

RILEY-PURGATORY-BLUFF CREEK WATERSHED DISTRICT  
RULES

Proposed amendments

Adopted as revised ~~August 8, 2018~~XXXXXX

DRAFT

**RILEY-PURGATORY-BLUFF CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

I, \_\_\_\_\_, secretary of the Riley-Purgatory-Bluff Creek Watershed District Board of Managers, certify that the attached are true and correct copies of the rules of the Riley-Purgatory-Bluff Creek Watershed District, which were properly adopted by the Board of Managers.

\_\_\_\_\_  
\_\_\_\_\_, Secretary

Date: \_\_\_\_\_

[Notary block]

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## Definitions

The following definitions and acronyms apply to the District rules and accompanying guidance materials.

**100-year flood elevation:** The surface elevation of a waterbody or stormwater-management facility that has a 1-percent chance of being equaled or exceeded in any given year, as shown on District floodplain maps, where available, or as calculated using a model utilizing the most recent applicable precipitation reference data as published by the National Weather Service (e.g., Atlas 14) or Natural Resource Conservation Service Technical Release 60 (TR-60), whichever is higher

**Abstraction:** Permanent retention of runoff on a site by structures and practices such as infiltration basins, evapotranspiration and capture and reuse.

**Back-to-back storm events:** Distinct rainfall events occurring within 24 hours of each other.

**Best management practices (BMPs):** Various structural and nonstructural measures taken to minimize negative effects on water resources and systems, such as ponding, street sweeping, filtration through a rain garden and infiltration, as documented in the Minnesota Pollution Control Agency's Protecting Water Quality in Urban Areas and the Minnesota Stormwater Manual.

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

**District:** Riley-Purgatory-Bluff Creek Watershed District.

**Existing conditions:** Site conditions at the time of consideration of a permit application by the District, before any of the work for which a permit is sought has commenced, except that when impervious surfaces have been fully or partially removed from a previously developed ~~parce~~site but no intervening use has been legally or practically established, "existing conditions" denotes the previously established developed use and condition of the ~~parce~~site.

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

**Groundwater:** Water in the interstices of rock and soil that is present at pressures greater than one atmosphere.

**High-Risk Erosion Areas** are specific locations in the watershed that, because of topography and soil conditions, are particularly susceptible to erosion. High-Risk Erosion Areas are specified in a map adopted by the Board of Managers and published and maintained by the District on its website at [www.rpbcwd.org](http://www.rpbcwd.org).

**Impervious surface:** Any ground surface that is or has become compacted or covered with a layer of material, or is likely to become compacted from expected use, such that it is or will be highly resistant to infiltration. (A boardwalk is not an impervious surface.)

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

**Land-disturbing activity:** Any alteration of the ground surface that could result, through the action of wind and/or water, in soil erosion, substantial compaction, or the movement of sediment into waters, wetlands, storm sewers, or adjacent property. Land-disturbing activity

includes but is not limited to soil stripping, clearing, grubbing, grading, excavating, filling and the storage of soil or earth materials. Typical, routine farming operations (e.g., plowing, harvesting) are not land-disturbing activities for purposes of the rules.

**Linear project:** Construction or reconstruction of a public transportation improvements, or construction, repair or reconstruction of a utility or utilities in a linear corridor that is not a component of a larger development or redevelopment project.

**Low floor:** The lowest elevation of a structure.

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

1. the alternating block methodology as outlined in Chapter 4 of the HEC-HMS Technical Reference Manual, (USACE, 2000);
2. methods in HydroCAD;
3. methods established by the Natural Resources Conservation Service; or
4. otherwise as approved by the District engineer.

(Reference: U.S. Army Corps of Engineers. 2000. Hydrologic Modeling System HEC-HMS Technical Reference Manual.)

**Outfall:** A constructed point source where a storm sewer system discharges to a receiving water. An outfall does not include diffuse runoff or conveyances that connect segments of the same stream or water systems (e.g., when a conveyance temporarily leaves a storm sewer system at a road crossing).

**Parcel:** A contiguous area of land under common ownership, designated and described in official public records and separated from other lands by its designation.

**Pervious:** Non-saturated soil with tested soil compaction pressure of less than 1,400 kilopascals/200 pounds per square inch in the upper 12 inches of soil or bulk density of less than 1.4 grams per cubic centimeter in the upper 12 inches of soil.

**Protected wetland:** A wetland, the draining, filling or excavation of which is regulated.

**Remodeling:** For non-linear projects, land-disturbing modifications, including addition, expansion or other improvement to a building or buildings on a property, that involve a change to the footprint of the impervious surface on the parcelsite.

**Redevelopment:** Any land-disturbing activity on an already-developed parcelsite or any substantial change to existing structures on a parcelsite.

**Redoximorphic:** Soil features characterized by evidence of the reduction and oxidation of iron and manganese compounds in the soil after saturation with water and desaturation.

**Regulated feature:** A public watercourse, public waters wetland or other protected wetland in the watershed, or any watercourse within a High-Risk Erosion Area. “Regulated feature” is a collective term, used to describe all water resources regulated under Rule D.

**Rehabilitation:** A maintenance project that disturbs or replaces only the existing impervious surface, does not disturb underlying soils or result in a change in the direction, peak rate,

volume or water quality of runoff flows from the ~~parcelsite~~, and does not include the addition of new impervious surface. Full-depth reconstruction that does not disturb underlying soils and mill and overlay of paved surfaces are rehabilitation.

**Retaining wall:** Vertical or nearly vertical structures constructed of mortar-rubble masonry, hand-laid rock or stone, vertical timber pilings, horizontal timber planks with piling supports, sheet pilings, poured concrete, concrete blocks, or other durable materials and constructed approximately parallel to the streambank or shoreline.

**Right-of-way:** ~~Parcels of land~~Delineated, legally defined property on which a public linear project is located, including adjacent area necessary for safe operation of the road, sidewalk or trail and dedicated to such use by fee ownership or other recorded or registered title interest.

**Shoreline:** The lateral measurement along the contour of the ordinary high water mark of a water basin~~bodies other than watercourses, and the top of the bank of the channel of watercourses,~~ and the area waterward therefrom~~of~~.

**Site:** One or more contiguous properties that are the location of activities that are the subject of a District permit and are under the control of the applicant.

**Stormwater-Management Facility:** a device or practice constructed or installed to limit rate of flow, retain volume and/or provide water-quality treatment of stormwater. A device designed and used solely to convey stormwater flows (a conveyance) is not a stormwater-management facility.

**Stream Power Index:** As defined by the Minnesota Department of Agriculture, Stream Power Index is calculated:  $LN ((\text{Drainage Area} + 0.001) * ((\text{Slope}/100) + 0.0001))$ . SPI is a function of slope and tributary flow accumulation values, which can be thought of as the volume of water flowing to a particular point on the landscape. SPI represent the ability of intermittent overland flow to create erosion, but the SPI values are not differentiated based on soils type or land cover effects on runoff volume or erosion.

**Streambank:** The lateral measurement along the top of the bank of the channel of a watercourse and area waterward therefrom,

**Structure:** Any impervious building or other object that is constructed or placed on the ground and that is, or is intended, to remain in place for longer than a temporary period.

**Subwatershed:** An area described by a level-nine Minnesota Department of Natural Resources catchment code.<sup>1</sup>

**Thalweg:** The line connecting the points of lowest elevation in a watercourse, channel, valley, ravine or gully.

**Topsoil:** The topmost soil horizon ~~which is most favorable for, consisting of clay, silt and sand in proportions conducive to the promotion of root penetration and~~ plant growth. It ~~should be rich in~~ must have a minimum of 5 percent organic matter ~~and must demonstrate the following characteristics:~~.

Requirement	Range	Test Method
Material Passing ¾ sieve	100%	ASTM D 422

<sup>1</sup> See [ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us\\_mn\\_state\\_dnr/geos\\_dnr\\_watersheds/metadata/dnr\\_watersheds\\_auto\\_catchments.html](ftp://ftp.gisdata.mn.gov/pub/gdrs/data/pub/us_mn_state_dnr/geos_dnr_watersheds/metadata/dnr_watersheds_auto_catchments.html)

(19mm)		
Material passing No. 4 sieve	≥85%	
Clay	5%—35%	ASTM D 422
Silt	5%—40%	ASTM D 422
Sand	30%—70%	ASTM D 422
Organic Matter	3%—15%	ASTM D 2974
pH	6.1—7.5	ASTM G 51
Compaction	1,400 kilopascals or 200 pounds/square inch in the upper 12 inches of soil	Field test

**Waterbody:** A watercourse or water basin.

**Water basin:** An enclosed natural depression with definable banks, capable of retaining water.

**Watercourse:** A natural channel with definable beds and banks capable of conducting confined runoff from adjacent land.

*Beyond the definitions above, words in the Riley-Purgatory-Bluff Creek Watershed District rules will be interpreted consistently with definitions in Minnesota water law (Minnesota Statutes chapters 103A, 103B, 103C, 103D, 103E, 103F and 103G). The specific definitions above will prevail in the event of a contradiction or deviation.*

**Acronyms**

**BMP** – best management practice

**LGU** – [Minnesota Wetland Conservation Act local government unit](#)

**MnRAM** – Minnesota Routine Assessment Methodology for Evaluating Wetland Functions (*see* <http://www.bwsr.state.mn.us/wetlands/mnram/index.html>)

**NGVD** - national geodetic vertical datum

**OHW** – ordinary high water level (*see* Minn. Stat. § 103G.005, subd. 14)

## Rule A – Procedural Requirements

### 1 Policy

- ~~1.1~~ Any person undertaking an activity for which a permit is required by these rules must obtain the required permit prior to commencing the activity that is regulated by the District.
- ~~1.2~~ The District rules will be interpreted and permit decisions will be made consistently with watershed district purposes articulated in the Minnesota Statutes section 103B.201 and 103D.201.

### 2 Application

- 2.1 An application bearing the original signature of the property owner(s) must be submitted to the District to obtain a permit under these rules. Applicants are encouraged to contact the District and/or submit preliminary plans early in the project development process for nonbinding informal review for conformity with District policies and rules.
- 2.2 Each substantive District rule includes application and exhibit specifications that, along with this rule, apply to the submission of applications to the District and will be utilized to make determinations of completeness under this rule.
- 2.3 The District will not act on an incomplete permit application. A complete permit application includes all required information, exhibits and fees and must be ~~signed~~ authorized by all property owners. The District will notify an applicant if his or her application is incomplete within fifteen (15) business days of receipt of the application. Required information includes, but is not limited to:
  - a the name, address, and telephone number(s) of all property owners;
  - b the name, address and telephone number(s) for all contractors, if known, undertaking land-disturbing activities as part of the proposed project; and
  - c a statement granting the District and its authorized representatives access to the site for inspection purposes.
- 2.4 Application forms and guidance materials may be obtained from the District office or downloaded from the District web site at [www.rpbcwd.org](http://www.rpbcwd.org).
- 2.5 Emergency activity undertaken by a public entity immediately necessary to protect life or prevent substantial physical harm to persons or property may be the subject of an application submitted within 30 days of commencement of such work. Emergency activity must be timely brought into conformance with all applicable District standards and criteria.

### 3 Conditional approval

The District may conditionally approve an application, but the permit will not be issued until all conditions to the approval are satisfied. All conditions must be satisfied within 12 months of the date of conditional approval, and approval will expire if conditions are not timely satisfied.

#### 4 Reconsideration

An applicant aggrieved by a condition or conditions on approval of an application or the specific grounds for denial of an application may suspend the District's decision on the application by filing a notice of reconsideration with the District.

- 4.1 Notice of reconsideration must be filed with the District within 10 business days of the decision and at least one day before the date by which a decision on the application must be issued to comply with Minnesota Statutes section 15.99. The notice must be submitted on a form provided by the District that includes the applicant's concurrence in an extension of the time for District permit action under section 15.99 and must include a statement of the specific conditions and findings to be reconsidered.
- 4.2 The District will schedule reconsideration of the matter by the Board of Managers and provide notice of the date of reconsideration to the applicant at least 30 days in advance.
- 4.3 No later than 15 days prior to the date of reconsideration, the applicant may supplement the established permit-review record with any additional exhibits, documentation or legal arguments the applicant wishes to submit.
- 4.4 In accordance with Minnesota Statutes section 103D.345, subdivision 2, an applicant will be responsible for the analytical costs incurred by the District for purposes of the reconsideration, except no costs will be recovered for reconsideration of a decision made on an application made by a local, state or federal governmental body.
- 4.5 Upon the applicant's filing of a notice of reconsideration, the underlying permit decision will be suspended until the District renders a determination on the reconsideration and the activities that are the subject of the application may not be undertaken before the District renders a final decision on reconsideration.
- 4.6 Absent the timely filing of a notice of reconsideration of a condition or the grounds for denial, the District's decision on the application is final at issuance. A decision on reconsideration will constitute the District's final decision on the application.

#### 5 Permit assignment and renewal

A permit is valid for one year from the date the permit is approved, with or without conditions, unless specified otherwise by the District on approval or the permit is suspended or revoked. To renew or transfer a permit or conditional approval of a permit, the permittee must notify the District in writing prior to the permit expiration date and provide an explanation 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, except that 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. If the activities subject to the permit have not substantially commenced, no more than one renewal may be granted. An applicant wishing to continue to pursue a project for which permit approval has expired must reapply for a permit from the District and pay applicable fees.

A permittee may assign a permit to another party only upon approval of the District, which will be granted if:

- 5.1 the proposed assignee agrees in writing to assume responsibility for compliance with all terms, conditions and obligations of the permit as issued;
- 5.2 there are no pending violations of the permit or conditions of approval; and
- 5.3 the proposed assignee has provided any required financial assurance necessary to secure performance of the permit.

The District may impose different or additional conditions on the transfer of a permit or deny the transfer if it finds that the proposed transferee has not demonstrated the ability to perform the work under the terms of the permit as issued. Permit transfer does not extend the permit term.

## **6 Suspension or revocation**

The District may suspend or revoke a permit issued under these rules wherever the permit is issued on the basis of incorrect or erroneous information supplied to the District by the applicant, or if the preliminary and final subdivision approval received from a municipality or county is not consistent with the conditions of the permit.

## Rule B – Floodplain Management and Drainage Alterations

### 1 Policy

It is the policy of the Riley-Purgatory-Bluff Creek Watershed District Board of Managers to regulate to control floodwaters, ensure the preservation of the natural function of floodplains as floodwater storage areas, maintain no net loss of floodplain storage to accommodate 100-year flood storage volumes and maximize upstream storage and infiltration of floodwaters.

