St. Louis Park
MINNESOTA
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Surface Water Management Plan

Appendix M2—Basset Creek Watershed Management Commission Requirements

Outlined below are the Bassett Creek Watershed Management Commission's (BCWMC's) regulatory mechanism and guidelines for stormwater management when working within the BCWMC.

1. Phosphorus control

    a. *:* If an applicant is unable to achieve the performance goal because site restrictions make it infeasible or it is prohibited by the Minnesota Pollution Control Agency (MPCA), then the applicant must implement the flexible treatment options, as shown in the BCWMC Design Sequence Flow Chart in Appendix A. Using the flow chart, applicants are taken through a step-by-step approach to document site restrictions and indicate how they have attempted to meet the 1.1 inches performance goal. If the performance goal is shown to be infeasible, a 0.55-inch performance and a 75 percent annual total phosphorus removal goal is explored, followed by a maximum extent practicable volume reduction and a 60 percent annual total phosphorus removal goal, and then a final option to meet the 1.1 inches volume reduction goal at an off-site location.

2. Rate control

    a. Proposed, nonlinear projects containing one or more acres of new or fully reconstructed impervious surfaces must manage stormwater runoff such that peak flow rates leaving the site are equal to or less than the existing rate leaving the site for the 2-, 10-, and 100-year events based on Atlas 14 precipitation amounts and using a nested 24-hour rainfall distribution. See Table 1 below for applicable Atlas 14 rainfall depths for the city.

Table 1: Atlas 14 Rainfall Depths for the City of St. Louis Park, MN

Storm Event	Depth in inches
50% annual probability (2-year) 24-hour	2.9
10% annual probability (10-year) 24-hour	4.3
1% annual probability (100-year) 24-hour	7.4

3. Volume control:

   a. New development: Proposed new, nonlinear developments that create more than one acre of new impervious surface on sites without restrictions shall capture and retain on-site 1.1 inches of runoff from the new impervious surfaces. If the performance goal is not feasible or is not allowed for a proposed project, then the applicant must implement the flexible treatment options, as shown in the BCWMC Design Sequence Flow Chart in Appendix A. Site restrictions include those factors listed in the BCWMC flexible treatment options, which include but are not limited to MPCA's prohibited site conditions.

   b. Redevelopment: Nonlinear redevelopment projects on sites without restrictions that create one or more acres of new or fully reconstructed impervious surfaces shall capture and retain on-site 1.1 inches of runoff from the new or fully reconstructed impervious surfaces. If the performance goal is not feasible or is not allowed for a proposed project, then the applicant must implement the flexible treatment options, as shown in the BCWMC Design Sequence Flow Chart in Appendix A. Site restrictions include those factors listed in the BCWMC flexible treatment options, which include but are not limited to MPCA's prohibited site conditions.

      (1) Mill and overlay and other resurfacing activities are not considered fully reconstructed impervious surfaces. Trails and sidewalks are exempt from BCWMC water quality performance standards. Buffers should be provided for trails and sidewalks where possible.

   c. Linear projects: Linear projects on sites without restrictions that create one or more acres of net new impervious surfaces shall capture and retain on-site 1.1 inches of runoff from the net new impervious surfaces. If the performance goal is not feasible or is not allowed for a proposed project, then the applicant must implement the flexible treatment options, as shown in the BCWMC Design Sequence Flow Chart in Appendix A. Site restrictions include those factors listed in the BCWMC flexible treatment options, which include but are not limited to MPCA's prohibited site conditions.

      (2) Mill and overlay and other resurfacing activities are not considered fully reconstructed impervious surfaces.

      (3) Net new impervious surface calculations will be based on the street surface from back of curb to back of curb; trails and sidewalks (as noted above) and driveways are not included in the net new impervious surface calculations.

   b. Complete at least one soil boring, test pit, or infiltrometer test in the location of the infiltration practice for determining infiltration rates. Field-measured infiltration rates must be divided by two as a safety factor or soil boring results with the infiltration rate chart in the most current version of the Minnesota Stormwater Manual at the start of the project to determine design infiltration rates. When soil borings indicate type A soils, field measurements should be performed to verify the rate is not above 8.3 inches per hour. Infiltration is prohibited if the field-measured infiltration rate is above 8.3 inches per hour.

c. Complete MPCA's contamination screening checklist or self-conducted assessment to determine the suitability for infiltration. Permittees must retain the checklist or assessment with the SWPPP. For more information and to access the MPCA's contamination screening checklist, see the most current version of the Minnesota Stormwater Manual at the start of the design of the project.

