nonacidic peat and dependent on a constant supply of cold, oxygen-poor groundwater rich in calcium and magnesium bicarbonates.

Fill: Any rock, soil, gravel, sand, debris, plant cuttings, or other material placed onto land or into water.

Floodplain: The area adjacent to a waterbody that is inundated during a 100-year flood.

Floodway: The channel of the river or stream and the adjacent land that must remain free from obstruction so that the 100-year flood can be conveyed downstream.

Fully Reconstructed: The reconstruction of an existing impervious surface that involves site grading and subsurface excavation so that soil is exposed. Mill and overlay and other resurfacing activities are not considered fully reconstructed.

Groundwater Recharge: The replenishment of groundwater storage through infiltration of surface runoff into subsurface aquifers.

High Value Resources Area, or HVRA: Portion of land (or a watershed) that contributes runoff to a trout water and/or fen within the Lower Minnesota River Watershed District.

H:V: horizontal:vertical.

Impervious Surface: A constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than before development. Examples include rooftops, sidewalks, patios, driveways, parking lots, storage areas, concrete, asphalt, and gravel roads or other areas of compacted gravel.

Infiltration: A passage of water into the ground through the soils.

Infrastructure: The system of public works for a county, state, or municipality, including but not limited to structures, roads, bridges, culverts, and sidewalks; stormwater management facilities, conveyance systems, and pipes; pump stations, sanitary sewers, and interceptors; hydraulic structures, permanent erosion control, and stream bank protection measures; water lines, gas lines, electrical lines, and associated facilities; and phone lines and supporting facilities.

Land-Disturbing Activity: Any change of the land surface to include removing vegetative cover, excavating, fill, grading, stockpiling soil, and constructing any structure that may cause or contribute to eroding or moving sediment into water bodies. Land use for new and continuing agricultural activities shall not constitute a land-disturbing activity under these Rules.

Landlocked Basin: A localized depression that does not have a natural outlet at or below the 100-year flood elevation.

Linear Project: Construction or reconstruction of a public road, sidewalk, or trail or construction, repair, or reconstruction of a utility or utilities that is not a component of a larger contemporaneous development or redevelopment project.

Local Government Unit (LGU): Entity such as a city or county.

Local Water Plan (LWP): A plan adopted by each municipality pursuant to Minnesota Statutes 103B.235.

MNDOT: Minnesota Department of Transportation.

MPCA: Minnesota Pollution Control Agency.

MPCA General Construction Permit: General Permit Authorization to Discharge Storm Water Associated with Construction Activity under the National Pollutant Discharge Elimination System/State Disposal System Permit Program, Permit MN R100001 (NPDES General Construction Permit), issued by the Minnesota Pollution Control Agency, August 1, 2018, and as amended.

Municipality: Any city or township wholly or partly within the Lower Minnesota River Watershed District.

Natural Vegetation: Any combination of ground cover, understory, and tree canopy that, although human activity may have altered it, continues to stabilize soils, retain and filter runoff, provide habitat, and recharge groundwater.

NAVD: North American Vertical Datum.

Nested: A hypothetical precipitation distribution whereby the precipitation depths for various durations within a storm have the same exceedance probabilities. This distribution maximizes the rainfall intensities by incorporating selected short-duration intensities within those needed for longer durations at the same probability level. As a result, the various storm durations are "nested" within a single hypothetical distribution. Nested-storm distribution (or frequency-based hyetograph) development must be completed using the most recent applicable National Weather Service reference data (e.g., Atlas 14), in accordance with

- a. the alternating block methodology, as outlined in Chapter 4 of the *HEC-HMS (Hydrologic Engineering Center-Hydrologic Modeling System) Technical Reference Manual* (USACE, 2000);
- b. methods in HydroCAD;
- c. methods established by the Natural Resources Conservation Service; or
- d. otherwise as approved by the District.

Reference: US Army Corps of Engineers. 2000. *Hydrologic Modeling System: HEC-HMS Technical Reference Manual.*

Nondegradation: For purposes of these rules, nondegradation refers to the regulatory policy stated in Minnesota Administrative Rules 7050.0185, and as amended.

NOT: Notice of Termination.

NPDES: National Pollutant Discharge Elimination System.

Ordinary High Water Level (OHWL): Ordinary high water level, as defined by the Minnesota Department of Natural Resources, means the boundary of water basins, watercourses, public waters, and public waters wetlands, and

- a. the OHWL is an elevation delineating the highest water level maintained for a sufficient period of time to leave evidence upon the landscape, commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial;
- b. for watercourses, the OHWL is the elevation of the top of the channel bank; and
- c. for reservoirs and flowages, the OHWL is the operating elevation of the normal summer pool.

Overlay District: A district established by Lower Minnesota River Watershed District rules/regulations that may be more or less restrictive than the primary District's rules/regulations. Where a property is located within an overlay district, it is subject to the provisions of both the primary rules/regulations and those of the overlay district.

Owner: Any individual, firm, association, partnership, corporation, trust, or other legal entity having proprietary interest in the land.

Person: Any individual, trustee, partnership, unincorporated association, limited liability company, or corporation.

Practical Difficulties: As defined in Minnesota Statutes section 462.357, subdivision 6.

Public Drainage System: Any drainage system as defined in Minnesota Statutes 103E.005, subdivision 12.

Public Project: Land development or redevelopment or other land-disturbing activity for which a District permit is required that is conducted or sponsored by a federal, state, or local governmental entity.

Public Waters: Waters as defined in Minnesota Statutes 103G.005, subdivision 15, and included in the public waters inventory.

Qualified Professional: A person, compensated for her/his service, possessing the education, training, experience, or credential to competently perform or deliver the service provided.

Redevelopment: Any construction or improvement performed on sites where the existing land use is commercial, industrial, institutional, or residential.

Runoff: Rainfall, snowmelt, or irrigation water flowing over the ground surface.

Sediment: The solid mineral or organic material that is in suspension, is being transported, or has been moved from its original location by erosion and deposited at another location.

Sedimentation: The process or action of depositing sediment.

Shoreland District: Shoreland areas regulated by a local municipal or county shoreland ordinance or by Minnesota Statutes 103F. Generally, a shoreland district consists of land located within a floodplain, within 1,000 feet of the ordinary high-water level of a public water or public waters wetland, or within 300 feet of a stream or river.

Shoreline: The lateral measurement along the contour of the ordinary high water level of waterbodies other than watercourses, the top of the bank of the channel of watercourses, and the area waterward thereof.

Site: A contiguous area of land under common ownership, designated and described in official public records and separated from other lands.

Standard: A preferred or desired level of quantity, quality, or value.

Steep Slope: A natural topographic feature having average slopes of 18 percent or greater measured over a horizontal distance of 25 feet or more.

Steep Slopes Overlay District: A district containing steep slope areas established by Lower Minnesota River Watershed District rules/regulations that is subject to the provisions of both the primary rules/regulations and those of the overlay district.

Stormwater: Water discharged to natural and artificial conveyance or holding systems resulting from precipitation, including rainfall and snowmelt.

Structure: Anything manufactured, constructed, or erected that is normally attached to or positioned on land, including portable structures, earthen structures, water and storage systems, drainage facilities, and parking lots.

Subsurface Sewage Treatment System, or SSTS: A sewage treatment system or part thereof serving a dwelling, other establishment, or group thereof and using sewage tanks followed by soil treatment and disposal or using advanced treatment devices that discharge below final grade. A subsurface sewage treatment system includes holding tanks and privies.

Subwatershed: A portion of land (or a watershed) contributing runoff to a particular point of discharge.

Surface Water: All streams, lakes, ponds, marshes, wetlands, reservoirs, springs, rivers, drainage systems, waterways, watercourses, and irrigation systems regardless of whether natural or artificial, public or private.

Thalweg: A line following the lowest points of a valley, river, stream, or creek bed.