### 2 Regulation

A permit is required for:

- 2.1 Any land-disturbing activities or filling of land below the 100-year flood elevation of a waterbody or any filling of land below the 100-year flood elevation of a stormwater-management facility in the watershed, except that no permit under this rule is required ~~for removing accumulated sediment from a water basin;~~
- a for removing accumulated sediment from a water basin; or
  - b for maintenance or in-kind replacement of existing public infrastructure that does not decrease floodplain storage volume; or
  - c if all of the following conditions exist:
    - i. The 100-year flood elevation of a water basin is entirely within a municipality;
    - ii. the water basin is landlocked;
    - iii. the municipality has adopted an ordinance regulating floodplain encroachment; and
    - iv. the proposed project is entirely within the drainage area of the water basin.
- 2.2 Any alteration of surface water flows below the 100-year flood elevation of a waterbody by changing land contours, diverting or obstructing surface or channel flow, or creating a basin outlet.

### 3 Criteria for floodplain and drainage alterations

- 3.1 The low floor elevation of all new and reconstructed structures must be constructed in accordance with Rule J, subsection 3.6.-
- 3.2 Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory flood storage is provided within the same floodplain and:
- a at the same elevation +/- 1 foot for fill in the floodplain of a watercourse;
  - b at or below the same elevation for fill in the floodplain of a water basin.
- Creation of floodplain storage capacity to offset fill must occur within the original permit term. If offsetting storage capacity will be provided off site, it must be created before any floodplain filling for the project will be allowed.
- 3.3 The District will issue a permit to alter surface flows only if it finds that the

alteration ~~willis~~ not reasonably likely to have an adverse offsite impact and ~~willis~~ not reasonably likely to adversely affect flood risk, basin or channel stability, groundwater hydrology, stream base flow, water quality or aquatic or riparian habitat.

- 3.4 **Creekside restrictions.** No enclosed structure may be placed, constructed or reconstructed within 100 feet of the centerline of a watercourse; and no impervious surface may be created or re-created within 50 feet of the centerline of a watercourse. These restrictions do not apply to:
- a Bridges, culverts and other structures and associated impervious surface regulated under Rule G – Waterbody Crossings and Structures;
  - b Trails 10 feet wide or less, designed primarily for nonmotorized use.
- 3.5 Permit approval requires submission of an erosion prevention and sediment control plan that meets the applicable standards of Rule C, section 3.
- 3.6 Activities subject to this rule must be conducted so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible.

#### 4 Required information and exhibits

The following exhibits must accompany the permit application:

- 4.1 One 11 inch-by-17 inch plan set , and electronic files in a format acceptable to the District, as well as a plan set 22 inches by 34 inches if requested by the District.
- 4.2 Site plan showing property lines, delineation of the work area, existing elevation contours of the work area, ordinary high water level or normal water elevation and 100-year flood elevation. All elevations must be reduced to national geodetic vertical datum (NGVD; 1929 datum).
- 4.3 Grading plan showing any proposed elevation changes.
- 4.4 Preliminary plat of any proposed land development.
- 4.5 Determination by a licensed civil engineer or registered qualified hydrologist of the 100-year flood elevation(s) for the pareelsite before and after the project.
- 4.6 Computation by a professional engineer of cut, fill and change in water storage capacity resulting from proposed grading.
- 4.7 Erosion-control plan.
- 4.8 Soil boring results, if requested by the District.
- 4.9 Documentation that drainage and flowage easements over all land below the 100-year flood elevation have been conveyed to the municipality with jurisdiction, where required.

#### ~~5 Exceptions~~

~~No floodplain and drainage permit from the District is required:~~

~~5.1 If all of the following conditions exist:~~

- ~~a The 100 year flood elevation of a water basin is entirely within a municipality;~~
- ~~b the water basin is landlocked;~~

- ~~c the municipality has adopted an ordinance regulating floodplain encroachment; and~~
- ~~d the proposed project is entirely within the drainage area of the water basin.~~

## Rule C – Erosion Prevention and Sediment Control

### 1 Policy

It is the policy of the District to ensure management of land disturbances to:

- Improve water quality to fully support swimming in designated lakes and to fully support designated uses for waterbodies.
- Preserve vegetation and habitat important to fish, waterfowl and other wildlife while also minimizing negative impacts of erosion.
- Alleviate identified erosion problems.
- Minimize the duration and intensity of soil and cover disturbances.
- Require local governments and developers to manage runoff effectively to minimize water quality impacts from new development, redevelopment and other land-disturbing activities.
- Encourage low-impact development techniques and approaches.
- Minimize compaction of soil from land-disturbing activities and encourage decompaction of soil compacted by land-disturbing activities.

### 2 Regulation

- 2.1 An erosion prevention and sediment control permit must be obtained for any land-disturbing activity that will involve:
- a Placement, alteration or removal of 50 cubic yards or more of earth; or
  - b Alteration or removal of 5,000 square feet or more of land-surface area or vegetation.
- 2.2 A permit from the District is not required to create, restore or improve a wetland and/or buffer pursuant to a District-approved natural resources creation, restoration or management plan.

### 3 Criteria

- 3.1 Permit approval requires preparation of an erosion prevention and sediment control plan that provides:
- a protection of natural topography and soil conditions, including retention onsite of native topsoil to the greatest extent possible;
  - b temporary erosion prevention and sediment control practices such as silt fencing, fiber logs, inlet protection, rock construction entrances, temporary seeding, vegetative buffer strips, erosion-control blanketing, mulching, floatation silt curtains, supplemental erosion prevention sediment control upgradient of waterbodies or other practices as specified by the District and consistent with the Minnesota Pollution Control Agency's "Protecting Water Quality in Urban Areas," as amended or updated, and the "Minnesota Stormwater Manual," as amended or updated;
  - c minimization of the disturbance intensity and duration, including phasing of disturbance to minimize quantity of disturbed area at any one time:

- d additional measures, such as hydraulic mulching and other practices as specified by the District, on slopes of 3:1 (H:V) or steeper to provide adequate stabilization;
  - e protection of stormwater-management facilities during construction;
  - f final site stabilization measures, including permanent stabilization of all areas subject to disturbance, specifying that 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;
  - g proper management of all construction site waste, such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site; and
  - h staking off and marking of proposed infiltration facilities to prevent soil compaction by heavy equipment, stockpiling of materials, and traffic. If infiltration facilities are in place during construction activities, best practices must be deployed to prevent sediment and other material from entering the practice(s). Infiltration facilities must not be excavated to within 3 feet final grade until the contributing drainage area has been constructed and fully stabilized. Any accumulated sediment in an infiltration facility must be removed in manner that prevents compaction of the facility bottom. To provide a well-aerated, highly porous surface, the soils of a vegetated basin must be loosened to a depth of at least 3 feet prior to planting.
- 3.2 Site stabilization and completion
- a All temporary erosion prevention and sediment control BMPs must be maintained until completion of construction and vegetation is established sufficiently to ensure stability of the site, as determined by the District.
  - b All temporary erosion prevention and sediment control BMPs must be removed upon final stabilization.
  - c Soil surfaces compacted during construction and remaining pervious upon completion of construction must be decompacted to achieve a soil compaction testing pressure of less than 1,400 kilopascals or 200 pounds per square inch in the upper 12 inches of soil; or bulk density of less than 1.4 grams per cubic centimeter in the upper 12 inches of soil. . In addition, utilities, tree roots and other existing vegetation must be protected until final revegetation or other stabilization of the site.
  - d Stabilization of disturbed areas must begin immediately whenever land-disturbing activity has permanently or temporarily ceased on any portion of the site and will not resume within seven calendar days on a property that drains to an impaired water; within 14 days elsewhere.
- 3.3 **Inspection and maintenance.** The permit holder will be responsible for the inspection, maintenance and effectiveness of all erosion prevention and sediment control facilities, features and techniques until final site stabilization. The permittee must, ~~at a minimum, inspect, maintain and repair all disturbed surfaces and~~ all erosion prevention and sediment control facilities and soil

stabilization measures ~~every~~ to ensure integrity and effectiveness. The permittee must repair, replace or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day work is performed on ~~after discovery, unless adverse conditions preclude access to the relevant area of the site and at least weekly until, in which circumstances the repair must be completed as soon as conditions allow. When active~~ land-disturbing ~~activity has ceased. Thereafter~~ activities are not under way, the permittee must perform these responsibilities at least weekly until vegetative cover is established. The permittee will maintain a log of activities under this section for inspection by the District on request. Between November 15 and snowmelt, and if site work ceases before completion for more than 14 consecutive days, the weekly inspection requirement may be reduced to monthly if the site is managed such that:

- a Exposed soils are stabilized with established vegetation, straw or mulch, matting, rock, rolled erosion control product or other approved material. Seeding is encouraged, but is not alone sufficient.
- b Temporary and permanent ponds and sediment traps are graded to capacity before spring snowmelt. This does not include infiltration/filtration facilities, which must be kept free of sediment until final site stabilization.
- c Sediment barriers are properly installed at necessary perimeter and sensitive locations.
- d Slopes and grades are properly stabilized with approved methods. Rolled erosion control products must be used on slopes of 3:1 (H:V) or greater and where erosion conditions dictate.
- e Stockpiled soils and other materials subject to erosion are protected by established vegetation, anchored straw or mulch, rolled erosion control materials or other durable covering preventing movement of eroded materials.
- f All construction entrances are properly stabilized.
- g Snow management protects erosion prevention and sediment control measures.

#### 4 Required information and exhibits

The following exhibits must accompany the permit application:

- 4.1 One 11 inch-by-17 inch plan set-, and electronic files in a format acceptable to the District, as well as a plan set 22 inches by 34 inches if requested by the District.
- 4.2 A narrative statement describing the proposed site work.
- 4.3 An erosion and sediment-control plan including:
  - a name, address and phone number of the individual who will remain liable to the District for performance under this rule and maintenance of erosion and sediment-control measures from the time the permitted activities commence until vegetative cover is established
  - b topographic maps of existing and proposed conditions that clearly indicate all hydrologic features and areas where grading will expose

- soils to erosive conditions, site property boundaries, as well as the flow direction of all runoff and run-on;
- i single-family home construction or reconstruction projects may comply with this provision by providing aerial imagery or an oblique map acceptable to the District;
  - c for all projects except construction or reconstruction of a single-family home, tabulation of the construction implementation schedule;
  - d clear identification of all temporary erosion prevention and sediment control measures that will remain in place until vegetation is established;
  - e clear identification of all permanent erosion control and soil stabilization measures, including their locations;
  - f clear identification of staging areas, as applicable;
  - g delineation of proposed changes to any floodplain, wetland or wetland buffer;
  - h documentation as to the status of the project's National Pollutant Discharge Elimination System construction stormwater permit and a copy of the project's Stormwater Pollution Prevention Plan, if applicable.
  - i clear identification of locations where compaction is to be prevented and/or mitigated.

## Rule D – Wetland and Creek Buffers

### 1 Policy

It is the policy of the Board of Managers to ensure the preservation of the natural resources, recreational, habitat, water treatment and water storage functions of water resources. This rule is intended to:

- Support municipal enforcement of the Wetland Conservation Act and the policy of no net loss in the extent, quality and ecological diversity of existing wetlands in the watershed.
- Preserve vegetation and habitat important to fish, waterfowl and other wildlife while also minimizing negative impacts of erosion.
- Require buffers around wetlands, water basins and watercourses affected by land-disturbing activities.
- Ensure the preservation of the natural resources, habitat, water treatment and water storage functions of wetlands, water basins and watercourses.
- Maintain wetland integrity and prevent fragmentation of wetlands.
- Prevent erosion of shorelines and streambanks, and foster the use of natural materials for the protection, maintenance and restoration of shorelines and streambanks.

### 2 Regulation

2.1 Compliance with the criteria in section 3 of this rule is required for any activity that requires a permit under Rule B – Floodplain Management and Drainage Alterations, Rule E – Dredging and Sediment Removal, Rule F – Shoreline and Streambank Stabilization, except sand blanketing, Rule G – Waterbody Crossings and Structures or Rule J – Stormwater Management. The requirements of the rule apply to property:

- a encompassing or adjacent to a public watercourse, public waters wetland or other protected wetland in the watershed; or
- b encompassing or adjacent to any other watercourse within a High-Risk Erosion Area, unless the applicant submits data demonstrating a Stream Power Index rating of 3 or less and an absence of any significant existing erosion.

2.2 The requirements of this rule do not apply to:

- a incidental wetlands ~~or~~;
- b to wetlands that are disturbed solely by utility improvements or repairs that are the subject of a no-loss determination from the relevant Wetland Conservation Act Local Government Unit; or
- c to projects approved under the fast-track maintenance provisions of Rule F, paragraph 3.4.

### 3 Criteria

#### 3.1 Buffer area. Buffer must be created or maintained:

- a Around a wetland disturbed by land-disturbing activity regulated by the District;
- b on that portion of the edge of a wetland that is downgradient from land-disturbing activity regulated by the District; and
- c ~~On~~ streambank downgradient from the land-disturbing activity regulated by the District and 50 feet from each of the upstream and downstream extent of the disturbance.

#### 3.2 Buffer width. Buffer must be created or maintained upgradient of regulated features in accordance with the following criteria:

- a Wetland values will be determined in accordance with Appendix D1, which is incorporated into and made a part of this rule.

b Subject to paragraphs 3.2b through f, buffers must extend:

- i An average of 80 feet from the delineated edge of an exceptional value wetland,<sup>2</sup> minimum 40 feet;
- ii An average of 60 feet from the delineated edge of a high value wetland, minimum 30 feet;
- iii an average 40 feet from the delineated edge of a medium value wetland,<sup>1</sup> minimum 20 feet;
- iv an average 20 feet from the delineated edge of a low value wetland,<sup>1</sup> minimum 10 feet;
- v an average of 50 feet from the centerline of a public waters watercourse, minimum 30 feet;
- vi an average of 50 feet from the thalweg of any watercourse within a High-Risk Erosion Area, minimum 30 feet.

cb **Steep slopes.** Where a buffer encompasses all or part of a slope averaging 18 percent or greater over a distance of 50 feet or more upgradient of the regulated feature, calculated using a reasonably precise topographic surface model, the buffer will extend to the width specified under section 3.2a or to the top of the slope, whichever is greater. An existing contour alteration or artificial structure on a slope constitutes a break in slope only if it will indefinitely dissipate upgradient runoff velocity and trap upgradient pollutant loadings.

ed **Existing single-family residential properties:** Paragraphs a and b do not apply. When required on an existing single-family home property, buffer must extend an average of 20 feet from the delineated edge of a wetland or OHW of a watercourse, minimum 10 feet.

ed **Buffer averaging.** Buffer width may vary, provided that the minimum buffer width is maintained at all points, there is no reduction in total buffer area,

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<sup>2</sup> ~~Wetland values will be determined in accordance with Appendix D1.~~

and the buffer provides wetland and habitat protection at least equivalent to a buffer of uniform width. Buffer wider than 200 percent of the applicable width calculated in accordance with above provisions will be excluded from the buffer-averaging calculation. Buffer width may not be averaged on a steep slope.

**fe** Buffer is only required on the property owned by the applicant that is the subject of the District permit, and is required where the regulated feature is either on or within the applicable buffer width of the subject property.

