

Welcome

The Lahontan Regional Water Quality Control Board developed this newsletter to communicate our efforts to protect water quality in Eagle Lake. For more information, visit our [Rangelands and Grazing webpage](#).

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Contact Us

Brian Judge

Engineering Geologist
brian.judge@waterboards.ca.gov

Mary Fiore-Wagner

Env. Program Manager
Division Manager – Compliance and Planning
mary.fiore-wagner@waterboards.ca.gov

2024 Grazing Management Plans and Inspections

This was the 6th year the Lahontan Water Board received grazing management plans from property owners and managers with lakefront grazing operations along Eagle Lake. The goal of these plans is to minimize livestock waste from entering the lake. All plans have been received before the grazing operation began each year.

In late September, Water Board staff conducted four site inspections with private and public grazing owners and/or managers.

Observations indicated that overall livestock grazing is being managed in a sustainable manner and contact with lake water is minimal.

Ranchers are using a variety of strategies to keep cattle away from the lake's edge, such as setting up alternative water sources and mineral licks, keeping gates closed, and using fencing. In some spots, the shoreline's deep mud naturally prevents cattle from accessing the lake. However, on firmer, rocky shorelines, like those southwest of Spalding, cattle have easier access to the water. It's essential to maintain drinking water alternatives, like the one shown here, in both rocky and muddy areas, not only to keep cattle safe and hydrated, but also to protect water quality. Similar to last season, the Water Board received no complaints regarding grazing this year.



Nutrient Trends & Future Monitoring Plans

From 2019 to 2023, water quality monitoring in Eagle Lake showed that nutrient levels did not meet the standards set by the [Lahontan Basin Plan](#) to protect the intended water uses. Both total nitrogen and total phosphorus levels regularly exceeded the limits at all testing sites, with phosphorus surpassing the thresholds during all sampling events. Sources of nutrients may be naturally occurring or stem from human causes in Eagle Lake, but as of today, more data is needed to accurately determine the specific origins. Due to the limited availability of partners and Water Board staff, nutrient monitoring was discontinued in 2024, and no nutrient

Partner Update

By Paul Divine, CA Department of Fish and Wildlife (CDFW)

Angler Update: Last year's fishing season, from 05/27/23 to 02/29/24, provided the best angler results observed in 20+ years with the highest percentage of trout over 3, 4, and 5 lbs. While the 2024 fishing data hasn't been fully analyzed yet, early comparisons to Sept and Oct 2023 show lower success rates for anglers this year, with fewer fish being caught per hour. On a positive note, the average size of the fish has increased by more than half an inch (now averaging 18.64 inches), though their weight remains the same at an average of 2.85 pounds. The growth rates for recently stocked trout appear similar to last year, with most growing about 1.5 to 2 pounds per year.

2024 Spawning Efforts: In March, trout were captured at the fish trap on Pine Creek to collect eggs and help with artificial spawning. CDFW caught and released 1,315 adult trout, which spawned 412 pairs and produced about 1.5 million fertilized eggs. Once these eggs hatch, some of the trout will be raised for a year and then released into Eagle Lake. In 2024, around 185,000 trout were released into the lake. During March and April, the fish ladder was open to let trout migrate upstream for natural spawning. Some of these fish successfully spawned, and young trout were seen swimming downstream to Eagle Lake.

sampling is planned for 2025 because of a decrease in state funding for monitoring programs due to the ongoing budget deficit. If you are interested in viewing Eagle Lake water quality data, visit the [CEDEN Query Tool](#), or see the new and more user friendly, [SWAMP Data Dashboard](#). The nutrient data will likely keep Eagle Lake on the 303(d) list, which is a list of waterbodies that aren't meeting water quality standards and need extra attention to fix pollution or other problems.

Eagle Lake Partnership Summit

On November 19, the Eagle Lake Partnership held its annual summit, bringing together representatives from eight land management agencies, three non-profit organizations, two Native American tribes, and a private timber company to clarify organizational structures, establish goals, and determine next steps for the group. This partnership is focused on improving forest and watershed restoration to help protect and strengthen the Lassen National Forest Eagle Lake Ranger District's natural resources.



