



CHAUTAUQUA COUNTY  
DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DIVISION OF PUBLIC HEALTH – ENVIRONMENTAL HEALTH UNIT

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PAUL M. WENDEL, JR.  
*County Executive*

CHRISTINE SCHUYLER  
*Director of Health & Human Services*  
*(Commissioner of Social Services/Public Health Director)*

September 9, 2022

Rebecca N. Brumagin, Supervisor  
Town of Mina  
PO Box 38  
Findley Lake, NY 14736

Re: Findley Lake Sanitary Sewer District

To Whom It May Concern:

The Chautauqua County Department of Health and Human Services strongly supports the formation of the Findley Lake Sanitary Sewer District. If established, the creation of a sewer district and the use of a municipal sewer system with a wastewater treatment plant will drastically reduce, if not eliminate, one of the largest single sources of nutrient and bacteria contamination to Findley Lake.

Homes and businesses in the Hamlet of Findley Lake currently rely on individual private wells for their water supply and onsite wastewater treatment systems for sewage and wastewater treatment. Small lot sizes and relatively dense development around the Lake have created significant challenges for sewage and wastewater disposal and continue to pose a risk to public health.

Findley Lake is classified as a class "B" waterbody by the New York State Department of Environmental Conservation (NYSDEC), which means it's highest (and best) usage is for recreation. It is a recreational destination for permanent and seasonal residents and visitors in search of water-related activities. There are two Health Department-permitted bathing beaches on the Lake and it is widely used for swimming, kayaking, and other water related sports.

In 1997, the NYSDEC undertook a detailed evaluation of the condition of Findley Lake. The culmination of this work found that the Lake is suffering from excessive nuisance aquatic weed and algal growth along with widespread groundwater contamination in the aquifer surrounding the Lake. Both of these conditions are caused primarily by septic system contamination. Traditional septic systems, even those constructed to meet current standards, do not reduce nutrient contamination as effectively as municipal sewers with wastewater treatment plant infrastructure.

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The weed and algae problem is caused by excessive phosphorus loading. Lake monitoring results confirm highly enriched (eutrophic) conditions in the Lake, with phosphorus levels far exceeding the NYSDEC guidance. In 2004, Findley Lake was officially designated as an impaired water body by NYSDEC under Section 303(d) of the federal Clean Water Act. A Total Maximum Daily Load (TMDL) phosphorus allocation for the Lake was completed in 2008 and concluded that 45% of the phosphorus entering the Lake was from septic systems.

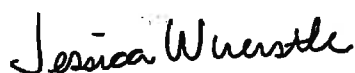
Excess phosphorus in the Lake has not only resulted in nuisance aquatic weed growth, but also contributes to blue green algal growth and the development of harmful algal blooms in the summer season. In 2015, the NYSDEC issued 22 Harmful Algal Bloom notifications for Findley Lake (4 suspicious, 16 confirmed and 2 confirmed with High Toxins). Blooms have caused bathing beach closures and prompted public health advisories alerting people of possible toxin exposure.

Findley Lake is surrounded by a Principal Groundwater Aquifer as identified by NYSDEC. Soils in the area are very porous, causing this unconfined sand and gravel aquifer to be very sensitive to pollution, especially from septic systems. Due to the sensitivity of the aquifer, extensive drinking water well sampling has been conducted by the Chautauqua County Department of Health and Human Services. These samples have shown that the groundwater contains high levels of nitrates, phosphorus, chlorides and bacteria.

- Between 1998 and 2007, 96 well samples were collected and analyzed for nitrate. Of those 5% exceeded the NYSDOH maximum contaminant level (MCL) of 10.0 mg/L in drinking water; 19% were greater than 5.0 mg/L (one-half the MCL) and 44% were greater than 2.0 mg/L (uncontaminated groundwater contains less than 1.0 mg/L of nitrate).
- In 1998, 40 well samples were collected and analyzed for phosphorus. Of those 18% were greater than 100 ug/L, 65% were greater than 50 ug/L and 95% were greater than 20 ug/L. The NYSDEC guidance value for phosphorus in lakes is 20 ug/l or less.
- In 1998, 40 well samples were collected and analyzed for chlorides (salt). Of those, 10% exceeded the NYSDOH maximum contaminant level of 250 mg/L and 48% were greater than 30.0 mg/L (uncontaminated groundwater contains less than 15.0 mg/L of chlorides).

Constructing a municipal sewage collection and treatment system around the lake will prevent further groundwater contamination, while helping to reduce nuisance aquatic weed growth and harmful algal blooms. The Chautauqua County Department of Health and Human Services sees this project as vital to protect public health and Findley Lake and encourages community support for completing this project

Sincerely,



Jessica Wuerstle  
Environmental Health Director