State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

Utah Water Quality Board Meeting
DEQ Building Board Room #1015
195 North 1950 West
Salt Lake City, Utah 84116
November 4, 2014

Work Meeting Begins @ 8:30

None

Board Meeting Begins @ 9:30 a.m.

AGENDA

A. **Water Quality Board Meeting – Roll Call**

B. (Tab 1) **Minutes:**
Approval of Minutes for September 24, 2014 WQ Board Meeting.... ……..Myron Bateman

C. **Executive Secretary's Report**.....Walt Baker

D. 1. Introduction of new Branch Manager Erica Brown Gaddis & Reorganization……..…..Walt Baker

2. Appointment of Erica Brown Gaddis as Acting Executive Secretary…….Amanda Smith

E. (Tab 2) **Funding Requests:**

1. Request for Plea in Abeyance: *Bluff Service Area*……..…. John Mackey

F. (Tab 3) **Other Business:**
1. Utah Lake Harmful Algae Bloom Update……..Carl Adams & Hilary Arens

2. Bear River Development ……..……Eric L. Millis DNR

3. Logan Funding Update ……Lisa Nelson

G. (Tab 4) **News Articles:**

Next Meeting December , 2014
DEQ Building Board Room 1015
195 North 1950 West
Salt Lake City, Utah 84116

Revised 10/28/14

In compliance with the American Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Dana Powers, Office of Human Resources, at (801) 536-4412,
TDD (801) 536-4414, at least five working days prior to the scheduled meeting

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

MINUTES
UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY
UTAH WATER QUALITY BOARD

DEQ Building Board Room 1015
195 North 1950 West
Salt Lake City, Utah 84116
September 24, 2014

UTAH WATER QUALITY BOARD MEMBERS PRESENT

Myron Bateman	Shane Pace
Leland Myers	Gregg Galecki
Hugo Rodier	Amanda Smith

Excused: Jennifer Grant, Merritt Frey and Clyde Bunker

DIVISION OF WATER QUALITY STAFF MEMBERS PRESENT

Walt Baker, Leah Ann Lamb, Erica Gaddis, Chris Bittner, Carl Adams, Jeff Ostermiller, John Mackey, Kari Lundeen, Judy Etherington, Nicholas von Stackelberg, Emily Cantón, Svetlana Kopyikovskiy, Paula English, Nicole Froula, Mark Stanger, James Harris, Emilie Flemer, Jenny Potter.

OTHERS PRESENT

Name	Organization Representing
Mike Luers	SBWRD
Mary Perry	FECC
Leighann Gilson	Gilson Engineering
Larry Gilson	Gilson Engineering
Trevor Lindley	J-U-B Engineers
Faye Bell	Retired DWQ
Scott Baird	DEQ
Jeff Beckman	Bowen Collins
Jill Houston	CDSC
Tom Ward	Salt Lake City
Jim Olson	Water Works Engineer
Dale Christensen	SLC WREC
R. Ryan Dupont	USU/UWRL
Darwin Sorensen	USU/UWRL
Thomas Reuben	USU/UWRL
Jeff DenBleyker	CH2M Hill
Theron Miller	JR/FBWQC

Don Leonard	GSLBSCI
Nancy Mesner	USU
Jesse Stewart	Salt Lake City
Karen Nichols	HDR
Jake Powell	UACD

Myron Bateman called the Board meeting to order at 9:46 a.m. and took roll call for the members of the Board and audience.

APPROVAL OF MINUTES OF THE AUGUST 27, 2014 MEETING

Motion: **It was moved by Shane Pace and seconded by Gregg Galecki to approve the minutes of the August 27th Water Quality Board meeting with a change to other business. Wording on proposed fees should read in "lieu of permit, a $100 fee" and "one-time project based fee at $50".**

EXECUTIVE SECRETARY REPORT

- Mr. Baker made the board aware of a presentation made to the Governor Herbert and his staff, The Water Development Commission and Natural Resources subcommittee. . Two water divisions in DNR, Water Rights & Water Resources and two divisions in DEQ, Water Quality and Drinking Water developed the joint presentation discussing the future of Utah's water given population growth and the economy. Costs associated with new projects are estimated to be approximately $32 Billion dollars, with half of that amount used to replace or upgrade current infrastructures over the next 40 years. All the division believe this is achievable provided an infusion of approximately $30 million dollar more per year is made to the three water loan programs to meet these projected needs.
- Progress is being made on an inter-local agreement between Logan and the six non-owning members that get service from Logan's wastewater lagoon. The draft has been submitted to see if everyone can come to an agreement. They will be at our next board meeting
- Faye Bell was invited to attend the board meeting; the Board members presented her with a gift of appreciation for her years of service.