The Eagle Lake Partnership's roots go back to 1987 with the formation of the Coordinated Resources Management Planning Group to improve Eagle Lake Rainbow Trout habitat through meadow and upland restoration work. Since then, the partnership has grown to address wider land management goals, including wildfire recovery, grazing, and the changing needs of the local community.

Jennifer Callahan, a Lahontan Water Board Environmental Scientist, has been involved in the partnership efforts for several years. She gave a presentation at the November summit to help clarify permitting processes and environmental laws related to restoration work, making it easier for the group to navigate these requirements.

Other groups involved in the summit included American Rivers, Pit River Tribe, Forest Creek Restoration, Trout Unlimited, and several other organizations. Presentations covered a variety of topics, ranging from the introduction of the new Pine Creek Project tracker, which helps agencies stay up to date across the watershed, to informational items, and data summaries. By the end of the summit, the group had clarified important next steps, such as defining the partnership's project scope and geographic boundaries.

Fast Facts

- Eagle Lake is one of the largest natural lakes in California.
- It is also home to the rare Eagle Lake trout, which is found nowhere else in the world.
- Eagle Lake is named after the bald eagles that call it home.
- Pine Creek is the main tributary of Eagle Lake and is 39 miles long, but only the upper approximate 6 miles have year-round flows.
- The lake is "endorheic," which means it doesn't have any natural way for water to flow out. As a result, the water becomes very salty and full of minerals, creating a unique environment for plants and animals.



Overview of Wastewater Systems & Compliance Efforts

The Lahontan Water Board helps protect Eagle Lake's water quality from untreated domestic wastewater through the rules and restrictions outlined in the [Statewide](#)

[Sanitary Sewer Systems General Order](#). For example, water that comes from everyday household activities, like flushing toilets, taking showers, washing dishes, and doing laundry would all be considered domestic wastewater. This includes everything that goes down the drains from sinks, tubs, and toilets in homes and businesses. This water often contains things like soap, food particles, and human waste, and needs to be treated before being released back into the environment. There are three domestic wastewater collection and treatment systems in the area subject to the statewide requirements:

Spalding Community Services District owns and operates the sanitary sewer collection system and wastewater evaporation ponds that serve Spalding Tract. In May of 2024, after notification of spills from the collection system, the Water Board performed a compliance inspection of the collection system and the wastewater evaporation ponds. While there were violations identified during the inspection, there is no imminent threat to water quality. The Water Board is working with Spalding Community Services District to identify solutions to repair the aging infrastructure and identify potential funding sources available.

Stones-Bengard Community Services District owns and operates a sanitary sewer collection system and wastewater disposal pond that serves the Stones-Bengard subdivision. Water Board staff inspected both in May 2024 and found no violations. The collection system is functioning as designed and the treatment ponds have adequate capacity to treat and dispose of the domestic wastewater.

Eagle Lake Recreation Area Collection System and Wastewater Treatment Plant, run by the U.S. Forest Service, serves the Merrill Campground. The wastewater treatment ponds were last inspected by Water Board staff in 2019 and no violations were identified. This facility is scheduled to be inspected in 2025 when the campground opens for the summer months.

For more details about these systems, you can visit the [California Integrated Water Quality System Project](#) or reach out to Trevor Miller at 530-542-5430 or via email at trevor.miller@waterboards.ca.gov.



Monitoring HABs for Safe Recreation

In 2024, HAB monitoring took place at Eagle Lake prior to Labor Day, as part of the State's efforts to gather data from popular recreational sites before busy holiday weekends. Samples were collected from the Spaulding Boat Ramp and Christie Day Use areas, revealing the presence of cyanobacteria but no genes capable of producing toxins.

A second sampling event occurred after a report of a dog death at Gallatin Beach, with analysis again showing the presence of cyanobacteria but no toxins. Despite these findings, the illness workgroup could not definitively link the dog's death to HAB exposure due to insufficient information.