**gf** Buffer required for linear projects will be limited in width to the extent of available right-of-way.

3.3 Buffer areas must be planted with native vegetation and maintained to retain natural resources and ecological value. Existing buffer areas preserved in compliance with this rule must be managed in a naturalized condition to encourage growth of native vegetation and eliminate invasive species. Buffer vegetation must 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 and performance, each as approved by the District in advance in writing or when implemented pursuant to a written maintenance plan approved by the District.

a Diseased, noxious, invasive or otherwise hazardous trees or vegetation may be selectively removed from buffer areas and trees may be selectively pruned to maintain health.

b Pesticides and herbicides may be used in accordance with Minnesota Department of Agriculture rules and guidelines.

c No fill, debris or other material will be placed within a buffer.

d No structure or impervious cover (hard surface) may be created within a buffer area, except that boardwalks, sidewalks and trails designed for nonmotorized use, ~~and stormwater management facilities~~ may be ~~located~~constructed within a buffer area as long as the minimum and average buffer widths is-are maintained from the regulated feature ~~and average buffer width is maintained, except as allowed under paragraph 3.3e of this rule.~~ Stormwater-management facilities may be constructed within buffer area. Plans and specifications must be approved by the District prior to construction. Existing impervious surface that will not otherwise be disturbed need not be removed.

i Hydrants, utility manholes, piers, docks, canoe racks, information kiosks, signage, retaining walls and benches may be located within a buffer in a public park.

e A pervious path or boardwalk, not more than 12 feet wide, may be created or maintained to provide access to a regulated feature or within the required

buffer area outside the minimum buffer width. Access paths or boardwalks may not be located where or constructed such that concentrated runoff will flow to the regulated feature.

- 3.4 Buffer will be indicated by permanent, free-standing markers at the buffer's upland edge installed in accordance with a plan and specifications providing:
- a Installation date, which must be set to ensure protection of buffer area during and after land-disturbing activities;
  - b text in material conformity with a design and text provided by the District;
  - c location(s) for markers, at a minimum along each lot line, with additional markers at an interval of no more than 200 feet and, for subdivisions, on each lot of record to be created.

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.

- 3.5 Before any work subject to District permit requirements commences, buffer areas and maintenance requirements must be documented in a declaration or other document approved by the District and recorded in the office of the county recorder or registrar. On public land or right-of-way, buffer areas and maintenance requirements may be documented in a written agreement with the District in lieu of a recorded document.
- 3.6 In establishing buffer pursuant to this rule, the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) must be minimized to the maximum extent possible.

## 5 Temporary alterations

Temporary alteration of buffer areas permitted under this rule or in writing by the District must comport with the requirements of this section.

- 5.1 Compliance with District Rule C – Erosion Prevention and Sediment Control is required, irrespective of the area or volume of earth to be disturbed.
- 5.2 Buffer zones and the location and extent of vegetation disturbance will be delineated on the erosion control plan.
- 5.3 Alterations must be designed and conducted to ensure only the smallest amount of disturbed ground is exposed for the shortest time possible. Mulches or similar materials must be used for temporary soil coverage and permanent native vegetation established as soon as possible.
- 5.4 Fill or excavated material may not be placed to create an unstable slope.

## 6 Roads and utilities

A structure, impervious cover or right-of-way maintained permanently in conjunction with a crossing of a waterbody or wetland may be constructed and maintained in buffer area that would otherwise be required under this rule. The structure, impervious cover or right-of-way must be designed to minimize the area of permanent vegetative disturbance. Minimization includes, but is not limited to, approach roads and rights-of-

way that are perpendicular to the crossing and of a minimum width consistent with use and maintenance access needs.

6.1 All work will be conducted in accordance with section 4 of this rule.

## 7 Shoreline or streambank improvements

A shoreline or streambank improvement subject to District Rule F, including a sand blanket, is excepted from the prohibitions of subsection 3.2, provided the improvement complies with District Rule F – Shoreline and Streambank Stabilization. The applicable buffer width may overlap shoreline or streambank improvements other than a sand blanket.

## 8 Required information and exhibits

The following exhibits must accompany the permit application:

- 8.1 One 11 inch-by-17 inch plan set , and electronic files in a format acceptable to the District, as well as a plan set 22 inches by 34 inches if requested by the District.
- 8.2 For work on any property subject to this rule:
  - a A scaled site plan showing existing conditions, including the following elements:
    - i Topographic contours at two-foot intervals;
    - ii Existing streets, roads and trails;
    - iii Existing structures and facilities;
    - iv Extent of regulated feature as delineated in the field;
    - v Location of existing trees and tree masses;
    - vi Soil types and locations.
  - b A scaled proposed site plan showing proposed development that include the following elements:
    - i Topographic contours showing finished grade at two-foot intervals;
    - ii Proposed streets, parking, trails and sidewalks;
    - iii Location of proposed structures and facilities;
    - iv Extent of regulated feature and associated buffers as delineated in the field;
    - v Location of major landscaping including those existing trees and tree masses to be retained.
    - vi Property lines and corners and delineation of lands under ownership of the applicant
    - vii Street rights-of-way;
    - viii Utility easements;
- 8.2 For projects on properties on which wetlands are located, exhibits must be submitted as follows:
  - a For existing single-family home properties encompassing all or part of a wetland: A wetland delineation.
  - b For all other properties encompassing all or part of a wetland: A wetland delineation, type determination, and function and values assessment of any

regulated wetland using the Minnesota Routine Assessment Method (MnRAM) or another wetlands-assessment method approved by the District. The delineation and function and values assessment must be conducted by a certified wetland delineator and supported by the following documentation:

- i Identification of the methods used;
- ii Identification of presence or absence of normal circumstances or problem conditions;
- iii Wetland data sheets, or a report, for each sample site, referenced to the location shown on the delineation map. In each data sheet/report applicant must provide the reasoning for satisfying, or not satisfying each of the technical criteria and why the area is or is not a wetland;
- iv A delineation map showing the size, locations, configuration and boundaries of wetlands in relation to identifiable physical characteristics, such as roads, fence lines, waterways or other identifiable features;
- v The location of all sample sites and stakes/flags must be accurately shown on the delineation map.

- 8.3 For properties adjacent to but not encompassing any portion of a wetland, the District will determine the need for wetland buffer and applicable buffer width using best available data, including any wetland functions and values data submitted by the applicant.

### Appendix D1 – Wetlands Definitions

“Exceptional value wetlands” are those meeting one or more of the following rating levels, as determined by application of the current edition of the Minnesota Routine Assessment Method (MnRAM) or another wetlands-assessment method approved by the District.

Function or Value	Rating
Vegetative Diversity	Exceptional
Wildlife Habitat	Exceptional
Amphibian Habitat AND Vegetative Diversity	High High
Fish Habitat	Exceptional
Shoreline Habitat	High
Aesthetics/education/recreation/cultural AND Wildlife Habitat	Exceptional High
Stormwater Sensitivity AND Vegetative Diversity	Exceptional Medium or greater
Vegetative Diversity AND Maintenance of Hydrologic Regime	High High

“High value wetlands” are those meeting one or more of the following rating levels, as determined by application of the current edition of MnRAM or another wetlands-assessment method approved by the District.

Function or Value	Rating
Vegetative Diversity	High
Wildlife Habitat	High
Amphibian Habitat	High
Fish Habitat	High
Shoreline Protection	Medium
Aesthetics/education/recreation/cultural AND Wildlife Habitat	High Medium
Stormwater Sensitivity AND Vegetative Diversity	High Medium or greater
Vegetative Diversity AND Maintenance of Hydrologic Regime	Medium High or greater

“Medium value wetlands” are those that do not qualify as high value wetlands but that meet one or more of the following rating levels, as determined by application of the current edition of MnRAM or another wetlands-assessment method approved by the District.

<b>Function or Value</b>	<b>Rating</b>
Vegetative Diversity	Medium
Wildlife Habitat	Medium
Amphibian Habitat AND Vegetative Diversity	Medium Medium
Fish Habitat	Medium
Shoreline Habitat	Low
Aesthetics/education/recreation/cultural AND Wildlife Habitat	Medium Low
Stormwater Sensitivity	Medium

“Low value wetlands” are those that do not qualify as “exceptional,” “high,” or “medium” wetlands.

## **Rule E – Dredging and Sediment Removal**

### **1 Policy**

It is the policy of the Board of Managers to regulate the removal of sediment from public waters to mitigate the impacts of stormwater sediment transport and deposition.

### **2 Regulation**

No person will dredge or otherwise remove 1 cubic yard or more of sediment from the beds, banks or shores of any public water by any means without first securing a permit from the District.

2.1 Dredging or sediment removal will be permitted only:

- a To maintain, or remove sediment from, an existing channel, subject to such further limitations on method or extent of dredging as this rule may provide;
- b To implement or maintain an existing legal right of navigational access;
- c To remove sediment to eliminate a source of nutrients, pollutants or contaminants;
- d To improve the public recreational, wildlife or fisheries resources of surface waters; or
- e For other actions by public entities for public purposes.

2.2 No District permit under this rule is required for activities conducted pursuant to a project-specific permit from the state Department of Natural Resources, but the District buffer requirements apply to activity that would otherwise require a District permit.

### **3 Criteria**

3.1 Dredging or sediment removal will be permitted upon submission of exhibits demonstrating that the dredging or sediment removal:

- a Is the minimal-impact solution to achieve reasonable navigational access, when proposed for navigation purposes;
- b Will not alter the original alignment, slope or cross-section of the beds, banks or shores of any public water;
- c Will not occur above the ordinary high water level or into the upland adjacent to the lake or watercourse;
- d Will not enlarge a natural watercourse or basin landward or create a channel to connect adjacent backwater areas for navigational purposes;
- e Will not cause increased seepage or result in subsurface drainage;
- f Is not proposed for a location where any portion of the area to be dredged 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; and
- g Is not proposed for a location where adverse ecological impact to a high-quality wetland or other ecologically sensitive area cannot be minimized or mitigated.

3.2 Dredged or excavated sediment must be placed at a location:

- a above the ordinary high water level of a public water, public water wetland or wetland subject to the Wetland Conservation Act;
  - b Not in a floodplain; or
  - c Not subject to erosion or likely to cause re-deposition of the sediment to an adjacent waterbody, stormwater-management facility or storm sewer.
- 3.3 Degradation or erosion of the banks or bed of the subject waterbody by entry of equipment must be avoided, and the banks or bed of the subject waterbody must be restored and stabilized at the conclusion of the permitted work and prior to the removal of floatation silt curtain, if required.
- 3.4 Where determined necessary by the District to protect water quality, a floatation silt curtain will be placed around the sediment-removal site and maintained for the duration of the project.
- 3.5 No activity affecting the bed of a public water may be conducted between March 15 and June 15 on watercourses, or between April 1 and June 30 on all other public water waterbodies, to minimize impacts on fish spawning and migration.
- 3.6 Dredging must be conducted so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible.

#### **4 Required information and exhibits**

The following exhibits will accompany the permit application:

- 4.1 One 11 inch-by-17 inch plan set, and electronic files in a format acceptable to the District, as well as a plan set 22 inches by 34 inches if requested by the District.
- 4.2 A site plan, showing:
- a Delineation of the work area;
  - b Property lines;
  - c Ordinary high water elevation; and
  - d 100-year flood elevation.
- 4.3 Profile, cross sections and/or topographic contours (at intervals of no more than 1 foot) showing existing and proposed elevations and proposed side slopes in the work area.
- 4.4 In the case of projects using hydraulic means of sediment removal and onsite spoil containment, the applicant will provide:
- a Cross-section of the proposed dike;
  - b Stage/storage volume relationship for the proposed spoil containment area;
  - c Detail of any proposed outlet structure, showing size, description and invert elevation;
  - d Stage/discharge relationship for any proposed outlet structure from the spoil containment area; and
  - e Site plan showing the locations of any proposed outlet structure and emergency overflow from the spoil containment area.
- 4.5 A site plan showing the proposed location of floating silt curtain(s).
- 4.6 Supporting data:

- a Description and volume computation of material to be removed;
- b Description of equipment to be used;
- c Construction schedule;
- d Location map of spoil containment area;
- e Erosion control plan for containment area;
- f 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.
- g Detail of any proposed floating silt curtain including specifications.

**5 Fast-track public project permit**

A public entity may obtain a permit for removal of between 1 and 20 cubic yards of sediment from a public waterbody at a stormwater system outlet or similar structure on notice to the District at least 48 hours in advance, including location of the removal. The removal must comply with all criteria in section 3 of this rule.

## Rule F – Shoreline and Streambank Stabilization

### 1 Policy

It is the policy of the Board of Managers to prevent erosion of shorelines and streambanks, and to foster the use of natural materials and bioengineering for the maintenance and restoration of shorelines.

### 2 Regulation

A permit from the District is required to install or maintain an improvement to stabilize a shoreline or streambank, including but not limited to riprap, a bioengineered installation, a sand blanket or a retaining wall, on any watercourse or a public water. Maintenance of an existing stabilization improvement may be approved under the fast-track application provisions in paragraph 3.4 below. No District permit under this rule is required for:

- 2.1 ~~No District permit under this rule is required for activities~~Activities conducted pursuant to a project-specific permit from the state Department of Natural Resources, but the District buffer requirements apply to activity that would otherwise require a District permit;
- 2.2 activities in incidental wetlands or for utility improvements or repairs that are the subject of a no-loss determination from the relevant LGU;
- 2.3 removing accumulated sediment from a water basin; or
- 2.4 maintenance or in-kind replacement of existing public infrastructure on non-public waters that does not increase the length, width or depth of the existing infrastructure.

### 3 Criteria

- 3.1 An applicant for a permit under this rule must demonstrate a need to prevent erosion or restore an eroded shoreline,<sup>3</sup> unless the proposed improvement is designed to restore natural shoreline.
- 3.2 **Sequencing.** Stabilization practices must be consistent with the erosion intensity or shear stress rating calculated for the property proposed to be stabilized. The District will approve proposed stabilization practices in accordance with the applicable sequencing priority:
  - a **Shoreline erosion intensity calculation.** Applications for shoreline stabilization must include a completed RPBCWD Erosion Intensity Scoresheet<sup>4</sup> to determine the erosive energy ranking for the site (low,

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<sup>3</sup> All references to “shoreline” in these rules should be read to refer to both shoreline and streambank, except where context clearly requires distinction between the two.

<sup>4</sup> The Erosion Intensity Scoresheet is incorporated into and a part of these rules. It may be obtained from the District office or the permitting section of the District website: [www.RPBCWD.org](http://www.RPBCWD.org). The website

medium, high). The proposed shoreline stabilization practice must be consistent with the shoreline erosion energy rating calculated.

