November 20, 2025 Water Quality Meeting Notes

The meeting started at 7:03 pm at Oak Valley Center. Attendees 29

Mike Loney introduction:

The things residents can do:

- Install Buffer Zones
- No Fertilizer on lawns
- Hook up to sewers or pump / maintenance septic every 1-3 years

Proof of Concepts.

- Eutrosorb W/C – product to eliminate phosphorus from the Water Column
- BioChar Pack – product to filter nutrients out of the water column

Sharon Sarkisian introduced the two presenters:

Jared Laughlin from Progressive, our lake management company since 2024, assists in managing weeds and water quality.

Jonathan Weyhrauch, founder of Capture Tech, Oakland University professor who is working with BioChar technology. Capture Tech was recommended by Dave Love, a resident of Leafwood.

Progressive Presentation Summary:

Progressive 2025 goals were:

- to manage the **Invasive** non-native aquatic plant community of Milfoil, Curly Leaf pond-weed, and Starry Stonewart.
- Promote the **Beneficial Native** plants that help filter phosphorus and other nutrients from the water. By allowing native plants to grow, water clarity improved and algal growth was diminished.
- Improve water quality

Storm Water Testing: Due to the 2025 drought conditions, only four out of fourteen lake inlets could be tested. Storm Water Testing will resume in 2026 to complete the testing plan Those tested showed elevated phosphorus levels within median levels established by EGLE, suggesting that the tributaries were not carrying significant additional phosphorus from stormwater runoff at the time of sampling.due to the drought in 2025. Storm Water Testing will resume in 2026 to complete the testing plan

EutroSorb W/C Proof of Concept: EutroSorb W/C is a phosphate-binding minerals for rapid and permanent inactivation of phosphorus from the water column. Three treatment applications (June, July, August) were applied to the boat launch bay. Significant water clarity (secchi disc readings) and lack of algal blooms were observed.

Increased Aquatic Growth – Over the past years, the lake's native beneficial weed population has dwindled. For 2025, Progressive strategically left more native weeds untreated to gauge if more weeds would absorb the nutrients that have fed the algae blooms of the last couple of years. While this was a successful method to control algae, the plan, when combined with the clear water, hot weather and unique drought conditions, allowed far too many weeds to grow. The goal next year is to find the optimal native weed total and to prevent excessive weed growth, floating weeds and shoreline cleanup. Test harvesting was performed in late September to remove some of the excessive weed growth.

Overall 2025 vs 2024: Chlorophyll-a (feeds algal blooms) was significantly less, Total Suspended Solids (TSS) were less, and Clarity was significantly better.

2026 proposed Management plan:

March/April 2026 – Water Quality Sampling
May 2026 - Herbicide Treatment, Eutrosorb WC
June 2026 – Herbicide Treatment*
July 2026 – Eutrosorb WC, Mechanical Harvesting
August 2026 – Water Quality Sampling, Eutrosorb WC, Herbicide Treatment*
October 2026 – Mechanical Harvesting

* Tentative based on growth conditions at the time of survey

Capture Tech Presentation Summary:

Jonathan Weyhrauch CEO of Capture Tech, Chemistry Professor Oakland University

BCP: Biochar Capture Pack Proof of Concept: A permeable filter made with biochar and organic materials that absorb contaminants from water. Designed to remove: pesticides, excess nutrients (phosphorus and nitrogen), heavy metals, sediments, suspended solids, and organic pollutants (oil, gas, VOCs)

Jonathan brought in a new BCP and a used BCP for visual display. The used BCP was in Lake Sherwood waters for 3 months. The used BCP was black with a biofilm on it.

One hundred and seventy BioChar bags were installed on the lake. There were two Proof of Concept areas. The Wildwood River canal on the north side of the lake and the Ravinewood East bay, bordered by Pikewood, Ravinewood, and Windwood. A few individuals on Sandbar/Gulfwood canals purchased bags, and one individual on Barbwood Court. Two BCPs were attached to the inner poles of resident docks in late June/early July. The BCPs were removed from the lake late September/early October.

EDNA testing is being performed. Every living thing in the lake leaves behind tiny traces of its DNA in the water. By collecting water and sediment samples, these DNA fingerprints give a detailed picture of the lake's health. Analysis of test samples is not complete, but initial results indicate the blue-green algae is significantly reduced in BioChar treated areas. There is also a shift towards positive change of the bacterial community.

BCP Overall Results:

- Lake was clearer with less algae
- Positive biological growth on Biochar filters
- Large fish populations around Biochar filters shows feeding on biological growth
- Much less weed growth in areas around Biochar filters

Recognition was given to the volunteers who helped in the BioChar project.

Andy Sarkisian, Sharon Sarkisian, and TJ Gurski – with BioChar packet installation
David Love, Andy Sarkisian, Sharon Sarkisian – water and sediment testing
Mark Churay, Mike Schwartz, Gary Koch, Julie Race – with BioChar packet removal

CaptureTech will be compiling the eDNA results and will be presenting these to the water quality committee for next steps. This will be evaluated by the WQC committee and will determine next steps with Progressive and CaptureTech for 2026.

The 2025 Water Quality Report and the PowerPoint presentations are available on the Lake Sherwood website under Lake Life / Water Quality.