



Public Health Brief

Richard O. Johnson, M.D., MPH

Public Health Officer

Office: 530-694-2235, Ext 249

e-mail: rjohnson@alpinecountyca.gov

Nichole Williamson

HHS Director

Office: 530-694-2235

24/7/365 Emergency Contact Numbers

Dr. Johnson's cell: (760) 914-0496

Dispatch: 530-694-2231, Ext 330



Saturday, August 10, 2019

Danger:

Blue-Green Algae Toxins Detected in Multiple Lakes

Lake Users Advised to avoid Water Contact at Red Lake and Indian Creek Reservoir

The Alpine County Health Department has been working with The Lahontan Regional Water Quality Control Board, California Department of Fish and Wildlife (Red Lake), South Tahoe Public Utility District (Indian Creek Reservoir), and the Alpine Watershed Group (AWG) in determining that there are levels of toxin associated with blooms of blue-green algae in multiple lakes in Alpine County that are toxic to animals and humans.

Levels at Red Lake have been determined to be well above the "DANGER" level. Levels at Indian Creek Reservoir have triggered a "WARNING" alert. Both lakes have been posted with the appropriate warning signs in effect until further notice. Ongoing testing will be conducted on a regular basis. My prediction (always risky but based on evidence!) is that conditions will get worse before they get better.

Potential symptoms in dogs following exposure to blue-green algae toxins can include lethargy, difficulty breathing, salivation, vomiting, urination, diarrhea, or convulsions leading to death. The unexplained death of a dog after contact with contaminated water is often a sentinel event which alerts officials to the potential of a toxic bloom. People can experience eye irritation, skin rash, mouth ulcers, vomiting, diarrhea, and cold or flu-like symptoms, with impacts to the liver. Dogs and children are most likely to be affected because of their smaller body size and tendency to stay in the water for



Public Health

Prevent. Promote. Protect.

Alpine County Health Department, 75-B Diamond Valley Rd., Markleeville, CA 96120

Alpine County Board of Supervisors, Phone: (530) 694-2281

District 1: Donald M. Jardine, District 2: Ron Hames, District 3: Katherine Rakow,

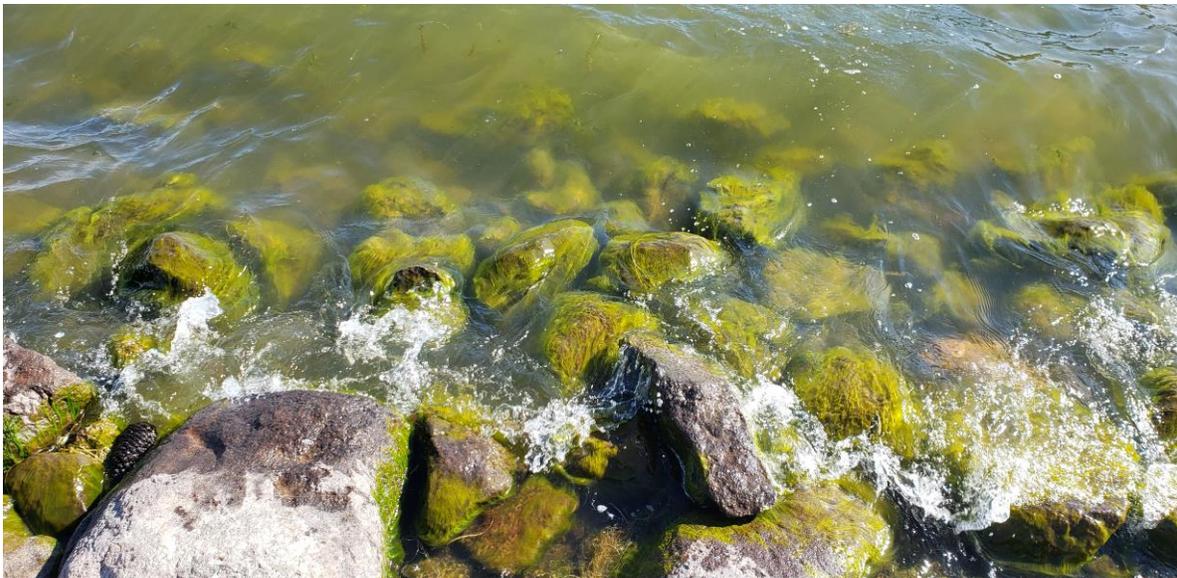
District 4: Terry Woodrow, District 5: David Griffith

longer periods. While there is no antidote for exposures, persons should see their physician and those with pets which may have been exposed should go to their veterinarian for supportive care. Livestock who are drinking contaminated water can also suffer fatal consequences.