- i Low-energy site means a site where the erosion intensity score is 47 or less. Low energy shorelines may be stabilized using bioengineering stabilization practices.
  - ii Medium-energy site means a site where the erosion intensity score is 48 to 67. Medium energy shorelines may be stabilized using a combination bioengineering and vegetated riprap stabilization practices.
  - iii High energy site means a site where the erosion intensity score is greater than 67. High energy sites may be stabilized with riprap and vegetated riprap practices.
- b **Streambank shear stress calculation.** Applications for streambank stabilization must include a shear stress calculation for the site.<sup>5</sup> The proposed streambank stabilization practice must be consistent with the shear stress calculated.
- i Low energy streambanks are those where the shear stress calculated is less than or equal to 2.5 pounds per square foot and may be stabilized using bioengineering practices.
  - ii Medium energy streambanks are those where the shear stress calculated is between 2.5 and 5 pounds per square foot and may be stabilized using a combination of riprap and bioengineering.
  - iii High energy streambanks are those where the shear stress calculated is greater than 5 pounds per square foot and may be stabilized using riprap and vegetated riprap.
- c **Design flexibility.** The District may approve alternative stabilization techniques if the applicant provides sufficient evidence from an engineer registered in Minnesota to demonstrate that the proposed stabilization practice represents the minimal-impact solution with respect to all other reasonable alternatives. A detailed alternatives analysis must be provided .

### 3.3 Design criteria.

#### a Vegetative, bioengineered and hard-armored stabilization.

- i Live plantings must be native aquatic vegetation and/or native upland plants.

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also provides guidance on how to complete the scoresheet. The scoresheet may be periodically updated, on approval of the RPBCWD Board of Managers, to account for improved understanding of shoreline-erosion factors .✚

<sup>5</sup> Shear stress must be calculated in a manner consistent with the Natural Resources Conservation Service's National Engineering Handbook (including Technical Supplement 14I: Streambank Soil Bioengineering); Stability Thresholds for Stream Restoration Materials published by the U.S. Army Corps of Engineers; NRCS Engineering Field Handbook Streambank and Shoreline Protection (Chapter 16); or Wisconsin Supplement Engineering Field Handbook Chapter 16 Streambank and Shoreline Protection. The RPBCWD website – [www.rpbcwd.org](http://www.rpbcwd.org) – provides guidance on how to calculate shear stress.

- ii The finished, stabilized slope of any shoreline will not be steeper than 3:1 (horizontal to vertical) waterward of the OHW except where necessary:
    - (a) to match existing slopes and certified by registered professional engineer for continued slope stability, or;
    - (b) for bridges, culverts and other structures regulated under Rule G – Waterbody Crossings and Structures.
  - iii Horizontal encroachment from a shoreline will be the minimal amount necessary to permanently stabilize the shoreline and will not unduly interfere with water flow or navigation. No riprap or filter material may be placed more than 6 feet waterward of the OHW. Streambank riprap may not reduce the cross-sectional area of the channel or result in a stage increase at or upstream of the installation.
  - iv The design of any shoreline erosion protection will reflect the engineering properties of the underlying soils and any soil corrections or reinforcements necessary. The design will conform to engineering principles for dispersion of wave energy and resistance to deformation from ice pressures and movement, considering prevailing winds, fetch and other factors that induce wave energy.
- b Riprap.**
- i Riprap to be used in shoreline erosion protection must be sized appropriately in relation to the erosion potential of the wave or current action of the particular waterbody, but in no case will the riprap rock average less than six inches in diameter or more than 30 inches in diameter. Riprap will be durable, natural stone and of a gradation that will result in a stable shoreline embankment. Stone, granular filter and geotextile material will conform to standard Minnesota Department of Transportation specifications, except that neither limestone nor dolomite will be used for shoreline riprap, but may be used at stormwater outfalls. All materials used must be free from organic material, soil, clay, debris, trash or any other material that may cause siltation or pollution.
  - ii Riprap ~~will~~must be placed to conform to the natural alignment of the shoreline.
  - iii A transitional layer consisting of graded gravel, at least six inches deep, and an appropriate geotextile filter fabric will be placed between the existing shoreline and any riprap. The thickness of riprap layers should be at least 1.25 times the maximum stone diameter. Toe boulders, if used, must be at least 50 percent buried.
  - iv Riprap must not cover emergent vegetation, unless authorized by a Department of Natural Resources permit.
  - v Riprap ~~will~~may extend no higher than the top of bank or two feet above the 100-year high water elevation, whichever is lower.
  - vi Placement of riprap for cosmetic purposes alone is prohibited.
- c Retaining walls.** Retaining walls extending below the OHW of a waterbody

are prohibited, except where:

- i there is a demonstrable need for a retaining wall in a public improvement project, and
- ii the design of the retaining wall has been certified by a registered engineer.

d **Sand blankets.** The following standards apply to sand blanketing:

- i The sand or gravel used must be clean prior to being spread. The sand must contain no toxins or heavy metals and must contain no weed infestations such as, but not limited to, water hyacinth, alligator weed, and Eurasian watermilfoil, or animal infestations such as, but not limited to, zebra mussels or their larva.
- ii 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 level.
- iii 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.

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

e In installing or maintaining any shoreline stabilization, the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) must be minimized to the maximum extent possible.

3.4 **Fast-track maintenance.** Notwithstanding the requirements and criteria in subsections 3.1 to 3.3, where an applicant can establish that a shoreline stabilization practice was constructed before February 1, 2015, or after that date in compliance with a duly issued District permit, the District will issue a permit for maintenance of the practice as long as the applicant submits plans documenting that maintenance work will not increase the length, width or depth of the practice, and will not disturb underlying soils.

#### 4 **Required information and exhibits.**

The following exhibits will accompany the permit application:

- 4.1 One 11 inch-by-17 inch plan set , and electronic files in a format acceptable to the District, as well as a plan set 22 inches by 34 inches if requested by the District.
- 4.2 A site plan, including:
  - a Documentation, including at a minimum photographs, of existing erosion or the potential for erosion;
  - b a survey locating the existing OHW contour, existing shoreline, floodplain

- elevation and location of property lines;
- c elevation contours of the upland within 15 feet of the OHW and referenced to accepted datum; and
- d plan view of locations and lineal footage of the proposed riprap.

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

- 4.3 A construction plan and specifications certified by a registered engineer or landscape architect, showing:
  - a A sequencing analysis in compliance with section 3.2;
  - b materials to be used, including the size(s) of any riprap to be used;
  - c cross section detailing the proposed riprap, if any, drawn to scale, with the horizontal and vertical scales noted on the drawing. The detail should show the finished riprap slope, transitional layer design and placement, distance waterward of the riprap placement and OWH/OHW.
  - d Description of the underlying soil materials.
  - e Material specifications for stone, filter material and geotextile fabric.
- 4.4 For sites involving aquatic plantings, a separate Aquatic Plant Management permit will be obtained from the Department of Natural Resources.
  - a This provision does not apply to slope protection projects using woody species such as willow and dogwood.
- 4.5 An erosion control and site restoration plan.
- 4.6 For an application for a sand blanket, the following exhibits are required:
  - 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.

## Rule G – Waterbody Crossings and Structures

### 1 Policy

It is the policy of the Board of Managers to discourage the use of beds and banks of waterbodies for the placement of bridges, utilities or other structures, and to protect the hydraulic capacity and floodplain of streams and drainage systems.

### 2 Regulation

No person may construct, improve, replace or remove a crossing in contact with or under the bed or bank of any waterbody within the District, place or replace a structure other than a dock in the bed or banks of waters of the state, remove a structure from the bed or bank of any waterbody, or conduct horizontal drilling under a waterbody that is not a public water without first securing a permit from the District. No District permit under this rule is required for:

2.1 ~~No District permit under this rule is required for activities~~ Activities conducted pursuant to a project-specific permit from the state Department of Natural Resources, but the District buffer requirements apply to activity that would otherwise require a District permit;

2.2 activities in incidental wetlands or for utility improvements or repairs that are the subject of a no-loss determination from the relevant LGU; or

2.3 maintenance or in-kind replacement of existing public infrastructure on non-public waters.

### 3 Criteria

3.1 Use of the bed or banks of a waterbody must meet:

- a a demonstrated public benefit for projects affecting public waters or
- b a demonstrated specific need for all other waterbodies.

3.2 Construction, replacement or improvement of a waterbody crossing in contact with the bed or bank of a waterbody:

- a Will retain adequate hydraulic capacity and assure no net increase in the flood stage of the pertinent waterbody;
- b Will retain adequate navigational capacity pursuant to the waterbody's recreational classification;
- c ~~Will~~ Must not ~~adversely~~ be reasonably likely to affect water quality, change the existing flowline/gradient, or cause increased scour, erosion or sedimentation;
- d Will provide wildlife passage along each bank and riparian area and fish passage in the waterbody by means that account for wildlife that are native to the area or may be present.
- e Will represent the 'minimal impact' solution to a specific need with respect to other reasonable alternatives, based on analysis of at least two reasonable

- alternatives, one of which may be not undertaking the proposed work.
- 3.3 Construction or improvement of an outfall structure in contact with the bed or bank of a waterbody must:
    - a incorporate a stilling-basin, surge-basin, energy dissipator, or other device or devices when necessary to minimize disturbance and erosion of natural shoreline and bed resulting from peak flows;
    - b when feasible, utilize discharge to stormwater treatment ponds, artificial stilling or sedimentation basins, or other devices for entrapment of floating trash and litter, sand, silt, debris, and organic matter prior to discharge to public waters; and
    - c use natural or artificial ponding areas to provide water retention and storage for the reduction of peak flows into waterbodies to the greatest extent possible.
  - 3.4 Projects involving directional boring or horizontal drilling will provide for minimum clearance of 3 feet below the bed of a waterbody and a minimum setback of 50 feet from any stream bank for pilot, entrance and exit holes.
  - 3.5 Placement or replacement of a structure must:
    - a Represent the minimal impact solution to a specific need with respect to all other reasonable alternatives;
    - b Represent the minimum encroachment, change or damage to the environment, particularly the ecology of the waters, necessary to achieve the intended purpose;
    - c Comply with the District floodplain rule; and
    - d Not be reasonably likely to cause adverse effects to water quality and the physical or biological character of the waterbody.
  - 3.6 Removal of structures or other waterway obstructions:
    - a Will maintain or restore the original cross-section and bed conditions to the greatest extent practicable;
    - b Will achieve complete removal of the structure, including any footings or pilings that impede navigation; and
    - c Will not involve the removal of a water-level control device.
  - 3.7 For all projects:
    - a No activity affecting the bed or banks of a protected water may be conducted between March 15 and June 15 on watercourses, or between April 1 and June 30 on all other public water waterbodies, to minimize impacts on fish spawning and migration.
    - b Banks must be stabilized immediately after completion of permitted work and revegetated as soon as growing conditions allow.
    - c The potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) must be minimized to the maximum extent possible.
    - d Compliance with applicable criteria in subsection 3.3 of Rule F – Shoreline and Streambank Stabilization is required.

**4 Required information and exhibits.**

The following exhibits will accompany the permit application:

- 4.1 One 11 inch-by-17 inch plan set , and electronic files in a format acceptable to the District.
- 4.2 Construction plans and specifications, certified by registered professional engineer.
- 4.3 An analysis prepared by a professional engineer showing the effect of the project on hydraulic capacity and water quality.
- 4.4 An erosion control and site restoration plan.

**5 Maintenance**

Crossings and structures in contact with the bed or bank of a waterbody will be repaired and maintained to ensure continuing compliance with applicable criteria in section 3 or this rule, including but not limited to ensuring adequate hydraulic and navigational capacity; assuring no net increase in the flood stage; preventing adverse effects to water quality, changes to the existing flowline/gradient and increased scour, erosion or sedimentation; and minimizing the potential for obstruction of the waterbody. A declaration or other recordable document stating terms for maintenance and approved by the District will be recorded before activity under a permit issued under this rule 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 will state that if the ownership of the structure is transferred, the public body will require the transferee to comply with this subsection.

## **Rule H – Appropriation of Public Surface Waters**

### **1 Policy**

It is the policy of the Board of Managers to regulate the appropriation of public surface waters pursuant to the mandate in Minnesota Statutes section 103B.211, subdivision 4.

### **2 Regulation**

A permit from the District is required to appropriate less than 10,000 gallons per day and up to 1,000,000 gallons per year of water for a nonessential use from:

- 2.1 A public water basin or wetland within the District's jurisdiction; or
- 2.2 A public watercourse within the District's jurisdiction.

### **3 Criteria**

An appropriation of public water permitted under this rule must not materially alter the hydrologic regime in a basin or watercourse.

- 3.1 In addition, the appropriation must:
  - a 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, to attain the stated objective;
  - b Include the utilization of water storage and reuse and conservation practices to the greatest extent feasible;
  - c Be subject to restriction, at any time, to meet in-stream flow needs or protect basin water levels.
- 3.2 A permittee must provide by March 1 each year a report including:
  - a A written summary of how appropriated water was used and conservation utilized; and
  - b the method of appropriation, if changed from original application.
- 3.3 Permits issued under this rule will continue until revoked or relinquished. Failure to comply with the criteria and requirements of this rule will be grounds for revocation.

### **4 Exhibits**

An applicant for a permit under this rule must provide:

- 4.1 Written evidence of ownership, control of or a license to use the land abutting the surface water source from which water will be appropriated.
- 4.2 A completed application showing:
  - a Applicant address;
  - b Applicant email address;
  - c Purpose of the requested appropriation;
  - d Source of water;
  - e Amount of water to be appropriated on a maximum daily, monthly and annual basis, if known;

- f Means, methods and techniques of appropriation;
- g Alternative sources of water considered and reasons why the particular alternative proposed was selected;
- h Information on any water storage facilities and capabilities and any proposed reuse and conservation practices; and
- j A contingency plan or agreement with the District to discontinue the permitted appropriation in the event of restrictions.

An appropriation application form may be obtained from the District offices or website.

