



Clear Lake Buoy Harmful Algal Bloom Mitigation Project

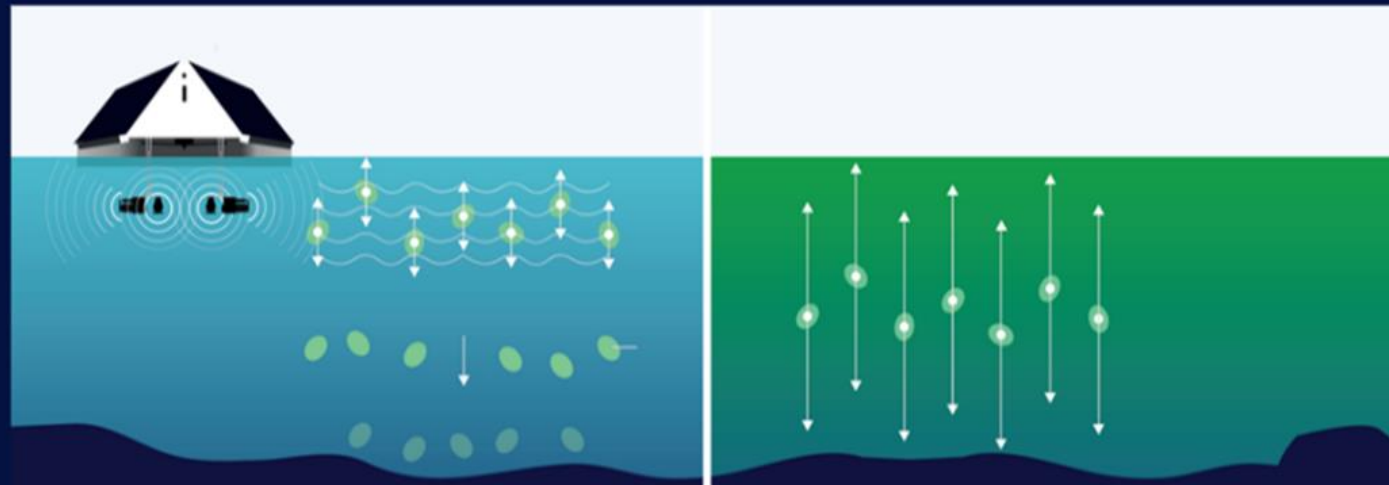
Board of Supervisors Presentation

June 9, 2026

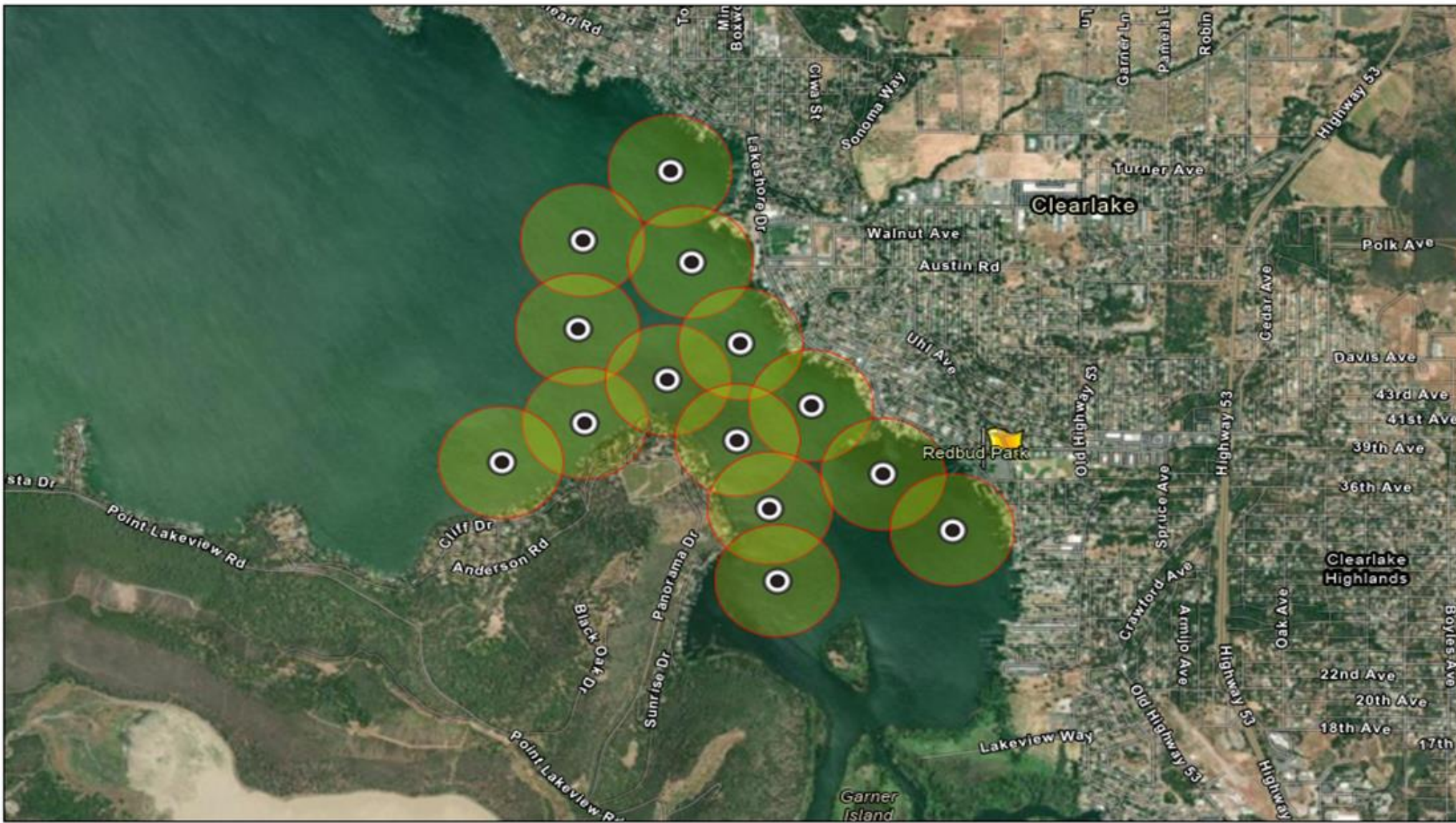
Clear Lake HAB Mitigation Project



- Ultrasound works by preventing algae from rising in the water column, starving them of sunlight & photosynthesis
- The ultrasonic waveforms used for treatment should be varied periodically in order to target the algal species present (thereby optimizing treatment results) & to avoid any potential treatment resistance later
- Ultrasonic treatment is best used when informed by water quality monitoring