TP: Total phosphorus.

Trout Waters: Lakes or streams that support a population of stocked or naturally produced trout.

TSS: Total suspended solids.

Waterbody: All surface waters, watercourses, and wetlands as defined in these Policies.

Watershed: A region draining to a specific watercourse or water basin.

Wellhead Protection Plan: A document that provides for the protection of a public water supply, submitted to the Minnesota Department of Health, that is implemented by the public water supplier and complies with (a) the wellhead protection elements specified in the 1986 amendments to the Federal Safe Drinking Water Act, United States Code, title 42, chapter 6A, subchapter XII, part C, section 300h-7 (1986 and as subsequently amended) and (b) Minnesota Rules parts 4720.5200 to 4720.5290.

Wetland: Any land as defined in Minnesota Statutes 103G.005, subdivision 19.



1 Rule A: Administrative and Procedural Requirements

Pursuant to Minnesota Statutes chapter 103D, on October 24, 2018, the Lower Minnesota River Watershed District (District) adopted its Board of Water and Soil Resources—approved watershed management plan (Plan). The Plan incorporates management standards that form the foundation of these rules. Implementation of these rules is required by municipalities or local government units (LGUs) on all other projects within their jurisdiction and by the District on projects within unincorporated areas and on Minnesota Department of Transportation (MnDOT) right-of-way, with the exception of the Shoreline and Streambank Alteration, Water Appropriations and Water Crossing rules, which the Minnesota Department of Natural Resources (DNR) will administer with input from the District.

1.1 Municipal (LGU) General Permit

1.1.1 Policy

It is the policy of the District to

- a. recognize that control and determination of appropriate land use is the responsibility of LGUs;
- b. hold LGUs to the requirement of Minnesota Statutes section 103G.235, subdivision 1, that each adopt the official controls necessary to bring local water management into conformance with the Plan;
- c. present minimum threshold requirements and allow LGUs to adopt more restrictive requirements;
- d. recognize that the authorities and procedures that LGUs use in implementing these rules will not be identical and that, therefore, some LGUs may occasionally need language and procedures that vary from the language and procedures outlined herein; and
- e. coordinate with and cover all LGUs with compliant local controls under a general District permit.

1.1.2 Regulation

All LGUs must obtain a general District permit highlighting how they intend to implement and enforce these rules through official controls, in accordance with Minnesota Statutes 103B.235, on or before May 1, 2020.

1.1.3 Application

An LGU must submit an application packet to the District to obtain a general District permit under these rules on or before February 7, 2020. The submitted permit application must address how the LGU's official controls adhere to these rules. LGUs are encouraged to contact the District on or before January 1, 2020, to begin this process; this allows for nonbinding, informal review to conformity with the District's rules before the May 1, 2020, implementation deadline.

- a. Permit application packets are due on or before February 7, 2020. The District has up to 60 business days to take action on a submitted permit application that is considered complete.
- b. Application forms can be obtained from the District office or downloaded on the District website at www.lowermnriverwd.org/.

- c. Permit applications must be signed by the City Administrator, Water Resources Engineer, or designated City staff upon authorizing action of the LGU's governing board or council.
- d. All permit application packets must include a completed application form and all required exhibits. These documents must be electronically submitted to the District in .pdf format. Compliance with these specifications will be used to determine whether an application is complete. The District will not act on an incomplete permit application and will notify LGUs within 15 business days of receiving the application if it is not complete.

1.1.4 Permit Renewal

Permit approval is valid for five calendar years from the permit approval date, with or without conditions, unless otherwise specified. This does not include suspended or revoked permits. Substantive changes, such as updates to official controls that affect the specific standards identified in the Plan, require a new permit application. To renew or assign a permit, the original permittee must notify and provide an explanation to the District, in writing, before the permit expiration date.

When approved by the District, the permittee may assign a permit to another LGU. Approval may be granted if

- a. the proposed assignee agrees in writing to assume responsibility for compliance of all terms and conditions of the permit as issued; and
- b. at the time of the request, there are no pending violations of the permit or conditions of approval.

If the District finds that the proposed assignee has not demonstrated the ability to fulfill the permit terms, it may impose new or additional conditions or deny the permit renewal or assignment. The assignment of a permit does not extend the permit term.

1.1.5 Audit Process

The District reserves the right to conduct periodic audits and/or inspections of LGU programs, project approvals, permits, and other processes to assess conformance with the general permit, the standards identified in the Plan, and these Rules.

1.1.6 Suspension or Revocation

The District may revoke or suspend an issued permit if the permit was issued based upon inaccurate information provided by the permittee, the permittee has not demonstrated the ability to fulfill the permit terms, or the permittee fails an audit.

1.1.7 Enforcement

LGUs are responsible for implementing and enforcing local water plans (LWPs) covering their jurisdictions. To avoid unnecessary duplication of permitted programs, the District anticipates providing oversight to confirm that LWPs, including these Rules and local controls, are properly implemented and enforced. Oversight will include spot checks of municipal projects and program audits. If the LGU is found noncompliant, the District will work with the LGU to correct the issue. However, if problems persist, the District may revoke or suspend the general permit and require individual permits, issued by

the District, for all activities covered by these Rules. The District may also pursue remedies as provided by law to ensure compliance with these Rules.

The District will not be responsible for liabilities, costs, and damages caused by the LGU's lack of proper implementation.

1.1.8 Variance

It is the District's policy to allow LGUs to grant variances and issue conditional use permits according to processes for such actions contained in existing local controls, except for the professional certification requirement for steep slopes. The District shall be notified of requested variances and conditional use permits and be allowed to provide comment on the requested action. Variances that would circumvent the intent and purposes of these rules shall not be granted.

1.1.9 Permits Subject to Rule F: Steep Slope Rule

Upon showing, to the satisfaction of the District, that the LGU has enacted and is following official controls necessary to meet the intent of these rules, the District may issue an exception to the rule for projects with land-disturbing activities that require a municipal grading, building, parking lot, or foundation permit that impact less than 50 cubic yards or less than 5,000 square feet of surface area or vegetation. The exception, if issued, will be documented in a Memorandum of Agreement, wherein the LGU must agree (1) that it will enforce its official controls; (2) that the exception will terminate if the LGU amends its official controls such that they no longer meet the intent of these rules; and (3) that the LGU will provide notice to the District of all permits issued under the exception.

1.2 Individual Permit

1.2.1 Policy

An individual permit is required for projects proposed by the MNDOT and all projects occurring in unincorporated areas of the District (i.e., where there is no LGU exercising official controls).

Except where a municipal general permit has been issued and remains in effect (i.e., has not been revoked or suspended), a person undertaking an activity for which these rules require a permit must obtain the required permit from the District before commencing the regulated activity.

1.2.2 Application

An application must be submitted to the District to obtain a permit for all projects subject to these rules. Applicants are strongly advised to contact the District early in the project development process. This will allow for a nonbinding, informal review to assess conformity with District rules.

Permit applications are due 20 business days before the monthly board meeting to be considered at that board meeting. The District will act on permit applications in a manner consistent with Minnesota Statutes section 15.99.

- a. Application forms can be obtained from the District office or downloaded on the District website at www.lowermnriverwd.org/.
- b. The project/property owner must sign all permit applications.

- c. All permit application packets must include a completed application form, all required exhibits, and a check (if applicable). These documents can be electronically submitted to the District in .pdf format. Applicable fees should be mailed to the District office. See the District website for the most current fee schedule. Compliance with these specifications will be used to determine whether an application is complete. The District will not act on an incomplete permit application. If the application is not complete, the District will notify applicants within 15 business days of receiving it.
- d. A public entity undertaking emergency activity immediately necessary to protect life or prevent substantial physical harm to persons or property may submit an application within 30 days of commencing the work. The emergency activity must be brought into compliance with District rules in a timely manner.