## ~~Rule I—Appropriation of Groundwater~~

### ~~1—Policy~~

~~It is the policy of the Board of Managers to regulate appropriations to ensure the health and availability of groundwater in the watershed.~~

### ~~2—Regulation~~

~~A permit from the District, incorporating an approved groundwater appropriation plan, is required for an appropriation of groundwater of less than 10,000 gallons per day and up to 1,000,000 gallons per year or of any amount for domestic use by less than 25 persons, except that no District permit is required for temporary construction dewatering.~~

### ~~3—Criteria~~

~~3.1 An applicant for a permit under this rule must demonstrate that the implementation of its groundwater appropriation plan will:~~

- ~~a Be reasonable and practical with regard to alternative sources of water or methods available;~~
- ~~b Include the utilization of water storage and reuse and conservation practices to the greatest extent feasible;~~
- ~~c Be subject to restriction to meet in stream flow needs or protect basin water levels.~~

~~3.2 A permittee must provide by March 1 each year a report including:~~

- ~~a A written summary of how appropriated water was used and conservation utilized; and~~
- ~~b the method of appropriation, if changed from original application.~~

~~3.3 Permits issued under this rule will continue until revoked or relinquished. Failure to comply with the criteria and requirements of this rule will be grounds for revocation.~~

### ~~4—Exhibits~~

~~An applicant for a permit under this rule must provide a completed application and groundwater appropriation plan including:~~

- ~~4.1 Applicant address;~~
- ~~4.2 Applicant email address;~~
- ~~4.3 Purpose of the requested appropriation;~~
- ~~4.4 Alternative sources of water considered and reasons why the groundwater appropriation proposed was selected;~~
- ~~4.5 Depth of well, and number and capacity in gallons per minute of pump(s) to be installed;~~
- ~~4.6 Information on any water storage facilities and capabilities and any proposed reuse and conservation practices; and~~

~~4.7 — A contingency plan or draft agreement with the District to discontinue the appropriation in the event of restriction.~~

~~An appropriation application form may be obtained from the District offices or website.~~

## Rule J – Stormwater Management

### 1 Policy

It is the policy of the District to regulate the management of stormwater runoff to:

- Limit the impact of runoff quality and rate on receiving waterbodies.
- Improve water quality to fully support swimming in designated lakes.
- Improve water quality to fully support designated uses for waterbodies, and remove waterbodies from the Minnesota Pollution Control Agency list of impaired waters.
- Alter stormwater hydrographs (stream flow) through infiltrative strategies that reduce peak discharge rates and overall flow volume.
- Require that onsite retention and regional water quality treatment systems operate together to provide complete and effective runoff management.
- Provide for nondegradation of surface waterbodies in the watershed.
- Encourage the use of Better Site Design, Low Impact Development and other techniques that minimize impervious surfaces or incorporate volume-control practices, such as infiltration, to limit runoff volumes.
- Maximize opportunities to improve stormwater and snowmelt management presented by redevelopment of land.
- Require governmental entities and developers to manage runoff effectively to minimize water quality impacts from new development, redevelopment and other land-disturbing activities.
- Minimize the movement of chloride compounds into water resources.

### 2 Regulation

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

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

~~a—Placement, alteration or removal of 50 cubic yards or more of earth;~~

~~ba~~ Alteration or removal of 5,000 square feet or more of land-surface area or vegetation; or

~~eb~~ Subdivision of a property or properties into three or more residential lots.

2.2 **Exemptions.** The requirements of this rule do not apply to:

a Construction or remodeling on an existing single-family home site, unless any portion of the parcel is:

- 1 Within 300 feet of the centerline of and draining to Riley Creek, Purgatory Creek or Bluff Creek,
- 2 Within 500 feet of the ordinary high water level of and draining to any other public water or protected wetland, or

- 3 Below the 100-year flood elevation of a water body.
  - b Construction or remodeling on a single-family home site consistent with a subdivision, development or redevelopment plan implemented in accordance with a District permit issued after February 1, 2015, and an approved erosion prevention and sediment control plan.
  - c Rehabilitation of paved surfaces.
  - d Trails, sidewalks and retaining walls that do not exceed 10 feet in width and are bordered downgradient by a pervious area extending at least half the trail width.
  - e Land-disturbing activities that do not involve creation of new impervious surface, reconstruction of existing impervious surface or grading that materially alters stormwater flow at a site boundary.
- 2.3 **Redevelopment.** If a proposed activity will disturb more than 50 percent of the existing impervious surface on the parcel or will increase the imperviousness of the entire parcel by more than 50 percent, the criteria of section 3 will apply to the entire project parcel. Otherwise, the criteria of section 3 will apply only to the disturbed areas and additional impervious surface on the project parcel. For purposes of this paragraph, disturbed areas are those where underlying soils are exposed in the course of redevelopment.
- 2.4 **Linear projects.** Notwithstanding subsection 2.3, a permit under this rule is not required for a linear project if the project entails construction or reconstruction creating less than 510,000 square feet of new and/or 25,000 square feet of fully reconstructed impervious surface. For linear projects creating 510,000 square feet or more of new and/or 25,000 square feet of fully reconstructed impervious surface, stormwater management in accordance with the criteria of subsection 3.2 must be provided.
- 2.5 **Common scheme of development.** Activity subject to this rule on a parcel or adjacent parcels under common or related ownership will be considered in the aggregate, and the requirements applicable to the activity under this rule will be determined with respect to all development and redevelopment that has occurred on the site or on adjacent sites under common or related ownership since the date this rule took effect (January 1, 2015).
- a For development or redevelopment under common or related ownership, compliance with the criteria of section 3 may be achieved through a shared stormwater-management facility or facilities as long as the criteria in subsection 3.1 are met for each contributing drainage area within the common or related ownership.
- 2.6 **Performance monitoring.** A permit granted by the District on a finding that stormwater-management facilities, as they are to be constructed and maintained under the permit, will meet applicable performance standards under this rule, does not require additional steps if the permit is complied with but standards are not met. Notwithstanding, as a specific condition to a permit, the District may impose monitoring, performance evaluation, additional compliance measures or

other requirements for the purposes of demonstrating that performance standards are being met.

### 3 Criteria

3.1 An applicant for a permit under this rule must demonstrate, using a model utilizing the most recent applicable National Weather Service reference data (e.g., Atlas 14), that the implementation of its stormwater-management plan will:

a **Rate.** Limit peak runoff flow rates to that from existing conditions for all points where stormwater discharge leaves the site for the

i ~~Limit peak runoff flow rates to that from existing conditions for the two~~ 2-, 10- and 100-year frequency storm events using a nested 24-hour rainfall distribution, and

ii a 100-year frequency, 10-day snowmelt event, ~~for all points where stormwater discharge leaves the site;~~

b **Volume.** Provide ~~for the~~ abstraction onsite or in the same subwatershed as the land-disturbing activity of:

i ~~1.1 inches of runoff~~ inch from regulated impervious surface ~~of the parcel;~~ or

~~i~~ ii the volume for the 95th percentile storm-event runoff from the site.

iii Where infiltration or filtration facilities, practices or systems are proposed,

1. pretreatment of runoff must be provided: in accordance with the guidance in the Minnesota Stormwater Manual<sup>6</sup> and will not be credited toward compliance with the criteria in subsection 3.1c.

2. ~~ii~~ ~~Where infiltration facilities, practices or systems are proposed,~~ data must be submitted showing:

a. no evidence of groundwater or redoximorphic soil conditions within 3 feet of the bottom of the facility, practice or system;

b. soil conditions within 5 feet of the bottom of any stormwater treatment facility, practice or system;

c. the measured infiltration capacity of soils at the bottom of the facility, practice or system. ~~(For purposes of calculating volume control capacity, measured infiltration rates must be divided by 2 to provide a margin of safety.)~~

3. ~~iii~~ Drawdown of water levels in infiltration facilities must be within 48 hours.

4. ~~iv~~ Infiltration rates utilized to meet the 3.1b criterion may not exceed 8.3 inches per hour.

v

c **Quality.** Provide ~~for~~:

<sup>6</sup> [https://stormwater.pca.state.mn.us/index.php?title=Main\\_Page](https://stormwater.pca.state.mn.us/index.php?title=Main_Page)

- i Volume abstraction in accordance with 3.1b, or
- ii treatment onsite or in the same subwatershed as the land-disturbing activity to the equivalent of:
  - 1. at least 60 percent annual removal efficiency for total phosphorus (TP) and from site runoff;
  - 1.2. at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff, and no net increase in TSS or TP loading leaving the site from existing conditions.
  - 3. i no net increase in TSS or TP loading from the site compared to existing conditions.

The onsite abstraction of runoff may be included in demonstrating compliance with the total suspended solids and total phosphorus removal requirements.

- 3.2 **Criteria for Linear Projects.** An applicant for a permit for a linear project under this rule must demonstrate, using a model utilizing the most recent applicable National Weather Service reference data (e.g., Atlas 14), that the implementation of its stormwater-management plan will:
- a Achieve the rate-control standard in paragraph 3.1a; ~~and the water quality standard in paragraph 3.1c; and~~
  - b For projects creating between 510,000 square feet and 1 acre of new and/or fully reconstructed impervious surface, provide for the abstraction onsite of 1.1 inches of runoff from the net increase in impervious surface area; or
  - c For projects creating more than 1 acre of new and/or fully reconstructed impervious surface, meet the water-quality standard in 3.1c.ii for all new and fully reconstructed impervious surface and provide for the abstraction onsite of the larger of the following:
    - i 0.55 inches of runoff from the new and fully reconstructed impervious surfaces; or
    - ii 1.1 inches of runoff from the net increase in impervious area.
- 3.3 **Criteria for restricted sites.** Where the District concurs that an applicant has demonstrated that the abstraction standard in subsection 3.1 or 3.2, as applicable, cannot practicably be met through a combination of onsite best management practices and relocation of project elements to address varying soil conditions and other site constraints or infiltration ~~will~~ is reasonably likely to cause or exacerbate migration of underground contaminants, the applicant must provide rate control and water quality in accordance with the ~~standard~~ standards in ~~paragraph~~ paragraphs 3.1a and 3.1c, and abstraction ~~and water quality protection~~ in accordance with the following priority sequence:
  - a Abstraction onsite of ~~at least~~ 0.55 inches of runoff from ~~site~~ the regulated impervious surface determined in accordance with ~~paragraphs~~ section 2.3, 3.1 or 3.2, as applicable of this rule, and treatment of ~~all~~ runoff from the regulated impervious surface to the standard in paragraph 3.1c; ~~or~~
  - b Abstraction of runoff onsite to the maximum extent practicable and treatment

- of ~~all~~ runoff from the regulated impervious surface to the standard in paragraph 3.1c; or
- c. Off-site abstraction and treatment in the ~~watershed~~ same subwatershed as the proposed land-disturbing activity to the standards in ~~paragraph and in accordance with paragraphs~~ 3.1b and 3.1c.
- 3.4 **Criteria for projects on existing single-family home property.** The criteria in sections 3.1 to 3.3 and exhibit requirements in section 4 do not apply. An applicant for a permit for construction or reconstruction on an existing single-family home property must submit site plans and designs providing for construction, installation or implementation of a stormwater-management BMP consistent with guidance promulgated by the State of Minnesota, including but not limited to the Minnesota Stormwater Manual, Protecting Water Quality in Urban Areas Manual and Minimal Impact Design standards.
- 3.5 **Buffer credit.** Stormwater-management capacity of buffer area created in compliance with Rule D or otherwise will be credited toward compliance with the criteria in this rule.
- 3.6 **Low-floor elevation.** ~~All new and reconstructed buildings must be constructed such that the lowest floor is:~~
- ~~a—~~ a. All new and reconstructed buildings must be constructed such that the lowest floor is:
- i. At least two feet above the 100-year high water elevation or one foot above the natural overflow of a waterbody;
  - ii. ~~b—~~ At least two feet above the 100-year high water elevation of any open stormwater conveyance; and
  - iii. ~~c—~~ At least two feet above the 100-year high water elevation or one foot above the emergency overflow of a stormwater-management facility.
  - iv. Alternatively, low floors of new and reconstructed buildings may be constructed at a location and elevation set according to Appendix J1 – Low Floor Elevation Assessment, which is incorporated into and made a part of these rules. If Appendix J1 is used, the low opening where surface water can enter the structure must be a minimum of two feet above the 100-year high water elevation or one foot above the emergency overflow.
- ~~b.~~ b. In addition, a stormwater-management facility must be:
- i. constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with a standard in this subsection 3.6.
  - i.ii. Alternatively, a stormwater-management facility may be constructed at a location and elevation set according to Appendix J1 – “Low Floor Elevation Assessment,” which is incorporated into and made a part of these rules. If Appendix J1 is used, the low opening where surface water can enter the structure must be a minimum of two feet above the 100-year high water elevation or one foot above the emergency overflow.
- ~~b-c.~~ b— **Landlocked basins.** Any new or reconstructed structure wholly or

partially within a landlocked basin must be constructed such that its lowest floor elevation is:

- i 1 foot above the surface overflow of the basin, or
- ii 2 feet above the elevation resulting from two concurrent 100-year single rainfall events in a 24-hour period or a 100-year, 10-day snowmelt, whichever is higher.
- iii The starting elevation of the basin prior to the runoff event will be established by the highest of one of the following:
  - A Existing ordinary high water elevation established by the Minnesota Department of Natural Resources;
  - B Mottled soil.
- c Landlocked water basins may be provided with outlets if an outcome-based analysis and resource oriented management review regarding downstream impacts is completed and demonstrates that:
  - i A hydrologic regime is maintained that complies with all other rules;
  - ii Dead storage is provided to retain the fully developed future conditions back to back 100-year critical event water volume, above the highest anticipated groundwater elevation to the extent possible while preventing damage to property adjacent to the basin;
  - iii The outlet does not create adverse downstream flooding or water quality conditions, or materially affect stability of downstream watercourses
  - iv Proposed development draining to the landlocked basin has incorporated runoff volume and rate control practices to the extent practical
  - v There is a demonstrated need for an outlet to protect existing structures and infrastructure; and
  - vi The outlet design is part of an approved comprehensive local water management plan.

### 3.7 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, inspection and, if required, monitoring 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 inspection, maintenance and monitoring; provides for the inspection and maintenance in perpetuity of the facility, with documentation retained onsite and available to the District upon reasonable notice; and contains at a minimum the requirements in the District's standard maintenance declaration.
- b. For applications managing runoff through stormwater reuse, the maintenance plan must provide for the protection of greenspace to be irrigated or other land-use restrictions, as necessary, and metering of the volume of water reused to ensure continuing treatment capacity.

c. The plan will be recorded on the deed in a form acceptable to the District.

~~a.d.~~ A public entity assuming the maintenance obligation may do so by entering an agreement with the District in lieu of a recorded document.

3.8 **Chloride management.**

An applicant for a permit under this rule for land-disturbing activity on property other than a single-family home site must provide a plan for post-project management of chloride use on the site that includes, at a minimum:

- a Designation of an individual authorized to implement the chloride plan; and
- b Designation of a Minnesota Pollution Control Agency-certified salt applicator engaged in the implementation of the chloride plan for the site.

The chloride-management plan for a residential subdivision need not encompass the single-family home properties within the subdivision.

3.9 **Rights to Utilize Offsite Facility.** An applicant relying on regional or offsite stormwater-management treatment facility or facilities for compliance with ~~the standard in paragraph 3.1c or under an approved regional plan under section 4RPBCWD requirements~~ must demonstrate that it holds the legal rights necessary to ~~discharge to utilize~~ the relevant ~~offsite stormwater management~~ facility or facilities, and that the facility or facilities are subject to a maintenance document satisfying the requirements of paragraph 3.7.

