

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**KEY DEFINITIONS**

- **Abstraction** means permanent retention of runoff on a site through structures and practices such as infiltration, evapotranspiration and capture and reuse. *See also* the Abstraction Credit Schedule in Appendix A of the Stormwater Management Rule.
- **Access Corridor** means a corridor equal to 30 percent of the total shoreline length to a maximum of 30 feet.
- **Agricultural activity** means the use of land for the production of agronomic, horticultural or silvicultural crops, including nursery stock, sod, fruits, vegetables, flowers, forages, cover crops, grains, and Christmas trees. Agricultural activity also includes grazing.
- **Alteration or alter** means any activity that will change or diminish the course, current, or cross-section of public waters and wetlands.
- **BMPs** (best management practices) are actions taken to prevent or reduce detrimental impacts to the environment while maintaining the natural characteristics of the environment.
- **Beds of a waterbody** means all portions of a waterbody located below the ordinary high-water level.
- **Bioengineering Stabilization** means the strategic installation of natural, vegetative, biologically active materials in conjunction with toe stabilization, riprap or other hard-armor materials to stabilize shoreline or streambank areas and associated slopes and prevent erosion.
- **Biological Stabilization** means the strategic placement of natural, vegetation, biologically active materials – such as but not limited to brush mattresses, live stakes/plantings, brush layering, fiber rolls, root wads and willow wattles – to stabilize shoreline or streambank areas and prevent erosion.
- **Design Storm** refers to a storm magnitude with a return period (T) which has the probability (1/T) of being equaled or exceeded in any given year. For example, a “100-year” event at a given location has a chance of 1/100 or 0.01 or 1% of being equaled or exceeded in *any* given year. For MCWD regulatory purposes, the rainfall depths to be used are as follows:
  - **1-year event** = 2.4” in 24 hours
  - **10-year event** = 4.1” in 24 hours
  - **100-year event** = 5.9” in 24 hoursAll rainfall depths shall use the NRCS Type II rainfall distribution.
- **Development** means any land-disturbing activity that creates impervious surface, with the exception of Linear Transportation Projects.

- **Dredge** means the removal of the sediment or other materials from the beds, banks or shores of, a waterbody by means of hydraulic suction, mechanical excavation or any other means.
- **Excavation** means the displacement or removal of sediment or other material.
- **Fast Track Permit** means a permit issued by staff for standard rip rap, sandblankets or maintenance fill projects which are installed according to technical specifications provided by District engineers, or an erosion control permit issued by staff in accordance with the criteria in the Erosion Control Rule.
- **Fill** means any material placed or intended to be placed on the bed or bank of any protected water or wetland. Fill must be clean, inorganic material that is free of pollutants.
- **Floodplain** means the areas adjoining a watercourse or water basin which have been or hereafter may be covered by a 100-year regional flood.
- **Impervious** refers to surfaces that are compacted or covered with a layer of material such that it is highly resistant to infiltration of runoff including but not limited to gravel, rock, asphalt, concrete and non-pervious paver systems.
- **Land-disturbing activity** or **land disturbance** means any disturbance to the ground surface that exposes soil and, through the action of wind or water, may result in soil erosion or the movement of sediment into waters, wetlands or storm sewers or onto adjacent property. Land-disturbing activity includes but is not limited to the demolition of a structure or surface, soil stripping, clearing, grubbing, grading, excavating, filling and the storage of soil or earth materials, but does not include agricultural activity.
- **Linear Reconstruction Project** means rebuilding a road, sidewalk or trail within existing right-of-way, and may include an increase in the area of impervious surface. Rehabilitation, including mill and overlay, of a road, sidewalk or trail within existing right-of-way in a manner that disturbs and/or replaces only the existing pavement and does not involve the addition of impervious surface area or the exposure of underlying soils is not considered a Linear Reconstruction Project.
- **Linear Transportation Project** means construction of a new road, trail, or sidewalk or reconstruction of an existing road, trail, or sidewalk (see Linear Reconstruction Project).
- **Meadow Condition** shall be modeled using an event mean concentration of 0.04 mg/L of Total Phosphorus in runoff in accordance with the Minnesota Pollution Control Agency's *Minnesota Stormwater Manual* and the MCWD Hydrologic, Hydraulic, and Pollutant Loading Study (HHPLS). For runoff rates, meadow condition shall be modeled using curve numbers corresponding to soil and cover types "meadow," "brush," or "woods," as appropriate, provided in Table 2-2c of the Natural Resources Conservation Service's (NRCS) Technical Release 55 (TR-55).
- **Native Vegetation** means plant species that are indigenous to Minnesota or that expand the range into Minnesota without being intentionally or unintentionally introduced by human activity and that are classified as native in the Minnesota Plant Database, Minnesota Department of Natural Resources, St. Paul, 2002.
- **Natural State** refers to a segment of shoreline or streambank displaying essentially no evidence of constructed stabilization or from which constructed stabilization measures have been removed by degradation or deconstruction.
- **New Principal Residential Structure** means a single-family residential building constructed on undeveloped property zoned for residential use or on a property zoned for

residential use from which the principal building has been removed for purposes of constructing a new single-family residential building.

- **NPDES** refers to Clean Water Act National Pollutant Discharge Elimination System.
- **NURP** means Nationwide Urban Runoff Program developed by the Environmental Protection Agency (EPA) to study stormwater runoff from urban development.
- **100-year high water elevation** means the highest water elevation associated with a waterbody reached during a 24-hour precipitation event with a recurrence interval of 100 years, as specified by the District in a written guidance document or, if not so specified, as determined by the District in order to act on a permit application.
- **Ordinary high water level (OHW)** means the boundary of a waterbody and shall be an elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the ordinary high water level shall be the elevation of the top of the bank of the channel. For reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool.
- **Parcel or Site** means a contiguous area of land under common ownership, designated and described in official public records and separated from other lands. “Parcel” and “site” generally have equivalent meanings for purposes of these rules, and are used interchangeably in rule text.
- **Person** means any natural person, partnership, unincorporated association, corporation, municipal corporation or political subdivision of the State of Minnesota.
- **Pervious** refers to surfaces that are readily penetrated or permeated by rainfall or runoff resulting in infiltration and reduced runoff.
- **PID** means Property Tax Identification Number and is an abbreviated method to substitute for the legal description for a parcel of property (ex. 03-117-24 33 0004 is Section 3 of Township 117; Range 24; Quarter 33 and Parcel 4).
- **Preserve Wetland** is the highest of four management classifications assigned through use of either the District’s Functional Assessment of Wetlands (FAW) or the current version of the Minnesota Routine Assessment Method (MnRAM).
- **Public waters** means all waters identified as public waters under Minn Stat.103G.005, Subd. 15.
- **Public waters wetlands** means all wetlands identified as public waters wetlands under Minn. Stat. 103G.005, Subd. 18.
- **Redevelopment** means land-disturbing activity that creates or replaces impervious surface on a parcel that is fully or partially occupied by buildings and/or impervious surface with the exception of Linear Transportation Projects.
- **Regional flood** means a flood which is representative of large floods known to have occurred generally in Minnesota and reasonably characteristic of what can be expected to occur on an average frequency in the magnitude of the 100-year recurrence interval.
- **Shoreline** means the ordinary high water level of a water basin and the area waterward thereof.
- **Site** – see Parcel
- **Stabilization Zone** means the area of land paralleling the shoreline or streambank and extending 20 feet inland from all points along the ordinary high-water mark of the shoreline.

- **Structural Stabilization** is the use of engineered systems – such as riprap, retaining walls, headwalls, groins, revetments, gabions – to stabilize shoreline or streambank areas and associated slope and prevent erosion.
- **Subwatershed** means one of the fifteen major subwatershed planning units within the Minnehaha Creek Watershed District.
- **Top of bank** means the ordinary high water level for a water basin or wetland, and the break in slope for a watercourse.
- **Waterbasin** means an enclosed natural depression with definable banks capable of containing water which may be partly filled with waters.
- **Waterbody** means all waterbasins, watercourses and wetlands as defined in these rules.
- **Watercourse** means any channel having definable beds and banks capable of conducting generally confined runoff from adjacent lands, or any channel included in the District's inventory of first order streams. During floods water may leave the confining beds and banks but under low and normal flows water is confined within the channel. A watercourse may be perennial or intermittent. Watercourse does not include roadside ditches created by excavation or other human construction activity.
- **Wetland buffer zone** means an area of vegetated groundcover abutting or surrounding a wetland.
- **Wetlands** means all wetlands identified as wetlands under Minnesota Stat. 103G.005, Subd 19. The term does not include "public waters wetlands" as defined under Minnesota Statutes 103G.005, subdivision 15a.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**PROCEDURAL REQUIREMENTS RULE**

1. APPLICATION REQUIRED. Any person undertaking an activity for which a permit is required by these rules shall first submit a permit application to the District. The application must include all exhibits required by applicable District rules. All permit applications must bear the original signature of the landowner. (Applications signed electronically in accordance with protocols published by the District will be accepted.)

(a) Applicants are encouraged to submit preliminary plans early in the project-development process for nonbinding, informal review for conformity with District policies and rules;

(b) An interested person may intervene in a permit proceeding by filing a written request to intervene with the District before the final decision on the application. The request shall state the nature of the person's interest and a copy shall be hand-delivered to the applicant or received at the applicant's address stated in the application before the time of the final decision. An intervener shall have the rights of a party in the proceeding before the District.

(c) A permit applicant consents to entry and inspection of the subject parcel by the District and its authorized agents at reasonable times as necessary to evaluate the permit application or determine compliance with the requirements of a District permit or rule.

2. FORMS. Only permit applications using the applicable District form(s) will be accepted. A request for a variance or exception from any District rule provision(s) must be submitted on the District variance or exception form. District application forms are available from the Permits section of the District web [site](http://www.minnehahacreek.org) ([www.minnehahacreek.org](http://www.minnehahacreek.org)). Permit applications sent by mail must be addressed to:

Minnehaha Creek Watershed District  
15320 Minnetonka Blvd.  
Deephaven, MN 55345  
Attn: Permitting

3. FEES. District permit fees are set forth in the District Permit Fees Rule. A permit application is incomplete and will not be processed by the District until the applicable fees are paid. Failure to timely pay fees is grounds for permit revocation.

4. ACTION ON PERMIT APPLICATION. Permit decisions will be made by the Board of Managers except as delegated to staff by written resolution. The Board will review a staff permit decision on the applicant's request. Variance requests will be acted on by the Board pursuant to the Variances and Exceptions Rule. The District may approve or deny an application and may impose reasonable conditions on approval. Conditions may include, as otherwise consistent with the rules, requirements for financial assurances, maintenance agreements and declarations and may require that these documents be properly executed or recorded before permit issuance.

The District may reconsider and revoke a permit if it finds that a material error or misrepresentation was made in the application and that the correct information was available at the time of the application. The District may suspend or revoke a permit if preliminary or final subdivision approvals received from the relevant municipality or county are not consistent with the conditions of the permit.

In the event of a material change from approved plans or specifications after conditional or final District approval of an application, a permittee must submit information necessary for the District to reevaluate compliance with District rules.

5. CONFORMITY WITH MUNICIPAL PLAN. The District will review applications for permits involving land development only after the applicant demonstrates that the plan has received preliminary approval from each municipality in which development is to take place. The requirement of preliminary municipal approval shall mean: (a) Preliminary plat approval if required for the development; or (b) if plat approval is not required, approval by the municipal planning commission or a written statement from the responsible municipal official that the development meets municipal approval requirements.

6. NOTIFICATION. Persons applying for a District permit must supply a certified list of property owners and mailing labels for each property within 600 feet of the parcel on which the proposed project is to occur. Certified lists may be obtained from county property information services. At the request of the applicant and at the applicant's expense, the District will supply the mailing list and labels. District staff will send notice of the proposed project to the individuals on the mailing list for the applicant at the applicant's expense. A copy of the list will be retained with the application at the District office. The application will not be deemed complete and will not be processed until the list has been submitted to the District or the applicant has requested the applicable list and labels from the District. Notification is not required for a Fast Track permit under the Erosion Control, Floodplain Alteration, Dredging and Shoreline & Streambank Stabilization rules.

7. ALTERNATIVE NOTIFICATION. The District, on written request, may approve alternative notification for any of the following projects:

(a) A linear project, including but not limited to a road, sidewalk or trail, one-half mile or more in length.

(b) A project on a parcel or contiguous parcels with an area of 100 acres or more, where no more than five percent of the area will be disturbed, provided the disturbed area does not include a wetland.

(c) A project where the applicant proposes to combine notification under this rule with notification required under the approval procedures of another governmental body. The applicant must demonstrate that an alternative means of notification will provide adequate notice to residents near the proposed activity.

8. **TIME FOR SUBMITTAL.** A complete permit application which includes all required exhibits shall be received by the District at least 21 full days prior to the scheduled meeting date of the Board of Managers. Late submittals or submittals with incomplete exhibits will be scheduled to a subsequent meeting date.

9. **PERMIT RENEWALS AND TRANSFERS.** A permit is valid for one year from the date the applicant is advised in writing that the District has approved the permit unless the permit is suspended or revoked, except that the general permit established under the Appropriations Rule does not expire and a property owner continues to qualify for coverage under the general permit as long as the applicable criteria are met. The valid period of a permit is not extended while the applicant complies with conditions precedent to actual issuance of the permit. To renew or transfer a permit, the permittee must notify the District in writing, prior to the permit expiration date, of the reason for the renewal or transfer request. The District may impose different or additional conditions on a renewal or deny the renewal in the event of a material change in circumstances. On the first renewal, a permit will not be subject to additional or different requirements solely because of a change in District rules. New or revised rule requirements will not be imposed on renewal of a permit where the permittee has made substantial progress toward completion of the permitted work. A transfer shall be approved unless the District finds that the proposed transferee has not demonstrated the ability to perform the authorized work in accordance with the conditions of the permit, in which case the Board may impose conditions on or deny the transfer. Permit transfer does not extend the permit term.

10. **BASIS FOR DECISIONS.** All interpretations of these rules and permit decisions under these rules will incorporate and be consistent with District purposes set forth in Minnesota Statutes sections 103B.201 and 103D.201.