1.2.3 Conditional Approval

The District may conditionally approve an application; however, it will not issue the permit until the applicant has met all approval conditions. The applicant must demonstrate clear intent to comply with these Rules and all conditional approval requirements that the District has outlined. All conditions must be met 12 months from the date conditional approval was granted. After this timeframe, the conditional approval will expire.

1.2.4 Reconsideration

An applicant aggrieved by the District's decision regarding a permit application may file a notice of reconsideration.

- a. A notice of reconsideration must be filed with the District within 10 business days of the board meeting at which the original decision was made. The notice must include a statement identifying the specific conditions and findings to be reconsidered.
- b. The District will schedule a reconsideration of the matter by the Board of Managers. The applicant will receive a notice of the reconsideration date at least 20 business days in advance.
- c. The applicant may supplement existing permit exhibits with additional documentation and submit all additional exhibits to the District no later than 10 business days before the date of the reconsideration.
- d. In accordance with Minnesota Statutes section 103D.345, subdivision 2, an applicant will assume the analytical costs incurred by the District while conducting a reconsideration. Costs will not be recovered when the applicant is a local, state, or federal governmental body.
- e. Once an applicant has filed a notice for reconsideration, the underlying permit decision will be suspended until the Board of Managers issues a final decision on the reconsideration.
- f. The District's decision on the reconsideration constitutes the final decision on the application.

1.2.5 Appeal

Pursuant to Minnesota Statutes section 103D.537, an applicant may appeal a permit decision or order made by the managers by a declaratory judgment action brought under Minnesota Statutes chapter 555.

An applicant must file an appeal of a permit decision or order within 30 days of the managers' decision. An applicant may request a meeting with the dispute resolution committee of the Board of Water and Soil Resources to informally resolve a dispute before initiating a declaratory judgment action.

1.2.6 Permit Assignment and Renewal

Permit approval is valid for one calendar year from the date the permit was approved, with or without conditions, unless otherwise specified. This does not include permits suspended or revoked. To renew or assign permit approval, the original permittee must notify and provide an explanation to the District in writing before the permit expiration date. The District may impose different or additional conditions on the permit renewal or deny the renewal if there is a significant change in the work proposed. The first renewal request will not be subject to new or additional requirements solely because of a change in the District's rules where substantial progress has been made toward the completion of the permitted project. Applicants wishing to continue projects for which permit approval has expired must reapply for a permit and pay associated fees. All District rules in effect at the time of the reapplication will apply.

When approved by the District, the permittee may assign a permit to another party. Approval may be granted if

- a. the proposed assignee agrees in writing to assume responsibility for compliance with all terms and conditions of the permit as issued;
- b. at the time of the request, there are no pending violations of the permit or conditions of approval;
- c. the proposed assignee has provided any required financial assurance necessary to complete the permitted project.

If the District finds that the proposed assignee has not demonstrated the ability to fulfill the permit terms, it may impose new or additional conditions or deny the permit assignment. The assignment of a permit does not extend the term of the permit.

1.2.7 Suspension or Revocation

The District may revoke or suspend an issued permit under these rules if the permit was issued on the basis of incorrect or erroneous information that the applicant supplied to the District, for failure to meet permit conditions or correct violations of permit conditions, or for failure to meet the requirements of a conditional approval.

1.2.8 Variance

The Board of Managers may consider a request for a variance from compliance with these rules. To grant a variance, the applicant must demonstrate the following:

a. Practical Difficulties

"Practical difficulties" is a legal standard set forth in law that regulatory authorities must apply when considering applications for variances. It is a three-factor test and applies to all requests for variances. To constitute practical difficulties, all three factors of the test must be satisfied.

- i. The applicant proposes to use the property in a reasonable manner. This factor means that the applicant would like to use the property in a particular reasonable way but cannot do so under the regulatory rule. It does not mean that the land cannot be put to any reasonable use whatsoever without the variance. Activities causing environmental degradation, creating increased risk of damage to property or public or private infrastructure, or unable to be certified as suitable for site conditions may not be considered reasonable.
- ii. The applicant's problem is caused by circumstances unique to the property and are not caused by the applicant. The uniqueness generally relates to the physical characteristics of the particular piece of property, that is, to the land and not to personal characteristics or preferences of the landowner.
- iii. The variance, if granted, will not alter the locality's essential character. Under this factor, consider whether the resulting structure or land modification will be out of scale, out of place, or otherwise inconsistent with the surrounding area.

b. Additional Considerations

- i. The activity for which the variance is sought will not adversely affect water resources, flood levels, or drainage in the District.
- ii. A better natural resource protection or enhancement can be achieved by the proposed project if a variance is approved.

c. Term and Revocation

A variance granted by the District remains valid as long as the activity for which the variance was granted remains consistent with the conditions of the underlying permit. A variance may be revoked if the activity for which the variance was granted is abandoned.

1.2.9 After-the-Fact Permits

Any work requiring a permit that is performed without a permit is subject to enforcement and restoration under Minnesota Statutes 103D. The District may grant an after-the-fact permit in certain situations. The work sought to be permitted by an after-the-fact permit must have been capable of receiving a permit before the work was performed or must be capable of correction to meet the intent or performance standards of these Rules. Because an after-the-fact permit will require increased investigation of the conditions of the unauthorized work, an increased inspection fee may be required before processing the after-the-fact permit. After-the-fact inspection fees are found District website at www.lowermnriverwd.org/.

If the work does not qualify for a permit, no after-the-fact permit shall be issued, and corrective actions may be sought pursuant to Minnesota Statutes 103D.545 and 103D.551. Before considering an after-the-fact permit application, the District may require that the property be returned to the condition that existed before the unpermitted work was performed.

a. Completed Work

If, after inspection, the unauthorized work is found to comply with these Rules or the performance standards herein, the after-the-fact permit shall be issued to the applicant without further cost. If, after inspection, the unauthorized work is found not to comply with these Rules or the performance standards herein, further inspection and permit processing may be required, including additional inspection fees. An after-the-fact permit may require correction work and be subject to additional conditions.

b. Incomplete Work

For work in progress, work must cease and the work site must be stabilized until a permit is issued. Standard administrative procedures shall apply to the application, except for increased inspection fees as described above. For any portion of work completed that does not meet performance standards herein, deficiencies must be corrected as a condition of permit issuance.

c. Emergency Work

An after-the-fact permit may be required after emergency work. If the work is deemed an emergency and otherwise performed in compliance with these Rules or the performance standards herein, the after-the-fact permit shall be issued to the applicant without cost. If the work is deemed an emergency but is not otherwise performed in compliance with these Rules or the performance standards herein, the after-the-fact permit shall be issued to the applicant without any increased cost, rather than that required for a before-the-fact permit. If the work is not deemed an emergency, the standard after-the-fact permit requirements will apply. In all cases, an after-the-fact permit may include conditions to correct any damage caused by the emergency work.

1.2.10 Enforcement

The District may pursue remedies as provided by law to ensure compliance with an issued permit, variance, or permit condition.

1.3 Permit and Inspection Fees

1.3.1 Policy

It is the determination of the Board of Managers that

- a. charging a minimal permit application fee will increase public awareness of and compliance with District permitting requirements and will reduce enforcement and inspection costs;
- b. the public interest will benefit from inspection by District staff of certain large-scale projects in locations presenting particular risk to water resources to provide the Board of Managers with sufficient information to evaluate compliance with District rules and applicable law; and
- c. from time to time, persons perform work requiring a permit from the District without a permit, and persons perform work in violation of an issued District permit. The Board of Managers determines that its costs of inspection and analysis in such cases will exceed costs incurred where an applicant has complied with District requirements.