3.10 **Wetland protection.**

a *Bounce and inundation.* No activity subject to this rule may alter a site in a manner that ~~increases~~ alters the bounce in water level, duration of inundation, or change the runout elevation in the subwatershed in which the site is located, for any wetland receiving discharge directly from the site beyond the limits specified Table J.1, which is incorporated into and a part of this rule.

b *Treatment of runoff to wetlands.* ~~Use of an existing or created wetland for stormwater treatment as part of a proposed development, redevelopment or other land-disturbing project~~ Discharge from regulated under District rules disturbed areas to a protected wetland must be treated to meet comply with the following criteria:

- i ~~Stormwater must be treated to meet the 3.1b1c criterion by~~ before discharge to a low- or medium-value wetland;
- ii ~~Exceptional and high value wetlands may not be used for stormwater management unless no other alternative is feasible. When permitted, any discharge to a high value wetland must be treated to~~ at least 75 percent annual removal efficiency for phosphorus and at least 90 percent annual removal efficiency for total suspended solids prior to discharge to ~~the a~~ high- or exceptional-value wetland.

4 **Regional Stormwater Management.** An applicant may comply with the criteria in subsection 3.1 for all parcels within a catchment area or areas through a regional or subwatershed plan approved by the District. A regional plan must provide stormwater

management that meets or exceeds the criteria in subsection 3.1. The regional 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 to which the plan pertains.

- 4.1 District approval of a regional plan will be based on a determination that:
  - a The use of a regional facility in place of onsite stormwater management is not reasonably likely to result in adverse impacts to local groundwater or natural resources ~~located upstream of the regional facility or facilities~~, including, for example, reduced water quality, altered wetland hydrology, changes to stream velocities or base flow, erosion or reduced groundwater recharge; and
  - b The plan incorporates onsite BMPs where necessary to mitigate impacts and provide local benefits not provided by the regional facility.

## 5 Required exhibits

The following exhibits must accompany the permit application:

- 5.1 One 11 inch-by-17 inch plan set , and electronic files in a format acceptable to the District, as well as a plan set 22 inches by 34 inches if requested by the District.
- 5.2 Stormwater-management system modeling in a form acceptable to the District engineer. For example, HydroCAD, SWMM, MIDS calculator, P8 or alternative method as approved by the District engineer in advance of submission. If storm sewer systems are designed for an event less than a 100-year event, the plans and modeling analysis must include secondary overflows for events exceeding the storm sewer system's level-of-service up through the critical 100-year event.
- 5.3 A site plan showing:
  - a Property lines and delineation of lands under ownership of the applicant.
  - b Existing and proposed elevation contours.
  - c Identification of existing and proposed normal, and ordinary high and 100-year water elevations onsite.
- 5.4 A stormwater-management plan certified by a registered engineer including, at a minimum:
  - a Proposed and existing stormwater-management facilities' location, alignment and elevation.
  - b Delineation of existing wetlands, marshes, shoreland and/or floodplain areas onsite or to which any portion of the project parcel drains, except that where a project will not change the hydrology of a wetland, the wetland need only be identified on the plan.
  - c Geotechnical analysis including soil borings and, where applicable, data developed in accordance with the Minnesota Stormwater Manual supporting existing and designed infiltration rates, at all proposed stormwater-management facility locations and completed by a state-licensed soil scientist, geologist, or engineer.
  - d Construction plans and specifications for all proposed stormwater-management facilities, including design details for outlet control structures.

- e Stormwater runoff volume and rate analyses for the 24-hour, 2-, 10- and 100-year critical events, existing and proposed conditions.
  - f All hydrologic, water quality, and hydraulic computations completed to design the proposed stormwater-management facilities, including calculation of stormwater-management capacity of buffer, as applicable.
  - g Narrative addressing incorporation of retention BMPs.
  - h Platting or easement documents showing drainage and ponding/flowage easements over hydrologic features such as floodplains, storm sewers, ponds, ditches, swales, wetlands and waterways, where required by the relevant city.
  - i Documentation as to the status of the project’s National Pollutant Discharge Elimination System stormwater permit, if applicable.
  - j If infiltration of runoff is proposed, the District may require submission of a phase I environmental site assessment and/or other documentation to facilitate analysis by the District of the suitability of soils for infiltration.
  - k If a stormwater harvest and reuse practice is proposed to meet applicable requirements, submission of:
    - i An analysis using a stormwater reuse calculator or equivalent methodology approved by the District engineer documenting how the annual volume of reuse water translates to the abstraction criterion in subsection 3.1b;
    - ii documentation of the adequacy of soils, storage capacity and delivery systems;
    - iii delineation of greenspace area to be irrigated, if applicable; and
    - iv an irrigation or usage plan.
- 5.5 An erosion control plan complying with District Rule C.
- 5.6 Upon completion of site work, a permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater-management facilities conform to design specifications as approved by the District.

Table J.1: Impacts on onsite wetland<sup>7</sup>

<b>Wetland Value/ Waterbody</b>	<b>Permitted Bounce for, 10-Year Event</b>	<b>Inundation Period for 1- and 2-Year Event</b>	<b>Inundation Period for 10-Year Event</b>	<b>Runout Control Elevation</b>
<b>Exceptional</b>	Existing	Existing	Existing	No change

<sup>7</sup> Adopted from *Wetland Management Classification System*

[http://bwsr.state.mn.us/wetlands/mnram/MnRAM\\_Wetland\\_Mgmt\\_Classification\\_Guidance.pdf](http://bwsr.state.mn.us/wetlands/mnram/MnRAM_Wetland_Mgmt_Classification_Guidance.pdf)

<b>High</b>	Existing plus/minus 0.5 feet	Existing plus 1 day	Existing plus 7 days	No change
<b>Medium</b>	Existing plus/minus 1.0 feet	Existing plus 2 days	Existing plus 14 days	0 to 1.0 ft above existing runout
<b>Low</b>	No limit	Existing plus 7 days	Existing plus 21 days	0 to 4.0 ft above existing runout

## Appendix H.1 – Low-Floor Elevation Assessment

### Overview of Lowest Floor Issue

There seems to be two reasons for establishing a minimum lowest floor elevation in the vicinity of a pond – to prevent flooding of the structure by surface water and to prevent seepage or damage from uplift pressures that could result from a rise in the water table elevation. The first reason (direct flooding) can easily be established with knowledge of the maximum flood elevation of a pond (or the 100-year elevation, if this is used) and ground surface topography. The second reason (a rise in the water table due to increased pond elevations) is not so straightforward. This second area is the subject of this memo.

When a formerly dry pond becomes wet (or when a wet pond's water elevation increases) due to a storm event, downward seepage of the ponded water begins. The rate of seepage through the bottom of the pond is dependent upon:

- 1) The elevation of the water surface above the pond bottom
- 2) The soil type at the bottom of the pond (i.e. the pond bottom's thickness and permeability)
- 3) The type of soil underneath the pond (e.g., clay, silt, sand, gravel)
- 4) The degree of saturation of the soils beneath the pond
- 5) The depth to the water table

In general, higher seepage through the bottom of the pond will occur when the water surface elevation is high, the pond's bottom sediments are thin and/or sandy, the soils underneath the pond are permeable (such as sand or gravel), the soils underneath the pond have a high moisture content (i.e., they are at field capacity or higher), and the water table is well below the bottom of the pond (i.e. the soils are freely draining).

Higher seepage rates through the bottom of the pond will cause the water table elevation to rise by creating a "mounding condition" below the pond. How high and how widespread the water table mound becomes are contributing factors to whether or not basements will be affected. *However, the single most important factor that will determine if seepage from a pond will cause wet basement problems is the depth to the water table, below the basement.*

The magnitude and extent of the groundwater mounding conditions is also contingent upon the aquifer's transmissivity (aquifer permeability multiplied by aquifer thickness), the specific yield of the aquifer materials, and the duration of the high water levels in the pond. In general, thicker aquifers with higher permeability will experience less mounding than thinner aquifers of lower permeability. Perched aquifers (i.e. groundwater zones less than about 10 feet that overlie extensive clay layers) typically experience the greatest amount of mounding.

### Overview of Evaluation Method

All of the combinations of settings, pond configurations, aquifer parameters, and distances from ponds cannot be anticipated beforehand in coming up with a method to quickly evaluate whether or not a variance to the minimum floor elevation ordinance should be considered. However, by making some generalities, the most commonly encountered situations can be evaluated. This is the approach taken here.

A groundwater flow model of a “typical” pond and aquifer setting was developed. Aquifer parameters and pond elevations were varied and the resulting water table mounding conditions were simulated. The following conditions were evaluated:

1. Pond elevation increases of 2 feet, 4 feet, and 6 feet above normal or dry conditions
2. Depth to the water table (before flooding) of 3 feet (to represent conditions of 3 feet or less) and 10 feet (to represent conditions where the depth to the water table is greater than 3 feet). The purpose of simulating these two conditions is that with shallow water tables, the rate of infiltration is substantially reduced as the groundwater mound rises into the pond. For deeper aquifer conditions, the pond bottom is always above the water table and the depth to the water table has no bearing on the seepage rate.
3. Three aquifer conditions: clay or perched aquifers (transmissivities of  $7 \text{ ft}^2/\text{day}$  and specific yield values of 0.1); silt aquifers (transmissivity of  $70 \text{ ft}^2/\text{day}$  and specific yield values of 0.2) and sand and gravel aquifers (transmissivities of  $2000 \text{ ft}^2/\text{day}$  and specific yield values of 0.2).
4. Pond bottom sediment thickness of 1 foot and bottom sediment hydraulic conductivity of  $1 \text{ ft}/\text{day}$ .
5. Instantaneous occurrence of a flood condition in the pond, which lasts for 25 days, followed by instantaneous reduction to normal conditions. The purpose of using this condition is that the effects of aquifer storage (specific yield) are taken into account. A duration of 25 days was selected as being a reasonable time period of flood conditions.
6. Increases in the water table elevation were recorded at several distances between 5 feet and 200 feet from the pond. The maximum rise during the modeled period was selected for plotting.

The U.S. Geological Survey’s groundwater modeling code, MODFLOW, was used for this analysis.

### How to Determine if a Variance is Warranted

In order to determine if a proposed lowest floor elevation is acceptable, the following need to be known:

1. Depth to the water table and an estimation of the water table’s seasonally high elevation.

2. Type of aquifer materials – e.g., clay, silt, sand, gravel
3. Information as to whether or not the water table is perched or is part of a deeper, thicker aquifer system.
4. An estimate of the flood elevation of the pond.
5. The distance of the proposed floor to the pond.

Depth to the water table and the type of aquifer material needs to be determined through the installation of soil borings. The other information should be estimated from other sources.

Once this information is obtained, the minimum depth to the water table from the bottom of the proposed floor slab can be determined from one of six plots, attached to this memorandum. Which of the six plots to use depends on the depth of the water table with respect to the pond's bottom and the type of aquifer material (e.g., clay, silt, sand, gravel). The following steps should be used:

1. Determine the closest distance of the proposed floor to the pond (if the pond size increases during flooding, the distance should be from the flooded perimeter of the pond to the proposed floor).
2. Using Plot 1, determine the minimum permissible depth to the water table for the specified distance from the pond. If the actual depth to the water table (see discussion below for determining this) is greater than the value on Plot 1, no further evaluation is necessary – the floor is sufficiently high with respect to the water table that the water table will not reach the bottom of the slab, regardless of the soil type or transmissivity. If the depth to the water table is less than the value from Plot 1, further evaluation is necessary.
3. If the soil type of the aquifer, below the water table, is mostly clay OR if the aquifer is perched (a continuous clay layer is less than 5 feet below the water table), Plot 2 must be used. The appropriate pond level increase (2, 4, or 6 feet) for flood conditions must be used in Plot 2 to find the minimum permissible depth to the water table. If the depth to the water table from Plot 2 is less than the actual depth to the water table, the proposed floor elevation is too low and must be raised to equal the value from Plot 2.
4. If the soil type of the aquifer is mostly silt AND the pond bottom is 3 feet or less above the water table, Plot 3 should be used.
5. If the soil type of the aquifer is mostly sand or gravel AND the pond bottom is 3 feet or less above the water table, Plot 4 should be used.
6. If the soil type of the aquifer is mostly silt AND the pond bottom is 3 feet or more above the water table, Plot 5 should be used.

7. If the soil type of the aquifer is mostly sand or gravel AND the pond bottom is 3 feet or more above the water table, Plot 5 should be used.

The values from the plots are guidelines, based on typical conditions. If the plots indicate the proposed floor elevation is too low, additional analyses and data collection could be pursued by the applicant. These additional analyses could include additional soil borings, long-term monitoring of piezometers, or more sophisticated modeling.

### Determining Depth to the Water Table

If a variance to a lowest floor elevation ordinance is to be considered, the depth to the water table at the location in question must be known. Without this knowledge, there cannot be a technical basis for approving a variance. Furthermore, the applicant should demonstrate that the measured water-table elevation is both representative of conditions over the entire floor area and is representative of values typical for seasonally high conditions (e.g. spring conditions). A suggested requirement for collecting this information is the following:

1. A minimum of two representative soil borings must be installed at or near the perimeter of the lowest floor. At least one of these borings must be where the floor is closest to the nearest pond.
2. Soil borings must extend to a depth of at least 7 feet below the water table. The borings must be left open for a time sufficient to determine the stabilized water level in the borehole. The water level must be measured with reference to a known bench mark that can relate the water table elevation to the proposed floor elevation. Soils at or immediately below the water table must be sampled and texturally classified using an approved classification method.