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**EROSION CONTROL RULE**

1. **POLICY.** It is the policy of the Board of Managers to require preparation and implementation of erosion control plans for land-disturbing activities, in order to limit erosion from wind and water; reduce flow volumes and velocities of stormwater moving off site; reduce sedimentation into water bodies; and protect soil stability during and after site disturbance. These measures should reflect the following principles:

- (a) Minimize, in area and duration, exposed soil and unstable soil conditions.
- (b) Minimize disturbance of natural soil cover and vegetation.
- (c) Protect receiving water bodies, wetlands and storm sewer inlets.
- (d) Retain sediments from disturbed properties on site.
- (e) Minimize unintentional off-site sediment transport on trucks and equipment.
- (f) Minimize work in and adjacent to water bodies and wetlands.
- (g) Maintain stable slopes.
- (h) Avoid steep slopes and the need for high cuts and fills.
- (i) Minimize disturbance to the surrounding soils, root systems and trunks of trees and vegetation adjacent to site activity that are intended to be left standing.
- (j) Prevent and/or mitigate the compaction of site soils.

2. **PERMIT REQUIREMENT.** Unless specifically exempted by section 3, Exemptions, of this rule, land-disturbing activity shall require a permit incorporating an erosion control plan approved by the District and shall be conducted in accordance with that plan. Applicants must provide a financial assurance pursuant to the District's Financial Assurance Rule. A Fast-Track permit may be issued for routine erosion control projects on a finding that the application:

- (a) Complies with the submission requirements of section 4, Permit Application, of this rule;
- (b) Includes an erosion control plan that:



(1) Complies with section 5, Erosion Control Plan, of this rule; and

(2) Provides for maintenance and inspection in accordance with sections 9, Maintenance, and 10, Notification and Inspection, of this rule.

Any request for a variance from a requirement of this rule must be decided by the Board of Managers.

3. EXEMPTIONS. The following land-disturbing activity shall not be subject to the requirements of this rule:

(a) Activity that:

(1) disturbs an area of less than 5,000 square feet; and

(2) involves the grading, excavating, filling or storing on site of less than 50 cubic yards of soil or earth material.

(b) Agricultural activity.

(c) Emergency activity immediately necessary to protect life or prevent substantial physical harm to person or property, provided that erosion control measures, including any necessary remedial action, are implemented as soon as possible.

(d) Activity otherwise subject to this rule, where the District has entered into a written agreement with the municipality where the activity takes place providing that the District will not exercise erosion control permitting authority within the city under the circumstances in question.

4. PERMIT APPLICATION. A [written application](#) for an erosion control permit shall be submitted by the owner of a site or an authorized representative. The application shall contain the following:

(a) Site address.

(b) Property owner's name, address and telephone number.

(c) Names, addresses, telephone numbers and responsibilities of all contractors, subcontractors and other persons who will engage in the land-disturbing activities.

(d) Name, address and telephone number of a single individual responsible for overseeing implementation of the erosion control plan on site.

(e) Documentation of all applicable federal, state, county, municipal or township applications for the proposed action or a statement that such approval is not required.

(f) Application date.

(g) Signature of each property owner with a certification that he or she understands that the proposed activity must be conducted in compliance with this rule and the approved erosion control plan, and that the application is complete and accurate to the best of his or her belief.

When a property owner is not a natural person, the application shall bear a signature of one authorized to act on the owner's behalf and documentation of the signatory's authority.

(h) An erosion control plan as described at section 5, Erosion Control Plan, of this rule.

(i) A soils engineering report as described at section 6, Soils Engineering and Geology Reports, of this rule, if requested by the District.

(j) A geological report as described at section 6, Soils Engineering and Geology Reports, of this rule, if requested by the District.

(k) A copy of the NPDES permit number for projects that require an NPDES permit from the Minnesota Pollution Control Agency.

(l) An erosion control inspection plan in accordance with section 10, Notification and Inspection, of this rule for all projects disturbing  $\frac{1}{4}$  acre or greater.

5. EROSION CONTROL PLAN. The erosion control plan is a stand-alone document that shall include the following:

(a) Site plans for existing and final proposed conditions drawn to appropriate scale. The plans shall contain:

(1) The site location in relation to surrounding roads, steep slopes, other significant geographic features, buildings and other significant structures.

(2) Existing and final grades, and the direction of flow for all pre- and post-construction runoff from the site.

(3) Site property lines.

(4) Identification and location of all existing and planned underground utilities, to be concentrated in corridors where safe, practical and feasible.

(5) Identification of all receiving waterbodies and/or stormwater conveyance systems to which the site discharges. Specification of the Impaired or Special Management waters status of each receiving waterbody or conveyance system.

(6) Identification and location of all onsite water features and facilities, including any lake, stream or wetland; any natural or artificial water diversion or detention area; any surface or subsurface drainage facility or stormwater conveyance; and any storm sewer catch basin.

(7) Location of all trees and vegetation on site, with identification of that which is intended to be retained. Installation of protective fencing so as to exclude all fill and equipment from the drip line or critical root zone, whichever is greater, of all vegetation to be retained.

(8) Location of buildings and structures on site.

(9) Proposed grading or other land-disturbing activity including areas of grubbing, clearing, tree removal, grading, excavation, fill and other disturbance; areas of soil or earth material storage; quantities of soil or earth material to be removed, placed, stored or otherwise moved on site; and delineated limits of disturbance.

(10) Locations of proposed runoff control, erosion prevention, sediment control and temporary and permanent soil stabilization measures, including, but not limited to: inlet protection, perimeter control, temporary and permanent soil stabilization, concrete wash areas, slope breaks, energy dissipation, rock construction entrance, silt curtains.

(11) Detail showing the location of all areas where compaction is to be prevented and/or mitigated. These areas shall be protected from construction vehicle traffic where practical and feasible. These areas include but are not limited to: filtration and infiltration stormwater facilities and areas that are proposed to be permanently landscaped as greenspace.

(12) The location of all onsite, existing and proposed stormwater management facilities, including, but not limited to: infiltration basins, bio-filtration basins, stormwater ponds, porous pavers, underground storage and swales.

(13) Location of any MCWD-regulated buffers on site (existing or to be established).

(b) Plans and specifications must be provided showing all proposed runoff control, erosion prevention, sediment control and temporary and permanent soil stabilization measures, in accordance with the following criteria:

(1) Plans and specifications shall conform to the provisions of “Stormwater Compliance Assistance Toolkit for Small Construction Operators” and/or the “2005 MN Stormwater Manual.” (Minnesota Pollution Control Agency, 2004)

(2) All erosion and sedimentation controls proposed for compliance with this rule shall be in place before any land-disturbing activity commences.

(3) Plans shall provide that stockpiles of soil or other materials subject to erosion by wind or water shall be covered, vegetated, enclosed, fenced on the downgradient side or otherwise effectively protected from erosion in accordance with the amount of time the material will be on site and the manner of its proposed use.

(4) Silt fence shall conform to Sections 3886.1 and 3886.2, Standard Specifications for Construction, Minnesota Department of Transportation (2000 ed.), as it may be amended.

(5) Plans shall provide that all fabric fences used for erosion and sedimentation control and all other temporary controls shall not be removed until the District has determined that the site has been permanently re-stabilized and shall be removed within 30 days thereafter.

(6) Plans shall provide for permanent stabilization of all areas subject to land disturbance, retention of native topsoil on site wherever practical and feasible, and specify at least six inches of topsoil or organic matter be spread and incorporated into the underlying soil during final site treatment wherever topsoil has been removed.

(7) A detailed schedule indicating dates and sequence of land-alteration activities: implementation, maintenance and removal of erosion and sedimentation-control measures, and permanent site-stabilization measures.

(c) The District may waive specific submittal requirements of this section at the request of an applicant proposing to landscape an improved property upon a finding by the District that such requirements are not needed to assess the characteristics of the property and the adequacy of proposed control measures,

**6. SOILS ENGINEERING AND GEOLOGY REPORTS.** On a determination that the condition of the soils is unknown or unclear and that additional information is required to find that an applicant's proposed activity will meet the standards and purposes of this rule, the District may require soil borings or other site investigation to be conducted and may require submission of a soils engineering or geology report. The report shall include the following as requested by the District:

(a) Data and information obtained from the requested site investigation.

(b) A description of the types, composition, permeability, stability, erodibility and distribution of existing soils on site.

(c) A description of site geology.

(d) Conclusions and revisions, if any, to the proposed land-disturbing activity at the site or the erosion control plan, including revisions of plans and specifications.

**7. ADDITIONAL INFORMATION.** The District may require any additional information or data, as it finds relevant and necessary to evaluate and act on an application.

**8. FINANCIAL ASSURANCE.** The District may require the applicant to file a bond or other financial assurance in accordance with the Financial Assurance Rule. The assurance must be in the form of a performance bond, a letter of credit or a cash escrow. The assurance shall be maintained until:

(a) Final site stabilization and removal of erosion and sedimentation controls, as determined by the District, and the payment of all fees and amounts due to the District;

(b) Forty-five (45) days after written notification to the District under paragraph 10(b)(5), if the District has failed to respond in writing; or

(c) Such earlier time as the District may advise the applicant in writing.

**9. MAINTENANCE.** The permittee shall be responsible at all times for the maintenance and proper operation of all erosion and sediment control management practices. On any property on which land-disturbing activity has occurred pursuant to a permit issued under this rule, the permittee shall, at a minimum, maintain and repair all disturbed surfaces and all erosion and sediment control management practices and soil stabilization measures every day work is performed on the site. Specific maintenance requirements are as follows:

(a) All exposed soil areas must be stabilized as soon as possible to limit soil erosion but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

(b) The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from the site, or diverts water around a site must be stabilized. Stabilization must be completed within 24 hours of connecting to a surface water. Portions of the ditch that are under construction must be stabilized within 24 hours after the construction activity in that portion has ceased.

(c) Sediment control practices must minimize sediment from entering surface waters, including curb and gutter systems and storm sewer inlets.

(d) Sediment control practices must be established on all downgradient perimeters before any upgradient land-disturbing activities begin. These practices shall remain in place until the District has determined that the site soils have been permanently stabilized.

(e) The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as clearing or grubbing or passage of vehicles. Any short-term activity must be completed as soon as possible and the sediment control practices must be installed immediately after the activity is completed. However, sediment control practices must be installed before the next precipitation event even if the activity is not completed.

(f) All storm drain inlets must be protected by BMPs determined by the District to be appropriate, during construction until all sources with potential for discharging to the inlet have been stabilized.

(g) Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.

(h) In order to maintain sheet flow and minimize rills and gullies, there shall be no unbroken slope length of greater than 30 feet for slopes with a grade of 3:1 or steeper.

(i) Temporary stockpiles must have effective sediment controls in place to prevent discharge to surface waters including stormwater conveyances such as curb and gutter.

(j) Vehicle tracking of sediment from the construction site must be minimized by BMPs such as rock construction entrances, wash racks or equivalent practices. Street sweeping must be used if such BMPs are not adequate to prevent sediment from being tracked off site.

(k) During construction of an infiltration or biofiltration system, rigorous prevention and sediment controls must be used to prevent the discharge of sediment into the infiltration/biofiltration area. Infiltration/biofiltration areas must not be excavated to final grade until the contributing drainage area(s) has been constructed and finally stabilized.

(l) Dewatering or basin draining (e.g. pumped discharges, trench/ditch cuts for drainage) related to the construction activity that may have turbid or sediment laden discharge water must be discharged to a temporary or permanent sedimentation basin on the site whenever possible. If water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream landowners.

(m) If determined to be compacted by the District, site soils shall be decompact to a depth of 18 inches and organic matter shall be incorporated before revegetation. Decompaction shall be

accomplished solely by incorporation of organic matter within the drip line or critical root zone of trees or within 10 feet of underground utilities.

(n) Inlet protection devices and all perimeter control shall be maintained once sediment accumulates to a depth 1/3 of the designed capacity.

## 10. NOTIFICATION AND INSPECTION.

### (a) INSPECTION:

(1) The individual identified as being responsible for implementing the erosion control plan must routinely inspect the construction site once every seven days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.

(2) All inspections and maintenance conducted during construction must be recorded in writing and these records must be retained with the erosion control plan and made available at the District's request within 24 hours. Records of each inspection and maintenance activity shall include:

(i) Date and time of inspections;

(ii) Name of person conducting inspections;

(iii) Findings of inspections, including recommendations for corrective actions;

(iv) Corrective actions taken (including dates, times and party completing maintenance activities); and

(v) Date and amount of all rainfall events greater than 0.5 inches in 24 hours.

(b) NOTIFICATION. The applicant or its authorized agent shall notify the District in writing at the following points (large public projects may request alternative notification through use of an onsite written log of the following points):

(1) On completing installation of perimeter erosion and sedimentation controls.

(2) On completing land-disturbing activities and putting into place measures for final soil stabilization and revegetation.

(3) Prior to any site dewatering.

(4) When the site has been permanently stabilized and re-vegetated.

(5) When all temporary erosion and sedimentation controls have been removed from the site.

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**FLOODPLAIN ALTERATION RULE**

1. POLICY. It is the policy of the [Board of Managers](#) to:

- (a) Preserve existing water storage capacity below the 100-year high water elevation of all waterbodies in the watershed to minimize the frequency and severity of high water;
- (b) Minimize development below the 100-year high water elevation that will unduly restrict flood flows or aggravate known high water problems.

2. REGULATION. No person shall alter or fill land below the projected 100-year high water elevation of a waterbody without a permit from the District. A Fast Track permit may be issued for 6 inches or less of organic material to be incorporated into existing soil in preparation for sodding or seeding.

3. CRITERIA.

- (a) Fill shall not cause a net decrease in storage capacity below the projected 100-year high water elevation of a waterbody. The allowable fill area shall be calculated by a professional engineer registered in the State of Minnesota. Creation of floodplain storage capacity to offset fill shall occur before any fill is placed in the floodplain, unless the applicant demonstrates that doing so is impractical and that placement of fill and creation of storage capacity can be achieved concurrently. Any placement of fill prior to creation of floodplain storage capacity will only be allowed upon a demonstration by a registered professional engineer that such work will not aggravate high water conditions.
- (b) For fill in a watercourse, in addition to the criteria of paragraph 3(a), the fill shall not cause an increase in the 100-year flood elevation.
- (c) The criteria of paragraph 3(a) does not apply to fill in a waterbody other than a watercourse if the applicant shows that the proposed fill, together with the filling of all other properties on the waterbody to the same degree of encroachment as proposed by the applicant, will not cause high water or aggravate flooding on other properties and will not unduly restrict flood flows.
- (d) No new impervious surface may be created within the lesser of the 10-year floodplain or 25 feet of the centerline of a watercourse, except impervious area may be created that is:
  - (1) no larger than 10% of the floodplain area of the parcel(s), or
  - (2) the surface is an integral component of a linear public roadway or trail.
- (e) Ice ridge grading within the floodplain must conform to the original cross-section of the lakebed. Approval for ice ridge grading or removal of ice ridge material from the floodplain requires the applicant to demonstrate that the ice ridge resulted from ice action during the

previous winter. No additional material may be placed within the floodplain except in accordance with this Rule.