1.3.2 Requirement

The District will charge applicants permit and inspection fees in accordance with a schedule that will be maintained and revised from time to time by resolution of the Board of Managers to ensure that permit fees cover the District's actual costs of administrating and enforcing permits and the actual costs related to field inspections of permitted projects, such as investigation of the area affected by the proposed activity, analysis of the proposed activity, services of a consultant, and any required subsequent monitoring of the proposed activity. Costs of monitoring an activity authorized by permit may be charged and collected as necessary after permit issuance. The fee schedule may be obtained from the District office or the District's website at http://lowermnriverwd.org/. A permit applicant must submit the required permit fee to the District at the time it submits the relevant permit application. The fee provided by this rule will not be charged to any agency of the United States or any governmental unit or political subdivision of the State of Minnesota.

1.4 Financial Assurances

1.4.1 Policy

It is the District's policy to protect and preserve the water resources within the District by requiring financial performance assurances with a permit application. Such assurances will ensure adequate adherence to District rules when performing authorized activities.

1.4.2 Requirement

The District may require a performance bond, letter of credit, or other financial assurance in a form approved by the District for an activity permitted under these rules. A financial assurance will not be required of any agency of the United States or any governmental unit of the State of Minnesota.

1.4.3 Criteria

Financial assurances required pursuant to this rule must be issued in compliance with the following District criteria:

- a. The financial assurance must be a performance bond, letter of credit, cash deposit, or other form acceptable to the District. Commercial financial assurances must be from an issuer licensed and doing business in the State of Minnesota.
- b. Any bond issued under this section shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, US Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- c. Financial assurances must be issued in favor of the District and are contingent upon the applicant's compliance with the issued permit and payment of District fees. The financial assurance must state that, in the event of financial assurance conditions not being met, the District may make a claim against it. If the District makes a claim against a financial assurance, the full amount of the financial assurance required must be restored within 20 business days.

- d. The financial assurance must be effective for a minimum of three years from the date it was issued. The District may require the financial assurance to remain in place until all project components are stabilized and verified to be functioning to permitted specifications. The financial assurance must contain a provision that it may not be released without the District's consent.
- e. The permit applicant must submit the financial assurance. The financial assurance principal may be the landowner or the individual or entity undertaking the proposed activity.
- f. Financial assurance will be released only under the terms of section 1.4.4.
- g. No interest will be paid on financial assurances held by the District.
- h. The District Board of Managers will set the amount of financial assurances by resolution. Financial assurance amounts are set to cover potential liabilities to the District, including but not limited to the following:
 - i. Field inspections and monitoring
 - ii. Maintaining and implementing erosion and sediment control and other protections as the permit requires
 - iii. Planting and establishing buffer area
 - iv. Remediation of damages resulting from noncompliance with the permit or for which the permittee is otherwise responsible

1.4.4 Financial Assurance Release

Once the District has received written notification of project completion, it will promptly inspect the project to determine whether the project was constructed in accordance with the issued permit and District rules. If the project is found in compliance, all practices and project components are stabilized, all practices and project components are verified to be functioning to permitted specifications, all required documentation has been submitted and approved by the District, and all permit fees have been paid, the District will release the financial assurance.

Further, upon written notice, a portion of the assurance may be released if the District finds that the entire amount is not needed to ensure compliance. After inspection, the District will determine what portion, if any, of the financial assurance can be released. If a portion of the financial assurance is not released, the District will notify the permittee of the outstanding compliance matters to address.

1.4.5 Financial Assurances by Rule

Financial assurance required for a particular permit will include a 10 percent contingency and a 30 percent administrative-costs amount in addition to the amounts calculated according to the schedule above. No financial assurance is required for a project undertaken by or for a resident owner on a single-family home site requiring only a permit under Erosion and Sediment Control, unless the Board of Managers determines that the project presents a significant risk of damage to water resources from erosion. See the fee schedule policy on the District's website for additional information.

1.5 Enforcement

1.5.1 Investigation of Noncompliance

District staff, agents, and contractors may enter and inspect a property within the watershed to determine if a violation of permit conditions or District rules has occurred.

1.5.2 Informal Resolution of Noncompliance

Before initiating formal proceedings (see below), the District and its staff shall attempt to informally resolve incidences of noncompliance (i.e., by voluntary corrective actions or after-the-fact permitting).

1.5.3 Board Hearing; Administrative Compliance Order

The District will provide the permittee or landowner with reasonable notice when a compliance hearing will take place. An opportunity to be heard by the Board of Managers will be allotted at the compliance hearing, during which the permittee or landowner can address the finding of probable violation. At the hearing's conclusion, the District may issue a compliance order.

1.5.4 District Court Enforcement

The District Board of Managers may seek judicial enforcement of an order and recovery of associated legal costs and fees, as provided by Minnesota Statutes chapter 103D.

1.5.5 Liability for Enforcement Costs

The permittee or owner of a property subject to the District's enforcement action will be liable for associated costs incurred by the District. Such costs include but are not limited to inspection and monitoring, engineering, technical analysis, and legal and administrative expenses.

1.6 Coordination Rules

Rules herein pertaining to water appropriations, shoreline and streambank alterations, and water crossings do not require District permits. Rather, these rules set conditions for the District's coordination with the DNR in its consideration of permits for such activities.

2 Rule B: Erosion and Sediment Control Rule

2.1 Policy

It is the District's policy to

- a. minimize erosion and sediment transport to lakes, streams, fens, and the Minnesota River;
- b. retain or control sediment on land and during land-disturbing activities;
- c. prevent resource degradation and loss or damage to property from erosion and sedimentation;
- d. protect receiving water bodies, wetlands, and storm sewer inlets; and
- e. require the preparation and implementation of erosion and sediment control plans to control runoff and erosion.

2.2 Regulation

An erosion and sediment control permit must be obtained for any land-disturbing work in overlay districts or other areas within the watershed as defined below:

- a. General: Land-disturbing activities of one (1) acre or more
- b. HVRA: Land-disturbing activities that involve the displacement or removal of 5,000 square feet or more of surface area or vegetation or the excavation of 50 cubic yards or more of earth within the HVRA Overlay District, as shown on the Lower Minnesota River Watershed District—High Value Resources Area Overlay District Map (Figure 1)

2.3 Exceptions

An erosion and sediment control permit is not required for the following land-disturbing activities:

- a. Minor land-disturbing activities, such as home gardens contained within a residential lot, landscape repairs, and maintenance work
- b. Installation of any fence, sign, telephone or electric poles, or other kinds of posts or poles
- c. Emergency activity necessary to protect life or prevent substantial harm to persons or property
- d. All maintenance, repair, resurfacing, and reconditioning activities of existing road, bridge, and highway systems that do not involve land-disturbing activities outside of the existing surfaced roadway
- e. Agricultural activity

2.4 Criteria

Permit approval for activities that meet all permitted activities must include the following:

- 2.4.1 Erosion and sediment control plan that provides the following:
 - a. Protection of natural topography and soil conditions
 - b. Temporary erosion and sediment control practices consistent with the Minnesota Pollution Control Agency's "Protecting Water Quality in Urban Areas," as amended or updated, and the "Minnesota Stormwater Manual," as amended or updated
 - c. Minimization of the disturbance's intensity and duration
 - d. Additional stabilization measures on slopes of 3:1 (H:V) or steeper
 - e. Protection of all stormwater conveyance systems during construction activities
 - f. Final site stabilization measures
- 2.4.2 All waste generated by project activities will be properly managed and disposed of to avoid adverse impacts on water quality.
- 2.4.3 Site Stabilization
 - a. Temporary erosion and sediment control BMPs must be in place before the start of construction activities.
 - b. All soil surfaces that are compacted during construction and remain impervious upon construction completion must be decompacted. Decompaction can be achieved through soil

- amendment and/or ripping to a depth of 18 inches. All decompaction measures should be completed before final stabilization.
- c. All temporary erosion and sediment control BMPs must be maintained until construction is completed and perennial vegetation is established to sufficiently stabilize the site as the District determines.
- d. When final stabilization is achieved, all temporary erosion and sediment control BMPs must be removed from the project site.
- e. All disturbed areas must be finally stabilized within 14 days of completing land-altering activities.

