

WHERE CAN YOU REPORT ILLEGAL DUMPING OR POLLUTION?

- City of Lakeport (707) 263-5613 ext. 205
- City of Clearlake (707) 994-8201 (press 0)
- Lake County Water Resources Dept. (707) 263-2344
- BLM Ukiah Field Office to report Off Highway Vehicle (OHV) in Cow Mountain recreation area (707) 468-4000
- Report hazardous material spills or sewer overflows to CalOES at 1-800-852-7550

WHY IS LIMITING NUTRIENTS IN THE LAKE IMPORTANT?

In its naturally balanced state, Clear Lake has enough nutrients (nitrogen, phosphorus, iron, etc.) for the native plants in its aquatic ecosystem to photosynthesize and grow. The presence of pollutants (toxic chemicals, oils, fecal-coliform bacteria) or excessive amounts of nutrients throws off this balance.

High amounts of nutrients cause overgrowth of invasive plants and cyanobacteria (blue-green algae), sometimes called harmful algal blooms (HABs), which can be toxic.

HOW CAN YOU PROTECT THE LAKE WHEN RECREATING?

- Boating in shallow areas agitates nutrient-rich sediment. Reducing boat speed and/or boating activities reduces the amount of sediment released.
- Dredging and shoreline construction activities increase turbidity and erosion in the lake. Follow the Lake County Water Resources Department guidelines for installing silt curtains, turbidity curtains, and fences around all projects occurring in coves, bays, and on the shoreline. These reduce the release of nutrient-rich sediments that sustain algae and cyanobacteria blooms.



HOW CAN YOU IMPROVE STORM WATER QUALITY?

Rainstorm events create storm water which can mix with pollutants in drains, ditches, gutters, and culverts. This untreated storm water flows directly into creeks, streams, rivers, and lakes and pollutes both drinking and recreational water.

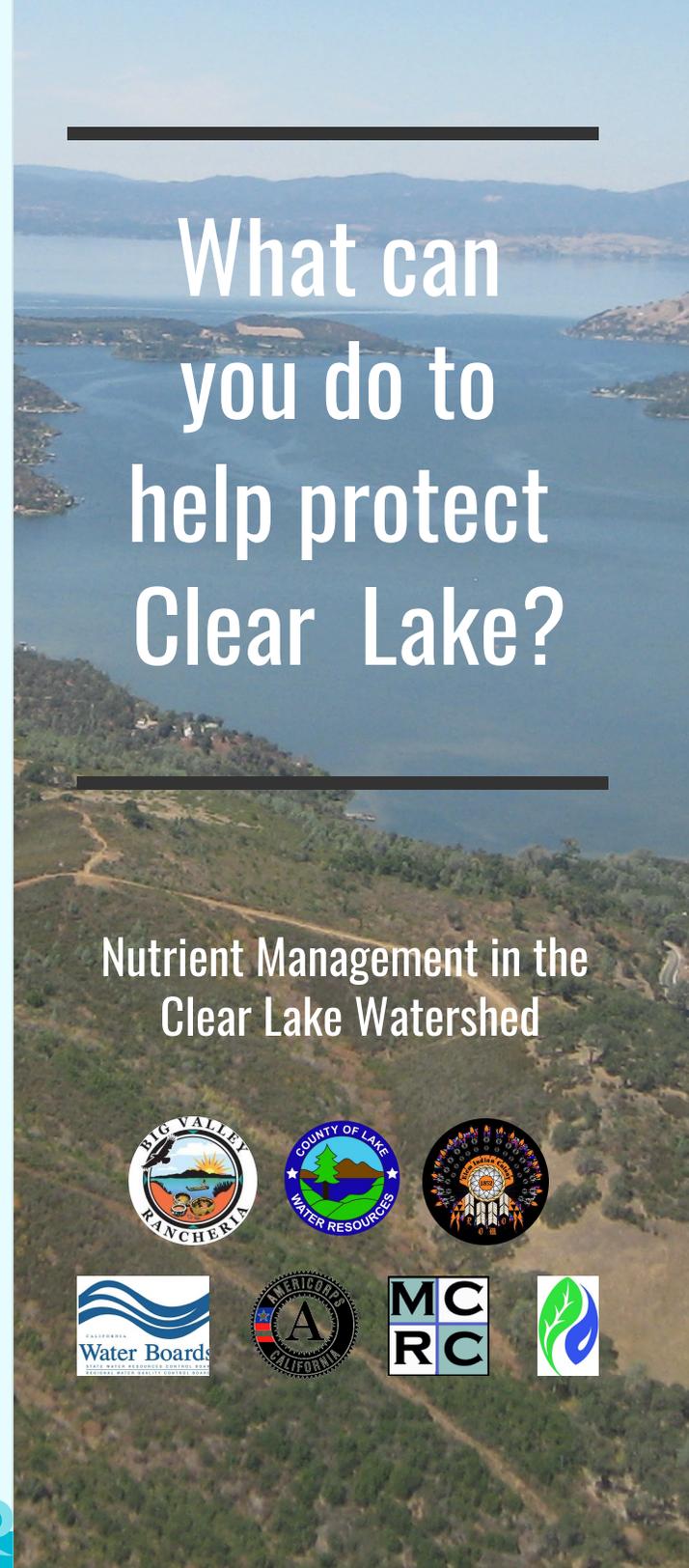
Here's how you can help:

