# Work Order Proposal Requests White Bear Lake Area Comprehensive Plan

# I. Converting water supplies that are groundwater dependent to total or partial supplies from surface water (3/3)

#### Study No. 1 - Redirect stormwater to augment White Bear Lake

### Study No. 2

- 1. Convey treated surface water from St. Paul Regional Water Services to north and east communities
- 2. Construct a regional surface water treatment plant near the chain of lakes in the north metro and convey treated surface water to north and east communities
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#### II. Reuse water

**Study No. 3 -** Reuse of treated wastewater from local Met Council interceptors for industrial and agricultural users

Study No. 4 - Stormwater reuse for irrigation

Study No. 5 - Reuse water discharged from contaminated wells – MPCA Project 1007

## III. Projects designed to increase groundwater recharge

**Study No. 6 -** Treat wastewater from local Met Council interceptors and inject the treated wastewater into the aquifer to raise groundwater elevations

**Study No. 7A –** Water quality study as it relates to lake augmentation study (Study No. 7B)

**Study No. 7B -** Lake augmentation by pumping treated surface water from the chain of lakes into White Bear Lake

Study No. 8 - Stormwater collection and infiltration to raise groundwater elevations

**Study No. 9A** – Raise outlet elevation of White Bear Lake – initial evaluation of potential flood impacts

**Study No. 9B** – Raise outlet elevation of White Bear Lake – potential water storage and downstream hydraulic capacity. This study would be completed only if favorable results are achieved with Study No. 9A

## IV. Other methods for reducing groundwater use

**Study No. 10 -** Lawn water restrictions (day of week and time)

**Study No. 11 -** Implement/require/encourage non- or less-potable water reuse for irrigation and process water (Talk to Jim Hauth at Vadnais Heights)

Study No. 12 - Tiered increasing block water utility rates

Study No. 13 - Potential water savings from alternative low input turf grasses

# V. Other studies (dependent on available funding)

**Study No. 14A** – Future community impacts from PFAS groundwater contamination with groundwater modeling

**Study No. 14B** – Estimated capital and long-term O&M costs of PFAS water treatment for impacted communities

**Study No. 15** – Estimated capital and long-term O&M costs to construct two additional wells in Shoreview and expand the city's existing water treatment plant capacity to serve drinking water for North Oaks' projected 2050 and ultimate development water demands if groundwater modeling determines that Shoreview can remain on groundwater through ultimate development