2.4.4 Inspection and Maintenance

The permit holder is responsible for inspecting and maintaining the project site until final stabilization is complete, including ensuring that all erosion and sediment control measures are effective.

a. Inspection

Routine inspections shall be conducted at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inch in 24 hours by the owner or the owner's representative. Following a rainfall inspection, the next inspection shall be conducted within seven (7) days. The inspection schedule will be modified for the following conditions:

- i. Where parts of the construction site have permanent cover, but work remains on other parts of the site, inspections shall be reduced to once per month.
- ii. Where construction sites have permanent cover on all exposed soil areas and no construction activity is occurring anywhere on the site, monthly inspections shall be performed for 12 months (except during frozen ground conditions). After the 12th month of permanent cover and no construction activity, inspections may cease until construction activity resumes or sooner if notified by the District or the LGU.
- iii. Where frozen ground conditions have resulted in suspension of work, the inspection and maintenance schedule shall resume within 24 hours after runoff occurs at the site or upon resuming construction, whichever comes first.
- iv. Routine inspections shall include the following:
 - 1. All areas disturbed by construction activity and areas used for storage of materials exposed to precipitation
 - 2. Discharge locations, inaccessible locations, and nearby downstream locations where inspections are practicable
 - 3. Locations where vehicles enter or exit the site for evidence of off-site sediment tracking
- v. Records for each inspection and maintenance activity shall be kept on file with the owner and shall contain the following information:

- 1. Date and time of inspection
- 2. Name, title, and qualifications of person(s) conducting inspection
- 3. Date, duration, and amount of all rainfall events that produce more than 0.5 inch of rain in a 24-hour period and whether any discharges occurred
- 4. Inspection findings, including corrective action recommendations and implementation dates
- 5. Locations of the following:
 - a. Sediment discharges or other pollutants from the site
 - b. BMPs that need to be maintained
 - c. BMPs that have failed to operate as designed or have proven inadequate for a particular location
 - d. Needed BMPs that did not exist at the time of inspection
- 6. Documented changes to the erosion and sediment control plan
- 7. Inspector's signature

The owner shall keep an inspection log with the erosion and sediment control plan for a period of three (3) years following the completion of the project and filing of the Notice of Termination (NOT).

b. Maintenance

All maintenance conducted during construction must be recorded in writing, and these records must be kept. All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery or as soon as field conditions allow access, unless another period is specified below. Maintenance will include the following:

- i. Excess sediment behind silt fences and biorolls shall be removed and properly disposed of when sediments reach one third the height of the structure. Such sedimentation shall be corrected by the next business day following discovery.
- ii. Construction site vehicle exit locations shall be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment will be removed from all paved surfaces within 24 hours of discovery or, if applicable, within a shorter time.
- iii. Surface waters, including drainage ditches and conveyance systems, shall be inspected for evidence of erosion and sediment deposition. Evidence of erosion and/or sediment deposition will be addressed within seven (7) calendar days.
- iv. Infiltration areas shall be maintained to ensure that no compaction or sedimentation occurs.
- v. Construction entrances shall be maintained daily.
- vi. Turf shall be maintained until final stabilization is established.

The maintenance of temporary erosion and sediment controls and implementation of additional controls shall be performed as soon as possible and before the next storm event, whenever practicable. All remaining temporary erosion and sediment controls and accumulated sediments from silt fences will be removed within 30 days of achieving final stabilization at the site.

2.5 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):

- 2.5.1 A narrative that includes the following:
 - a. The name, address, and telephone number(s) of all property owners
 - b. The name, address, and telephone number(s) for all contractors undertaking land-disturbing activities as part of the proposed project
 - c. The property owner's signature
 - d. A statement granting the District and its authorized representatives' access to the site for inspection purposes
 - e. 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 satisfaction with erosion and sediment control requirements
- 2.5.2 An erosion and sediment control plan that includes 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

3 Rule C: Floodplain and Drainage Alteration Rule

3.1 Policy

It is the District's policy to

- a. regulate alterations within the floodplain and drainageways within the watershed to provide flood protection to natural resources, permanent structures, and private lands, in accordance with Minnesota Statutes 103F;
- b. preserve existing water storage capacity below the 100-year high-water elevation of all public waters, wetlands subject to the Wetland Conservation Act, and public drainage systems subject to Minnesota's buffer law in the watershed to minimize the frequency and severity of high water; and
- c. minimize development below the FEMA base flood elevation that will unduly restrict flood flows or aggravate known high water problems.

3.2 Regulation

A permit from the District is required for any alteration to or filling of land below the 100-year flood elevation of any wetland, public water, or landlocked subwatershed (as identified by municipalities) shall be subject to the following regulations and shall be completed in accordance with a state-approved floodplain management and shoreland ordinance:

- a. No filling is allowed within the 100-year floodplain that causes a rise in the 100-year flood elevation without providing compensatory floodplain storage equal to or greater than the volume of fill. A no-rise certification by a professional engineer satisfies this requirement.
- b. No grading of filling is allowed within the 100-year floodplain that reduces the flood-carrying capacity of the watercourse.
- c. The lowest floor of the lowest enclosed area of proposed structures must be a minimum of two (2) feet above the 100-year high-water level of nearby surface waters or one (1) foot above the emergency overflow elevation, whichever is greater, unless they have protection through floodproofing or by another approved construction technique.
- d. No permanent structure, with the exception of drainage conveyance structures and monitoring equipment, may be constructed in the floodway as it is shown on FEMA flood maps.

3.3 Exceptions

No floodplain and drainage alternation permit from the District is required if all of the following conditions exist:

- a. The 100-year flood elevation of a waterbody is entirely within a municipality.
- b. The water basin is landlocked.
- c. The municipality has adopted a floodplain ordinance regulating floodplain encroachment.
- d. The proposed project is entirely within the water basin drainage area.

3.4 Criteria

All permitted projects under this rule shall be subject to the following regulations and shall be completed in accordance with a state-approved floodplain management and shoreland ordinance:

- a. Fill shall not cause a net decrease in storage capacity below the projected 100-year high water elevation nor an increase in the 100-year elevation of a waterbody.
- b. A professional engineer registered in the state of Minnesota shall calculate the allowable fill area. Creation of floodplain storage capacity to offset fill shall occur before any fill is placed in the floodplain, unless it has been demonstrated to the District and the municipality that doing so is impractical and that placement of fill and creation of storage capacity can be achieved concurrently. Any placement of fill before creation of floodplain storage capacity will be allowed only by a registered professional engineer to ensure that such work will not aggravate high water conditions.
- c. Fill or grading shall not cause a decrease in the conveyance capacity of a waterbody below the projected 100-year high water elevation.
- d. A professional engineer registered in the state of Minnesota shall calculate the conveyance capacity. The analysis must demonstrate no decrease in conveyance upstream and downstream of the proposed fill or grading.
- e. All new residential, commercial, industrial, and institutional structures shall be constructed such that the lowest floor of the lowest enclosed area (including basement or crawl space) is at a minimum of two (2) feet above the 100-year high water elevation.
- f. No person shall install or remove a culvert or other artificial means to remove or drain surface water, create artificial pond areas, or obstruct the natural flow of waters without demonstrating that the activity has no adverse impact on upstream or downstream landowners or water quality, habitat, or fisheries.
- g. Temporary placement of fill within the floodway for staging or processing of river dredge or fill material, including facilities for such activities, shall be allowed when it is conducted, in whole or part, pursuant to a cooperative or local sponsorship agreement with the United States under the Rivers and Harbors Act and it meets requirements of the LGU.

