

## **4.0 LAKE, RIVER, STREAM AND WETLAND BUFFER REQUIREMENTS**

**4.1 Purposes and Policy.** The purpose of Rule 4.0 is to afford the greatest possible protection to buffers, and to the water quality and habitat of District water resources, consistent with the interest in avoiding undue disturbance to established public and private activities adjacent to lakes and streams.

Natural vegetation bordering the bed and banks of lakes, streams and wetlands serves a critical role in maintaining the ecological function of and community benefits deriving from those water resources. Purposes served by vegetative buffers include bank and shoreline stabilization; erosion prevention; filtration of nutrients, sediments, and other pollutants from storm flows; protection of stream beds and banks and mitigation of downstream flooding through moderation of peak flows both into and within the resource; regulation of in-stream temperatures; preservation of aquatic and terrestrial habitat; protection of scenic resources; and maintenance of property values.

### **4.2 Applicability.**

4.2.1 Rule 4.0 applies to land:

(a) Adjacent to a stream designated as a public water pursuant to Minn. Stat. §103G.005, subd. 15, as amended; a spring creek identified in the Lower St. Croix River Spring Creek Stewardship Plan, EOR November 2003; a recreational development or natural environment lake designated as a public water under Minn. Stat. §103G.005, subd. 15, as amended; a groundwater-dependent natural resource, a wetland, or the St. Croix River; and

(b) That is (i) subdivided; or (ii) subject to a variance from the applicable shoreland or St. Croix Riverway ordinance relating to structure setback from the property line adjacent to the resource or impervious surface percentage; on or after March 1, 2010.

4.2.2 Rule 4.0 applies in addition to, and not in place of, any local shoreland ordinance.

### **4.3 Zone Widths.**

4.3.1 Subject to the special provisions in sub-sections 4.3.2 through 4.3.7, buffer zones are as follows:

(a) St. Croix River:

(1) Streamside zone: 25 feet from the Bluff Line or OHWL, whichever governs the Structure Setback set by the [Lower Saint Croix National Scenic Riverway \(LSCNSR\) Management Rules](#)

(2) Middle zone: 50 feet from upland edge of streamside zone

(3) Outer zone: from upland edge of middle zone to Structure Setback set by the LSCNSR Management Rules

(b) Streams, Creeks & tributaries thereof:

(1) Streamside zone: 25 feet

(2) Middle zone: 50 feet from upland edge of streamside zone

- (3) Outer zone: from upland edge of middle zone to structure setback under applicable shoreland ordinance
- (c) Natural Environment lake: 75 feet
- (d) Recreational Development lake: 50 feet
- (e) Manage 1 wetland: 100 feet
- (f) Manage 2 wetland: 75 feet
- (g) Manage 3 wetland: 50 feet
- (h) Manage 4 wetland: 50 feet

If a lake or wetland is a groundwater-dependent natural resource, the buffer will be 100 feet. If a stream is a groundwater-dependent natural resource, the streamside zone will be 50 feet, and the middle zone 100 feet.

4.3.2 Where a mapped natural community is associated with a stream or lake subject to Rule 4.0, the upland edge of the buffer or, for a stream, the middle zone shall be as specified in sub-section 4.3.1 or contiguous with the upland edge of the mapped natural community, whichever is greater.

4.3.3 Where a lake or wetland buffer, or a streamside or middle zone of a stream buffer, encompasses all or part of a steep slope, the zone or buffer shall extend to the distance specified in sub-section 4.3.1 or to the top of the slope, whichever is greater. A contour alteration or artificial structure on a steep slope constitutes a break in slope only if it indefinitely will dissipate upgradient velocity and trap upgradient pollutant loadings.

4.3.4 Where the 100-year floodplain extends further than the upland edge of the middle zone, the lake buffer or the wetland buffer specified in sub-section 4.3.1, the zone or buffer shall extend to the upland edge of the floodplain.

4.3.5 Where a drainageway conveying flow through the buffer extends outside the buffer width specified in sub-section 4.3.1, the buffer shall be extended along the drainageway with a width equal to that of the drainageway.

4.3.6 Where a lake or wetland of any size is encompassed within or contiguous to a stream to which Rule 4.0 applies, the lake or wetland buffer specified in sub-section 4.3.1 or Rule 8.0 shall apply in addition to, and not in place of, the applicable stream or lake buffer.