(f) All new residential, commercial, industrial and institutional structures shall be constructed such that all door and window openings are at a minimum of two feet above the 100-year high water elevation.

4. REQUIRED EXHIBITS. The following exhibits shall accompany the permit application. One set - full size; one set - reduced to maximum size of 11"x17".

(a) Site plan showing property lines, delineation of the work area, existing elevation contours of the work area, ordinary high water elevation (OHW), and 100-year high water elevation. All elevations must be reduced to NGVD (1929 datum).

(b) Grading plan showing any proposed elevation changes.

(c) Preliminary plat of any proposed land development.

(d) Determination by a professional engineer of the 100-year high water elevation before and after the project and the extent of impervious surface within the 10-year floodplain.

(e) Computation by a professional engineer of cut, fill and change in water storage capacity resulting from proposed grading.

(f) Soil boring results if available.

(g) If not otherwise subject to the District Erosion Control Rule, an erosion control plan conforming to sections 5, Erosion Control Plan, and 9, Maintenance, of the Erosion Control Rule.

(h) Any project resulting in greater than 50 cubic yards of fill is required to provide an as-built survey upon project completion which documents the location and volume of both fill and compensatory storage.

5. EXCEPTION.

If the 100-year high water elevation of a waterbasin is entirely within a municipality, the waterbasin does not outlet during the 100-year event, and the municipality has adopted a floodplain ordinance prescribing an allowable degree of floodplain encroachment, the ordinance governs the allowable degree of encroachment and no permit is required under this rule.



**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**STORMWATER MANAGEMENT RULE**

**1. POLICY.** It is the policy of the Board of Managers to:

- (a) Promote abstraction of precipitation and stormwater runoff where feasible for the purposes of improving water quality, increasing groundwater recharge, reducing flooding, and promoting the health of native and designed plant communities and landscapes;
- (b) Preserve, maintain and improve the aesthetic, physical, chemical and biological composition of surface waters and groundwater within the District;
- (c) Limit or reduce stormwater runoff from drainage within the watershed to decrease the negative effects of land-disturbing activities on surface water quality and flooding;
- (d) Protect and maintain existing groundwater flow, promote groundwater recharge and improve groundwater quality and aquifer protection;
- (e) Promote the preservation and use of native vegetation for the purpose of stormwater runoff abstraction and pollutant load reduction;
- (f) Promote nondegradation of water quality from new development and improvement in water quality from redevelopment; and
- (g) Promote the management of stormwater on site for the purposes of providing local groundwater recharge and maintaining natural hydrology.

**2. REGULATION.** No one may create new or replace existing impervious surface or change the contours of a parcel of land in a way that affects the direction, peak rate, volume, or water quality of runoff flows from the parcel or subdivide a parcel of one acre or more in size into three or more lots without first submitting a stormwater management plan to the District and securing a permit from the District approving the plan. New development is subject to sections 3 and 7-11 below (see Table 2). Redevelopment is subject to sections 3-5 and 7-11 below (see Tables 3 and 4). Subdivision of land is subject to section 3-5 and 7-11, as applicable. Linear Transportation Projects are subject to sections 3 and 6-11 below (see Table 5).

Activity subject to this rule on adjacent sites under common or related ownership shall be considered in the aggregate, and the requirements applicable to the activity under this rule will be

determined with respect to all development that has occurred on a site, or on adjacent sites under common or related ownership, since the date this rule took effect (January 2005).

The following activities are exempt from this rule:

(a) **SINGLE FAMILY HOMES:** Construction or reconstruction of a single- family home.

(b) **NEW DEVELOPMENT:** New development for a residential, commercial, industrial or institutional use (see Table 2):

(1) that will result in less than 20 percent impervious surface over the site; or

(2) on a site of less than one acre.

(c) **REDEVELOPMENT:** Redevelopment for a residential, commercial, industrial or institutional use (see Table 3):

(1) on a site that is less than five acres in size that will result in at least a ten percent reduction in impervious surface; or

(2) on a site of five acres or greater where the proposed activity disturbs less than 40 percent of the site and results in at least a ten percent reduction in impervious surface.

(d) **LINEAR TRANSPORTATION PROJECTS:** Construction of a new or reconstruction of an existing road, trail, sidewalk, utility, or other linear transportation project (see Table 5):

(1) that will create less than 10,000 square feet of new impervious surface; or

(2) for the construction of sidewalks and trails that will not exceed 12 feet in width and will be bordered on the downgradient side(s) by a pervious buffer averaging at least one-half the width of the sidewalk or trail.

**3. STORMWATER MANAGEMENT PLAN GENERAL REQUIREMENTS.** A stormwater management plan submitted to the District must meet the following requirements, subject to the provisions in sections 4-8:

(a) **PHOSPHORUS CONTROL.**

(1) **NEW DEVELOPMENT/LINEAR TRANSPORTATION PROJECTS:**

Activity subject to this rule for new development or linear transportation projects shall result in no net increase in phosphorus loading from existing conditions, except that:

- i. For a parcel in existing use for row crop agriculture or feedlot, new development shall result in no net increase in phosphorus loading from the site as modeled in meadow condition.

(2) REDEVELOPMENT: Phosphorus control must be provided in accordance with subsection 3(c)(2), where applicable.

(b) RATE CONTROL.

(1) Activity subject to this rule shall result in no net increase in the peak runoff rate for the 1-, 10- and 100-year design storms where stormwater discharges across the downgradient site boundary, compared to the rate for the site in its existing condition, except that:

- i. For a parcel in use for row crop agriculture or feedlot, new development shall result in no net increase in the peak runoff rate from the site as modeled in meadow condition.

(2) Peak runoff rates for the 1-, 10- and 100-year design storms may not increase within a specific drainage area of the site so as to create or exacerbate drainage or erosion problems.

(c) VOLUME CONTROL.

(1) The stormwater management plan must provide for the abstraction of the first one inch of rainfall from the site's impervious surface. Credit toward compliance with the one inch volume control standard will be calculated by the applicant using industry accepted hydrologic models and Appendix A: Volume Abstraction Credit Schedule, following guidance provided in the Minnesota Pollution Control Agency's *Minnesota Stormwater Manual*.

(2) Where an applicant demonstrates that it is infeasible to meet the one inch abstraction requirement through use of volume control credits pursuant to subsection 3(c)(1), the stormwater management plan must provide for abstraction of runoff to the greatest extent feasible, and at least 0.5 inches, and phosphorus control in an amount equivalent to that which would be achieved through abstraction of one inch of rainfall from the site's impervious surfaces. To demonstrate infeasibility of providing abstraction pursuant to 3(c)(1), the applicant must submit a completed Abstraction Analysis containing at a minimum the following information:

- i. A narrative that lists and explains the variables that limit the feasibility of providing one inch of volume control for runoff from the site's impervious surface. These variables may include but are not limited to unified soil classification, soil contamination, proximity to bedrock,

proximity to groundwater, proximity to existing utilities, spatial constraints, zoning requirements, and financial considerations.

ii. A narrative and conceptual plan(s) that describes and discusses how reasonable modifications to the size, scope, configuration or density of the project would influence the feasibility of providing one inch of volume control for runoff from the sites impervious surface.

iii. An explanation of efforts undertaken by the applicant to accommodate or remove the constraints that influence the feasibility of providing one inch of volume control for runoff from the site's impervious surface.

(3) The volume of runoff draining to a landlocked receiving area may not increase due to a project unless the applicant can demonstrate that any additional runoff volume from the project will be effectively abstracted. In addition, the applicant shall either own or have proper rights over the landlocked property receiving runoff from the project area. Back-to-back 100-year runoff events will be used to analyze holding capacity and high-water elevation for landlocked areas.

(d) BEST MANAGEMENT PRACTICES (BMPs).

(1) BMPs addressing the potential water resource impacts associated with the proposed activity must be incorporated to limit creation of impervious surface, maintain or enhance on-site infiltration and peak flow control and limit pollutant generation on and discharge from the site. BMPs may include site design, structural and non-structural practices.

(2) BMPs must be designed and installed in accordance with generally accepted design practices and guidance contained in the Minnesota Pollution Control Agency's *Minnesota Stormwater Manual* and its subsequent revisions.

(e) HIGH WATER ELEVATION.

(1) All applications shall provide at least two vertical feet of separation between low openings of structures and the 100-year high water elevations of stormwater BMPs and waterbodies.

4. REDEVELOPMENT REQUIREMENTS – DECREASE OR NO CHANGE IN IMPERVIOUS SURFACE. A stormwater management plan submitted to the District that proposes through redevelopment to decrease or result in no net increase in impervious surface must meet the following requirements (see Table 3):

(a) For sites that are one acre or less, Best Management Practices are required in accordance with subsection 3(d);

(b) For sites that are between one acre and five acres and the proposed activity disturbs less than 40 percent of the site, Best Management Practices are required in accordance with subsection 3(d);

(c) For sites that are between one acre and five acres and the proposed activity disturbs 40 percent or more of the site, the stormwater management plan must meet the volume control requirement in subsection 3(c) and the phosphorus control requirement in subsection 3(a)(2), where applicable;

(d) For sites that are greater than five acres and the proposed activity disturbs less than 40 percent of the site, Best Management Practices are required in accordance with subsection 3(d);

(e) For sites that are greater than five acres and the proposed activity disturbs 40 percent or more of the site, the stormwater management plan must meet the volume control requirement in subsection 3(c) and the phosphorus control requirement in subsection 3(a)(2), where applicable.

**5. REDEVELOPMENT REQUIREMENTS – INCREASED IMPERVIOUS SURFACE.** A stormwater management plan submitted to the District that proposes to increase impervious surface through redevelopment must meet the following requirements (see Table 4):

(a) For sites that are one acre or less, Best Management Practices are required in accordance with subsection 3(d);

(b) For sites that are greater than one acre and the proposed activity disturbs less than 40 percent of the site and results in an increase in impervious surface of less than 50 percent, the phosphorus control requirements of subsection 3 (a), rate control requirements of subsection 3(b) and volume control requirements of subsection 3(c) apply to the area of increased impervious surface;

(c) For sites that are greater than one acre and the proposed activity disturbs 40 percent or more of the site, or results in an increase in impervious surface of 50 percent or more, the phosphorus control requirements of subsection 3(a), rate control requirements of subsection 3(b), and volume control requirements of subsection 3(c) apply to the entire site.

**6. LINEAR TRANSPORTATION PROJECT REQUIREMENTS** (see Table 5).

(a) The construction of a new road, trail, sidewalk, utility, or other linear transportation project that will create 10,000 square feet or more of impervious surface must meet the phosphorus control requirements in accordance with subsection 3(a), rate control requirements in accordance with subsection 3(b) and volume control requirements in accordance with subsection 3(c);

(b) Linear Reconstruction Projects that will increase the impervious area within the project limits by between 10,000 square feet and one acre from existing conditions must meet the phosphorus control requirements in accordance with subsection 3(a) and rate control requirements in accordance with subsection 3(b) for the area of increased impervious surface;

(c) Linear Reconstruction Projects that will increase the impervious area within the project limits by one acre or more from existing conditions must meet the phosphorus control requirements in accordance with subsection 3(a), rate control requirements in accordance with subsection 3(b), and volume control requirements in accordance with subsection 3(c) for the area of increased impervious surface.

## 7. REGIONAL STORMWATER MANAGEMENT.

(a) An applicant may comply with this rule by providing equal or greater phosphorus control, rate control, or volume control through a regional or subwatershed plan approved by the District; such a plan must provide for an annual accounting to the District of treatment capacity created and utilized by projects or land-disturbing activities within the drainage and treatment area of the plan.

(b) District approval of a regional or subwatershed plan will be based on a determination that:

(1) the use of a regional facility in place of onsite stormwater management will not result in adverse impacts to local groundwater or natural resources located upstream of the regional facility, including, but not limited to, reduced water quality, altered wetland hydrology, changes to stream velocities or baseflow, erosion, or reduced groundwater recharge; and

(2) the plan incorporates onsite BMPs as necessary to mitigate impacts and provide local benefits not provided by the regional facility.

(c) Individual project sites utilizing a regional facility to meet phosphorus, rate, or volume control requirements must incorporate BMPs on the project site in accordance with subsection 3(d).

(d) The applicant, before commencing any land-altering activity, must demonstrate that it holds the legal rights necessary to discharge to the stormwater facility or facilities in the plan, and that the facility or facilities are subject to a maintenance document satisfying the requirements of section 11.

## 8. IMPACT ON DOWNSTREAM WATERBODIES.

(a) No new point source may discharge to a waterbody without pretreatment for sediment and nutrient removal. Pretreatment may be provided by non-structural means. An activity changing flow that discharges from an existing point source is not a new point source.

(b) No activity subject to this rule may alter a site in a manner that results in a(n):

(1) Increase in the bounce in water level for any downstream lake or wetland beyond the limits specified in Table 1 below based on management classification, during a rainfall event of critical duration with a return frequency of 1, 10, or 100 years.

(2) Increase in the duration of inundation for any downstream lake or wetland beyond the limits specified in Table 1 below based on management classification, during a precipitation event of critical duration with a return frequency of 1, 10, or 100 years.

(3) Change in the elevation of the runout control of any lake or wetland beyond the limits specified in Table 1 below based on management classification.

Table 1: Impacts on downstream waterbodies

<b>Wetland Management Class/ Waterbody</b>	<b>Permitted Bounce for 1-, 10-, and 100-Year Event</b>	<b>Inundation Period for 1-Year Event</b>	<b>Inundation Period for 10- and 100-Year Event</b>	<b>Runout Control Elevation</b>
<b>Preserve</b>	Existing	Existing	Existing	No change
<b>Manage 1</b>	Existing plus 0.5 feet	Existing plus 1 day	Existing plus 2 days	No change
<b>Manage 2</b>	Existing plus 1.0 feet	Existing plus 2 days	Existing plus 14 days	0 to 1.0 ft above existing runout
<b>Manage 3</b>	No limit	Existing plus 7 days	Existing plus 21 days	0 to 4.0 ft above existing runout
<b>Lakes</b>	Existing	N/A	N/A	No change

## 9. FINANCIAL ASSURANCE.

(a) A performance bond, letter of credit or other financial assurance, consistent with the District Financial Assurance Rule, may be required for any project that requires the installation of stormwater best management practices. The financial assurance shall be maintained until the stormwater best management practice has been constructed and stabilized in accordance with District rules and as shown on a set of as built drawings submitted to the District.