Area of Potential Effects



July 28, 2025

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Maxar



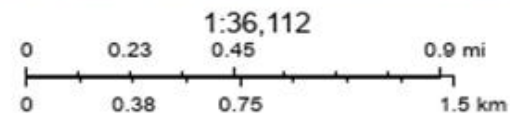
Staging Area



Buoy



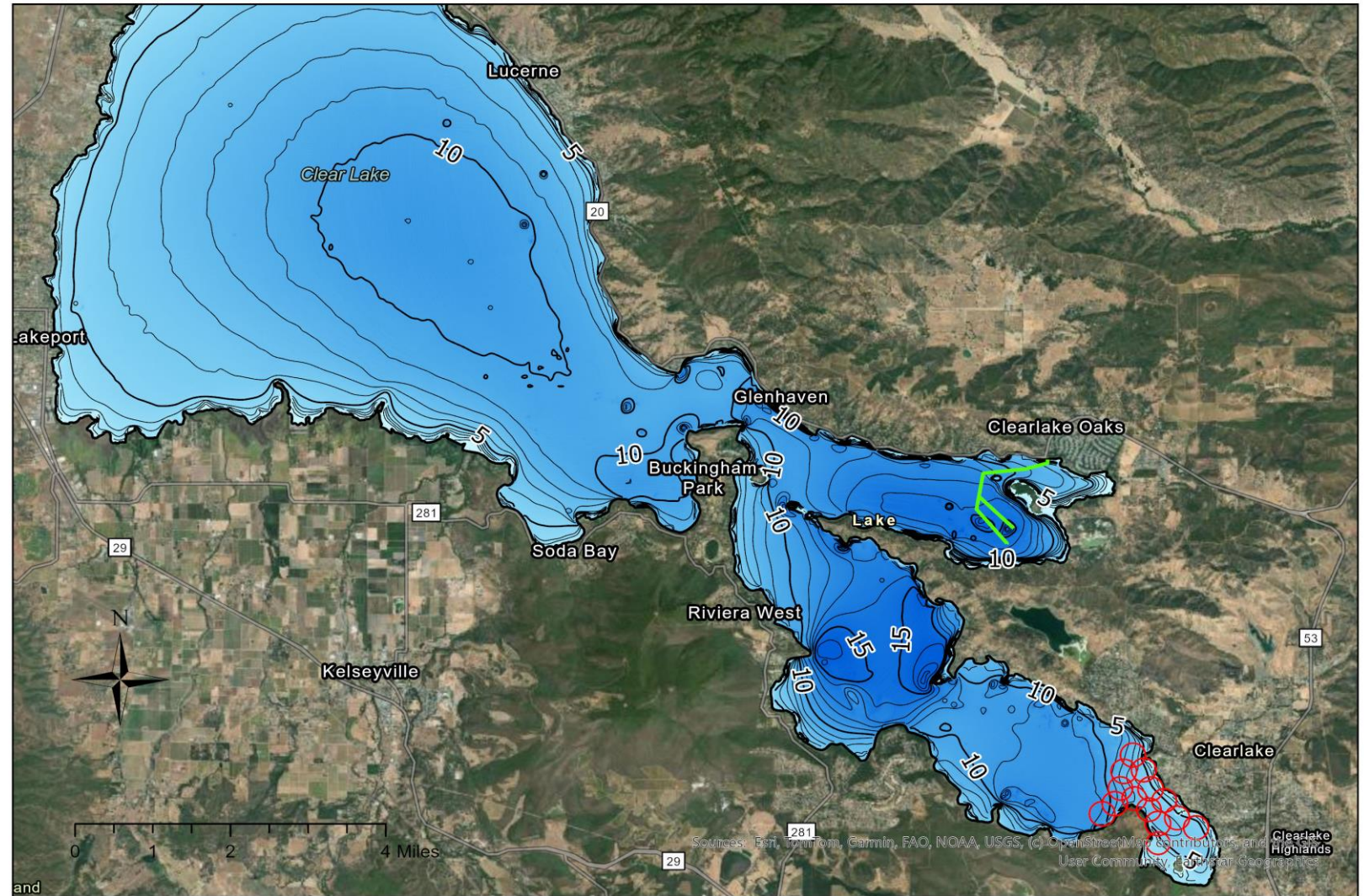
1,000' buffer



PL-25-86 CE for LG Sonic Algae Buoys

LG Sonic and HOS Project Locations

No physical overlap between the 2 projects in the lake





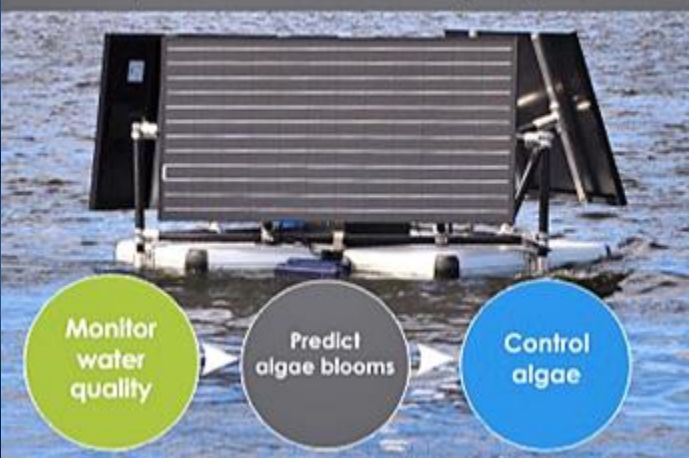
Specs

- 441 lbs
- 86 in (l) x 100 in (w) x 34 in (h)
- 7.2 ft (l) x 8.3 ft (w) x 2.8 ft (h)

Features

- Ultrasonic Algae Control
- Minimal Maintenance
- Remotely Operated
- Water Quality Data

MPC-Buoy: Monitor Predict Control Algae (cyanobacteria)



A 24 month pilot project to evaluate the effectiveness of using LG Sonic's Monitor, Predict, Control Algae technology (MPC-Buoy) to reduce the harmful impacts of blue-green algae and cyanobacteria in Clear Lake and local drinking water.



CEQA and NEPA Process

- 4/25: Water Resources submitted the project to CDD for Environmental review
- 4/23/25: Request for Review sent out to local and State agencies, the public, and tribal governments
- 6/4/25: CDD Submitted Env Assessment to HCD
- 6/24/25: HCD got comments back to CDD
- 11/10/25: CDD Submitted revised EA to HCD
- 1/8/26: HCD provided comments back to CDD
- 2/27/26: CDD Submitted revised EA to HCD
- 5/4/26: For NEPA: Notice posted at County Clerk. For CEQA: NOE posted at County Clerk and State Clearinghouse.