Water levels measured during dry summer months or during the winter may be lower than water levels during the spring. The applicant should be required to make an effort to determine the likely amount of seasonal fluctuation in the water table in the area. Water level records from wells completed in the area could be used. If information is unavailable, the applicant should be required to add a value to the measured water table elevation. One suggestion would be to assume 25% of the total annual precipitation (29 inches), divided by the average effective porosity for non-cohesive soils (0.3), which is:

$$(29 \text{ inches}/4) \times (1 \text{ foot}/12 \text{ inches})/0.3 = 2 \text{ feet}$$

If the seasonally adjusted maximum water-table elevation is eight (8) feet or below the bottom of the slab of the lowest floor, it is unlikely that temporary flood conditions in the pond will cause the water table to rise to the level of the floor.<sup>8</sup>

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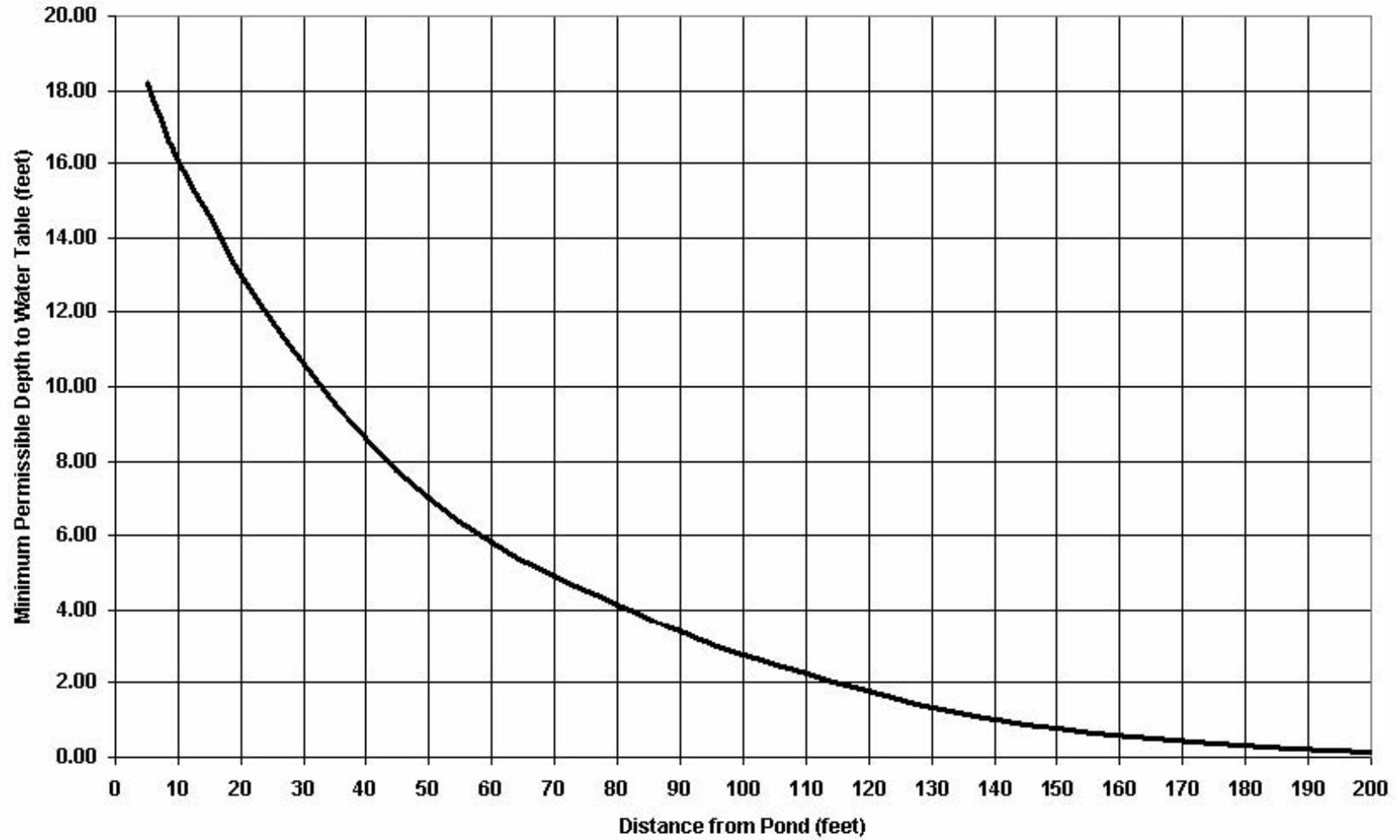
<sup>8</sup> \_\_\_\_\_ This assumes that the pond level begins to return to normal within about 30 days and the pond level's increase is not greater than 6 feet.

### **Determining Soil Type at the Water Table**

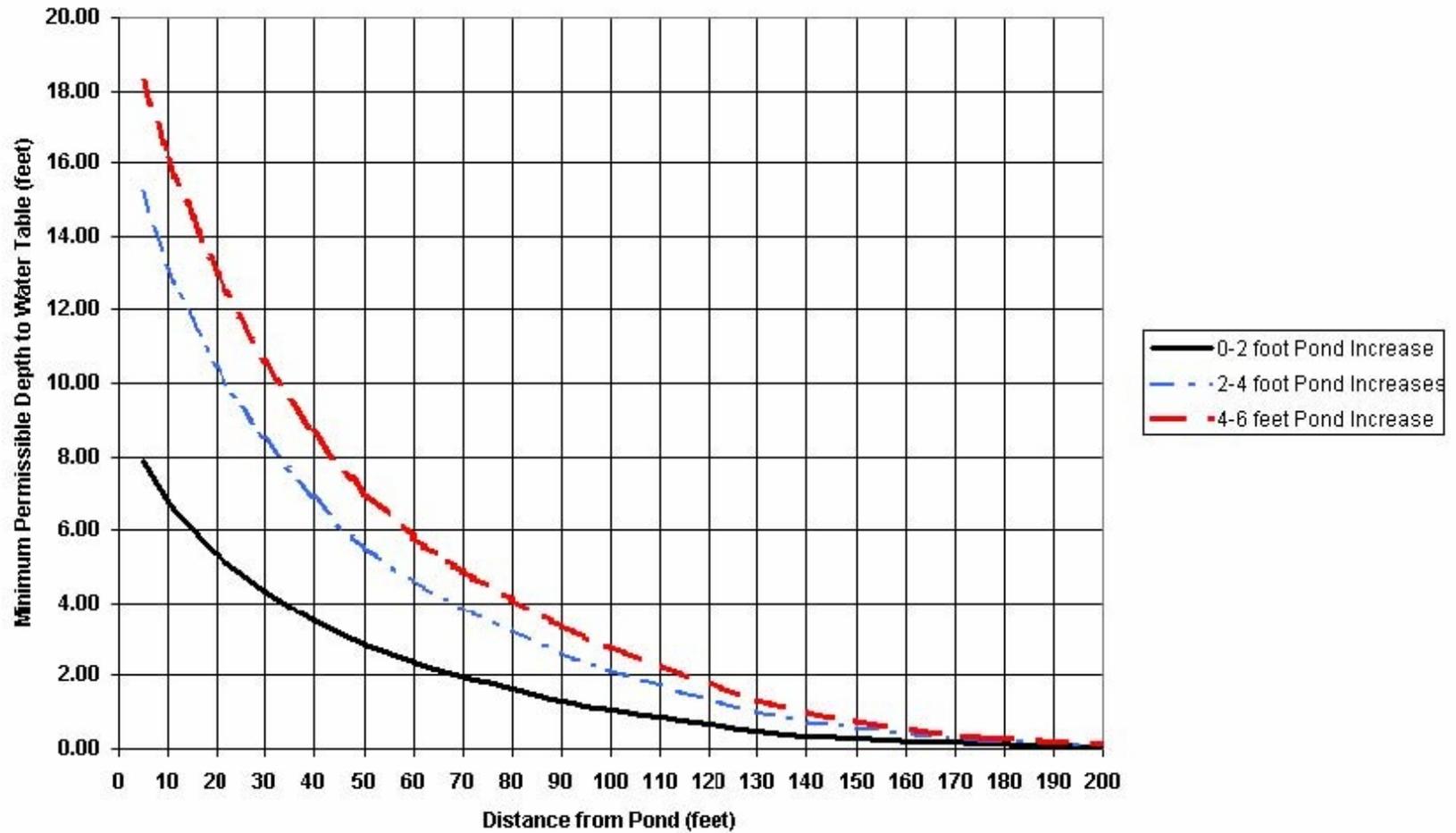
The textural classification from the soil borings will be necessary for determining the expected rise in the water table caused by an increase in pond elevation. At a minimum, the soil should be classified as one of the following:

1. Sandy or gravelly soils – consisting of predominantly sand or gravel, with minor amounts of silt and clay
2. Silty soils – consisting predominantly of silt
3. Clayey soils – consisting predominantly of clay.

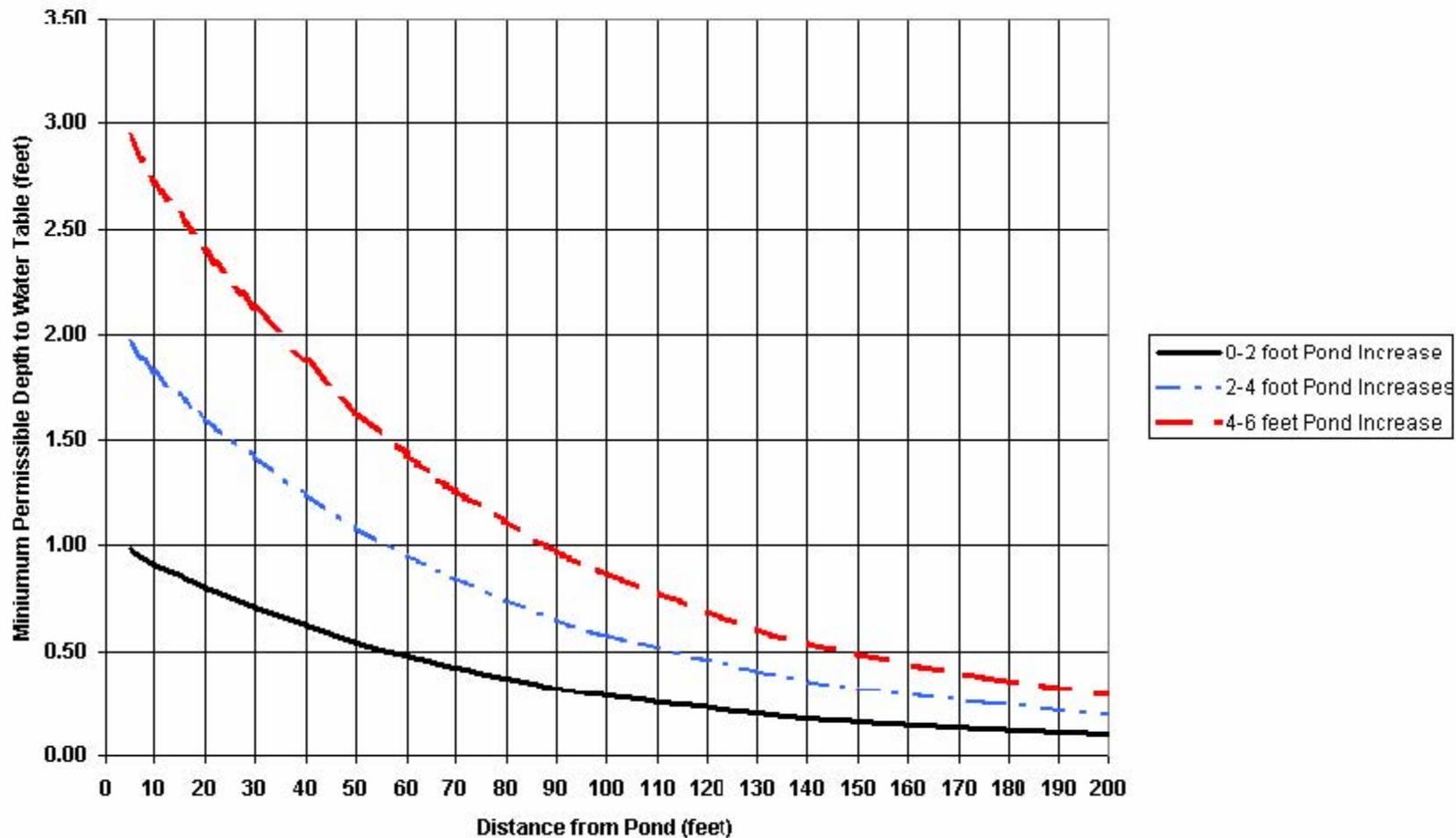
**PLOT 1: Minimum Depth to Water Table for No Further Evaluation**



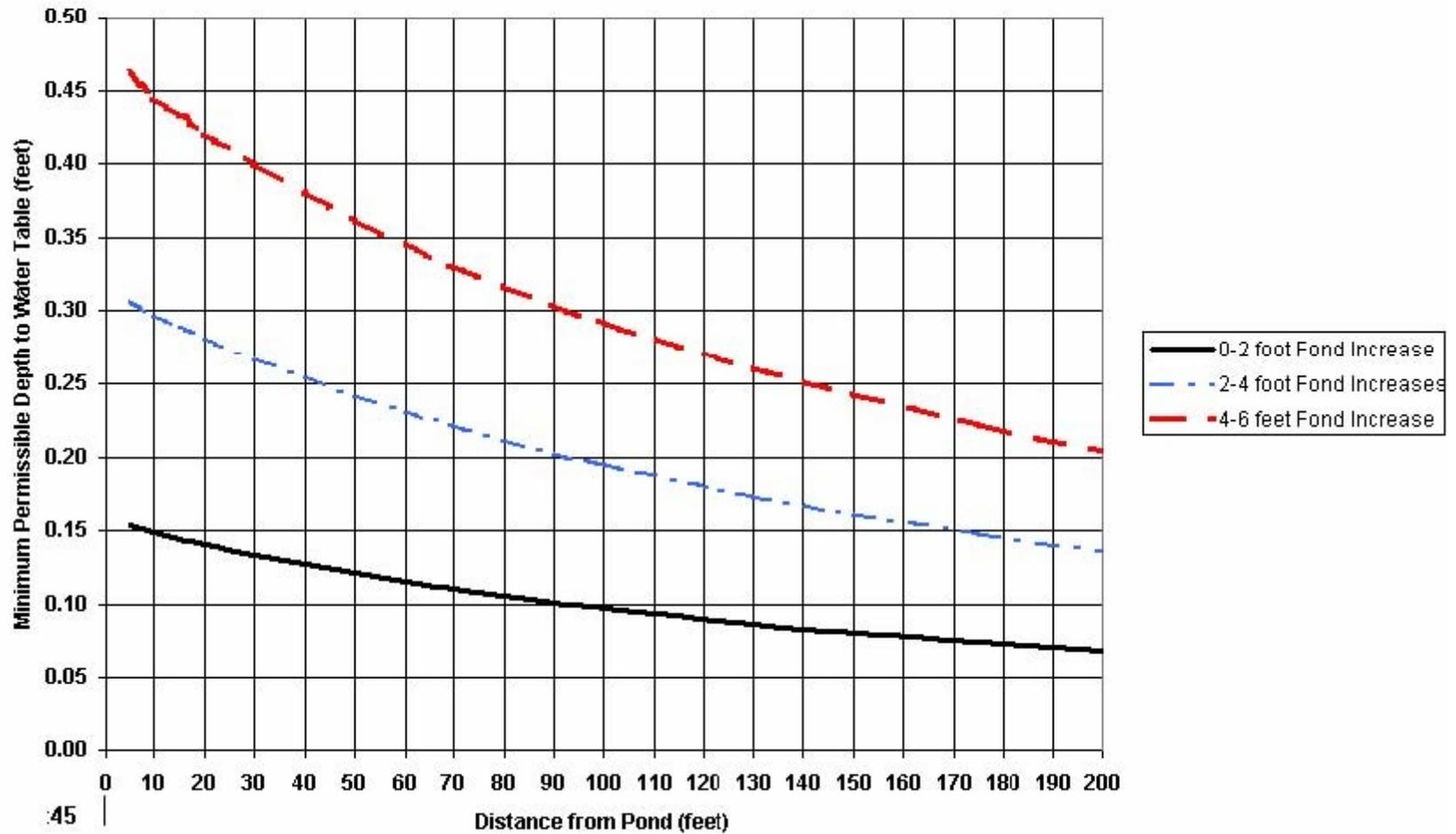
**PLOT 2: Minimum Permissible Depth to Water Table - Clay or Perched Conditions  
(Perched Conditions = Water Table <5 feet above a continuous clay layer)**