Blue-green algae (known as cyanobacteria) can be naturally present in any body of fresh water. It looks like green, blue-green, white or brown scum, foam or mats floating on the water. Warmer air and water temperatures, high nutrient levels, and slow and stagnant water can cause cyanobacteria to multiply at an excessive rate and turn in to a harmful algae bloom (HAB). When HABs are present, the algal scum can be a variety of colors such as fluorescent blue, green white, red or brown. Blooms can have more than one color present and may look like thick paint floating on the water and give off a foul odor. HABs may move to different locations of the lake by wind or wave. If you see signs of a HAB, such as discolored, pea-green water, surface scum, floating algae, **stay out of the water**.

The State Water Board and the nine Regional Water Boards (known as the Water Boards), in partnership with other programs and agencies, are actively supporting and coordinating a statewide HAB incident response with many publicly available resources. In 2018, the Water Boards received 190 voluntary reports of HABs from across the state. To learn how to stay safe around HABs, report a bloom and more, visit the CA HABs Portal: <http://www.mywaterquality.ca.gov/habs/>

Follow them on twitter: @CaWaterBoards



Public Health
Prevent. Promote. Protect.

Alpine County Health Department, 75-B Diamond Valley Rd., Markleeville, CA 96120
Alpine County Board of Supervisors, Phone: (530) 694-2281
District 1: Donald M. Jardine, District 2: Ron Hames, District 3: Katherine Rakow,
District 4: Terry Woodrow, District 5: David Griffith

Red Lake:

A popular fishing destination, Red Lake is in Alpine County off Highway 88 near Carson Pass. Visit the [State Water Board Twitter page](#) to see a map and pictures of the cyanobacteria bloom. The current algal bloom is impacting the entire lake but is most pronounced along the southeast shoreline. The harmful algal bloom, or HABs, appears as bright pea-green, discolored water with suspended flecks of material near the surface. As the bloom continues to grow, cyanobacteria colonies may become larger and form a thick film or scum on the water surface. Bloom conditions in the lake can change rapidly, as the flow of surface water and wind may mix, move, or concentrate the bloom into different areas of the lake. The bloom is being tracked by the Lahontan Water Board and Alpine Watershed Group, which are coordinating to monitor water quality and the occurrence of harmful algal blooms at three Alpine County recreational lakes, including Red Lake. The level on 7/30/19 was 51.7 ug/L, well above the trigger for a "DANGER" Action Trigger.

DANGER

Toxins from algae in this water can harm people and kill animals



**Stay out of the water until further notice.
Do not touch scum in the water or on shore.**



Do not let pets or other animals drink or go into the water or go near the scum.



Do not eat fish or shellfish from this water.



Do not use this water for drinking or cooking.
Boiling or filtering will not make the water safe.

For people, the toxins can cause:

- Skin rashes, eye irritation
- Diarrhea, vomiting

For animals, the toxins can cause:

- Diarrhea, vomiting
- Convulsions and death

Contact your doctor or veterinarian if you or your pet get sick after going in the water.
For more information on harmful algae go to <https://mywaterquality.ca.gov/habs/index.html>
For local information contact:



Public Health
Prevent. Promote. Protect.

Alpine County Health Department, 75-B Diamond Valley Rd., Markleeville, CA 96120
Alpine County Board of Supervisors, Phone: (530) 694-2281
District 1: Donald M. Jardine, District 2: Ron Hames, District 3: Katherine Rakow,
District 4: Terry Woodrow, District 5: David Griffith

Indian Creek Reservoir:

On Monday, July 22 Alpine Watershed Group conducted routine sampling at Indian Creek Reservoir. Test results measured levels of cyanotoxin, Microcystins at 4.39 µg/L (microgram per liter), which is above the 0.8 µg/L “Caution” Action Trigger level established for posting signs at recreational waters for the protection of human health. South Tahoe Public Utility District (STPUD), who manages the property, posted caution signs at Indian Creek Reservoir to warn lake users to stay away from algae and scum in the water. Subsequent testing has revealed that levels have increased to 8.5 ug/L, which triggered a “Warning” Action Trigger.