LG Sonic Buoy Project Funding

- \$981,407.12 HUD
- \$404,000 CNRA

Safety & Navigation

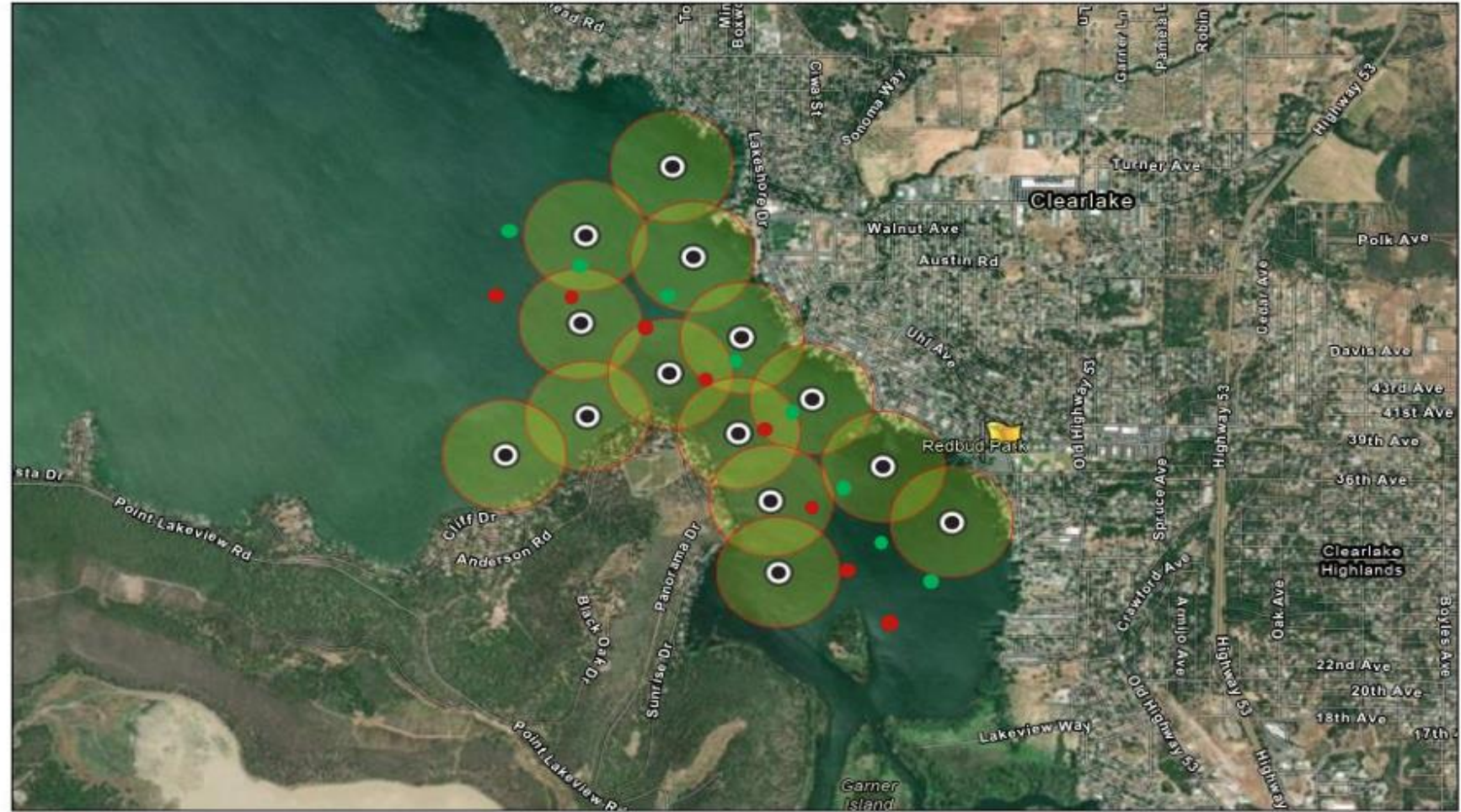


- Reflective tape added to all LG Sonic buoys
- Buoys marked with County of Lake ownership and Sheriff's Department identification
- Hazard buoy at each LG Sonic buoy location – reduce speeds
- Marked navigation channel through project area
 - Reflective tape
 - Solar lights

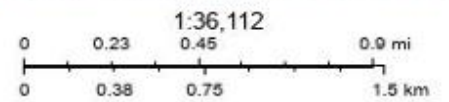
Navigational Channel:

- Approximately 2 miles long
- Buoy every quarter mile
- 200 feet wide

Area of Potential Effects



July 28, 2025 Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Maxar



PL-25-86 CE for LG Sonic Algae Buoys

Public Education

- Ramp signs
- Flyers and map in display cases at ramps
- Flyers for ramp monitors to distribute
- Flyers will be mailed out to residence with Lakebed lease billing
- Facebook posts
- Radio ad
- County press release

ATTENTION BOATERS

Ultrasonic buoys are installed to reduce harmful algae blooms. Project: 2026 - 2028

Map of ultrasonic buoy locations in Clearlake



Stay safe!

- ◆ Reduce speed to **5 mph** near buoys
- ◆ Keep clear of buoys
- ◆ You will be responsible for damages

LG Sonic buoys in Clear Lake help reduce harmful algae blooms and improve water quality using sound waves, no chemicals required. They also monitor water conditions in real time to support lake management. This technology is safe for people, fish, and other aquatic life, helping protect the health of the lake.

An LG Sonic buoy in Clear Lake:



Scan the QR code to learn how LG Sonic buoys are improving water quality





WRD Buoy Monitoring Program

- Visual inspections every two weeks
- Trips out after wind and other weather events
- Debris removal around buoys
- Navigational light inspections



Thank you!