## 10. REQUIRED EXHIBITS.

(a) Plans certified by a professional engineer registered in the State of Minnesota and reflecting the following items shall accompany the permit application (one set of plans must be full size; one set must be reduced to a maximum size of 11" x 17"; provide electronic ArcGIS or CADD files when available):

- (1) Property lines and delineation of lands under ownership of the applicant.
  - (2) Delineation of the subwatershed contributing runoff from off-site and proposed and existing subwatersheds on-site.
  - (3) Proposed and existing locations, alignments, and elevations of stormwater facilities.
  - (4) Delineation of existing on-site wetland, shoreland, and/or floodplain areas.
  - (5) Existing and proposed normal, and 100 year high water elevations on-site.
  - (6) Existing and proposed site contour elevations at two foot intervals, related to National Geodetic Vertical Datum (NGVD), 1929 datum.
  - (7) Construction plans and specifications for all proposed stormwater management facilities.
  - (8) Stormwater runoff volume and rate analyses for the 1-, 10- and 100- year design storms for existing and proposed conditions.
  - (9) All hydrologic, water quality, and hydraulic computations completed to design the proposed stormwater management facilities including runoff volume abstractions.
  - (10) Delineation of any flowage easements or other property interests dedicated to stormwater management purposes, including, but not limited to, county or judicial ditches.
- (b) For applications proposing infiltration, a soil sampling plan and the resulting identification, description, permeability, and approximate delineation of site soils. Investigation methods shall include soil pits or hand augers. Borings at the location of the infiltration facility must extend at least five feet deeper than the proposed bottom elevation of the infiltration facility.
- (c) For applications proposing tree preservation or planting, a site map showing existing trees larger than six inches in diameter, including species, diameter, and associated drip lines (canopy area). Tree map must designate trees to be removed and trees to be added.



(d) For applications proposing soil amendments, a soil amendment plan following guidance from the Minnesota Pollution Control Agency's *Minnesota Stormwater Manual*.

(e) For applications proposing capture and reuse, an operating plan and calculations that quantify the benefits of the proposed stormwater reuse system.

(f) Documentation indicating conformance with an existing municipal stormwater management plan. When a municipal plan does not exist, documentation that the municipality has reviewed the project.

(g) Documentation that the applicant has applied for a National Pollutant Discharge Elimination System (NPDES) Permit if required by the Minnesota Pollution Control Agency (MPCA).

(h) Abstraction analysis (if applicable) in accordance with subsection 3(c)(2).

(i) A declaration and maintenance agreement in conformance with section 11.

## 11. MAINTENANCE.

(a) All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed. Permit applicants must provide a maintenance plan that identifies and protects the design, capacity and functionality of onsite and offsite stormwater management facilities; specifies the methods, schedule and responsible parties for maintenance; provides for the maintenance in perpetuity of the facility; and contains at a minimum the requirements in the District's standard maintenance declaration. The plan will be recorded on the deed in a form acceptable to the District. A public entity assuming the maintenance obligation may do so by filing with the District a document signed by an official with authority.

Table 2: Stormwater management requirements for new development

Site Size	Impervious Surface	Requirements
< 1 acre	N/A	None
≥ 1 acre	< 20% of site	None
	≥ 20% of site	Phosphorus Control, Rate Control, and Volume Control

Table 3: Stormwater management requirements for redevelopment resulting in a decrease or no change in impervious surface

Site Size	Site Disturbance	Impervious Surface Reduction	Requirements
≤ 1 acre	N/A	10% reduction in impervious surface	None
		0 - 9% reduction in impervious surface	Incorporate BMPs
> 1 acre - ≤ 5 acres	< 40% site disturbance	10% reduction in impervious surface	None
		0 - 9% reduction in impervious surface	Incorporate BMPs
	≥ 40% site disturbance	10% reduction in impervious surface	None
		0 - 9% reduction in impervious surface	Volume control required for site's impervious surface
> 5 acres	< 40% site disturbance	10% reduction in impervious surface	None
		0 - 9% reduction in impervious surface	Incorporate BMPs
	≥ 40% site disturbance	N/A	Volume control required for site's impervious surface

Table 4: Stormwater management requirements for redevelopment resulting in an increase in impervious surface

Site Size	Site Disturbance	Impervious Surface Increase	Requirements	Treatment Scope
≤ 1 acre	N/A	N/A	Incorporate BMPs	N/A
> 1 acre	< 40% site disturbance	< 50% increase in impervious surface	Phosphorus Control, Rate Control, and Volume Control	Additional impervious surface
		≥ 50% increase in impervious surface		Entire site's impervious surface
	≥ 40% site disturbance	N/A	Phosphorus Control, Rate Control, and Volume Control	Entire site's impervious surface

Table 5: Stormwater management requirements for linear transportation projects

Project Type	Impervious Surface Increase	Requirements	Treatment Scope
New Linear Transportation Project	< 10,000 square feet	None	N/A
	≥ 10,000 square feet	Phosphorus Control, Rate Control, and Volume Control	New impervious surface
Linear Reconstruction Project	< 10,000 square feet	None	N/A
	≥ 10,000 square feet and < 1 acre	Phosphorus Control and Rate Control	Additional impervious surface
	≥ 1 acre	Phosphorus Control, Rate Control, and Volume Control	Additional impervious surface

**APPENDIX A:**  
**MCWD Volume Abstraction Credit Schedule**

Practice	Design Guidance	Credit	Calculation Methods
Surface Infiltration Basin	<i>Minnesota Stormwater Manual</i>	Volume provided	$AV^{(1)} = \text{Volume below overflow elevation}^{(2)}$
Underground Infiltration Trench	<i>Minnesota Stormwater Manual</i>	Void volume provided	$AV = \text{Volume below overflow elevation}^{(2)}$
Preservation of tree(s)	Not Applicable	Percent interception by species	$AV = \% \text{ Interception}^{(3)} * \text{tree canopy area}^{(4)} * 1 \text{ inch rainfall}$
Planting of New Tree(s)	Not Applicable	One-half percent interception by species <sup>(5)</sup>	$AV = 0.5 * \% \text{ Interception}^{(3)} * \text{tree canopy area}^{(4)} * 1 \text{ inch rainfall}$
Soil Amendment(s)	<i>Minnesota Stormwater Manual</i>	0.5-inch credit over the area of soil amendment area <sup>(6)</sup>	$AV = 0.5/12 * \text{area of soil amendment}$
Capture and Reuse of Stormwater	Submit pump design plans and hydrologic calculations	Volume capacity to capture and reuse runoff from a 1-inch rainfall event	Submit operating plan and calculations for reuse system to document annual volume reuse during dry, wet, and average years
Enhancement of Pervious Area <sup>(7)</sup> (wetland buffers, forest or prairie conservation or restoration)	Submit vegetation planting and maintenance plan	0.5-inch credit over the area of enhancement <sup>(8)</sup>	$AV = 0.5/12 * \text{area of enhancement}$
Filtration	<i>Minnesota Stormwater Manual</i>	50% volume abstraction credit <sup>(9)</sup>	$AV = 0.5 * \text{Volume below overflow elevation (filtered volume is not considered)}$

(1) AV = Abstraction Volume

(2) Volume infiltrated during a rainfall event shall not be credited towards the abstraction volume requirement. This is a simple approach for designers and for reviewers to verify conformance to the standard; a stormwater model is not needed for calculations. This is a conservative assumption because infiltration of stormwater in Minnesota is an evolving practice. MCWD will continue to research current trends, collect and analyze monitoring data, and utilize modeling and engineering methods to assess the effectiveness of the standards to achieve the water quality goals of the District.

(3) Percent rainfall interception shall be determined using results from the *City of Minneapolis, Minnesota Municipal Tree Resource Analysis*. Percentages for the species studied are listed below. If desired tree species is not listed, the applicant shall use the median value provided below or provide documentation by a certified arborist to support a different percent interception.

**Average Percent Rainfall Interception by Tree Species**

Species	Average Percent Rainfall Interception
Green Ash	13
Sugar Maple	8
Norway Maple	8
Littleleaf Linden	12
American Elm	18
Honeylocust	6
American Basswood	10
Northern Hackberry	6
Ginkgo	4
Silver Maple	16
Elm	21
White Ash	10
Basswood	14
Red Maple	7
Median	10

(4) Tree canopy area must be documented as part of the permit application submittal.

(5) Granting ½ credit for new trees is intended to encourage preservation of trees over tree removal and replacement.

(6) For SCS TR-55 cover type “open space (lawns),” compacted soil (HSG C, curve number 74) begins to generate runoff with a 0.9-inch rainfall. A HSG B soil (curve number 61) begins to generate runoff with a 1.5-inch rainfall. Therefore, preserving the infiltration capacity of HSG B soil through the use of soil amendments yields an approximate 0.5-inch volume reduction credit.

(7) Area shall not be subject to motorized vehicle, bicycle, or likely human foot traffic (i.e., parking lot islands, conventional landscaping).

(8) For SCS TR-55 cover type “herbaceous mixture,” additional rainfall of approximately 0.5 inches generates no runoff if the hydrologic condition is improved from “fair” to “good.” Credit will not be granted for “tree preservation” and “enhancement of pervious area.” The applicant must designate the desired abstraction practice.

(9) The *Minnesota Stormwater Manual* reports that nutrient removal (total phosphorus) is approximately half as effective for filtration as infiltration.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103d.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**WATERBODY CROSSINGS & STRUCTURES**

**1. POLICY.** It is the policy of the Board of Managers to:

- (a) Discourage the use of beds and banks of waterbodies for the placement of roads, highways, and utilities
- (b) Preserve the ecological integrity of the riparian and aquatic environment, including wildlife and fisheries habitat, and recreational water resources; and
- (c) Encourage improvement of wildlife passage and habitat, especially for larger projects involving culverts and public right of way in or near natural corridors.

**2. REGULATION.** No person shall conduct horizontal drilling under or place 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, within the District without first securing a permit from the District.

**3. CRITERIA.** Use of the bed or bank:

- (a) Shall meet a demonstrated public benefit for projects involving crossings or structures in public waters, and meet a demonstrated specific need for all other projects;
- (b) Shall retain adequate hydraulic capacity:
  - (1) For watercourses, changes in hydraulic capacity may not result in upstream or downstream increases in flood stage.
- (c) Shall retain adequate navigational capacity pursuant to any requirements of the waterbody's classification by the District;
- (d) Shall preserve aquatic and upland wildlife passage along each bank and within the waterbody as follows:

(1) Where there is sufficient depth and width, waterbody crossings shall provide upland bank passage to the greatest extent feasible, graded to connect to the streambank on both the upstream and downstream ends;

(2) Where the depth or the width of is not sufficient to provide adequate upland bank passage, waterbody crossings shall provide multiple offset culverts;

(3) Where the multiple offset culverts are not feasible, waterbody crossings shall provide a wildlife shelf insert above bankful height, unless such a structure will impact hydraulic capacity;

(4) Rural section low traffic roads that meet vertical and horizontal site distances for a vehicle speed of 40 mph or less in [Table 1](#), are exempt from the requirements of 3(d)(3).

(e) Shall not adversely affect water quality;

(f) Shall represent the “minimal impact” solution to a specific need with respect to all other reasonable alternatives, including, but not limited to vegetation or bioengineering for bank stabilization, structural bank stabilization (riprap, retaining walls), acquisition of additional easements, or installation of upstream controls to manage stream flow. The term “minimal impact” shall refer to all resources protected under the purposes of the District set forth at sections 103B.201 and 103D.201 of the Minnesota Statutes; and

(g) Shall provide for minimum clearance of 3 feet below the bed of a waterbody, and a minimum setback of 100 feet from any stream bank for pilot, entrance, and exit holes, for projects involving horizontal directional drilling.

(h) Shall provide a design for avoiding sanitary discharge to a surface water in the event of a sanitary sewer breakage through use of valves, diversions, redundant pipes or other means.

**4. EXCEPTION.** The requirements of this rule may be waived upon a determination by the Board of Managers that a waterbody has been significantly altered from a natural state and degraded and that the proposed application would provide ecological restoration and a greater degree of resource protection than would strict compliance with the rule.

**5. REQUIRED EXHIBITS.** The following exhibits shall accompany the permit application. One set - full size; one set - reduced to maximum size of 11”x17”.

(a) Construction plans and specifications.

(b) Analysis prepared by a professional engineer or qualified hydrologist showing

the effect of the project on hydraulic capacity and water quality.

(c) A temporary and permanent erosion control plan.

(d) Information necessary to evaluate impacts under paragraph 3(f), including at least two alternative designs that minimize or avoid the proposed impact(s), and such other information as determined by District staff in consultation with the applicant.

**6. MAINTENANCE.** A declaration or other recordable instrument stating terms for maintenance of hydraulic and navigational capacity and approved by the District shall be recorded in the office of the county recorder or registrar before activity under the MCWD permit commences. In lieu of recordation, a public permittee or a permittee without a property interest sufficient for recordation may assume the maintenance obligation by means of a written agreement with the District. The agreement shall state that if the ownership of the structure is transferred, the public body shall require the transferee to comply with this subsection.



**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**WETLAND PROTECTION RULE**

1. POLICY. It is the policy of the Board of Managers to:

- (a) Achieve no net loss in the quantity, quality and biological diversity of Minnesota's existing wetlands;
- (b) Increase the quantity, quality and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands;
- (c) Avoid direct or indirect impacts from activities that destroy or diminish the quantity, quality and biological diversity of wetlands;
- (d) Minimize direct or indirect impacts from activities that destroy or diminish the quantity, quality and biological diversity of wetlands;
- (e) Rectify the impact of any such activity by repairing, rehabilitating, or restoring the affected wetland environment;
- (f) Reduce or eliminate the impact of such activity over time by preservation and maintenance operation during the life of the activity;
- (g) Compensate for the impact on the wetlands by restoring a wetland;
- (h) Compensate for the impact on the wetlands by replacing or providing substitute wetland resources or environments; and
- (i) Promote competent administration of the Wetland Conservation Act (WCA) within the watershed.

2. REGULATION UNDER WCA AND WATERSHED LAW.

The District regulates activity impacting wetlands pursuant to the WCA and the Watershed Law. A permit for activities impacting wetlands or requiring wetland buffers is required as follows:

- (a) In municipalities where the District is the local government unit under the WCA, a permit is required from the District for any draining or filling of wetlands, or excavation in the permanently and semipermanently flooded areas of type 3, 4, or 5 wetlands, and in all wetland types if the excavation results in filling, draining, or conversion to nonwetland. The WCA, as amended, and its implementing rules as set forth in Minnesota Rules chapter 8420, as amended, specifically including sequencing requirements and all exemptions, are incorporated as a part of this rule. Work affecting a wetland that qualifies as no-loss under the WCA and work affecting an

incidental wetland, as defined in the WCA, do not require a permit under this rule. Wetland replacement, where permitted, shall comply with section 3, Wetland Replacement, of this rule.

