



STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING



GRETCHEN WHITMER
GOVERNOR

DANIEL EICHINGER
DIRECTOR

April 29, 2022

Gerrish-Lyon Utility Authority
2997 E. Higgins Lake Dr.
Roscommon, MI 48653

To Whom It May Concern:

I'm writing to express the support of Michigan Department of Natural Resources (MDNR) Fisheries Division for the proposed sanitary sewer system around Higgins Lake. Higgins Lake is an extremely valuable public fisheries resource. Higgins Lake hosts self-sustaining populations of yellow perch, lake whitefish, northern pike, smallmouth bass, rock bass, rainbow smelt, and cisco (a State-threatened species). In addition, Higgins Lake is stocked with lake trout, rainbow trout, and brown trout by MDNR Fisheries Division. The most recent data indicates that Higgins Lake generates more than 250,000 angler-hours annually, with the fishery generating more than \$1.6 million for the local economy on an annual basis.

Nutrient enrichment has been an important topic among the Higgins Lake community in recent years, although it has been a documented, ongoing problem for decades (King et al. 1991; Minnerick 2001; Martin et al. 2014; Jermalowicz-Jones 2020). There is no doubt that nutrient enrichment of Higgins Lake is occurring, and that a significant amount of the nutrients come from septic system effluent leaching into the lake through the groundwater. If the nutrient enrichment continues at this pace, much of the deeper areas of the lake will become hypoxic, and therefore unusable for coldwater fishes. Therefore, within a few decades, it could become impossible for coldwater species like Lake Trout, Rainbow Trout, Brown Trout, Lake Whitefish, Rainbow Smelt, and Cisco to thrive or perhaps even survive, in the deeper parts of Higgins Lake. This would dramatically impact the fishery in Higgins Lake and also negatively affect the local economy. In addition, algal blooms will likely become more common in Higgins Lake, potentially including harmful algal blooms that are toxic to humans and their pets. The warmer water temperatures seen in recent years (attributed to climate change) may also serve to exacerbate algae bloom issues.

Therefore, we strongly support the Gerrish-Lyon Utility Authority as they attempt to establish a sanitary sewer system with the goal of protecting Higgins Lake from further nutrient enrichment. The installation of a sanitary sewer system would be a major step in forever ensuring that Higgins Lake will be able to continue to support coldwater fish populations and the extremely popular fisheries that they produce.

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References:

Jermalowicz-Jones, J. L. 2020. Higgins Lake Improvement Study and Management Plan, Roscommon County, Michigan. Restorative Lake Sciences, Spring Lake, MI.

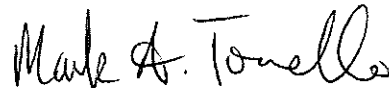
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Minnerick, R. J. 2001. Effects of residential development on the water quality of Higgins Lake, Michigan, 1995-1999. United States Geological Survey Water Resources Investigations Report 01-4055. Lansing, MI.

If you need further information or assistance, please contact me at the Cadillac Customer Service Center 231-775-9727, extension 6071, or by email at tonellom@michigan.gov.

Sincerely,



Mark A. Tonello
Fisheries Management Biologist

cc: Scott Heintzeman, CLMMU Fisheries Unit Manager, MDNR
Jay Wesley, Lake Michigan Basin Coordinator, MDNR
James Dexter, Chief, Fisheries Division, MDNR
Josh Pellow, Parks and Recreation Division Supervisor, MDNR
Rachel Roberts, South Higgins Lake State Park Manager, MDNR
Jason Cherven, North Higgins Lake State Park Manager, MDNR