3.5 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):

- 3.5.1 A site plan showing the following:
 - a. Property lines
 - b. Delineation of the work area
 - c. Existing elevation contours of the work area
 - d. OHWL or normal water elevation and 100-year flood elevations (all elevations must be reduced to NAVD [1988 datum])
- 3.5.2 Grading plan showing proposed elevation changes
- 3.5.3 Preliminary plat of proposed land development

- 3.5.4 Determination by a licensed professional engineer or registered qualified hydrologist of the 100-year flood elevations for the parcel before and after the project
- 3.5.5 Computation by a professional engineer of cut, fill, and change in water storage capacity resulting from proposed grading
- 3.5.6 Erosion control plan
- 3.5.7 Soil boring information, if requested by the District engineer
- 3.5.8 Documentation that drainage and flowage easements over all land and facilities below the 100-year flood elevation, if required by the municipality with jurisdiction, have been conveyed and recorded. For public entities, this requirement may be satisfied by a written agreement executed with the District in lieu of a recorded document. The agreement must state that, if the land within the 100-year floodplain is conveyed, the public body will require the buyer to comply with this subsection.

4 Rule D: Stormwater Management Rule

4.1 Policy

It is the District's policy to

- a. manage new development, redevelopment, and drainage alternations by requiring each development or land-disturbing activity to manage its stormwater effectively, either on- or off-site:
- b. promote and encourage a reduction in runoff rates to encourage infiltration and to promote groundwater recharge;
- c. encourage infiltration and stormwater storage in the District's upland areas;
- d. maximize groundwater recharge as a means of maintaining drinking water supplies, preserving base flows in streams and water levels in fens, and limiting discharges of stormwater to downstream receiving waters;
- e. protect and maintain existing groundwater flow, promote groundwater recharge, and improve groundwater quality and aquifer protection;
- f. require that property owners control the rate and volume of stormwater runoff originating from their property so that surface water and groundwater quantity and quality is protected or improved, soil erosion is minimized, and flooding potential is reduced; and
- g. protect and improve natural resources within the watershed to prevent further degradation.

4.2 Regulation

A permit from the District that incorporates an approved stormwater management plan is required under this rule prior to the commencement of any activities to which this rule applies. The District may review a stormwater management plan at any point in the development of a regulated project and encourages project proposers to seek the District's early review of plans.

The requirements of this rule apply to any land-disturbing activity that will involve the following:

- a. General: Development, redevelopment, and drainage alterations (including roads) creating new impervious areas greater than one (1) acre
- b. HVRA: Development, redevelopment, and drainage alternations (including roads) creating new impervious areas greater than 10,000 square feet in an HVRA Overlay District, as shown on the Lower Minnesota River Watershed District—High Value Resources Area Overlay District Map (Figure 1)

4.2.1 Exceptions

The requirements of this rule do not apply to the following:

- a. Construction or remodeling on a single-family homesite consistent with a subdivision, development, or redevelopment plan implemented in accordance with a District permit issued after February 1, 2015, and an approved erosion control prevention and sediment control plan
- b. Rehabilitation of paved surfaces
- c. Trails, sidewalks, and retaining walls that do not exceed 10 feet in width and are bordered down gradient by a pervious area extending at least half the trail width
- d. Land-disturbing activities that do not involve creation of new impervious surface, reconstruction of existing impervious surface, or grading that materially alter stormwater flow at a site boundary

4.3 Criteria

Permit approval for activities that meet the general threshold must demonstrate that the implementation of their stormwater management plan will meet the following criteria:

4.3.1 Rate Control

Stormwater runoff rate from development, redevelopment, and drainage alterations shall not exceed the existing runoff rates for the 1 or 2-year, 10-year, and 100-year 24-hour events using Atlas 14 nested distribution.

4.3.2 Volume

- a. General: For projects that create one (1) acre or more of new impervious surface on sites without restrictions (such as factors that prevent attainment of the performance goal, like shallow depth to bedrock, presence of contaminated soils, and lack of access because utilities are present [Minnesota Stormwater Manual, 2019]), the post-construction stormwater runoff volume retained on-site shall be equivalent to one (1) inch of runoff from impervious surfaces or the MPCA's Construction General Permit abstraction requirements (as amended), whichever is greater.
- b. HVRA: Projects that create new impervious areas greater than 10,000 square feet in an HVRA Overlay District have the following volume requirements:
 - i. New development: For new, nonlinear developments that create 10,000 square feet or more of new impervious surface on sites without restrictions, the post-construction

- stormwater runoff volume retained on-site shall be equivalent to 1.0 inch of runoff from impervious surfaces.
- ii. Redevelopment: Nonlinear redevelopment projects on sites without restrictions that create 10,000 square feet or more of new and/or fully reconstructed impervious surfaces shall capture and retain on-site 1.1 inches of runoff from the new and/or fully reconstructed impervious surfaces.
- iii. Linear projects: Linear projects on sites without restrictions that create 10,000 square feet or greater of new and/or fully reconstructed impervious surfaces shall capture and retain the larger of the following:
 - 1. 0.55 inch of runoff from the new and fully reconstructed impervious surfaces
 - 2. 1.1 inches of runoff from the net increase in impervious area

To the maximum extent practicable, volume control shall be fully met on-site. Site conditions may make infiltration undesirable or impossible. The owner must make soil corrections and/or investigate other locations on the site for feasible infiltration locations. Infiltration of stormwater should avoid areas of contaminated soil.

- c. Infiltration practices are not allowed in the following areas:
 - i. Areas that receive discharges from vehicle fueling and maintenance facilities
 - ii. 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
- iii. Areas that receive discharges from industrial facilities that are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the MPCA
- iv. Areas where infiltrating stormwater will mobilize high levels of contaminants in soil or groundwater
- v. Areas of predominately Hydrologic Soil Group D (clay) soils, unless allowed by an LGU with a current NPDES/SDS Municipal Separate Storm Sewer Systems (MS4) permit
- vi. Areas within 1,000 feet up gradient or 100 feet down gradient of active karst features, unless allowed by an LGU with a current MS4 permit
- vii. Areas within a Drinking Water Supply Management Area (DWSMA), as defined in Minnesota Administrative Rules 4720.5100, subpart 13., unless allowed by an LGU with a current MS4 permit
- viii. Areas where soil infiltration rates are more than 8.3 inches per hour, unless soils are amended to slow the infiltration rate below 8.3 inches per hour or as allowed by an LGU with a current MS4 permit

If the permittee claims that infiltration is not feasible or allowed on-site, sufficient supporting documentation must be provided with the permit application. Filtration technologies may be an

acceptable alternative for types C and D soils and other sites where infiltration is infeasible given the criteria above.

4.3.3 Water Quality

- a. General: Projects that create one (1) acre or more of new impervious surface shall have no net increase from existing conditions in total phosphorus (TP) and total suspended solids (TSS) to receiving waterbodies.
- b. HVRA: Projects that create new impervious areas greater than 10,000 square feet in an HVRA Overlay District have the following water quality requirements:
 - i. Total phosphorus and total suspended solids: All projects shall have a net decrease TP and TSS to receiving waterbodies from existing conditions. For new development projects, the decrease in TP and TSS shall be 60 percent and 80 percent, respectively, from existing conditions.
 - ii. Buffer zone: An undisturbed buffer zone of 100 linear feet from trout waters shall be maintained at all times, both during construction and as a permanent feature after construction, except where a water crossing or other encroachment is necessary to complete the project.
 - 1. Exceptions: The replacement of existing impervious surfaces within the buffer zone is allowed provided that the use of additional or redundant BMPs minimizes all potential water quality, scenic, and other environmental impacts of the activity. Buffer encroachments (circumstance and reason) and minimization activities must be documented.
- iii. Temperature controls: Permanent stormwater management facilities shall be designed to minimize any increase in the temperature of trout waters receiving waters resulting from the 1 and 2-year 24-hour precipitation events. This includes all tributaries of designated trout streams within the Public Land Survey System (PLSS) section where a trout water is located. Projects that discharge to trout waters must minimize the impact using one or more of the following measures, in order of preference:
 - 1. Minimize new impervious surfaces
 - 2. Minimize the discharge from connected impervious surfaces by discharging to vegetated areas or grass swales and using other nonstructural controls
 - 3. Use infiltration or other volume reduction practices to reduce stormwater runoff in excess of pre-project conditions (up to the 2-year, 24-hour precipitation event)
 - 4. Design an appropriate combination of measures, such as shading, filtered bottom withdrawal, vegetated swale discharges, or constructed wetland treatment cells, that will limit temperature increases when incorporating ponding. Also, design the pond to be drawn down in 24 hours or less.
 - 5. Use other methods that will minimize any increase in trout water temperature

4.3.4 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.