PRESENTATION 2014 NPS AWARDS

- **Leighann Gilson** – For her innovative and active work in educating children on protecting our water.
- **Mary Perry** – For over 10 years of her volunteer efforts in protecting East Canyon Creek.
- **Mike Luers** – For demonstrating true environmental stewardship and leadership.

A FINALIZED GREAT SALT LAKE WATER QUALITY STRATEGY

Seeking endorsement of Strategy: : In 2012, DWQ launched a Great Salt Lake Water Quality Strategy designed to outline a path forward to fill critical knowledge gaps, improve the precision and clarity of ater quality management decisions, reduce regulatory uncertain, and improve all partners' capacity to be stewards of Great Salt Lake. DWQ received substantive comments from 11 Great Salt Lake stakeholders and returned to the WQB to present the final revised strategy. The revised strategy is composed of 5 interrelated but independent core components: 1. Development of Numeric Criteria for Aquatic Life Uses; 2. Strategic Monitoring and Research; 3. Wetland Program Plan; 4. Nutrient Assessment Plan; and 5.

Recreation Use Criteria. The resource and public outreach plans have been integrated into each of the five components. DWQ is actively implementing Components 1 and 2 and has developed a schedule to complete Components 3, 4 and 5.

Endorsement: Following the discussion on Great Salt Lake Strategy, Mr. Pace made the motion to endorse it, and Mr. Galecki seconded the motion. The endorsement unanimously was approved.

FUNDING REQUESTS

Financial Status Report: Ms. Cantón updated the Board on the "Hardship Grant Funds" as shown on page 2.1 of the Board Packet.

Request to authorize funding, for the Investigation of Nitrogen Transformation Rates: Nick von Stackelberg requested funding of $150,000 to investigate methods of measuring nitrogen transformation rates in Utah streams and rivers.

Motion: **Following the discussion on funding for Nitrogen Transformation Rates, Mr. Myers made the motion to approve funding, Mr. Pace seconded the motion. The motion was unanimously approved.**

RULEMAKING

Change in Proposed Rule R317-1-3-3, *Technology-Based Limits for Controlling Phosphorus Pollution* (Second Amendment/CPR2): The original rulemaking for the technology-based limits for phosphorus (Proposed Rule R317-1-3-3) was initiated in June. After receiving and processing 38 comments on the original rule, Mr. Mackey returned to the board in August and requested the board proceed with a "Change in Proposed Rule" (CPR1) to address several important issues raised by commenters. At that time the board agreed to proceed with CPR2 but that they wanted an analysis of how CPR1 will affect industry because all efforts to date have focused on POTWs. Mr. Mackey and Mr. Krauth completed an analysis of the impacts to industry and made additional changes to the CPR1 creating CPR2 to address these concerns that includes an off-ramp for monitoring by the Director when no a discharger demonstrates no reasonable potential to discharge P or N and an extension of the start date for self-monitoring until July 1, 2015 The board approved proceeding with rulemaking on CPR2.

Motion: **Following the discussion on proposed change to the rule, Mr. Myers made the motion to approve change, Mr. Pace seconded the motion. The motion was unanimously approved.**

OTHER BUSINESS

Update on 2014 Integrated Report: Jim Harris and Emilie Flemer presented the Draft 2014 Integrated Report. DWQ has compiled public comment and revised some of the assessment methods as a result. After an additional public comment, DWQ will present the final Integrated Report to the Board.