(b) A permit is required from the District pursuant to the excavation and buffer provisions in sections 4, Excavation, and 5, Buffer, of this rule, which are adopted under the District's watershed law authority and apply whether or not the District is the WCA local government unit. Pursuant to this authority and section 4, Excavation, the District requires a permit for excavation in any type of wetland, except where specifically exempted by the WCA or when the work meets no-loss criteria under the WCA. No permit under this rule is required for excavation in an incidental wetland, as defined in the WCA.

### 3. WETLAND REPLACEMENT.

(a) Project-specific replacement wetland must be sited in the following order of priority, which replaces the siting priority in Minnesota Rules section 8420.0522, subpart 7, as it may be amended:

- (1) On site;
- (2) Within the same subwatershed as the affected wetland (see Appendix 1);
- (3) In the Minnehaha Creek watershed;
- (4) In the same eight-digit Hydrologic Unit Code watershed.

(b) Pursuant to Minnesota Rules section 8420.0522, subp.7, as it may be amended, when reasonable, practical and environmentally beneficial replacement opportunities are not available in a siting priority area in subsection 3(a), providing replacement priority areas, the applicant may seek opportunities at the next level. When neither replacement opportunities nor privately banked credits are available in any priority area, the applicant may comply with this section through the purchase of banked credits from the District at the cost to the District to establish credits, so long as the District has determined that sufficient credits are available.

### 4. EXCAVATION. Excavation in wetlands is subject to the following requirements.

(a) Excavation is governed by the substantive and procedural standards, criteria and requirements set forth in the WCA, as amended, and the rules implementing the WCA as set forth in Minnesota Rules chapter 8420, as amended, including all exemptions, with the exception that replacement for excavation not subject to the WCA shall be at the ratio of 2:1. Excavation in incidental wetland is not subject to the requirements of this section. The priority siting requirements of section 3 of this rule, Wetland Replacement, apply to replacement of excavated wetland under this section.

(b) Excavation of a wetland performed for public benefit, including excavation to remove or control invasive species, shall be deemed self-replacing if the applicant demonstrates that the wetland to be excavated is degraded; the proposed activity would increase the wetland's function and value, as determined using the current version of the Minnesota Routine Assessment Method or other method approved by the District; and the enhanced wetland function and value are likely to be preserved. Excavation must not result in a change of wetland type, unless the applicant demonstrates that public benefit is not obtainable absent such impact.

## 5. BUFFER.

(a) Any activity for which a permit is required under this Wetland Protection Rule, the Stormwater Management Rule or the District Waterbody Crossings and Structures Rule, and New Principal Residential Structure construction that increases the imperviousness of the subject parcel must provide for buffer adjacent to each wetland and public waters wetland. To the extent the buffer requirement applies to a proposed New Principal Residential Structure, it will be applied in accordance with protections afforded a zoning nonconformity under state law so as not to unduly restrict the proposed action. Buffer must be provided on that part of the wetland edge that is downgradient from the activity or construction and around each wetland that will be disturbed.

(b) Buffer width will be determined in accordance with section 6, Buffer Width, of this rule.

(c) Buffers shall be documented by declaration or other recordable instrument approved by the District and recorded in the office of the county recorder or registrar before activity under the MCWD permit commences. A buffer on public land or right-of-way may be documented in a written agreement executed with the District in place of a recorded instrument. The agreement shall state that if the land containing the buffer is conveyed, the public body shall require the buyer to comply with this subsection.

(d) A permanent wetland buffer monument shall be installed at each lot line where it crosses a wetland buffer, and where needed to indicate the contour of the buffer, with a maximum spacing of 100 feet. Language shall indicate the purpose of the buffer, restrictions, and the name and phone number of the Minnehaha Creek Watershed District. On public land, or right-of-way, the monumentation requirement may be satisfied by the use of a marker flush to the ground or breakaway markers of durable material. At the request of the applicant, the District shall provide wetland buffer monuments at production cost.

## 6. BUFFER WIDTH.

(a) The Base Buffer Width shall be determined by the management class of the wetland as evaluated by the District's Functional Assessment of Wetlands or by the current version of the Minnesota Routine Assessment Method (MnRAM). Stormwater sensitivity parameters must be analyzed and results included in the evaluation, unless all stormwater flow to wetlands is managed in compliance with the bounce, inundation and runout-elevation control criteria in subsection 8(b) of the District's Stormwater Management Rule.

<b>Management Class</b>	<b>Base Buffer Width</b>	<b>Minimum Applied Buffer Width</b>
Manage 3	20 feet	16 feet
Manage 2	30 feet	24 feet
Manage 1	40 feet	34 feet
Preserve	75 feet	67 feet

(b) The Applied Buffer Width, the actual width of wetland buffer(s) required for a permitted project, shall be the Base Buffer Width as reduced by beneficial slope or soil conditions pursuant to the following formulas:

(1) For every 5 percent decrease in average buffer slope from 20 percent, the Base Buffer Width may be reduced 2 feet.

(2) For every grade of Hydrologic Soil Group above Type D for the predominant buffer soil condition, the Base Buffer Width may be reduced 2 feet.

Reductions for beneficial slope or soil conditions shall not reduce the buffer width to less than the applicable Minimum Applied Buffer Width.

(c) Buffer width may vary based on demonstrated site constraints, provided that a width of at least 50 percent of the Applied Buffer Width is maintained at all points, there is no reduction in total buffer area, and the buffer provides wetland and habitat protection at least equivalent to a buffer of uniform Applied Buffer Width. Buffer width averaging calculation will exclude any part of the buffer exceeding 200 percent of the Applied Buffer Width. The area of any path or trail allowed in the buffer will be added to the total area required by the Applied Buffer Width, except that construction of a trail or path of no more than 4 feet in width to provide riparian access through the buffer will not increase the required buffer area.

(d) The Applied Buffer Width may be further reduced by the District upon a demonstration by the applicant that the proposed buffer conditions clearly provide function and value equal to or greater than would be provided by a buffer of the applicable Applied Buffer Width, but may not be reduced to less than 50 percent of the applicable Applied Buffer Width.

(e) The Applied Buffer Width for Linear Reconstruction Projects shall be limited to the extent of available right-of-way. A buffer is not required for resurfacing of an existing road, sidewalk or trail that does not increase the area of impervious surface.

(f) The Applied Buffer Width for New Principal Residential Structures shall be limited to 25 percent of the distance between the existing structure at the point that it is nearest to the wetland and the wetland, or 25 feet, whichever is greater, provided that such a buffer shall not exceed the Base Buffer Width, and the buffer shall not render a property unbuildable.

## 7. WETLAND BUFFER VEGETATION.

(a) Buffer vegetation shall not be cultivated, cropped, pastured, mowed, fertilized, subject to the placement of mulch or yard waste, or otherwise disturbed, except for periodic cutting or burning that promotes the health of the buffer, actions to address disease or invasive species, mowing for purposes of public safety, temporary disturbance for placement or repair of buried utilities, or other actions to maintain or improve buffer quality, each as approved by District staff or when implemented pursuant to a written maintenance plan approved by the District. Pesticides and herbicides may be used in accordance with Minnesota Department of Agriculture rules and guidelines. No new structure or hard surface shall be placed within a buffer, except as provided in paragraph 6(c). No fill, debris or other material shall be excavated from or placed within a buffer.

(b) For public land, right-of-way or property held by a homeowner's association, the applicant may comply with paragraphs 5(d), requiring buffer monumentation, 7(a), vegetation management, and section 10, Wetland Buffer Monitoring, of this rule by demonstrating that the buffer will be maintained in accordance with a written maintenance agreement with the District meeting the buffer monumentation, vegetation management and wetland buffer monitoring requirements in this rule, listing required elements of paragraph 9(h), the Wetland Buffer

Maintenance Plan, including terms describing in detail the location of wetland buffer on the subject property and providing detailed protocols for buffer maintenance.

(c) Buffer areas, or portions thereof, that are not vegetated or will be disturbed by grading or other site activities during construction shall be replanted and maintained according to the following standards:

(1) Soils must be decompacted to a depth of 18 inches and organic matter must be incorporated into soils before revegetation. Decompaction shall be accomplished solely by incorporation of organic matter within the drip line or critical root zone of trees or within 10 feet of underground utilities.

(2) Erosion/sediment control practices, including provisions of sections 5, Erosion Control Plan, and 9, Maintenance, of the District Erosion Control Rule, as appropriate, shall be used during buffer vegetation establishment.

(3) Buffers shall be planted with a native seed mix and/or native plantings approved by the District.

(4) Buffer maintenance and monitoring shall be performed in accordance with section 10, Wetland Buffer Monitoring, of this rule.

8. **FINANCIAL ASSURANCE.** A performance bond, letter of credit or other financial assurance, consistent with the District Financial Assurance Rule, may be required for any project involving wetland replacement or replanting of wetland buffers. The financial assurance shall be maintained until the monitoring period has ended and District has approved the wetland replacement or establishment of the buffer.

9. **REQUIRED EXHIBITS.** The following exhibits shall accompany the Combined Joint Notification (CJN) form:

(a) Complete delineation report, in accordance with the guidelines provided by the Board of Water and Soil Resources, for any wetland(s) that will be impacted or require a buffer. The report must be approved by the WCA Local Government Unit (LGU). The report must include a copy of the Notice of Decision for all projects occurring in cities where the District is not the LGU.

(b) Site plan, one set - full size and one set - reduced to a maximum size of 11" x 17", showing:

(1) Property lines and corners and delineation of lands under ownership of the applicant;

(2) Existing and proposed elevation contours; including the existing runout elevation and flow capacity of the wetland outlet;

(3) Boundaries of all wetlands on the property;

(4) Boundaries of all existing or proposed buffers, along with proposed grading and other disturbance in existing or proposed buffers;

(5) Proposed locations of buffer signage; and

(6) Area of the wetland portion to be filled, drained, or excavated.

(c) Identification and area of the total watershed area presently contributing stormwater runoff to the wetland.

(d) A replacement plan, if required, meeting all the requirements of Minnesota Rules chapter 8420, as amended. Replacement plans for wetland impacts not subject to the WCA must meet these same requirements.

(e) For projects involving wetland excavation (including projects deemed self-replacing under paragraph 4(b)), the application shall identify spoils placement on upland and specify how the deposited materials will be stabilized and vegetated.

(f) Information showing whether the subject wetland is protected by either the State or municipality or both.

(g) Wetland Buffer Planting Plan, if required under section 7, Wetland Buffer Vegetation, including:

(1) Proposed seed mixes and other plant materials to be used;

(2) Seed or plant supplier and origin of materials;

(3) Seed/planting bed preparation (i.e. disking, raking, clearing, herbicide control, topsoiling, etc.);

(4) Seeding and/or planting method (i.e. broadcast, drill, etc.);

(5) Application rate in either pounds of seed per acre and/or the number of plants per unit area if using plugs or seedlings. Specify if using pure live seed (PLS). Higher application rates will be required if not using PLS;

(6) Detailed erosion control plan for establishing wetland buffer.

(h) Wetland Buffer Maintenance Plan, if required under section 7, Wetland Buffer Vegetation, including:

(1) Schedule of establishment and maintenance activities for the first five years of establishment (i.e. watering, burning, mowing, herbicide control, etc.);

(2) Identification of probable invasive species and steps that will be taken to control the spread of invasive species;

(3) Inspection methods and schedule for monitoring invasive species and documenting native species germination and establishment.

10. **WETLAND BUFFER MONITORING.** For buffer areas required to be established or replaced under subsection 7(c), setting standards for buffer establishment and maintenance:

(a) Upon final establishment, wetland buffers shall contain little or no bare soil and shall exhibit a dominance of native vegetation.

(b) The applicant shall submit to the District an annual Wetland Buffer Inspection Report on or before January 1 of each year for five years. Alternatively, applicants may request that the District perform the Wetland Buffer Inspection and produce the report for a fee equal to the District's actual costs to perform the work.

(1) The applicant may submit a written request to cease annual monitoring by year three if the wetland buffer is well established pending District approval.

(2) If the wetland buffer is poorly established at the end of the five year monitoring period, the District may require continued monitoring and maintenance.

(c) The annual Wetland Buffer Inspection Report shall include:

(1) Site plan showing:

- i. Location of permitted buffer area;
- ii. Areas of bare soil or erosion;
- iii. Areas of invasive vegetation; and
- iv. Location and type of any encroachments on the buffer (structures, unapproved mowing, trails, etc.)

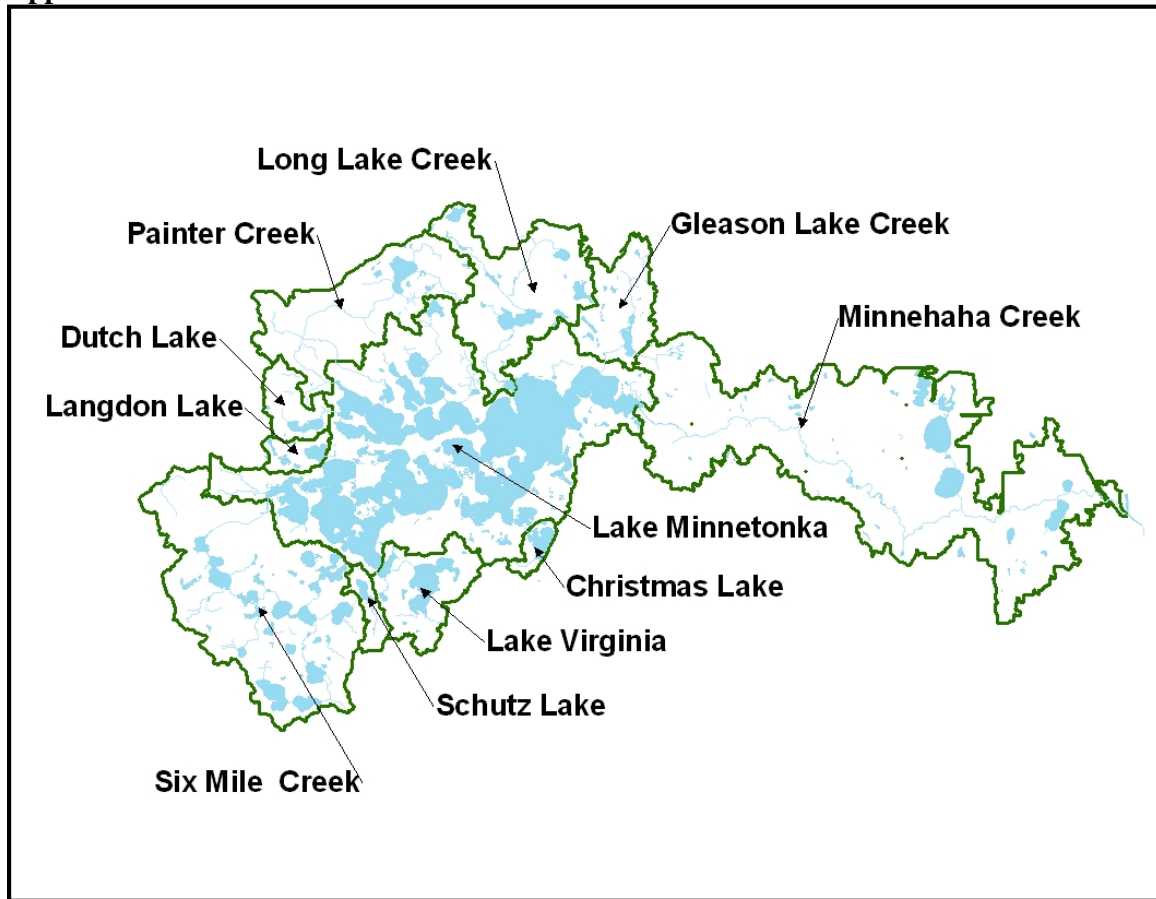
(2) Color photos of the wetland buffer taken during the growing season. Vantage points for these photos shall be labeled on the site plan.

