

Melody Lake

Water Level Operational Plan

Introduction

Melody Lake (PWI 669W) is located along Highway 100, north of Highway 62 in the City of Edina, Hennepin County, MN. It is a closed-basin wetland, and water from the lake must be pumped to maintain a consistent elevation range and protect nearby homes from flooding. In the early 1970s, Minnesota State Highway 100 was expanded and a lift station was installed on Melody Lake to manage water level.

The lake is located near the border of Minnehaha Creek watershed, adjacent to Nine Mile Creek watershed. Although Melody Lake is located within and ultimately drains to Minnehaha Creek watershed, the political and hydrological boundaries vary slightly (Figure 1).

City staff maintains the water level in Melody Lake within a management range to minimize level fluctuations, enable recreational uses, and provide flood protection for nearby homes. The purpose of this plan is to define the circumstances under which Melody Lake will be pumped.

Lift Station Operations

The lift station is located on the southeasterly side of the lake (Figure 2) and is operated manually.

An elevation of 886.0 feet was noted in the original permit application from 1972. Under this operational plan, water level will be maintained within an acceptable management range of 886.0 to 887.0 feet. A water level greater than the maximum management range elevation of 887.0 will trigger pumping of Melody Lake until the elevation is lowered to 886.0. A contour map is included in Figure 3.

The lake will be pumped to protect homes from flood risk and maintain the ordinary high water level. According to LiDAR elevation mapping, all homes are elevated above 890 feet. Minnehaha Creek Watershed District's Stormwater Rules require that 2 feet of freeboard be maintained between high water levels and low openings of structures. The lake will not be pumped for aesthetic reasons alone or to protect nonconforming accessory structures when levels are within the acceptable management range.

In a letter from the Minnehaha Creek Watershed District (MCWD) Engineer in 1972, the project was approved with the following two conditions:

1. There shall be no pumping from the Melody Lake lift station whenever Minnehaha Creek is flowing at a discharge rate in excess of 250 cfs as measured at West 56th Street, Edina, by the Minnehaha Creek Watershed District Engineer.
2. There shall be no pumping from the Melody Lake lift station during the months of January and February without the prior knowledge and approval of the Minnehaha Creek Watershed District.

The original conditions submitted by MCWD were intended to not aggravate flood conditions on Minnehaha Creek and predated the construction and operation of the Grays Bay Outlet Control

Structure. Since the construction of the Grays Bay Outlet Control Structure in 1979, flood risks have been largely mitigated.

No pumping is anticipated during the winter. In emergency situations, the City will seek authorization for winter pumping from the DNR under the General Permit and will notify the Minnehaha Creek Watershed District Administrator.

This plan is submitted on March 17, 2016.

A handwritten signature in cursive script that reads "Jessica V. Wilson". The signature is written in black ink on a light-colored background.

Jessica Vanderwerff Wilson
Water Resources Coordinator
City of Edina

Melody Lake Water Level Operational Plan Attachments:

- Figure 1. Watershed Boundaries
- Figure 2. Storm features
- Figure 3. Elevation contours
- Original Permit Application, 1972