4.3.7 Buffer width may vary where the applicant can clearly demonstrate the need to vary from the District's Rule or when there is a potential to provide benefits to the resources of the District, provided that the average width at least equals the applicable width of sub-section 4.3.1, the buffer is at least half of that width or a minimum of 25 feet at all points, and the buffer provides water resource and habitat protection at least equivalent to that of a uniform buffer of the required width. Buffer area calculation will exclude any part of the buffer that exceeds twice the width specified in sub-section 4.3.1.

#### **4.4 Declaration and Delineation of Buffer Zones.**

4.4.1 Before any disturbance of ground vegetation or contour, or placement of any structure on the ground, a declaration, easement, or other instrument incorporating the applicable requirements of Rule 4.0 shall be recorded with the County in perpetuity on the property title by the property owner.

4.4.2 A buffer shall be indicated by either permanent, flush to the ground markers or permanent, 4 ft post markers at the buffer's upland edge, with a design and text approved by District staff in writing. A marker shall be placed at each lot line, with additional markers at an interval of no more than 200 feet. If a District permit is sought for a subdivision, the monumentation requirement will apply to each lot of record to be created. On public land or right-of-way, the monumentation requirement may be satisfied by the use of markers flush to the ground, breakaway markers of durable material, or a vegetation maintenance plan approved by District staff in writing.

#### **4.5 Limitations in Buffer Zones.**

4.5.1 At the time a buffer is created under Rule 4.0, the District will require a planting or landscaping plan and the implementation of that plan to establish adequate native vegetative cover for buffer areas that:

- (a) Are disturbed; and
- (b) Have vegetation composed more than 30 percent of undesirable plant species (including, but not limited to turf grass, reed canary grass, common buckthorn, purple loosestrife, leafy spurge, bull thistle, and other noxious or invasive weeds); or
- (c) Consist of more than 10 percent of bare soil or turf grass.

4.5.2 Lake Buffers; Wetland Buffers; Streamside Zone of Stream or River Buffer. The following activities are prohibited within a lake buffer, and within the streamside zone of a stream or river buffer:

- (a) Creating impervious cover except as allowed by sub-section 4.9.2.
- (b) Excavating fill or placing fill or debris, except for temporary placement of fill or debris pursuant to duly permitted work in the associated watercourse, in compliance with all conditions of the permit, and in compliance with section 4.7.
- (c) Altering vegetation, except for (i) vegetative enhancements, as approved in writing by staff; and (ii) the removal of invasive exotic species or of trees for disease control or revegetation. A tree larger than six inches in diameter at a point two feet above the ground may be removed only on written authorization from District staff on a determination that the function of the buffer will not be diminished.
- (d) Locating roads or utilities, except pursuant to a crossing of the associated watercourse in accordance with section 4.7. Structures and appurtenances associated with the road or utility shall not be located within the streamside zone unless no feasible alternative exists. Outlet, flood control and stormwater treatment facilities may be located within the zone if so approved under Rule 2.0, except that a stormwater basin is not permitted:
  - (i) Within the streamside zone of a stream buffer; or
  - (ii) Within the buffer of a groundwater-dependent natural resource, unless the basin bottom is at least three feet above the seasonal high-water table, bedrock or other impeding layer and

the basin and associated facilities are designed and maintained to infiltrate the two-year, 24-hour precipitation event.

4.5.3 Middle Zone of Stream Buffer. The streamside zone prohibitions of sub-section 4.5.2 apply in the middle zone of a stream buffer, except that dead trees, limbs, or branches may be removed from the buffer for any reason and without District approval.

4.5.4 Outer Zone of Stream Buffer. The following are prohibited in the outer zone of a stream buffer:

- (a) Creating impervious cover except as allowed by sub-section 4.9.2.
- (b) Placing fill or excavation, except in accordance with section 4.7 and other applicable law.
- (c) Locating roads or utilities that involve the creation of impervious surface within the outer zone, except pursuant to a crossing of the watercourse and in accordance with section 4.7. Structures and appurtenances associated with the road or utility shall not be located within the outer zone unless no feasible alternative exists. Outlet, flood control and stormwater treatment facilities may be located within the zone if so approved under Rule 2.0.