4.3.5 Alternative Measures

At sites where infiltration is infeasible, an applicant must comply with the NPDES General Construction Permit, issued by the MPCA, August 1, 2018, as amended.

4.4 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):

- 4.4.1 A narrative explaining the existing and proposed conditions
- 4.4.2 Stormwater management system modeling in a form acceptable to the District that utilizes the most recent applicable precipitation reference data (e.g., Atlas 14), for example, HydroCAD, SWMM, MIDS calculator, or P8
- 4.4.3 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 high- and 100-year water elevations on-site.
- 4.4.4 A stormwater management plan that includes, at a minimum, the following:
 - a. Proposed and existing stormwater facility locations, 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 where a project will not alter or change the hydrology of a wetland, the plan need only identify the wetland.

- 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, the following materials must be submitted:
 - 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
 - iv. A detailed irrigation or usage plan showing compliance with the District's volumeretention requirements.
- 4.4.5 Documentation demonstrating that the applicant holds the legal rights necessary to discharge to any off-site stormwater facility/facilities used for compliance and that the facility/facilities are subject to a maintenance document satisfying the requirements of this rule
- 4.4.6 An erosion and sediment control plan complying with the District's Erosion and Sediment Control Rule
- 4.4.7 A maintenance plan and applicable maintenance agreements

5 Rule E: Shoreline and Streambank Alternation Rule

5.1 Policy

It is the District's policy to

- a. manage stable, intact, and vegetated shorelines and stream banks that provide valuable functions to the associated water resource, including erosion prevention, reinforcement of soils through root structure, trapping of nutrients and sediments, and provision of fish and wildlife habitat;
- b. promote the preservation and enhancement of the ecological integrity and natural appearance of shorelines and stream banks with the intent of preventing erosion;
- c. encourage practices such as bioengineering and preservation of natural vegetation when alterations are necessary; and
- d. preserve water quality and the ecological integrity of the riparian environment, including wildlife and fisheries habitat and recreational water resources.

5.2 Regulation

A Minnesota Department of Natural Resources (DNR) permit must be obtained, in coordination with the District, to make the following shoreline and stream bank alterations:

- a. Improvement or alteration below the OHWL of a lake or wetland or the bankfull height of a watercourse, including but not limited to bioengineered installations and placement of riprap, retaining walls, sand blankets, and boat ramps
- b. Maintenance of an existing riprap or hard-armored shoreline or stream bank that involves the addition of new material or structural change

5.3 Criteria

All projects under this rule shall consider the following:

- 5.3.1 Use bioengineering techniques to the extent possible. The use of bioengineering is encouraged as an alternative to traditional engineered stabilization techniques for cost advantage, aesthetic superiority, and ecological integrity. If bioengineering cannot provide a stable shoreline, a combination of riprap and bioengineering may be used to restore or maintain a shoreline. If a combination of riprap and bioengineering cannot provide a stable shoreline within a reasonable period, riprap may be used to restore or maintain shoreline.
 - a. Live plantings incorporated in shoreline bioengineering must be native aquatic vegetation and/or native upland plants.
 - b. Riprap used in shoreline erosion protection must be sized appropriately in relation to the erosion potential of the wave or current action of the particular water body, but in no case shall the riprap rock average less than six (6) inches or more than 30 inches in diameter. Riprap shall be durable, natural stone and of a gradation that will result in a stable shoreline embankment. Stone, granular filter, and geotextile material shall conform to standard MNDOT specifications, except that neither limestone nor dolomite shall be used for shoreline or stream bank riprap but may be used at stormwater outfalls. All materials

- used must be free from organic material, soil, clay, debris, trash, or any other material that may cause siltation or pollution.
- c. Riprap placement shall conform to the natural alignment of the shoreline/stream bank.
- d. A transitional layer consisting of graded gravel, at least six (6) inches deep, and an appropriate geotextile filter fabric shall be placed between the existing shoreline and any riprap. The thickness of riprap layers should be at least 1.25 times the maximum stone diameter. Toe boulders, if used, must be at least 50 percent buried.
- e. Riprap must not cover emergent vegetation, unless authorized by a DNR permit.
- f. Riprap shall extend no higher than the top of the bank or two (2) feet above the 100-year high water elevation, whichever is lower.
- 5.3.2 Stabilize the shoreline with minimal horizontal encroachment and without interference of water flow or navigation. No riprap or filter material shall be placed more than six (6) feet waterward of the OHWL. Streambank riprap shall not reduce the cross-sectional area of the channel or result in a stage increase of more than 0.01 foot at or upstream of the treatment.
- 5.3.3 Design of shoreline erosion protection must reflect the engineering properties of the underlying soils and any soil corrections or reinforcements necessary. The design shall conform to engineering principles for wave energy dispersion and resistance to deformation from ice pressures and movement, considering prevailing winds, fetch, and other factors that induce wave energy.
- 5.3.4 Use of riprap for merely cosmetic purposes is prohibited.
- 5.3.5 Use retaining walls only when there is no adequate stabilization alternative and in accordance with Minnesota Administrative Rules 6115.0211. Retaining walls extending below the OHWL of a water body are prohibited, except where
 - a. there is a demonstrable need for a retaining wall in a public improvement project, and
 - b. a registered engineer has certified the design of the retaining wall.

The District's issuance of a permit for a project meeting this Rule does not preclude the project from needing a DNR Public Waters Work Permit.

5.4 Required Information and Exhibits

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

- 5.4.1 The site plan, which includes the following:
 - a. Documentation, including photographs of existing erosion or the potential for erosion
 - b. A survey locating the existing OHWL contour, existing shoreline, floodplain elevation, and location of property lines
 - c. Elevation contours of the upland within 15 feet of the OHWL and referenced to accepted datum

d. Plan view of locations and lineal footage of the proposed riprap

The plan must show the location of an upland baseline parallel to the shoreline with stationing. The baseline will be staked in the field by the applicant and maintained in place until project completion. Baseline origin and terminus must each be referenced to three fixed features, with measurements shown and described on the plan. Perpendicular offsets from the baseline to the OHWL must be measured and distances shown on the plan at 20-foot stations. A registered professional engineer or landscape architect will certify the plan.

- 5.4.2 A construction plan and specifications certified by a registered engineer or landscape architect, showing the following:
 - a. A sequencing analysis in compliance with the rule
 - b. Materials to be used, including the size(s) of any riprap to be used
 - c. Cross section detailing the proposed riprap, if any, drawn to scale, with the horizontal and vertical scales noted on the drawing. The detail should show the finished riprap slope, transitional layer design and placement, distance waterward of the riprap placement, and OHWL
 - d. Description of the underlying soil materials
 - e. Material specifications for stone, filter material, and geotextile fabric

For sites involving aquatic plantings, a separate Aquatic Plant Management Permit shall be obtained from the DNR. This provision does not apply to slope protection projects using woody species, such as willow and dogwood.

