Michelle Ovre

Please see attached document for comment.

Michelle Ovre

I am interested in this project because of the potential impacts on the health and sustainability of our water. I would encourage you to consider delaying this permit until it can be determined that an adequate water supply will remain available for the residents of the community. Further additional review should be completed to determine that the system does not increase contaminants or cause further impairment to the surrounding land, wetlands, watershed or bodies of water.

Concerns Regarding Water Supply Needed

Residents in the surrounding area are dependent on wells for their daily water needs, and the availability needs to remain. Assurances should be provided that adequate controls are in place, and everything is being done to protect the health and sustainability of the water supply serving this area.

Clearly to function this system must have a water supply. In the historical tables found here 4715.3600 - MN Rules Part the daily water draw for phase 1 & 2 would be 850 students x 25 gallons per day (gpd) and 150 staff x 15 gpd for a total daily draw of 23,500 gpd. A recent court case **(see DNR Summary below)** prohibits the issuance of a water appropriation permit within 5 miles of White Bear Lake for wells drawing > 10,000 gpd. This project lies within that 5mile radius. I must believe the intent of the court case was likely to prevent a single user from drawing >10,000 gpd. As I understand, the school intends to draw from multiple wells to stay below the per well threshold, which I believe is a gross abuse of what the ban intended.

- DNR summary of White Bear Lake Court Case: https://files.dnr.state.mn.us/waters/gwmp/area-ne/june-10-2022-meeting-presentations-combined.pdf

Concerns Regarding Phosphorus and other Pollutants:

I am also concerned that a wastewater treatment system with a design flow of 10,375 (gpd) in phase 1 and an additional 15, 250 (gpd) for a total of 26,625 (gpd) will simply by the sheer volume increase pollutants such as nitrates and phosphorous and potentially other pollutants into the surrounding land putting the health and ecological balance of these resources at risk.

The system documentation on **page 9 section 5.6.29** included below states: “the permittee shall prevent the discharge of any wastes other than sewage into any component of the facility”. What controls will be in place to ensure other pollutants such as PFAS, cleaning chemicals, solvents, etc. will not be introduced?

The Documentation provided of the system included with the information for the MPCA permit does not indicate any control monitoring for phosphorus. L, Ammonia (mg/L) - Nitrate (mg/L) - Alkalinity (mg/L) - Dissolved Oxygen (mg/L) - Temperature (degrees Celsius) – pH, however, phosphorous appears to be absent from this list. **See page 10 section 5.6.37 below:**

The MPCA draft permit for public comment https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid333/did200071/pid_210818/project-documents/Draft%20Permit%20-%20MN0072010%20-%202025.pdf

- **Page 9 of draft permit** 5.6.29 The Permittee shall prevent the discharge of any wastes other than sewage into any component of the facility, including septic tanks, advanced treatment systems, and soil treatment systems that could result in damage to the treatment facility or inhibit treatment unless the discharge of such other substances is specifically approved in writing by the MPCA. [Minn. R. 7001]
- **Page 10 of Draft permit 5.6.37 Process Control Monitoring for Nitrogen. [Minn. R. 7001] 5.6.38** The Permittee shall complete weekly process control sampling for the following parameters throughout the life

of this permit. Samples shall be taken at a minimum frequency once per week at a location following nitrification and prior to denitrification. These samples are not required to be analyzed by a certified laboratory or comply with 40 CFR pt. 136, but testing for these parameters should follow the monitoring equipment manufacturer's recommendations for use and accuracy. - Ammonia (mg/L) - Nitrate (mg/L) - Alkalinity (mg/L) - Dissolved Oxygen (mg/L) - Temperature (degrees Celsius) – pH

As stated above, the system Browns Creek Watershed is near the headwaters of Browns Creek watershed, wetlands, and other bodies of water. The design guidance from the PCA states that phosphorus typically is not a concern unless the proposed system is near a surface water body such as a Lake. This system is near Goggins Lake and the headwaters of Brown's Creek. See page 18 of the guidelines below.

Design guidance for large subsurface Wastewater Treatment Systems (Standard Units). [Minn. R. 7001] https://www.pca.state.mn.us/sites/default/files/wq-wwprm8-01.pdf **states on page 18:**

- Typically, phosphorus is not a concern as a contaminant source unless the proposed system is near a surface water body such as a lake. In such a case, the phosphorus loading from a LSTS might exceed the soil's ability to attenuate the phosphorus and break-through can occur into the groundwater. The phosphorus-laden groundwater can then travel and be discharged into nearby surface water. This phosphorus input into the surface water can contribute to unwanted algal growth.

Finally, the following study on pages 52-56 indicates that the levels of phosphorus and total suspended solids have increased in Brown's Creek impact not only the trout but also other aquatic life. The map in this section shows a decrease in water quality for Browns Creek.

Comprehensive Water Quality Assessment of Select Metropolitan Area Streams BROWNS CREEK https://metrocouncil.org/Wastewater-Water/Services/Water-Quality-Management/Stream-Monitoring-Assessment/St-Croix-River-Tributary-Streams-Assessment/St-Croix-Trib-Assessment-Reports/Browns-Creek-Section.aspx

- See pages 52-56 The charts and detail on these pages indicate increased levels of phosphorus and total suspended solids. The maps included in this section indicate a decrease in water quality.

SUMMARY

- To ensure the ongoing availability of a freshwater supply for the residents of the community the agency should:
  - Review the summary of the White Bear Lake ban and determine if the draw required for this system places an unreasonable demand on an already stressed freshwater supply.
- To ensure the health of the land, water and wetlands do not suffer any further impairment the agency should:
  - Review the controls for phosphorus and other pollutants to determine they protect Brown's Creek, and the watershed and surrounding bodies of water are protected from additional impairment due to an increase in phosphorus levels.