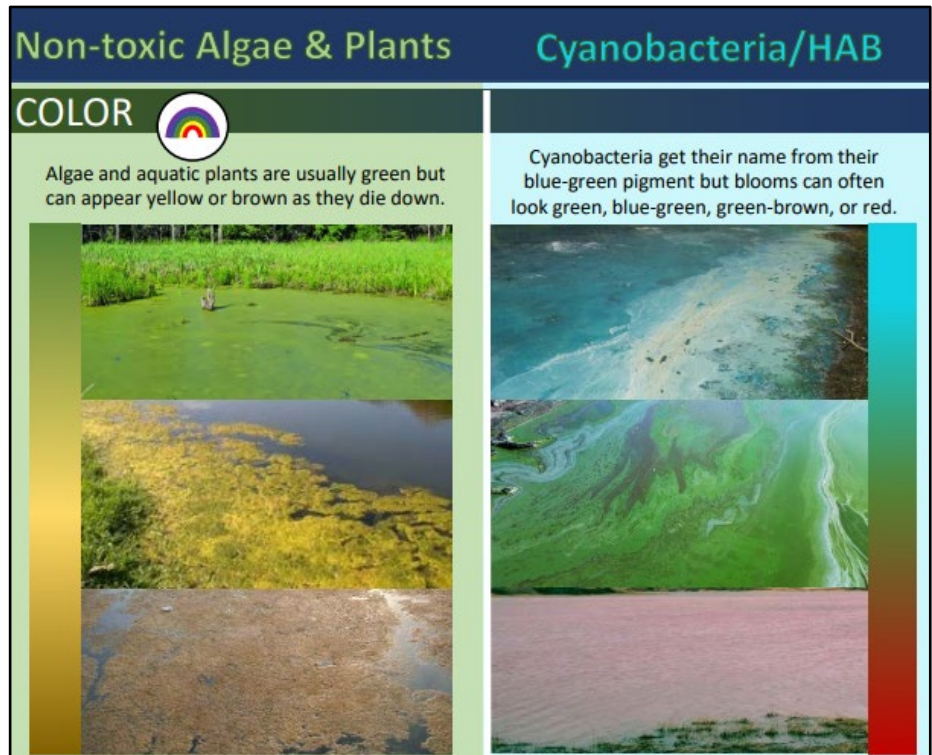
These isolated monitoring efforts highlight the importance of regular sampling and collaboration to protect Eagle Lake's ecological and recreational health. Visually, cyanobacteria were present at all sampled locations, including the North Basin, prompting caution advisories due to the potential for rapid changes in toxin levels.



Bucks Bay in Eagle Lake July 2024

Understanding Harmful Algal Blooms

Harmful Algal Blooms (HABs), caused by cyanobacteria, thrive in warm, nutrient-rich waters and can pose risks to humans, pets, and wildlife. While not all cyanobacteria produce toxins, those that do can lead to health issues ranging from skin irritation to severe illnesses. Visual indicators, such as green or blue scum on the water's surface, may suggest a bloom, but laboratory testing is necessary to confirm the presence of toxins. Toxin conditions can change rapidly from location to location and even during different times of the day. Because of this you are your first line in defense against the dangers of HABs, and it is important to understand what they look like and what to do if you encounter them.



How to protect yourself and your pets if you think a HAB is present?

- **Stay Away from Blooms:** Always follow posted advisories and avoid algae and scum on the water or on shore.
- **Keep Children and Pets Safe:** Don't allow children or pets, especially dogs, to swim, drink, or eat scum from the water or shore.
- **Avoid Harmful Mist:** Stay clear of areas downwind of a bloom to avoid inhaling any harmful sprays or mists.
- **Be Cautious with Activities:** Skip high-speed boating, water skiing, or any activity that might stir up the toxins.
- **Don't Drink or Cook with Contaminated Water:** Always use clean water for drinking and cooking and wash off with fresh water after swimming or playing in the water.
- **Handle Fish Carefully:** If you catch fish, discard the guts and clean the fillets with tap or bottled water before cooking.

Questions or Comments about HABs in the Lahontan Region?

Please email Sabrina Rice at sabrina.rice@waterboards.ca.gov.