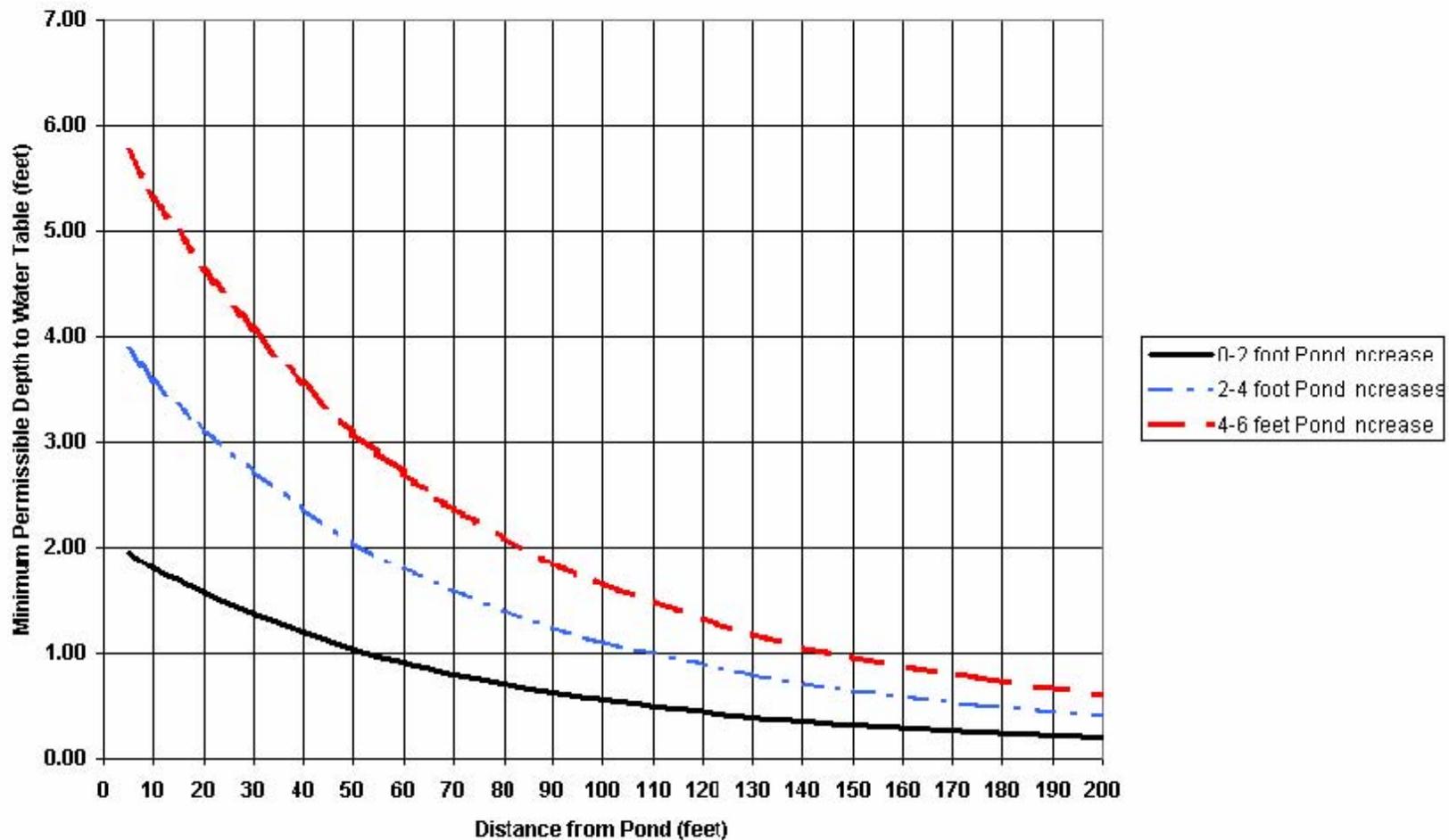
**PLOT 3: Minimum Permissible Depth to Water Table - Silt - Pond Bottom <3 feet above Ambient Water Table**



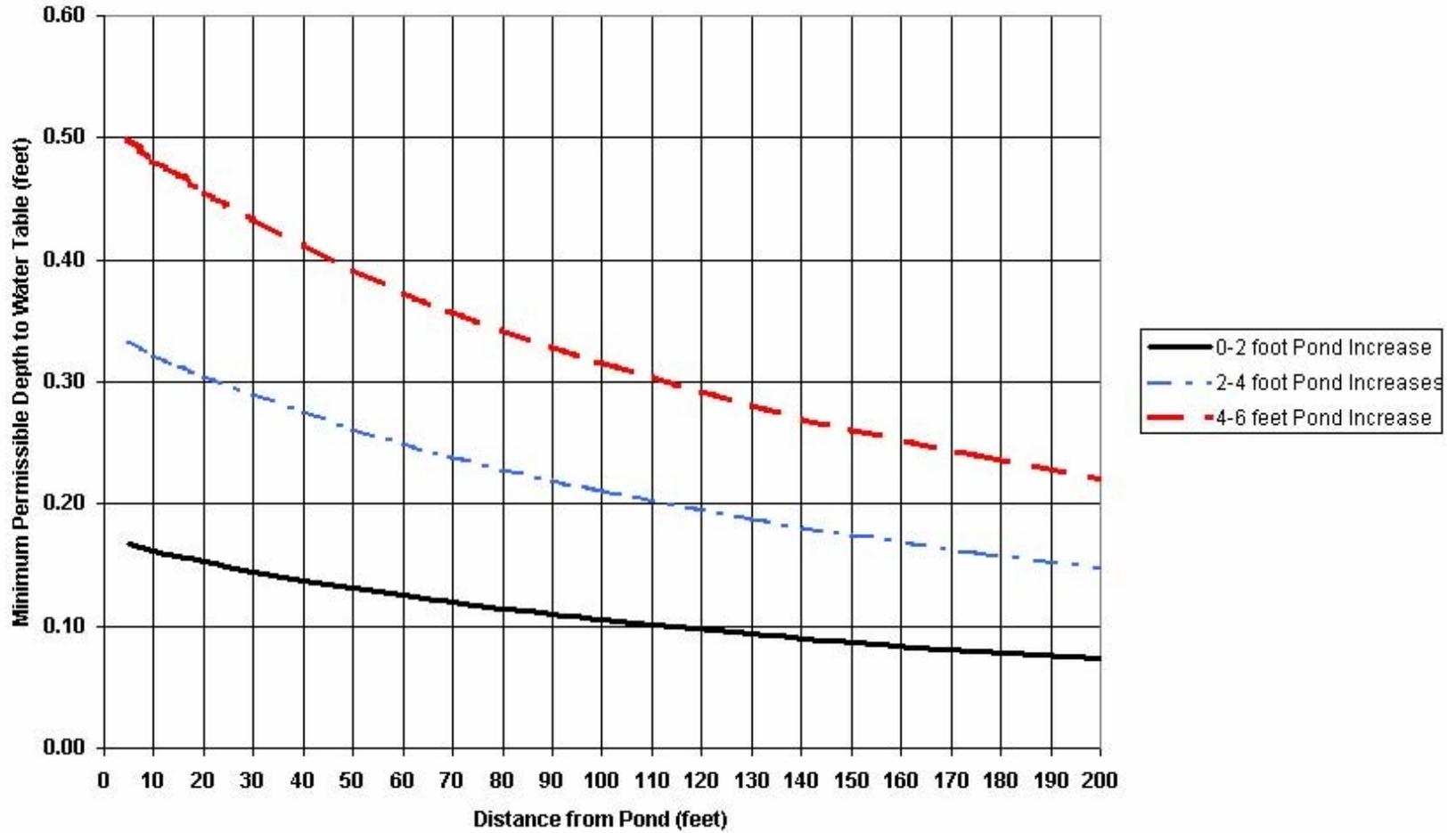
**PLOT 4: Minimum Permissible Depth to Water Table - Sand & Gravel - Pond Bottom <3 feet above Ambient Water Table**



**PLOT 5: Minimum Permissible Depth to Water Table - Silt - Pond Bottom >3 feet above Ambient Water Table**



**PLOT 6: Minimum Permissible Depth to Water Table - Sand & Gravel - Pond Bottom >3 feet above Ambient Water Table**



## **Rule K – Variances and Exceptions**

### **1 Variances**

The Board of Managers will consider a request for a variance from strict compliance with the requirements of a District rule on submission of a request by a permit applicant. To grant a variance, the Board of Managers must find, based on demonstration by the applicant, that because of unique conditions inherent to the subject property, which do not apply generally to other land or structures in the Riley-Purgatory-Bluff Creek watershed, strict application of a rule provision will impose a practical difficulty on the applicant, not a mere inconvenience.

For purposes of the Board of Managers' determination of whether a practical difficulty exists, the following factors will be considered:

- 1.1 how substantial the variation is from the rule provision;
- 1.2 the effect of the variance on government services;
- 1.3 whether the variance will substantially change the character of or cause material adverse effect to water resources, flood levels, drainage or the general welfare in the District, or be a substantial detriment to neighboring properties;
- 1.4 whether the practical difficulty can be alleviated by a technically and economically feasible method other than a variance. Economic hardship alone may not serve as grounds for issuing a variance if any reasonable use of the property exists under the terms of the District rules;
- 1.5 how the practical difficulty occurred, including whether the landowner, the landowner's agent or representative, or a contractor, created the need for the variance; and
- 1.6 in light of all of the above factors, whether allowing the variance will serve the interests of justice.

### **2 Exceptions**

The Board of Managers may approve an exception from a provision of the rules requiring a particular treatment or management strategy, or setting forth a design specification, if an applicant demonstrates that better natural resource protection or enhancement can be achieved by the project as proposed, with such further conditions as the Board of Managers may impose, than would strict compliance with the provision.

### **3 Term**

A variance or exception granted by the District is valid only as long as the underlying permit remains valid.

### **4 Violation**

A violation of any condition of a permit approved with a variance constitutes grounds for termination of the variance.

## Rule L – Permit Fees

### 1 Policy

It is the determination of the Board of Managers that:

- ~~1.1~~ Charging a minimal permit application fee will increase public awareness of and compliance with District permitting requirements, and will reduce enforcement and inspection costs;
- ~~1.2~~ The public interest will benefit from inspection by District staff of certain large-scale projects in locations presenting particular risk to water resources to provide the Board of Managers with sufficient information to evaluate compliance with District rules and applicable law, and the District's annual tax levy should not be used to pay such costs; and
- ~~1.3~~ From time to time persons perform work requiring a permit from the District without a permit, and persons perform work in violation of an issued District permit. The Board of Managers determines that its costs of inspection and analysis in such cases will exceed the costs incurred where an applicant has complied with District requirements. The Board of Managers further concludes that its annual tax levy should not be used to pay costs incurred because of a failure to meet District requirements but rather such costs should be recovered from the responsible parties.

### 2 Requirement

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

## **Rule M – Financial Assurances**

### **1 Policy**

It is the policy of the District to protect and conserve the water resources of the District by requiring a bond or other financial performance assurance with a permit application to ensure adequate performance of the authorized activities and compliance with the District rules.

### **2 Requirement**

The District may require a permit bond, letter of credit or other financial assurance in a form approved by the District for an activity regulated under these rules. 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 Criteria**

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

- 3.1 The financial assurance will be a permit bond, letter of credit, cash deposit or other form acceptable to the District, and a commercial financial assurance will be from an issuer licensed and doing business in Minnesota. Financial assurance templates may be obtained from the District web site (<http://www.rpbcwd.org>) and also are available from the District office.
- 3.2 The financial assurance will 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 permit and all applicable laws, including the District's rules, and payment when due of any fees or other charges authorized by law, including the District's rules. The financial assurance will 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 full amount of the financial assurance required must be restored within 45 days.
- 3.3 The financial assurance must be effective for one year from the date of issuance unless a longer period is specified by the District and will contain a provision that it may not be canceled without at least thirty (30) days prior written notice to the District.
- 3.4 The financial assurance will be submitted by the permit applicant, but the financial assurance principal may be either the landowner or the individual or entity undertaking the proposed activity.
- 3.5 No financial assurance will be released except pursuant to the terms of section 4.
- 3.6 No interest will be paid on financial assurances held by the District.
- 3.7 The amounts of financial assurances required by the District will be set by the

Board of Managers by resolution. The schedule of financial assurance amounts will be maintained on the District website (<http://www.rpbcwd.org>) and also will be available from the District office. Financial assurance amounts will be set as necessary to cover the following potential liabilities to the District:

- a field inspection, monitoring and related fees authorized under Minnesota Statutes section 103D.345;
  - b the cost of maintaining and implementing erosion prevention and sediment control and other protective measures required by the permit;
  - c the cost of remedying damage resulting from noncompliance with the permit or for which the permittee is otherwise responsible.
- 3.8 When a cash escrow is to be provided to fulfill a District financial assurance requirement, 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. A cash escrow agreement template will be maintained on the District website (<http://www.rpbcwd.org>) and also will be available from the District office.

#### **4 Financial Assurance Release**

On written notification of completion of a project and submission of the chloride-management plan pursuant to section 3.8 of Rule J, if applicable, the District will inspect the project to determine if the project has been constructed in accordance with the terms of the permit and District rules. If the project is completed in accordance with the terms of the permit and District rules, any documentation or other records necessary to demonstrate and confirm that required facilities, features or systems have been constructed or installed and are functioning as designed and permitted, and there is no outstanding balance for unpaid permit fees, the District will release the financial assurance.

- 4.1 Final inspection compliance constituting grounds for financial assurance release includes, but is not limited to:
- a demonstration by the permittee and confirmation by the District that the site has been vegetated and stabilized to prevent erosion and sedimentation per Rule C, subsection 3.4, and that erosion and sedimentation controls have been removed;
  - b demonstration and confirmation that stormwater-management facilities have been constructed or installed and are functioning as designed and permitted; and
  - c payment of all outstanding fees to the District.

The District may return a portion of the financial assurance if it finds that the entire amount is no longer required to ensure compliance with the permit conditions and District rules. If the District has not inspected the project and made a determination

about the project's compliance with the above criteria within 45 days of District receipt of written notification of project completion, the financial assurance is deemed released unless the District notifies the permittee that final inspection compliance matters remain outstanding. In the event that a financial assurance is released through expiration of the time for confirmation of final inspection compliance, the District will provide a writing releasing the financial assurance if needed to meet the issuer's requirements.

**Rule N – Enforcement**

- 1 Investigation of noncompliance.** District staff and agents 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 regulatory requirements.
- 2 Board hearing; administrative compliance order.** A property owner or permittee will be provided with reasonable notice of a compliance hearing and an opportunity to be heard by the Board of Managers on a finding of probable violation and failure of the property owner to apply for a permit or a permittee to take necessary corrective steps. At the conclusion of a hearing, the District may 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 until corrective or restorative actions take place.
- 3 District court enforcement.** 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 sections 103D.545 and 103D.551.
- 4 Liability for enforcement costs.** The permittee or owner of a property that is the subject of District enforcement action 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.