(3) Description of buffer vegetation including:

- i. List of dominant plant species and their estimated percent cover.
- ii. Comparison of the species present to the approved planting/seeding plan.

(4) A written narrative that identifies the management strategies that will be utilized during the upcoming growing season to manage invasive species, improve percent vegetative cover and species diversity, and mitigate any encroachments on the buffer.

**Appendix 1:**





**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES §103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**SHORELINE & STREAMBANK STABILIZATION RULE**

**1. POLICY.** It is the policy of the Board of Managers to:

- (a) Preserve the natural appearance of shoreline and streambank areas;
- (b) Encourage and foster bioengineering, landscaping and preservation of natural vegetation as preferred means of stabilizing shorelines and streambanks;
- (c) Assure that improvement of shoreline and streambank areas to prevent erosion complies with accepted engineering principles in conformity with Minnesota Department of Natural Resources construction guidelines; and
- (d) Preserve water quality and the ecological integrity of the riparian environment, including wildlife, fisheries, and recreational water resources.

**2. REGULATION.**

- (a) No person shall install an improvement or alteration of the shoreline of a water basin or the bank of a watercourse, including but not limited to a bioengineered installation, riprap, a retaining wall, a sand blanket or a boat ramp, without first securing a permit under this rule and providing a financial assurance pursuant to the District Financial Assurance Rule. Planting of vegetation not intended to provide deep soil structure stability does not require a permit under this rule.
- (b) All permit applications submitted under this rule, except applications for maintenance of an existing improvement that has not degraded to a natural state, shall be required to include a detailed erosion intensity calculation of the shoreline or streambank in accordance with section 3, Shoreline Erosion Intensity Calculation (for shorelines), or section 4, Streambank Erosion Intensity Calculation (for streambanks), of this rule.
- (c) A permit under this rule is required for maintenance of an existing riprap or otherwise hard-armored shoreline or streambank that involves the addition of new material or structural change to the improvement. No permit under this rule is required for maintenance of an existing shoreline or streambank improvement that involves in-kind replacement or restoration of the improvement in compliance with the criteria in this rule.

(d) A Fast Track permit may be issued for shoreline stabilization projects that conform to the requirements in section 6, Criteria for Stabilization Techniques, of this rule.

(e) Shoreline or streambank stabilization projects that do not utilize a stabilization practice consistent with the erosion intensity calculation shall be required to document compliance with the design flexibility/minimal impact standard in section 5, Design Flexibility. Such projects shall be subject to the public notice requirements of the District Procedural Requirements Rule.

(f) A Fast Track permit may be issued for routine sand blanket projects that conform to the requirements set forth in sections 8, Criteria for Laying Sand blankets, and 9, Sand blankets Required Exhibits, of this rule.

### 3. SHORELINE EROSION INTENSITY CALCULATION.

(a) Applications for shoreline stabilization shall be required to complete the Erosion Intensity Scoresheet to document the shoreline erosion intensity (low, medium, high). The Erosion Intensity Scoresheet will be maintained and periodically updated to account for changing conditions and improved understanding of shoreline erosion factors and approved by the Board of Managers by resolution. (The current Erosion Intensity Scoresheet may be obtained from the District office or the permitting section of the District website: [www.minnehahacreek.org](http://www.minnehahacreek.org).)

(b) The proposed shoreline stabilization practice shall be consistent with the shoreline erosion intensity calculated (low, medium, high).

(1) Low erosion intensity shorelines shall utilize biological stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

(2) Medium erosion intensity shorelines shall utilize biological or bioengineering stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

(3) High erosion intensity shorelines shall utilize biological, bioengineering or structural stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

### 4. STREAMBANK EROSION INTENSITY CALCULATION

(a) Applications for streambank stabilization shall be required to complete and report the calculations detailed below to document bank-full stream velocity and shear stress:

(1) Bankful stream velocity

i. Manning's equation:

$$v = \frac{Q}{A} = \left( \frac{1.49}{n} \right) R^{2/3} S^{1/2}$$

$v$  = Average velocity of flow (feet/sec)

$Q$  = Bankful flow (cubic feet/sec)

$A$  = Area of flow (square feet)

$n$  = Manning's number

$R$  = Hydraulic radius (feet)

$S$  = Slope of channel bottom (rise/run)

(2) Shear stress on the streambank

i.  $\tau = d \times \mu \times S$

$\tau$  = Shear stress (pounds / square feet)

$d$  = Bankful flow depth (feet)

$\mu$  = Unit weight of water (62.4 pounds / cubic feet)

$S$  = Slope of channel bottom (rise/run)

(b) The proposed streambank stabilization practice shall be consistent with the shear stress calculated (low, medium, high).

(1) Low erosion intensity streambanks are those where the shear stress calculated is less than or equal to 2.5 lb per square foot and shall utilize biological stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

(2) Medium erosion intensity streambanks are those where the shear stress calculated is between 2.5 and 5 lb per square foot and shall utilize biological or bioengineering stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

(3) High erosion intensity streambanks are those where the shear stress calculated is greater than 5 lb per square foot and shall utilize biological, bioengineering or structural stabilization practices in accordance with section 6, Criteria for Stabilization Techniques, of this rule.

5. DESIGN FLEXIBILITY. Where an applicant believes that, as a result of site specific conditions, the shoreline erosion intensity as calculated in section 3, Shoreline Erosion Intensity Calculation, or the streambank erosion intensity as calculated in section 4, Streambank Erosion Intensity Calculation, may inaccurately predict the degree of erosion, the District may approve alternative stabilization techniques if the applicant provides sufficient evidence to demonstrate that the proposed stabilization practice represents the minimal impact solution with respect to all other reasonable alternatives.

6. CRITERIA FOR STABILIZATION TECHNIQUES.

(a) General criteria:

(1) The District will permit the installation of structural stabilization practices only where there is a demonstrated need to prevent erosion or to restore eroded shoreline/streambank;

(2) Removal of native vegetation within the shoreline/streambank stabilization zone shall be limited in accordance with the following provisions:

- i. Clear cutting shall be prohibited except within the access corridor;
- ii. Native vegetation shall be preserved outside of the access corridor as much as practicable and, where removed, shall be replaced with other vegetation that is equally effective in retarding runoff and preventing erosion.

(3) Stabilization practices shall be installed at a 3:1 slope or flatter where practical and feasible. Practices proposed at slopes steeper than 2:1 shall be evaluated as retaining walls in accordance with section 10, Criteria for Retaining Walls, of this rule;

(4) Horizontal encroachment from a shoreline shall be the minimum amount needed and shall not interfere unduly with water flow. Under normal conditions, hard armoring inert material, such as riprap, or other fill shall be placed no more than 5 feet waterward of a shoreline, measured from the OHW. The maximum encroachment waterward of the OHW is 10 feet. Encroachment from streambanks shall be minimized to the greatest extent practical to limit hydraulic impacts;

(5) Streambank stabilization shall not reduce the cross sectional area of the channel nor result in a net increase in the flood stage upstream or at the site of the streambank stabilization practice unless it can be demonstrated to not exacerbate existing high-water conditions;

(6) Shoreline/streambank stabilization practices shall conform to the natural alignment of the bank (e.g., maintain an undulating or meandering shoreline/streambank);

(7) The design shall reflect the engineering properties of the underlying soils and any soil corrections or reinforcements. For a shoreline, the design shall conform to engineering principles for dispersion of wave energy and resistance to deformation from ice pressures and movement. For a streambank, design shall conform to engineering principles for the hydraulic behavior of open channel flow;

(8) For sites involving aquatic plantings or aquatic plant removal, a separate Aquatic Plant Management permit shall be obtained from the Department of Natural Resources, when applicable;

(9) Any work below the ordinary high water level shall be encircled by a flotation sediment curtain. The curtain shall be constructed and maintained as illustrated in “Protecting Water Quality in Urban areas – Best Management Practices for Minnesota” (MPCA 2000). The barrier shall be removed upon completion of the work after disturbed sediment has settled;

(10) All shoreline/streambank stabilization applications shall submit the required exhibits as set forth in section 7, Required Exhibits for Shoreline/Streambank Stabilization, of this rule.

(b) Criteria for biological and bioengineering techniques:

(1) Live plantings incorporated into the shoreline or bank shall be native aquatic and/or native upland vegetation known to occur in the North Central Hardwood Forest eco-region of Minnesota (refer to the Minnesota Department of Natural Resources “Lakescaping for Wildlife and Water Quality” and the Minnesota Pollution Control Agency “Plants for Stormwater Design”);

(2) Vegetative treatments shall be installed in accordance with the Natural Resource Conservation Service “Engineering Field Handbook Chapter 16”;

(3) If wave barriers are utilized, they shall be located within the 3 foot water depth or less and may not create an obstruction to navigation. Wave barriers shall be removed within 2 years of the installation.

(4) Bioengineered stabilization also must comply with the criteria in (c)(1) – (3) and (5).

(c) Criteria for structural stabilization:

(1) Hard armoring inert material, such as riprap, shall be considered wetland fill only if proposed to be placed within an area identified as a wetland;

(2) Riprap shall extend no higher than the top of the bank, or two feet above the 100-year high water elevation, whichever is lower;

(3) Riprap materials shall be durable stone meeting the size and gradation requirements of MnDOT Class III or IV riprap. Toe boulders shall be at least 50 percent buried and may be as large as 30 inches in diameter;

(4) A transitional granular filter meeting requirements of MnDOT 3601.B, at least 6 inches in depth, shall be placed between the native shoreline and the riprap to prevent erosion of fine grained soils. A geotextile filter fabric meeting the requirements of MnDOT 3733 shall be placed beneath the granular filler where appropriate;

(5) Structural stabilization practices, including riprap, are recommended to include plantings between individual boulders or native upland plantings to retard runoff and prevent erosion wherever feasible and practical.

## 7. REQUIRED EXHIBITS FOR SHORELINE/STREAMBANK STABILIZATION.

(a) Erosion intensity calculations from section 3, Shoreline Erosion Intensity Calculation, or 4, Streambank Erosion Intensity Calculation, of this rule, whichever is applicable, or materials necessary to make the demonstration required in section 5, Design Flexibility.

(b) Photographs of the project site, showing existing conditions.

(c) Site plan showing:

(1) Survey locating the existing ordinary high water (OHW) elevation, existing shoreline or streambank, 100-year high water elevation, and location of property lines;

(2) Elevation contours of the upland within 15 feet of the OHW and referenced to accepted datum;

(3) Location of the shoreline/streambank stabilization zone and access corridor;

(4) Location of existing trees and shrubs within the shoreline/streambank stabilization zone and an indication of whether they are to be removed or retained;

(5) Plan view of locations and lineal footage of the proposed shoreline/bank stabilization treatment; and

(6) The location of an upland baseline parallel to the shoreline/bank with stationing. The baseline shall be staked in the field and maintained in place until project completion. Baseline origin and terminus each shall be referenced to three fixed features, with measurements shown and described on the plan. Perpendicular offsets from the baseline to the OHW shall be measured and distances shown on the plan at 20 foot stations.

(d) Cross section, drawn to scale, with the horizontal and vertical scales noted on the drawing, detailing:

(1) The existing bank, OHW, and 100-year high water elevation;

(2) The proposed stabilization technique, finished slope, and distance lakeward of the OHW;

(3) Material specifications;

(4) Description of the underlying soil materials.

(e) Specification of erosion control and site stabilization practices.

(f) For biological and bioengineering stabilization practices, a Vegetation Establishment Plan, including:

- (1) A plant list with common and scientific names, seed mix specifications, quantities and origin of all material; and
- (2) Specification of the methods, schedule and party responsible for ensuring establishment and maintenance of the vegetation for the three years following installation or construction. The plan shall include the control of invasive species and replacement of vegetation as necessary.

(g) For bioengineering:

- (1) Detail the location of all hard armoring inert material, such as riprap, to be utilized;
- (2) Provide a written narrative explaining how the use of hard armoring inert material such as riprap has been minimized to the extent practical and feasible.

(h) For streambank stabilization:

- (1) Cross sectional view of stream channel in existing and proposed conditions;
- (2) Longitudinal view of stream channel in existing and proposed conditions;
- (3) Plan view of stream channel in existing and proposed conditions;
- (4) Identification of bankful indicators;
- (5) Documentation of existing soils, wetlands, vegetation, slopes, bank and channel material;
- (6) Identification of in-stream features such as woody debris, riffles and pools, etc.

(i) For sites involving aquatic plantings or aquatic plant removal, a copy of the Department of Natural Resources Aquatic Plant Management permit application, if required.

8. **CRITERIA FOR LAYING SAND BLANKETS.** All permitted sand blanketing shall comply with the following standards:

- (a) The sand or gravel used must be clean prior to being spread. The sand must contain no toxins or heavy metal, as defined by the Minnesota Department of Natural Resources, and must contain no weed infestations such as, but not limited to, water hyacinth, alligator weed, and Eurasian watermilfoil, or animal life infestations such as, but not limited to, zebra mussels or their larva. Violators will be prosecuted to the full extent of the law.

(b) The sand layer must not exceed six inches in thickness, 50 feet in width along the shoreline, or one-half the width of the lot, whichever is less, and may not extend more than 10 feet waterward of the ordinary high water mark.

(c) Only one installation of sand or gravel to the same location may be made during a four-year period. After the four years have passed since the last blanketing, the location may receive another sand blanket. No more than two applications may be made at an individual project site.