Buffer Requirements

1. Width

    a. Wetland Buffer Width Requirements: Wetland buffer width must meet the average minimum buffer widths according to the Minnesota Rapid Assessment Method (MnRAM) classification and as follows:

        i. An average of 75 feet and a minimum of 50 feet from the edge of wetlands classified as Preserve

        ii. An average of 50 feet and a minimum of 30 feet from the edge of wetlands classified as Manage 1

        iii. An average of 25 feet and a minimum of 15 feet from the edge of wetlands classified as Manage 2 or Manage 3

    A plan showing the delineated boundary of the wetland, proposed buffer area, and MnRAM classification for the wetland must be submitted for city review. Maintenance of the buffer area must be included in the maintenance agreement developed between the city and the applicant.

    b. Stream Buffer Width Requirements: Adjacent to priority streams, stream buffer width must be 10 feet or 25 percent of the distance between the ordinary high-water level (i.e., the top of the bank of the channel) and the nearest existing structure, whichever is less.

    A plan showing the ordinary high-water level of the stream (i.e., the top of the bank of the channel), the nearest adjacent structure, and the proposed buffer area must be submitted for city review. Maintenance of the buffer area must be included in the maintenance agreement developed between the city and the applicant.

2. Design

    a. Buffer required for all proposed projects shall be limited to property owned or managed by the applicant (i.e., to the extent of a drainage and utility easement owned by a city on a city stormwater project or to the property boundary on a commercial, institutional, or residential project).

    b. Buffer areas must be left native if not disturbed as part of the project and where acceptable natural vegetation exists. A buffer has acceptable natural vegetation if it meets any of the following requirements:

i. It has a continuous, dense layer of perennial grasses that have been uncultivated or unbroken for at least five consecutive years, or

ii. It has an overstory of trees or shrubs with at least 80 percent canopy closure that has been uncultivated or unbroken for at least five consecutive years, or

iii. It contains a mixture of the plant communities described above that have been uncultivated or unbroken for at least five consecutive years.

c. Buffer areas must be planted with native plants if disturbed as part of the project (plantings must be comprised of at least 75 percent native species).

d. Soil in the buffer areas disturbed as part of the project shall be amended, as necessary, to ensure that the soil has an organic content of not less than 10 percent and not more than 35 percent.

e. Buffers must be kept free of all structures and features, including fences and play equipment.

f. Buffers shall not be used for storage of household and personal items, lawn equipment, furniture, firewood, parts, yard waste, etc.

g. A conservation easement or equivalent to the city for the buffer area is recommended to ensure appropriate maintenance of the buffer.

h. 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.

i. The edge of the buffer must be indicated by permanent, free-standing markers at the buffer's upland edge. A marker will be placed along each lot line, with additional markers at an interval of no more than 200 feet or where needed to indicate the contour of the buffer area.

3. Maintenance: The affected property owner or homeowner association that is responsible for the maintenance must do the following:

a. Maintain and repair damage to buffer areas from such activities as mowing, cutting, grading, or other prohibited activities, unless mowing is approved by city staff as a buffer management BCWMC buffer requirement. Permission must be obtained from the city before implementing buffer management strategies, which may include mowing, burning, and using herbicides.

b. Be responsible for maintaining only the permitted vegetation in the buffer area and remove all noxious weeds and invasive, non-native species such as European buckthorn.

c. Ensure that all soil surfaces in the buffer area are planted with the permitted vegetation and that there is no open soil surface that may result in erosion.

4. Exemptions: Exempted areas from buffer requirements must be properly designed, maintained, and constructed to prevent erodible conditions. These areas include the following:

    a. Public recreational facilities adjacent to the feature (e.g., trails, stairways, and docks) up to 20 feet in width will be allowed, with that width being added to the required buffer width.

    b. Minimally improved areas within the buffer for private access to the feature will be allowed (e.g., wood chip trails, stairways, and docks).

    c. A perpendicular access to the feature is allowed up to 20 feet in width or 20 percent of the lot width, whichever is more restrictive.

If the infiltration practices or performance goal is not feasible or is not allowed for a proposed project, then the applicant must implement the flexible treatment options, as shown in the BCWMC Design Sequence Flow Chart in Appendix A.

Shoreland Protection

All new and redevelopment projects with the BCWMC area must comply with the MnDNR model shoreland management requirements.

Floodplain Requirements

All new and redevelopment projects that will have floodplain effects must comply with BCWMC's Floodplain Policy.