



Title: Project Planning Update: East Auburn Wetland Restoration Project

Prepared by: Rachel Baker, Planner-Project Manager
Phone: 952-641-4522
rbaker@minnehahacreek.org

Purpose:

At the August 22, 2024, Minnehaha Creek Watershed District (MCWD) Policy and Planning Committee (PPC) meeting, staff will provide an update on the progress of the East Auburn Wetland Restoration project, including preliminary review of the draft 30% design plans, and lead a discussion on the proposed pause to the project and its implications.

Background:

The 2017 Watershed Management Plan (WMP) for the Minnehaha Creek Watershed District (MCWD) states that the main cause of impairments in East Auburn Lake is phosphorus being exported from nearby wetlands and entering the lake. The WMP also identifies the wetland systems between Wassermann Lake and East Auburn Lake (East Auburn Wetland or wetland) as a potential restoration opportunity to address nutrient export to East Auburn Lake.

In 2021 and 2022, MCWD staff conducted a refined water quality sampling, hydrology, and vegetation analysis in the wetland system to identify specific areas within the wetland responsible for the phosphorus export. The analysis indicated that the first wetland cell (cell 1), just downstream of Wasserman Lake, is the primary driver of phosphorus export to East Auburn Lake. Furthermore, staff found that the total phosphorus concentration in the groundwater in cell 1 is much greater than that in the stream channel, and the phosphorus in the groundwater and wetland soil is mobilizing and exporting to downstream East Auburn Lake.

In early 2023, MCWD contracted with Moore Engineering to complete a feasibility study that identified opportunities to address phosphorus export from East Auburn Wetland. The feasibility report identified hydrologic restoration of the wetland through the installation of an outlet control structure (sheet pile weir) as the most cost-effective and feasible opportunity to reduce nutrient export by approximately 50% to East Auburn Lake while restoring the wetland to a more natural hydrologic condition.

At the January 25, 2024 meeting, the Board received an update from staff on the outcomes of the feasibility study and staff's recent coordination to initiate project design with the City of Victoria (City), which owns the land on which the project will occur. The Board was informed that the City supports the District's project goals and wishes to facilitate project development and implementation, and potentially integrate trail improvements (boardwalk) with the proposed outlet control structure.

On May 9, 2024, following a competitive request for proposal process, MCWD selected Moore Engineering as the consultant for the design of the outlet control structure, and a potential new boardwalk, in consideration of the water quality benefits to downstream East Auburn Lake. On August 9, 2024, MCWD staff received the 30% plan set and Hydraulics Report, an Engineer's Opinion of Probable Cost (OPC) table, and a Wetland Delineation Report from Moore Engineering.

Due to above average precipitation levels throughout the months of June and July, a geotechnical evaluation of the site could not be completed as scoped in conjunction with the 30% design plan set. A geotechnical investigation is crucial in understanding the underlying soils for sheet pile construction and helical pier depth for the boardwalk. In consideration of the design engineer and their understanding of the site and its conditions, staff is inclined to follow Moore's

recommendation to pause the project until water levels in the wetland decline and the geotechnical evaluation can be completed.

At the August 22, 2024 Policy and Planning Committee meeting, staff will give a presentation outlining the preliminary design of both the weir and the boardwalk, and provide reflections on the decision to pause the project until conditions are more favorable to complete geotechnical evaluation.