Utah Lake Test Results Confirm Presence of Toxin

SALT LAKE CITY — Lab results for samples collected by the Division of Water Quality (DWQ) at the Lindon Harbor Jetty show elevated levels of microcystin, a cyanotoxin often found in algal blooms.

Levels of this toxin, which can cause liver damage, were detected at 11 micrograms per liter (µg/L) from a water sample collected from the north side of the Lindon Harbor jetty on October 6, 2014. Another sample collected at the same time from the south side of the jetty had a lower microcystin concentration of 4.5 µg/L.

For comparison purposes, public health advisory levels have been set at 6 µg/L in Washington, Ohio, Virginia, and Vermont, and at 10 µg/L in Oregon. Utah does not currently have a public health advisory level for cyanotoxins.

Although algae are a natural part of many freshwater ecosystems, under the right conditions they can proliferate to create large algal blooms. These blooms can contain harmful cyanobacteria, a type of photosynthetic bacteria (often referred to as blue-green algae) that produce toxins that can pose risks to humans, wildlife, domestic animals, and fish.

Elevated levels of nutrients in the water, combined with warm temperatures, abundant sunlight, and calm water, can promote rapid algal growth, resulting in the extensive, bright-green blooms.

“It is very difficult to predict and assess harmful algae blooms,” explains Walt Baker, director of DWQ. “But what we can control is one of the major contributing factors to algae blooms: nutrients, principally phosphorus.”

“In Utah Lake, 75 percent of the phosphorus loading comes from the wastewater treatment plants which discharge into the lake. Reducing nutrient loading to our lakes and streams is our top priority, and we are implementing these reductions through our Utah Nutrient Strategy.”

Environmental scientists from DWQ continue to take samples to test for the presence of cyanotoxins in other areas in and around the lake. The Utah County Health Department and Utah
Division of Wildlife Resources have issued warnings to swimmers, boaters, anglers, and hunters to avoid areas with bright-green algal growth. Individuals who are concerned about their exposure to water or algae should contact the Utah Poison Control Center at (800-222-1222) or their medical care provider. Symptoms of cyanotoxin poisoning include headache, fever, diarrhea, abdominal pain, nausea and vomiting, and sometimes allergic-like reactions from skin contact.

Unfortunately, the bloom at Utah Lake is not an isolated incident.

“Until we reduce the phosphorous and nitrogen loads into our lakes and streams, we will continue to see increasing numbers of algal blooms, not just in Utah Lake, but other areas of the state as well,” adds Baker. “Some of these blooms may be toxic. We need to work together as a state to invest in the changes necessary to protect public health and our precious water resources from this pollution.”

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About DEQ
Established in 1991, the Utah Department of Environmental Quality’s (DEQ) mission is to safeguard public health and quality of life by protecting and enhancing the environment. DEQ implements state and federal environmental laws and works with individuals, community groups and businesses to protect the quality of Utah’s air, land and water. For more information, visit www.deq.utah.gov, follow DEQ on Facebook (utahdeq) and Twitter (UtahDEQ), or call 1-800-458-0145.