(d) Exception. Beaches which are operated by governmental entities and available to the public shall be maintained in a manner that represents the minimal impact to the environment, relative to other reasonable alternatives, and but otherwise are exempt from the criteria in paragraphs (b) and (c) of this section.

**9. SAND BLANKET REQUIRED EXHIBITS.** The following exhibits shall accompany the sand blanket permit application:

(a) Site plan showing property lines, delineation of the work area, existing elevation contours of the adjacent upland area, ordinary high water elevation, and 100-year high water elevation (if available). All elevations must be reduced to NGVD (1929 datum).

(b) Profile, cross sections and/or topographic contours showing existing and proposed elevations in the work area. (Topographic contours should be at intervals not greater than 1.0 foot).

(c) A completed Sand blanket Permit Application form, available from the District.

**10. CRITERIA FOR RETAINING WALLS.**

(a) A new retaining wall, or repair/reconstruction of an existing retaining wall that increases floodplain encroachment beyond that required by technically sound and accepted repair/reconstruction methods, is permitted only pursuant to a variance or an exception under the District Variance Rule. The applicant must demonstrate that there is no adequate stabilization alternative.

(b) Wooden seawalls and/or steel sheetpiling retaining walls shall comply with accepted engineering principles.

(c) The applicant shall submit a structural analysis prepared by a professional engineer registered in the State of Minnesota, in the practice of civil engineering, showing that the wall will withstand expected ice and wave action and earth pressures.

(d) The applicant shall submit a survey prepared by a registered land surveyor locating the finished wall and shall file a certificate of survey with the District.

**11. CRITERIA FOR OTHER SHORELINE IMPROVEMENTS.** Other shoreline improvements, such as boat ramps, shall comply with accepted engineering principles as follows:

(a) Boat ramps and other similar improvements shall not be allowed in riparian shoreline areas unless the applicant demonstrates that no feasible alternative riparian access is available, that aquatic habitat and water quality impacts are minimized;



(b) Installation of boat ramps shall involve placement of no more than 50 cubic yards of inert and clean material, and the maximum width of shoreline disturbance shall be 15 feet unless the facility is a commercial marina or public launch facility that requires a greater width; and

(c) Materials utilized for construction of boat ramps or other similar improvements shall be safe and cause no adverse environmental impacts; the improvement shall be of sound design and construction so that the improvement is reasonably expected to be safe and effective.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES § 103D.341**

**Adopted April 24, 2014  
Effective June 6, 2014**

**DREDGING RULE**

1. **POLICY.** It is the policy of the Board of Managers to:

- (a) Preserve the natural appearance of shoreline areas; recreational, wildlife and fisheries resources of surface waters; surface water quality and the ecological integrity of the riparian environment;
- (b) Protect backwater areas and wetlands adjacent to or hydrologically connected to area lakes, with particular protection of backwater areas and wetlands that have been identified by the District as particularly sensitive to stormwater impacts or as providing valuable vegetative diversity or integrity; wildlife or fish habitat; shoreline protection; or exceptional aesthetic, educational, recreational or cultural features;
- (c) Minimize impacts from dredging to the biologically productive and ecologically sensitive littoral zone of water bodies to prevent the deterioration of water quality, the proliferation of invasive species and increased seepage;
- (d) Balance the riparian rights of property owners with the public interest in protecting water resources.

2. **REGULATIONS.** No person shall dredge in the beds, banks or shores of any public water or public waters wetland in the District without first securing a permit from the District, and posting a bond or letter of credit pursuant to the Financial Assurance Rule.

3. **GENERAL STANDARDS.** All permitted dredging shall comply with the following standards:

- (a) A spoil disposal site must be identified and found not to be below the OHW of a public water or public water wetland, wetland subject to the Wetland Conservation Act of 1991, or floodplain and not prone to erosion.
- (b) Where there is an identifiable source of sediment under the control of the applicant, the plan shall include remedial action to minimize deposition of sediment into a waterbody or off-site.
- (c) Before District review, all dredging proposals that involve navigational access to docking structures shall be submitted to and approved by, in the case of public waters, the Minnesota Department of Natural Resources and, in the case of Lake Minnetonka, the Lake Minnetonka Conservation District. Proposed dredging in Lake Minnetonka is subject to the dredging standards of the DNR, MCWD and LMCD Dredging Joint Policy Statement (April 1993).
- (d) The proposed project shall represent the "minimal impact" solution to a specific need with respect to all other reasonable alternatives such as dock extensions, aquatic nuisance plant

removal without dredging, beach sand blankets, excavation above the bed of public water, less extensive dredging in another area of the public water, or management of an alternative water body for the intended purpose. For a project determined by the District to present potential impacts to Preserve wetlands and other ecologically sensitive areas, the applicant must demonstrate that the proposed project is likely to cause minimal ecological impact and that it presents the least ecological impact of all reasonable alternatives.

(e) The dredging shall be limited to the minimum dimensions necessary for achieving the stated purpose.

(f) If the dredging will be accomplished by means of hydraulic dredging the following additional standards will apply:

(1) The spoil disposal site shall have a minimum storage capacity equal to four times the calculated volume of solid material to be removed, and a minimum free board between the top of the projected water surface elevation and the top of the dike of one foot, if no outlet from the spoil disposal site is proposed.

(2) The construction of the spoil containment site shall be with earthen dikes. No such dike shall exceed 5.5 feet in height at any point. Dikes shall have a minimum 4 foot wide top and side slopes of 2:1 (H:V) or flatter. The dikes shall be adequately compacted by traversing with appropriate equipment during construction.

(3) Proposed embankments which differ from the standard in 3(f)(2) shall comply with generally accepted engineering principles and be designed and certified by a professional engineer registered in the State of Minnesota.

(4) Spoil containment sites of limited storage volume which propose a discharge back into a receiving water body through a control structure shall meet applicable State water quality guidelines for the receiving water body. Weekly monitoring of the instantaneous discharge shall be performed and paid for by the applicant. The results shall be promptly forwarded to the District Engineer for comparison to state water quality standards for turbidity and total suspended solids.

(5) A restoration plan prepared by a qualified individual shall show proposed methods of retaining waterborne sediments on site during the period of operation. The plan shall show final grades and how the site will be restored, covered and/or vegetated after construction. Sites with high erosion potential characterized by steep slopes or erodible soils may require a cash deposit or surety to ensure performance and any necessary remedial actions.

#### 4. CRITERIA.

(a) Dredging shall be permitted only:

(1) To maintain, or remove sediment from, an existing public or private channel, not exceeding the original or originally permitted extent of dredging, whichever is less, and subject to such further limitations on method or extent of dredging as this rule may provide;

- (2) To implement or maintain an existing legal right of navigational access;
- (3) To remove sediment to eliminate a source of nutrients, pollutants, or contaminants;
- (4) To improve the public recreational, wildlife, or fisheries resources of surface waters;  
or
- (5) For actions by public entities for public purposes.

(b) In evaluating an application to dredge to maintain or remove sediment from an existing public or private channel, the significance of historic dredging will depend on how recently the original dredging or subsequent maintenance to sustain use took place, the extent of recent use, and the amount and significance of evidence supporting use for the proposed purpose.

(c) In evaluating an application to dredge to create or maintain navigational access, the District will determine whether the navigation sought is reasonable under the circumstances, considering:

- (1) The ecological sensitivity or preserve status of any potentially affected water body or wetland;
- (2) The size, draft, speed, motorized status and other characteristics of watercraft historically used or proposed to be used in the area proposed to be dredged;
- (3) The size, draft, speed, motorized status and other characteristics of watercraft typically moored and used within 200 yards of the area proposed to be dredged;
- (4) The size and restrictiveness of existing channels and bridge openings that may affect navigation; and
- (5) The availability of alternative means of gaining access, such as extending docks; purchasing, renting or leasing shore moorings; or anchoring watercraft away from shore moorings.

(d) No dredging shall be permitted:

- (1) Above the ordinary high water level or into the upland adjacent to the lake or watercourse;
- (2) That would enlarge a natural watercourse landward or that would create a channel to connect adjacent backwater areas for navigational purposes;
- (3) Where the dredging will alter the natural shoreline of a lake;
- (4) Where the dredging might cause increased seepage or result in subsurface drainage;
- (5) Where any portion of the dredged area contains any slope steeper than 3:1 (H:V) in a marina or channel, or steeper than 10:1 (H:V) for an area adjoining residential lakeshore;  
or
- (6) Where adverse ecological impact to a preserve wetland or other ecologically sensitive area cannot be minimized.

(7) No dredging in a public water shall occur between April 1<sup>st</sup> and June 30<sup>th</sup>. No dredging in any other waterbody shall occur between April 1<sup>st</sup> and June 30<sup>th</sup> unless the applicant demonstrates that fish spawning does not occur in the waterbody.

(e) Dredging presenting the conditions identified in 4(d)(1-3) above may be permitted where the project complies with applicable DNR rules.

5. REQUIRED EXHIBITS. The following exhibits shall accompany the permit application. One set - full size; one set - reduced to maximum size of 11"x17".

(a) Site plan showing property lines, delineation of the work area, existing elevation contours of the adjacent upland area, ordinary high water elevation, and 100-year high water elevation (if available). All elevations must be reduced to NGVD (1929 datum).

(b) Profile, cross sections and/or topographic contours showing existing and proposed elevations and proposed side slopes in the work area. (Topographic contours should be at intervals not greater than 1.0 foot.)

(c) In the case of projects using hydraulic means of sediment removal and on-site spoil containment the applicant shall supply:

(1) Cross section of the proposed dike.

(2) Stage/storage volume relationship for the proposed spoil containment area.

(3) Detail of any proposed outlet structure, showing size, description and invert elevation.

(4) Stage/discharge relationship for any proposed outlet structure from the spoil containment area.

(5) Site plan showing the locations of any proposed outlet structure and emergency overflow from the spoil containment area.

(d) Site plan showing the proposed location of floating silt curtains.

(e) Support data:

(1) Description and volume computation of material to be removed.

(2) Description of equipment to be used.

(3) Construction schedule.

(4) Location map of spoil containment area.

(5) Erosion control plan for containment area.

(6) Restoration plan for any proposed permanent on-site spoil containment site showing final grades, removal of control structure, and a description of how and when the site will be restored, covered or revegetated after construction.

(7) Detail of any proposed floating silt curtain including specifications for the silt curtain.

(f) In the case of projects where dredging:

(1) Might cause increased seepage or result in subsurface drainage, or

(2) Will remove sediment to eliminate a source of nutrients, pollutants, or contaminants, a minimum of two soil bearing logs extending at least two feet below the proposed work elevation shall be required.

6. FAST-TRACK PERMIT. A Fast Track permit may be issued by District staff for the removal of accumulated sediment caused by a stormwater outlet. The application otherwise must comply with all provisions of this rule. In addition to the requirements of sections 3, General Standards and 5, Required Exhibits of this rule, the following criteria shall be met:

(a) Authorization shall apply only to removal of sediment identified as non-native material accumulated due to stormwater runoff or erosion.

(b) Dredging shall not materially change the elevation or contour of the bed of the affected basin.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**PURSUANT TO MINNESOTA STATUTES § 103D.341**

**ILLICIT DISCHARGE DETECTION & ELIMINATION RULE**

**Adopted November 21, 2013**

**Effective November 21, 2013**

1. **POLICY.** In fulfillment, in part, of its obligations as a municipal separate storm sewer system (MS4) owner and operator under the Clean Water Act, the District regulates illicit connections and discharges of pollutants to its MS4 system and watercourses in the watershed.

2. **REGULATION.**

(a) **Permit required.** A stormwater management plan must be submitted to and a permit obtained from the District for a new direct connection or for the replacement of an existing connection to the District's MS4.

(b) **Illicit connections prohibited.** The construction, use, maintenance or continued existence of illicit connections to the storm drain system without a District permit is prohibited. This prohibition expressly includes, without limitation, illicit connections made prior to adoption of this rule, regardless of whether the connection was permissible under law applicable or prevailing at the time of connection.

(1) A person is considered to be in violation of this rule if the person connects a line conveying sewage to the District's MS4 or allows such a connection to continue.

(2) Any drain or conveyance connected from a commercial or industrial land use to the storm drain system that has not been documented in plans, maps, or equivalent records and approved by a political subdivision will be located by the owner of the property on receipt of Notice of Violation from the District.

(c) **Illegal discharges prohibited.** No one may throw, drain or otherwise discharge or permit or cause others to throw, drain or otherwise discharge any pollutants to the storm drain system or watercourses, including but not limited to pollutants that will cause or contribute to a violation of applicable water-quality standards.

3. **CRITERIA.**

(a) **Connection to the District's MS4 System.**

(1) New direct connections and replacement of existing connections will be completed using a method that is approved by the District.

(2) Peak flow rate, the total volume of flow and the timing of the flow for new connections must not cause new or exacerbate existing water conveyance problems in the District's MS4 system. Enlargement of existing connections is considered a new connection.

(b) **Illicit connections.** Connections to the District's MS4 found to be in violation of this rule are found to be illicit connections, and must be disconnected and, if necessary, redirected to an approved onsite wastewater management system or a sanitary sewer system. This requirement notwithstanding, a property owner required by the operation of this rule to disconnect from the District MS4 retains sole responsibility for compliance with all regulatory and other requirements applicable to an alternative discharge-management system.

(c) **Suspension of MS4 Access.**

(1) **Suspension due to illicit discharges in emergency situations.** The District may, without prior notice, suspend discharge to its MS4 when necessary to stop an actual or threatened discharge that presents or may present imminent and substantial danger to the environment or to the health or welfare of persons, or to the District's MS4 or waters of the state.

(2) **Suspension due to the detection of illicit discharge.** Any person discharging to the District's MS4 in violation of this rule may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The District will notify a violator of the proposed termination of its MS4 access. The violator may petition the District for a reconsideration and hearing. A person commits an offense subject to enforcement if the person reinstates MS4 access to premises terminated pursuant to this paragraph without a permit from the District.

(d) **Monitoring of Discharges.**

(1) **Applicability.** This subsection applies to all facilities that have stormwater discharges associated with industrial or construction activity.

(2) **Access to Facilities.**

i. The District will be permitted to enter and inspect facilities subject to this rule as may be necessary to determine compliance with this rule. The discharger will make the necessary arrangements to allow access to representatives of the District.

ii. Facility operators will allow the District ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of a National Pollution Discharge Elimination System (NPDES) stormwater permit.



iii. If the District has been refused access to any part of the premises from which stormwater is discharged, the District may seek issuance of a search warrant from any court of competent jurisdiction.

