



**BOLTON
& MENK**

Real People. Real Solutions.

12224 Nicollet Avenue
Burnsville, MN 55337-1649

Ph: (952) 890-0509
Fax: (952) 890-8065
Bolton-Menk.com

Date: July 1, 2026
To: Minnehaha Creek Watershed District
Subject: Lake Forest Channel – Culvert Repair
St. Louis Park, MN

Applicant:
City of St. Louis Park, MN
Erick Francis
5005 Minnetonka Blvd
St. Louis Park, MN 55416
952-924-2690
EFrancis@stlouisparkmn.gov

Consultant:
Bolton and Menk, Inc.
Miranda Christensen, PE
12224 Nicollet Avenue
Burnsville, MN 55337
Ph: 952-299-0576
miranda.christensen@bolton-menk.com

The City of St. Louis Park has proposed to repair the Lake Forest Channel Culvert. The culvert has suffered partial failure and requires repair and slope stabilization. The proposed improvements include grading, storm sewer, erosion control, and restoration. Below is discussion on the applicability of Minnehaha Creek Watershed District rules triggered by the proposed improvements.

Erosion & Sediment Control Rule

The proposed improvements will result in less than 5,000 square feet of land disturbance and therefore do not trigger the MCWD Erosion & Sediment Control Rule. Although the rule is not triggered, temporary erosion and sediment control measures and permanent stabilization measures are included in the construction plans to prevent sediment transport during and after construction.

Floodplain Alteration Rule

The proposed improvements are located within the MCWD defined 100-year floodplain, based on the Watershed District's XPSWMM modeling.

The area of proposed improvements was not in the floodplain when the culvert was originally constructed and functioning how designed. The original design consisted of a buried culvert with fill placed over the pipe. Recent erosion and pipe failure has resulted in the loss of the fill material. Original as-built plans showing the culvert profile and associate fill, along with photographs of the former upstream flared end section, are attached for reference.

Because this area was originally designed and constructed to contain a buried pipe and fill, it was not meant to function as floodplain. Its current floodplain condition is solely the result of erosion and pipe failure. Therefore, the MCWD Floodplain Alteration Rule does not apply.

Stormwater Management Rule

The proposed improvements do not involve any impervious surface creation or disturbance and therefore MCWD Stormwater Management Rules are not triggered.

Waterbody Crossings & Structures Rule

Hydraulic modeling was completed using the MCWD XPSWMM model to verify that replacement of the failed flared end section will not adversely affect water surface elevations, flood conveyance, or hydraulic capacity. Modeling results demonstrate no increase in upstream or downstream 100-year flood stages, shown in the table below.

The proposed work will involve replacing the culvert’s FES below the OHW, and therefore will trigger the MCWD Waterbody Crossings & Structures Rule. The proposed FES replacement will maintain the existing culvert size, shape, material, and invert elevations. The in kind replacement will retain adequate hydraulic capacity and preserve aquatic and wildlife passage. The replacement and surrounding restoration will repair an existing erosion issue and deter further erosion or scour in the future.

Scenario	Pipe/Channel Size	Upstream HWL	Downstream HWL	Twin Lake HWL	Cedar Lake HWL
Existing	Arch 27 x 44" CMP	863.43	861.84	875.76	854.20
FES Replacement	Arch 27 x 44" CMP	863.17	861.84	875.7	854.20

Wetland Protection Rule

A wetland delineation was completed in the area of the proposed improvements. Through this effort it was determined that there is no wetland in the project the area. The wetland delineation figure and data sheets are attached for reference.

Shoreline & Streambank Stabilization Rule

Survey data was collected to document OHW elevations and channel conditions. Proposed slope restoration and stabilization will occur at elevations of approximately 862’ and above, which is above the approximate OHW elevation of 861’. Therefore, the proposed grading and stabilization activities do not trigger the MCWD Shoreline & Streambank Stabilization Rules.

The proposed improvements also include placement of localized riprap placement associated with the FES replacement, which will be at or below the OHW. Per MCWD Shoreline & Streambank Stabilization Rule 2.b.3, this riprap placement is exempt.

Sincerely,

Bolton & Menk, Inc.

Miranda Christensen, PE
Water Resources Project Manager