2016 Summary for Chisago Lakes
Lake Level Monitoring Activities

The goals for the LID Lake Level Monitoring program for the 2016 monitoring season included:

- Monitor lake levels weekly during the open water season,
- Improve the safety and efficiency of the monitoring process whenever possible,
- Evaluate and upgrade worn out gauges and equipment, and
- Evaluate monitoring site locations and revise where appropriate.

The 2016 monitoring season began on April 21, 2016, as ice-out had occurred on area lakes.

1. **Little Lake:** The gauge is located at the Little Lake public water access and is easily viewed from the dock.

2. **Pioneer Lake:** In 2015, the Minnesota Department of Natural Resources (DNR) established an Ordinary High Water (OHW) level of 906.2 for Pioneer Lake. The gauge is located in the southwest corner of the lake. The gauge is in a good location, although it can be difficult to see when tree vegetation is thick.

3. **North and South Center Lakes:** The gauge is located at the South Center Lake public water access where it can easily be viewed from the docks.

4. **North Lindstrom Lake:** The gauge is located near the Lakeview Motel along Highway 8. On the weekend of April 13, the Minnesota DNR moved the gauge away from the shoreline, vegetation and cattails during their annual gauge run to where it is more visible.

5. **South Lindstrom and Chisago Lakes:** The gauge is located at the Chisago Lake public water access in the channel between South Lindstrom and Chisago Lakes. On the weekend of April 13, the Minnesota DNR moved the gauge closer to the shoreline during their annual gauge run.

6. **Wallmark Lake:** The gauge is located on private property and is read from the back yard. Readings were taken consistently without major issues.

7. **School Lake:** Previously, the gauge was viewed from Rotary Park in Chisago City. However, by the end of June cattails and vegetation blocked the gauge from view.

The gauge was moved to a dock at a private residence on Lofton Avenue on August 25, 2016 where there are no monitoring issues.

8. **Swamp Lake:** There are 7 culverts located at Swamp Lake; the 2nd culvert from the east is used for lake level measurements. Water flowed through the culverts all season. However, on October 27, 2016 a contractor removed excessive vegetation growth to improve flow.

9. **Weir at Ivywood Trail:** A permanent gauge on the weir is used for measurements.

10. **Lofton Avenue Weir:** Located between Chisago and Green Lakes; the permanent gauge is attached to the side of the weir. The gauge can be difficult to read when algae from receding water levels sticks to the gauge.

11. **Little Green, Green, and Ellen Lakes:** The gauge is located on Little Green Lake near a private residence on West Street.

12. **Kroon Lake:** The gauge is located at the Kroon Lake public water access. At times the gauge had been difficult to read due to excessive vegetation growth.

13. **Spider Lake:** The gauge is located at the Spider Lake public water access. However, staff could not record readings in the beginning of the season, as the gauge was lost during the winter and was not replaced by the Minnesota DNR during their annual gauge run. Chisago County staff replaced the gauge on June 23, 2016 and lake level readings resumed.

14. **Linn Lake:** The gauge is accessed by a dock on private property on Newberry Trail. Staff wears rubber boots to access this gauge most of the season due to high water levels.

The 2016 monitoring season concluded on November 17, as cold temperatures had arrived after a wet and warm November.