(e) **Requirement to prevent, control and reduce stormwater pollutants through the use of best management practices.** The owner or operator of a commercial or industrial facility will provide, at its sole expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the storm drain system or watercourses through the use of structural and non-structural BMPs. The owner of a property that is or may be the source of an illicit discharge may be required by the District to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the District's MS4.

(f) **Watercourse Protection.** No one may pollute or contaminate a watercourse in the Minnehaha Creek watershed. An owner of real property riparian to a watercourse in the Minnehaha Creek watershed will maintain existing privately owned structures within or adjacent to a watercourse so that such structures will not become a hazard to the use, function or physical integrity of the watercourse.

(g) **Notification of Spills.** Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation, has information of any known or suspected release of materials which result or may result in illegal discharges or discharge of pollutants to stormwater, the storm drain system or waters of the state, said person will take all necessary steps to ensure the containment and cleanup of such release. In the event of a release of hazardous materials, said person will immediately notify emergency response agencies of the release. In the event of a release of nonhazardous materials, said person will notify the District in person or by phone or email no later than the next business day following discovery of the release.

(h) **Enforcement.** In addition to pursuing enforcement actions as provided in the District Enforcement Rule, the District may utilize the following measures to enforce the provisions of this rule:

(1) **Notice of violation.** Whenever the District finds that a person has violated a prohibition or failed to meet a requirement of this rule, the District may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- i. The performance of monitoring, analysis and/or reporting;
- ii. The elimination of illicit connections or discharges;
- iii. That violating discharges, practices or operations will cease and desist;

iv. The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;

v. Payment of District costs of administrative and remediation;

vi. The implementation of source control or treatment BMPs.

(2) **Enforcement Measures.** If a violation is not corrected pursuant to the Notice of Violation and subsequent District order, the District may seek enforcement of the rule requirements and/or order through criminal prosecution, injunction, action to compel performance, restoration, abatement, and other appropriate action. The District may avail itself of any and all measures necessary to abate the violation and/or restore the property. It is unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the District or its agents to enter upon the premises for the purposes set forth herein.

(3) **Cost of Abatement.** The District may assess costs of abatement or restoration against the property at which the abatement or restoration was required.

4. **EXHIBITS.** The following exhibits must accompany an application for a permit under this rule. One set full size; one set reduced to 11 inches by 17 inches; and a copy of all submittals in electronic Adobe Acrobat (.pdf) format.

(a) Property lines and delineation of lands identifying ownership and easements.

(b) Proposed and existing stormwater facilities' location, alignment and elevation.

(c) Identification of existing and proposed site contour elevations with at least a 2-foot contour interval.

(d) Construction plans and specifications of the proposed connection, including design details, connection method, and timing of connection.

(e) Stormwater runoff volume and rate analysis for the 2-, 10-, and 100-year critical events, existing and proposed conditions.

## 5. **EXCEPTIONS.**

(a) Discharges from the following sources are exempt from the prohibitions in this rule: flushing of a water line or another potable water source, landscape irrigation, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated groundwater, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wetland flows, dechlorinated swimming pools and street wash water.

(b) Discharges subject to specific exemption in writing from the District as necessary to protect public health and safety.

(c) Dye testing is an allowable discharge, but requires a verbal notification to the District prior to the time of the test.

(d) Any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**APPROPRIATIONS RULE**

**Adopted November 21, 2013**

**Effective November 21, 2013**

1. **POLICY.** In fulfillment of the mandate of Minnesota Statutes section 103B.211, subdivision 4, the Board of Managers regulates the appropriations of public waters within Hennepin County.

2. **REGULATION.** A permit from the District is required to appropriate up to 10,000 gallons per day and up to 1,000,000 gallons per year of surface water for a nonessential use from:

(a) A public water basin or public waters wetland within the portion of the District within Hennepin County that is less than 500 acres in surface size and does not have a navigable connection to Lake Minnetonka; or

(b) A protected watercourse within the portion of the District within Hennepin County that has a drainage area of less than 50 square miles.

An individual permit from the District is not required if the information required under section 3 of this rule is provided. An appropriation under this rule is subject to the following conditions. An appropriation of public water under this rule:

(a) Must not lower the water level in the basin or watercourse to an extent that would deprive the public and riparian property owners of reasonable use of and access to the water;

(b) Must be reasonable and practical with regard to alternative sources of water or methods available – including use of water appropriated during high flows and levels and stored for later use and the use of ground water – to attain the appropriate objective;

(c) Must utilize water storage and reuse, and conservation practices;

(d) May not cause a negative impact to the water resource;

(e) May be subject to restriction, at any time, to meet in-stream flow needs or protect basin water levels.

3. **REQUIRED EXHIBITS.** To qualify for the general permit established by this rule, a party must submit the following information:

(a) Address of the property from which the appropriation will be made;

- (b) Applicant email address;
- (c) Purpose of the requested appropriation;
- (d) Source of water.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES §103D.341**

**Adopted May 26, 2011  
Effective June 1, 2011**

**FINANCIAL ASSURANCES RULE**

1. POLICY. It is the policy of the Board of Managers to:

- (a) conserve the water resources of the District by assuring compliance with the District's rules in the performance of activities within the watershed; and
- (b) require a financial assurance to be submitted with a permit application, conditioned on adequate performance of the authorized activities and compliance with District rules as an effective means to conserve the water resources of the District.

2. FINANCIAL ASSURANCE REQUIREMENT.

- (a) A financial assurance instrument (performance bond, letter of credit, cash escrow deposit or other assurance) may be required as a condition of issuance of a permit under the District rules.
- (b) A financial assurance will not be required of any agency of the United States or of any governmental unit or political subdivision of the state of Minnesota.

3. FINANCIAL ASSURANCE CRITERIA. The required amount and duration of financial assurances will be set by the Board of Managers by resolution and subject to periodic review and revision in consideration of the following criteria, which apply to all financial assurances required by the District rules. (The current schedule of financial assurance amounts and durations may be obtained from the District office or website: [www.minnehahacreek.org](http://www.minnehahacreek.org).)

- (a) Required amounts and durations of financial assurances will be set to ensure against potential liabilities to the District, including but not limited to:
  - (1) Application, field inspection, monitoring, consultant services and related fees authorized under Minn. Stat. § 103D.345;
  - (2) The cost of implementing and maintaining protective measures required by the permit; and

(3) The cost of remedying damage resulting from permit noncompliance or for which the permittee otherwise is responsible.

(b) The financial assurance instrument shall be in a form acceptable to the District. A commercial assurance must be issued by a surety licensed and doing business in Minnesota. (Templates may be obtained from the District office or website, [www.minnehahacreek.org](http://www.minnehahacreek.org).)

(c) The financial assurance shall be issued in favor of the District and conditioned upon the applicant's performance of the activities authorized in the permit in compliance with the terms and conditions of the relevant permit(s) and all applicable laws, including the District rules, and payment when due of any fees or other charges authorized by law, including the District rules. The financial assurance shall state that in the event the conditions of the financial assurance are not met, the District may make a claim against it. In the event that the District makes a claim against a financial assurance, the District may require the full amount to be restored within 45 days.

(d) The financial assurance instrument shall contain a provision stating that it will not be canceled without at least thirty (30) days prior written notice to the District by the surety.

(e) Financial assurances shall be required of and submitted by the permit applicant, but the surety principal may be the landowner or the individual or entity undertaking the proposed activity.

(f) When a cash escrow is to be provided to fulfill District financial assurance requirements, the permittee/escrow provider will be required as a condition of permit issuance, transfer or renewal to enter into a cash escrow agreement with the District. Permit approval may be revoked for failure to comply with this requirement.

#### 4. FINANCIAL ASSURANCE RELEASE.

(a) For a financial assurance covering a single project, on written notification of project completion, the District may inspect the project. If the project has been completed in accordance with the terms of the permit and District rules and there is no outstanding balance owed to the District for unpaid permit fees, the District will release the financial assurance. Final inspection compliance includes, but is not limited to, confirmation that the site has been vegetated and stabilized to prevent erosion and sedimentation in accordance with District rules and stormwater management features have been constructed or installed and are functioning as designed. If the District does not inspect the project and make a determination of the project's compliance with the above criteria within 45 days of District receipt of written notification of project completion, the financial assurance will become immediately eligible for release.

(1) The District may return a portion of a financial assurance submitted to assure performance if the District finds that the entire amount is no longer required to ensure compliance with the permit conditions and District rules. Specific District

rules may include additional criteria under which partial return of a performance assurance may be authorized.

(b) A financial assurance submitted to satisfy the financial assurance requirement for more than one permit will be released by the District on written request of the principal if the conditions listed in either of the following paragraphs are met:

(1) Pursuant to an inspection by the District of the final project covered by the assurance, the District determines that the project has been completed in accordance with the terms of the permit and District rules and there is no outstanding balance owed to the District for unpaid permit fees. If the District does not inspect the project and make a determination of the project's compliance with the above criteria within 45 days of District receipt of written notification of final project completion, the financial assurance will be immediately eligible for release.

(2) The applicant submits a new financial assurance in a form and amount satisfactory to the District.



**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES §103D.341**

**Adopted May 26, 2011  
Effective June 1, 2011**

**PERMIT FEES RULE**

**1. FINDINGS.** The Board of Managers finds that:

(a) public awareness of and compliance with the permitting process will be served by a policy of charging a minimal permit application fee. By encouraging applicants to seek permits for potential projects, the public benefits by reduced inspection and enforcement costs;

(b) it is in the public interest that large-scale development projects and activities in sensitive locations be inspected by District staff to provide the Board of Managers 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 finds that its costs of engineering, inspection and analysis in such cases exceed those where the applicant has complied with District requirements. The Board further concludes that watershed property owners subject to the District's annual tax levy should not pay costs incurred because of a failure to meet District requirements. Therefore, the Board adopts a rule charging fees to the responsible persons in such cases.

**2. FEES.**

(a) The District will charge applicants an initial permit processing fee in accordance with a schedule set, and revised from time to time, by resolution of the Board of Managers to account for the expected processing and initial inspection costs based on the type and extent of the proposed activities and the applicable rule requirements. A permit application will not be deemed complete and will not be acted on by the District until the permit processing fee is paid. A current fee schedule may be obtained from the District web site at [www.minnehahacreek.org](http://www.minnehahacreek.org).

(b) Beyond the initial permit processing fee, permit applicants will be charged the District's actual costs of administering and enforcing permits, as well as the actual costs of field inspections or investigations of the area affected by a proposed activity, analysis of the proposed activity, and engineering and other technical analysis, legal fees and costs and administrative expenses, as well as any monitoring of permitted activities required.

Applicants and permittees will be invoiced for all costs described by this paragraph incurred by the District beyond the permit processing fee.

(c) In accordance with section 5 of the Enforcement Rule, permittees will be liable for enforcement costs incurred by the District, including but not limited to the costs of inspection and monitoring of compliance, engineering and other technical analysis, legal fees and costs, and administrative expenses. Applicants and permittees will be invoiced for all costs described by this paragraph incurred by the District.

(d) An invoice issued in accordance with the provisions of this rule must be paid within thirty (30) days from the receipt. Failure to pay a District permitting-fees invoice will constitute a failure to comply with District permit-application requirements or a violation of the terms of an issued permit, and the Board of Managers may deny a permit application or revoke a permit based on nonpayment of fees.

3. RECOVERY OF FEE. The fees provided for in this rule may be recovered by the District by any legal action authorized by law.

4. GOVERNMENTAL AGENCIES EXEMPT. No permit fee will be charged to any agency of the United States or any governmental unit in the State of Minnesota.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES §103D.341**

**Adopted May 26, 2011  
Effective June 1, 2011**

**VARIANCES AND EXCEPTIONS RULE**

1. **VARIANCES AUTHORIZED.** The Board of Managers may hear requests for variances from strict compliance with provisions of the District rules.
2. **STANDARD.** To grant a variance, the Board of Managers must determine, based on a showing by the applicant:
  - (a) that because of special conditions inherent to the property, which do not apply generally to other land or structures in the District, strict compliance with a provision of a District rule will cause undue hardship to the applicant or property owner;
  - (b) that the hardship was not created by the landowner, the landowner's agent or representative, or a contractor. Economic hardship is not grounds for issuing a variance;
  - (c) that granting such variance will not merely serve as a convenience to the applicant,
  - (d) that there is no feasible and prudent alternative to the proposed activity requiring the variance; and
  - (e) that granting the variance will not impair or be contrary to the intent of these rules.
3. **TERM.** A variance or exception will remain valid only as long as the underlying permit remains valid.
4. **VIOLATION.** A violation of any condition of approval of a permit subject to a variance shall constitute grounds for termination of the variance.
5. **EXCEPTIONS.** The Board of Managers may grant an exception from a provision of these rules requiring a particular treatment or management method, or setting forth a design specification of such a method, on a determination that the proposed application, with such further conditions as the Board may impose, will achieve a greater degree of water resource protection than would strict compliance with the provision.
6. **SUPERMAJORITY REQUIREMENT.** A variance or exception must be approved by a two-thirds majority of managers voting.

**MINNEHAHA CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**REVISIONS  
PURSUANT TO MINNESOTA STATUTES §103D.341**

**Adopted May 26, 2011  
Effective June 1, 2011**

**ENFORCEMENT RULE**

1. INVESTIGATION OF NONCOMPLIANCE. District staff may enter and inspect a property in the watershed to determine whether a violation of one or more District rules, a permit or an order exists or whether land-disturbing activities have been undertaken in violation of District permitting requirements.

2. ADMINISTRATIVE COMPLIANCE ORDER. Upon finding a probable violation and failure of the property owner to apply or permittee to take necessary corrective steps, the District may immediately issue a compliance order. A District compliance order may require a property owner to apply for an after-the-fact permit and/or effect corrective or restorative actions. A District compliance order may require that land-disturbing activities on the property cease.

(a) The Board of Managers has delegated authority to issue compliance orders to District staff.

3. BOARD HEARING. A compliance order issued by the District will include notice of or be followed by a notice to the property owner and/or permittee of a hearing before the Board of Managers. After notice and hearing, the Board of Managers may determine that the noncompliance or violation has been corrected and rescind the compliance order. If the Board of Managers determines that the noncompliance or violation has not been corrected, it may extend the compliance order or issue a new order finding a party in violation of a District compliance order, rule, permit or other order and directing the party to take action to correct or mitigate the effects of the violation or restore the site.

4. DISTRICT COURT ACTION. The 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, through a civil or criminal action pursuant to Minnesota Statutes section 103D.545 and 103D.551.

5. LIABILITY FOR ENFORCEMENT COSTS. The permittee or owner of a property that is the subject of District enforcement efforts will be liable for associated costs incurred by the District, including but not limited to the costs of inspection and monitoring of compliance, engineering and other technical analysis, legal fees and costs, and administrative expenses.