Excerpt from the 2021 Water Almanac

Chapter 7: Mississippi Watershed



Prepared by the Anoka Conservation District

Table of Contents

Excerpt from the 2021 Water Almanac1	
Recommendations	,
Map: 2021 Water Monitoring Sites - Mississippi Watershed Management Organization4	,
Lake Levels Monitoring	
Anoka County Water Resource Outreach Collaborative7	

Recommendations

- Continue to monitor water levels on Highland and Sullivan Lakes.
- Implement practices identified in the Highland and Sullivan SRA report to benefit the water quality of these two lakes. Both lakes have very poor water quality, are impaired for nutrients and recreation, and both have popular parks adjacent to them that many visitors and occupants of the area frequent. These lakes could provide an even larger benefit to the community with improved water quality.
- > Continue to monitor water quality on Highland and Sullivan Lakes on a rotational basis.

<u>Map: 2021 Water Monitoring Sites - Mississippi Watershed</u> <u>Management Organization</u>



Lake Levels Monitoring

Partners:	MWMO, ACD, MN DNR, City of Columbia Heights, Volunteers
Description:	Weekly water level monitoring in lakes. The past five and twenty-five years of data for each lake are illustrated below, and all historical data are available on the Minnesota DNR website using the "LakeFinder" feature (www.dnr.mn.us.state\lakefind\index.html).
Purpose:	To understand lake hydrology, including the impact of climate or other water budget changes. These data are useful for regulatory, building/development, and lake management decisions.
Locations:	Sullivan (Sandy) Lake, Highland Lake
Results:	Lake Levels were measured 41 times at Highland lake between April and November 2021. Sullivan (Sandy) was measured 42 times over the same period. Sullivan Lake water levels typically fluctuate rapidly, routinely bouncing by half a foot in response to single rainfall events. This is due to the volume of stormwater directed to the lake and its small basin size. In 2021, Sullivan levels fluctuated 1.97 feet, a slightly higher amount than the average 1.68 feet seen in the last decade. The Sullivan volunteer also recorded the lowest reading since 2013 (879.57 feet) in 2021.
	2021 water levels on Highland Lake were lower than previous years on average, spending almost all year below the Ordinary High Water Level. The second lowest reading on record (995.76 ft.) was recorded in 2021 at Highland Lake, behind a reading in 2012 (995.59). Both of these lakes have controlled outlet structures, which help prevent flooding in high water years. The structures also keep these lakes much closer to their average levels in extremely dry years, compared to other lakes across the county, which were lower by several feet in some cases throughout 2021. All lake level data can be downloaded from the MN DNR website's LakeFinder
	feature (https://www.dnr.state.mn.us/lakefind/index.html). Ordinary High Water Level (OHW), the elevation below which a DNR permit is needed to perform work, is listed for each lake on the corresponding graphs below.



Sullivan/Sandy Lake Levels – last 25 years



Lake	Year	Average	Min	Max
Sullivan	2017	880.13	879.60	881.56
	2018	880.33	879.64	881.57
	2019	880.77	880.06	881.30
	2020	880.38	879.64	881.74
	2021	880.30	879.57	881.54

Highland Lake Levels – last 25 years



Highland Lake Levels – last 5 years

Lake	Year	Average	Min	Max
Highland	2017	996.27	996.01	996.58
	2018	996.30	996.13	996.63
	2019	996.32	996.16	996.48
	2020	996.28	996.15	996.49
	2021	996.07	995.76	996.45



Jan-07

Jan-21



Anoka County Water Resource Outreach Collaborative

Partners:	ACD, Anoka County, WMO's, watershed districts, cities and townships
Description:	The Anoka County Water Resources Outreach Collaborative (AWROC) is a partnership formed in 2018 to implement a comprehensive water outreach and engagement program. Its purposes are to reduce duplication while improving the cost effectiveness of public outreach about water resources.
Purpose:	To inform community residents, businesses, staff, and decision-makers about issues affecting local waterbodies and groundwater resources. To achieve behavioral changes that improve water quality and recruit people to install water quality projects.
Location:	Countywide
Results:	Thirty-four events were attended or facilitated by the Anoka Conservation District's outreach specialist throughout the county in 2021. These events included staffing a booth at community events and facilitating workshops.

2021 Anoka County Water Resources Outreach Collaborative Results for MWMO

