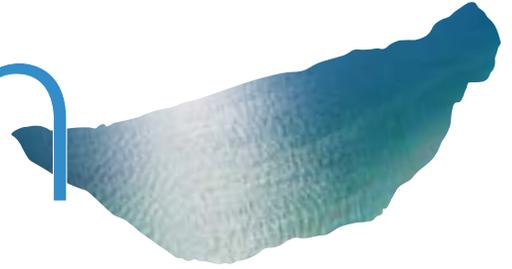




Little  
Traverse  
Lake  
Association

Promoting the protection and preservation of the lake and its watershed

# 44.9° north



## *Enteric bacteria study update*

### **New normal**

Frequent, intense rain events and high lake levels can cause heavy surface water runoff and flooded septic drain fields. When runoff into the lake is swift, animal wastes, fertilizer, and other contaminants can be swept into our lake instead of being absorbed into the soil. If you have not been at the lake during periods of intense, prolonged rain you might not have seen your drain field flooded. If it does flood, a drain field is likely to be leaching human sewage into the lake.

When the lake level is high, the groundwater is also high. Even if your septic field is draining, the groundwater level might be so high that there is not enough treatment zone below the drain field to eliminate harmful bacteria, nutrients that feed the lake algae, or viruses.

### **How is water quality affected?**

LTLA has been working with Freshwater Solutions (FWS) since 2018 when a survey of nearshore lake water showed evidence of human enteric bacteria in 12 of 43 samples. In 2019, nearshore lake water samples that were collected after significant, intense rain showed elevated enteric bacteria in both ends of our lake. Three out of four creek inlets had values that exceeded EPA Beach Action Values, one with human enteric bacteria. Surface water in front of one lake home also contained human enteric bacteria at concentrations that would cause beach closure.

### **2020 study results**

This year the LTLA Water Quality Committee contracted with FWS to begin a three-year study to understand how septic fields, drinking water and lake water quality are reacting to our “new normal” intense rain and high water events. The following is a short summary of the report. [View the entire report.](#)

Samples were collected by LTLA volunteers in June, July, and August. Samples were not necessarily collected after a big rain. Except for one sample, enteric bacteria was largely absent in the lake water. However, of the 9 study sites, 5 drinking water wells were found to contain enteric bacteria with two of those wells containing bacteria from human waste. There appeared to be no correlation between surface water contamination and well water contamination.

Even though fecal contamination of the water at sampled sites is low, detection of any fecal contamination in well water used for drinking is cause for concern. The [Benzie-Leelanau District Health Department](#) can advise property owners as to next steps. More information can be found at the the EPA's [Protect your Home's Water.](#)

### **Looking ahead**

Next summer, we will collect samples from 9 new locations. If you are interested in volunteering to be part of this study please contact LTLA at [ltlpoa88@gmail.com](mailto:ltlpoa88@gmail.com).

Our next 44.9 eBulletin will focus on making sure your septic system is working properly and how you can find out if *your* drinking water is safe to drink.