- Don't apply fertilizer before windy or rainy weather
- Place all green waste in the green waste bin, in the trash, or in your yard as compost
- Divert roof water to lawns and gardens so that it soaks in the ground instead of into the storm drain
- Sweep sidewalks and driveways instead of hosing them down
- Plant native species instead. For a list of native plants contact Lake County Resources Conservation District (707) 263-6838
- Keep all pollutants (pesticides, oils, trash) off of streets and slopes and out of gutters, ditches, culverts, and storm drains
- Properly store unused fertilizers and properly dispose of empty containers

HOW CAN YOU DECREASE NUTRIENT LOADING IF YOU HAVE A SEPTIC SYSTEM?

Septic systems are used when connecting to a sanitary sewer system is impossible. They are onsite wastewater treatment systems for individual households.

- Maintain your septic system and have it inspected by a professional every 3-5 years
- Have your septic system pumped out every 3-5 years. Pumping it every 2-5 years is recommended for a 3 bedroom home with a 1,000 gallon tank. Smaller tanks should be pumped more frequently.
- Minimize garbage disposal use
- Avoid planting shrubs near drain fields; their roots clog drain lines
- Spread out laundry machine use throughout the week to avoid overloading the system. Use the appropriate amount of detergent; more is not better.



What can you do to help protect Clear Lake?

Nutrient Management in the Clear Lake Watershed



What factors create excess nutrients in Clear Lake?

Off-road vehicle use

Off-road vehicle use both disturbs the ground, causing erosion, and stirs up dust, increasing the runoff entering streams, creeks, and Clear Lake.



Septic systems

Old or malfunctioning septic systems can leak sewage that is high in nitrogen and phosphorus. These are the main elements which promote HABs.



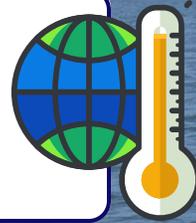
Excessive fertilizer use

Fertilizer is mostly comprised of nitrogen and phosphorus as nutrients for plants. These can runoff to nearby water bodies.



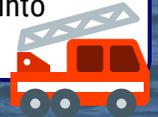
Climate change

Climate change is creating conditions with less rain and longer periods of warmer weather. Less rain means a more nutrient-dense Clear Lake and combined with warm weather, these conditions promote excessive plant, algae and cyanobacteria growth.



Wildfires

Wildfires burn vegetation allowing slopes to erode nutrient-rich sediments as runoff into streams and creeks



What do excess nutrients do?

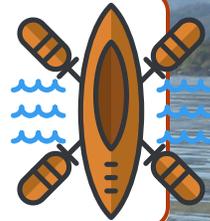
Create health hazards

Nutrient-rich lake water can promote growth of HABs, or toxic cyanobacteria, which can be a public health hazard to humans, livestock, wildlife, and pets.



Endanger culturally important resources

Poor water quality in Clear Lake degrades tribal use and worsens the cultural loss in heritage of the area.



Dying blooms harm aquatic life

After large populations of algae and aquatic plants die, the decaying matter consumes oxygen, leading to fish kills.



Reduce recreational opportunities

Unightly green or brown water, with dense aquatic plant beds, makes recreation on the lake less enjoyable for everyone. This impacts boating, water-skiing, and swimming prospects for locals and tourists.



Pollute water used for drinking

Excess sediments, and resulting algae growth, can clog drinking water intake filters. These can be expensive and difficult to treat or filter out, adding extra financial burden to Clear Lake's tribal and disadvantaged communities.



Decrease property values and potential tourism

Residential properties near lakes with recurring algal blooms have reported losses in real estate values. The local economy is dependent on Clear Lake related tourism, which can be negatively affected by the presence of HABs and/or perception of poor water quality.

