

What is the Quality of our Lake's Water?

Sounds like a simple question, right? But as is often the case, *simple* questions don't always lead to easy answers. After spending too much time going down the "rabbit hole" of data, maps, and charts, I knew I needed an expert. I set up a meeting with Mark Mitchell, the Lay Monitoring Program Lead and Lake Assessment Coordinator.

As we like to say in Elmore, the answer can be found by looking at the information ... horizontally, vertically, and diagonally. BINGO! Mark shared that while there is a more detailed and complex answer to our question, fortunately, there is a simple version. I'm sure you can guess which I asked him to start with.

Mark explained that, "Lake Elmore's overall water quality is relatively stable and in the mesotrophic range, with phosphorus and chlorophyll levels not showing alarming trends, though caffeine detections (indicator of domestic wastewater) suggest some septic system leakage from shoreline development that warrants attention, and chloride levels show a slight increase over time."

While we didn't exactly get straight A's, the Vermont Department of Environmental Conservation's Lay Monitoring Program tracks lake health on an ongoing basis, and we've been participating in it since the program's inception in 1979. Glenn Schwartz, our President, provides water samples to the DEC every other week from June to September, for analysis, leading to [annual Lay Monitoring reports](#) and [Lake Scorecards](#) (last updated in 2022, new update pending):

2025 [Lay Monitoring Report](#) | [Secchi Transparency Comparison](#) | [Phosphorus Comparison](#) | [Chlorophyll-a Comparison](#) | [Caffeine Comparison](#) | [Chloride Comparison](#)

2022 [Vermont Lake Score Card - Lake Elmore](#)

Here's a more detailed summary of Lake Elmore Water Quality Data:

- Phosphorus Levels: generally stable, with spikes in flood years (2022, 2023)
- Secchi depth (clarity): in the mesotrophic range, consistent with a shallow tannic lake
- Chlorophyll (algae): within acceptable range, showing no alarming trends
- Chloride Levels: slight increase since early 2000s but not alarming compared to other lakes

The Lake Scorecard is from 2022, but Mark said there are plans to update it this fall. I asked Mark for suggestions on what we could do to help our lake stay healthy. He suggested we:

- Continue caffeine monitoring program to track septic system issues and gather additional years of data for pattern analysis

- Provide the link to DEC lake monitoring program webpage on Lake Elmore Association website

You can learn a great deal more about our lake's water quality using the following links. We will continue to keep you informed as we get new information through our website and annual meetings.

Resources

DEC Lake Monitoring Sites

[Lakes Monitoring and Data](#) – *Overview of all DEC Lake Monitoring*

[Lay Monitoring Program](#)

[Vermont Inland Lake Scorecard -DEC](#) *Lakes Search Engine*

Elmore Specific Links:

Lake Elmore  : [Lay Monitoring Report](#) | [Secchi Transparency Comparison](#) | [Phosphorus Comparison](#) | [Chlorophyll-a Comparison](#) | [Caffeine Comparison](#) | [Chloride Comparison](#) | [2025-08-20_Profile](#) | [2022 Lake Score Card](#) | [2018 Profile](#) | [Land Cover Map](#) | [Depth Chart](#) | [Lake Watershed Action Plan](#) and [Watershed Data Library](#)

Maps:

[Aquatic Species](#)

[Lake Wise](#)

[Depth](#)

[Next Generation Lake Assessment Reports](#)

[Vermont Agency of Natural Resources](#)

[Aquatic Invasive Species Map](#)

Data Sets:

[Lay Monitoring Lake Quality Data](#)

[Vermont Integrated Watershed Information System \(IWIS\)](#)