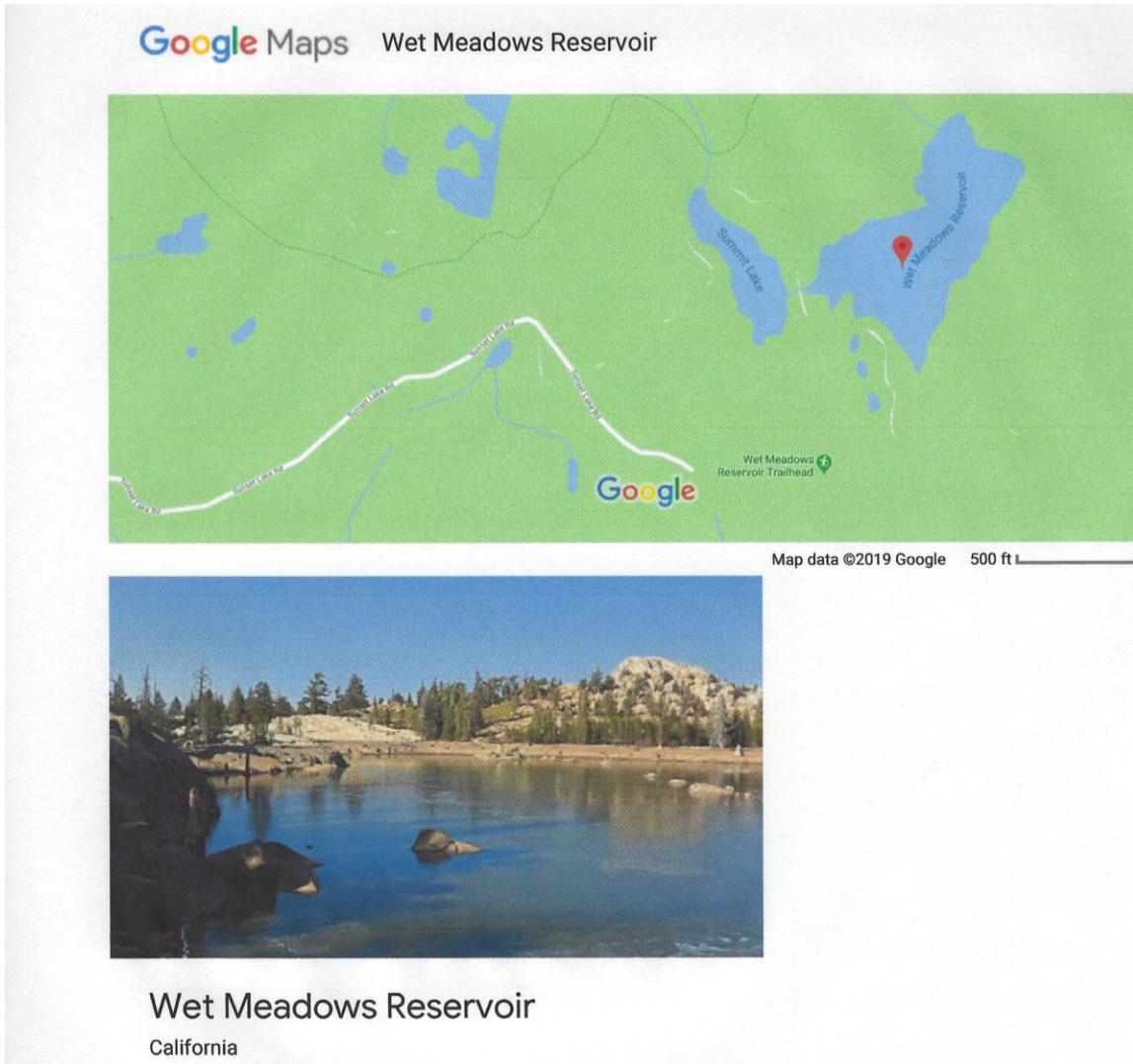


Public Health
Prevent. Promote. Protect.

Alpine County Health Department, 75-B Diamond Valley Rd., Markleeville, CA 96120
Alpine County Board of Supervisors, Phone: (530) 694-2281
District 1: Donald M. Jardine, District 2: Ron Hames, District 3: Katherine Rakow,
District 4: Terry Woodrow, District 5: David Griffith

Wet Meadows Reservoir (and others along the Pacific Crest Trail - PCT):

An algae bloom was reported in 2018 at Wet Meadows Reservoir, which is off the Blue Lakes Road. This and many other lakes are along the PCT and utilized as rest and re-supply stops for trekkers looking to bathe and replenish their water supply. The AWG will be conducting evaluation and testing at this lake, and we will keep you informed as results and recommendations are made based on predetermined “Action Triggers”. Again, if you see signs of a HAB, such as discolored, pea-green water, surface scum, floating algae, **stay out of the water.**



Public Health
Prevent. Promote. Protect.

Alpine County Health Department, 75-B Diamond Valley Rd., Markleeville, CA 96120
Alpine County Board of Supervisors, Phone: (530) 694-2281
District 1: Donald M. Jardine, District 2: Ron Hames, District 3: Katherine Rakow,
District 4: Terry Woodrow, District 5: David Griffith