- 5.4.3 An erosion control and site restoration plan that includes 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. Documentation of the project's NPDES Construction Stormwater Permit status, if applicable

6 Rule F: Steep Slopes Rule

6.1 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.

6.2 Regulation

A District permit must be obtained for the following activities:

- 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 within the Steep Slopes Overlay District, as shown on the Lower Minnesota River Watershed District—Steep Slopes Overlay District Map (Figure 2)
- b. Activities requiring municipal/LGU grading, building, parking lot, and foundations permits that result in a net increase in impervious surface or stormwater runoff within the Steep Slopes Overlay District, as illustrated on Figure 2

6.3 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 replacement of existing structures, public roads, utilities, and drainage systems within the Steep Slopes Overlay District
- c. Disturbances that are part of an approved LWP 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

6.4 Criteria

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

- 6.4.1 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 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. Land-disturbing activities may not result in any new water discharge points on steep slopes or along the bluff.
- 6.4.2 Stormwater ponds, swales, infiltration basins, or other soil saturation—type features shall not be constructed within a Steep Slopes Overlay District.

6.5 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):

- 6.5.1 A narrative that includes the following:
 - a. The name, address, and telephone number(s) of all property owners
 - b. The name, address, and telephone number(s) for all contractors undertaking land-disturbing activities as part of the proposed project
 - c. The signature of the property owner
 - d. A statement granting the District and its authorized representatives' access to the site for inspection purposes
 - e. 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
 - f. An explanation of existing and proposed conditions
- 6.5.2 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
- 6.5.3 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
- 6.5.4 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
- 6.5.5 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
- iv. an analysis using a stormwater reuse calculator or equivalent methodology approved by the District engineer;
- v. documentation of the adequacy of soils, storage capacity, and delivery systems;
- vi. delineation of green space area to be irrigated, if applicable; and
- vii. a detailed irrigation or usage plan showing compliance with the District volume-retention requirements.
- 6.5.6 Documentation that the applicant holds the legal rights necessary to discharge to any off-site stormwater facility/facilities used for compliance and that the facility/facilities are subject to a maintenance document satisfying the requirements of this rule
- 6.5.7 A maintenance plan and applicable maintenance agreements
- 6.5.8 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.

7 Rule G: Water Appropriations Rule

7.1 Policy

It is the District's policy to

- a. maintain groundwater recharge and protect groundwater from contamination;
- b. promote management practices that protect groundwater recharge and quality;
- c. support enforcement of wellhead protection plans, individual sewage treatment systems, and community septic ordinances;
- d. support development and implementation of wellhead protection plans;

- e. review appropriations requests for groundwater in HVRAs; and
- f. evaluate the potential impacts of public or private infrastructure (including private and municipal groundwater appropriations) interference of flows on groundwater recharge, transmission, and discharge.

7.2 Regulation

A DNR permit must be obtained within the HVRA Overlay District, as shown on the Lower Minnesota River Watershed District—High Value Resources Area Overlay District Map (Figure 1), in coordination with the District, for the following:

- a. Temporary withdrawal of groundwater for construction dewatering; landscaping; dust control; and hydrostatic testing of pipelines, tanks, and wastewater ponds
- b. Permanent withdrawal of more than 10,000 gallons of water per day or one (1) million gallons per year

7.3 Criteria

All projects under this rule shall be subject to the following regulations:

- a. In all cases of groundwater appropriation requiring a DNR permit in the District, a copy of the permit application and information on the location of the discharge/withdrawal shall be filed with the District for review.
- b. Develop and submit a discharge management plan to the District
- c. Demonstrate no net change in groundwater levels to adjacent fens and trout streams

7.4 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):

- 7.4.1 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 high- and 100-year water elevations on-site
- 7.4.2 A discharge management plan showing the following:
 - a. Alternative sources of water considered and reasons why the groundwater appropriation proposed was selected
 - b. Well depth, number, and capacity in gallons per minute of pump(s) to be installed
 - c. Computations by a certified professional engineer showing no net change in groundwater levels adjacent to fen resources

- d. Any potential impacts on trout waters, including trout waters not designated by the State of Minnesota, and strategies to reduce potential impacts
- 7.4.3 Information on any water storage facilities and capabilities and any proposed reuse and conservation practices
- 7.4.4 A contingency plan or draft agreement with the District to discontinue the appropriation in the event of restriction

8 Rule H: Water Crossing Rule

8.1 Policy

It is the District's policy to

- a. prohibit the use of beds and banks of streams and lakes for the placement of roads, driveways, and utilities;
- b. regulate crossings of watercourses for driveways, roads, and utilities to maintain stream stability, conveyance capacity, and the ability to transport, without adverse effect, the flows and detritus of its watershed;
- c. preserve the ecological integrity of the riparian and aquatic environment, including wildlife and fisheries habitat and recreational water resources; and
- d. encourage improvement of wildlife passage and habitat, especially for projects involving culvert and public right-of-way in or near natural corridors.

8.2 Regulation

A DNR permit must be obtained, in coordination with the District, for horizontal drilling under or placement of a road, highway, utility, bridge, boardwalk, or associated structure in contact with the bed or bank of any waterbody, including alteration of a waterbody to enclose it within a pipe or culvert.

8.3 Exceptions

Coordination is not required for ecological restoration of a waterbody that has been significantly altered from its natural state or degraded, for which the proposed application would provide a greater degree of resource protection and restoration than would strict compliance with the rule.

8.4 Criteria

All projects under this rule shall be subject to the following:

- 8.4.1 Show the effects of the project through analysis completed by a qualified professional on the stream's physical characteristics, hydraulic capacity, and water quality
- 8.4.2 Time construction by taking advantage of seasons with no or low stream flow as appropriate
- 8.4.3 Time construction to avoid spawning seasons, if applicable
- 8.4.4 Demonstrate a public benefit and ensure the crossing will retain adequate hydraulic and navigational capacity for the portion of a road, highway, utility, or associated structure that crosses the bed or bank of any waterbody. If applicable, the project should not adversely affect

- water quality and should represent the "minimal impact" solution to a specific need with respect to all other reasonable alternatives.
- 8.4.5 Projects must follow the DNR manual *Best Practices for Meeting DNR General Public Waters Work Permit GP 2004-0001*, as amended, when applicable.
- 8.4.6 Size and place stream crossings as follows:
 - a. Regardless of the stream's width-to-depth ratio (bankfull width/mean depth), minimum culvert width shall match or exceed stream bankfull width (water surface width at discharge associated with the 1.5-year return period). Combined width of multiple culverts is satisfactory.
 - b. Culvert length shall extend beyond side slope toe and be buried to a depth of one sixth of its height.
 - c. Slope of culvert shall match stream thalweg (the deepest continuous line along a watercourse) slope.
 - d. When using multiple culverts, offset culvert inverts. Use the fewest and largest multiples possible. A minimum vertical separation of one (1) foot is required between the lowest placed culvert and multiples.
 - e. Alignment of culvert shall match stream alignment.
 - f. Additional consultation is required with DNR, the District, and other regulatory agency staff when the stream is a designated trout stream or contains endangered or threatened species.
- 8.4.7 Preserve aquatic and upland wildlife passages.

8.5 Required Information and Exhibits

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

- 8.5.1 Construction plans and specifications certified by a registered professional engineer
- 8.5.2 An analysis prepared by a professional engineer or qualified hydrologist showing the effect of the project on hydraulic capacity and water quality
- 8.5.3 An erosion control and site restoration plan
- 8.5.4 Provide a maintenance agreement. A declaration or other recordable instrument stating terms for hydraulic capacity maintenance shall be recorded in the County Recorder's or Registrar's office before activity commences. In lieu of recordation, a public body or project proposer without a property interest sufficient for recordation may assume the maintenance obligation by means of a written agreement. The agreement shall state that, if the ownership of the structure is transferred, the public body shall require the transferree to comply with this requirement.