**4.6 Shoreline and Bank Stabilization.** A measure to stabilize a shoreline or bank otherwise regulated under Rule 5.0 must comply with sub-section 4.7.1 but otherwise is excepted from the prohibitions of section 4.5.

#### **4.7 Temporary Alterations.**

4.7.1 Compliance with Rule 3.0 is required, irrespective of the area or volume of earth to be disturbed.

4.7.2 Buffer zones and the location and extent of vegetation disturbance shall be delineated on the erosion control plan.

4.7.3 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.

4.7.4 Fill or excavated material shall not be placed to create an unstable slope.

4.7.5 When construction, land disturbance, fill or excavation activity occurs within the outer zone, the boundary between the outer and middle zones shall be demarcated with siltation or other fencing to prevent disturbance of vegetation within the middle zone. When construction, land disturbance, fill or excavation activity occurs within the middle zone, the boundary between the middle and streamside zones shall be demarcated with siltation or other fencing to prevent disturbance of vegetation within the streamside zone.

#### **4.8 Roads and Utilities.**

4.8.1 A structure, impervious cover or right-of-way maintained permanently in conjunction with a crossing of the waterbody or wetland shall minimize the area of permanent vegetative disturbance to the degree feasible. 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.

4.8.2 All work shall be in accordance with section 4.7.

#### **4.9 Exceptions.**

4.9.1 An impervious surface, road, or utility in existence on March 1, 2010, its maintenance (including mill and overlay), reconstruction, and maintenance of its existing right-of-way are excepted from the operation of Rule 4.0 unless the impervious surface area increases. Any increase in area of a surface, road or utility excepted under this sub-section is subject to the Rule. A public road or a utility may be located within a buffer zone on a finding that avoiding the buffer is infeasible and in accordance with the standards of section 4.8.

4.9.2 Access to a waterbody or wetland for a lawful private or public use of the resource may be created and maintained. All access surfaces within the buffer zone, other than stairs, lifts, and docks allowed under the applicable shoreland ordinance, must be pervious. Permanent vegetative disturbance shall be limited to that necessary for access in light of the nature and extent of the permitted use. For the purpose of this exception, porous paving systems are not considered a pervious use. No facility, other than a footpath or a facility accessory to a permitted use of the waterbody and required by its nature to be adjacent to the water such as stairs, lifts, and docks allowed under the applicable shoreland ordinance, may be located within the buffer zone. Paved recreational trails must be located outside the buffer zone. The access zone must not exceed 50 feet in width or half the lot width, whichever is less.

4.9.3 The District may grant a variance from any requirement of Rule 4.0 pursuant to Rule 9.0 of these Rules. In determining the appropriateness of a variance, the District shall consider, among other factors, the parcel or lot of record as of the date Rule 4.0 was adopted; the common ownership of the property in question and adjacent property; and the availability of clustering, density compensation, variances and other means under applicable land use law that would allow desired uses to be located on portions of the parcel or lot not within buffer zones. An exception shall be limited to the extent necessary to put the property to a reasonable or economically viable use.

4.9.4 For properties where the existing primary structure location does not conform to the setback under the applicable shoreland ordinance and the structure location is not required to be brought into conformance with the applicable setback, the buffer width shall be 50% of the existing distance between the structure and the OHWL, bluff line, delineated wetland edge, or top of bank as applicable to the resource.

4.9.5 A 30-ft clear zone from primary structures may be maintained within the Outer zone of a stream buffer.

**4.10 Required Exhibits.** In addition to the District's standard application form, fees and sureties, the following exhibits shall accompany a permit application (one full-size; one set-reduced to maximum size of 11" x 17"):

4.10.1 Complete set of project plans that details project setting in relation to adjacent water body;

4.10.2 Plan indicating OHWL or delineated wetland edge of adjacent water body and applicable buffer width;

4.10.3 Buffer averaging justification if averaging requested under sub-section 4.3.7;

4.10.4 Evaluation of existing buffer vegetation and density in compliance with sub-section 4.5.1. Planting plan, planting list with species and planting density, and specifications and inspection and maintenance schedule to ensure project success if needed to comply with sub-section 4.5.1.