Next Meeting – November 4, 2014
DEQ Building Board Room 1015
195 N 1950 W
Salt Lake City, UT 84116

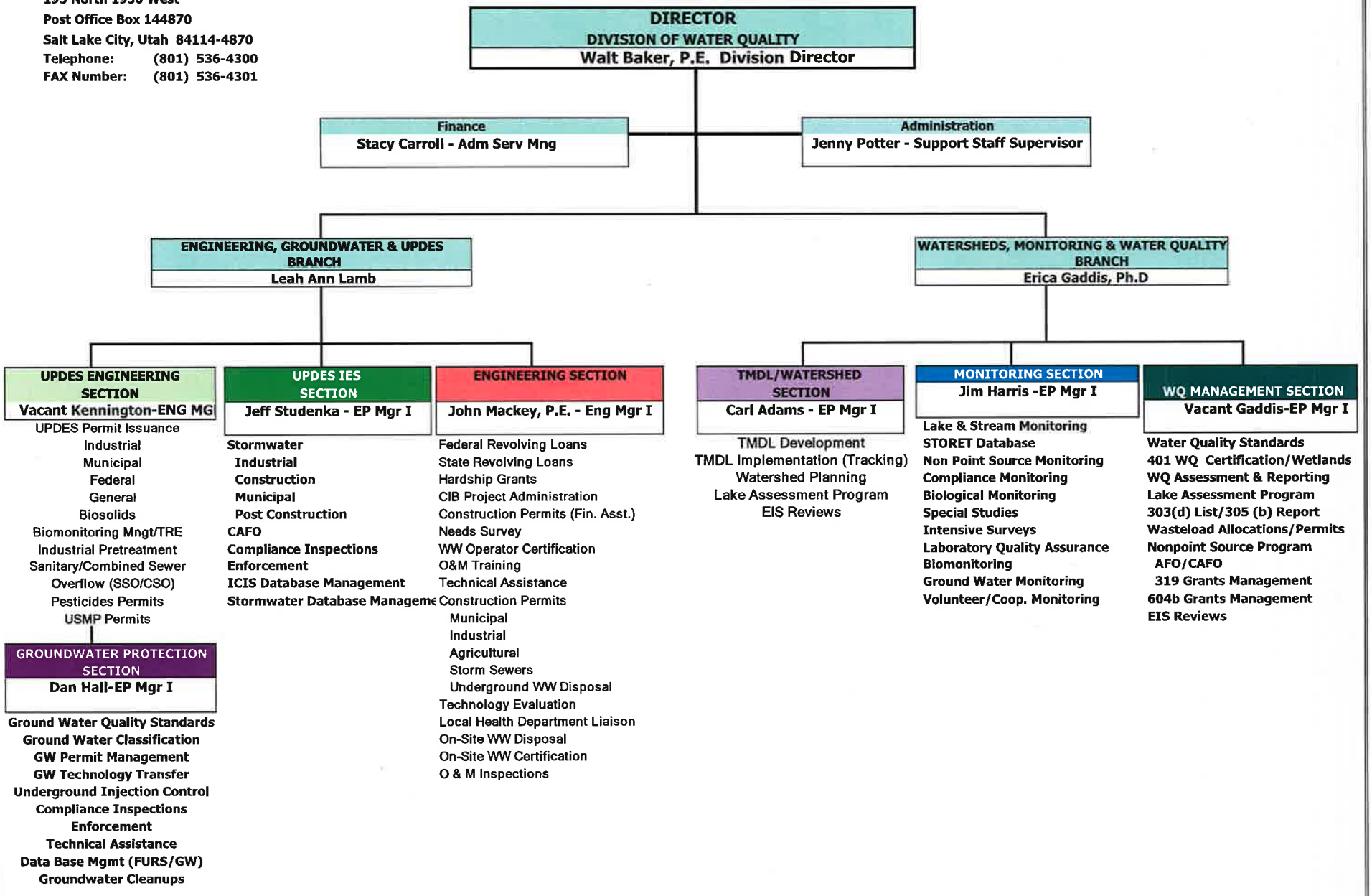
_____
Myron Bateman, Chair
Utah Water Quality Board

UTAH DIVISION OF WATER QUALITY

DEPARTMENT OF ENVIRONMENTAL QUALITY

Address:

Multi-Agency State Office Building
195 North 1950 West
Post Office Box 144870
Salt Lake City, Utah 84114-4870
Telephone: (801) 536-4300
FAX Number: (801) 536-4301



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

TO: Utah Water Quality Board Members

FROM: Amanda Smith
Executive Director

DATE: October 10, 2014

SUBJECT: Appointment of Erica Brown Gaddis Acting Executive Secretary

The Executive Secretary to the Water Quality Board transacts business on behalf of the Board. Circumstances arise where the Executive Secretary may be ill, on vacation, or otherwise unavailable to do so. In spite of the absence of the Executive Secretary, it is important for our office to be able to conduct the business of the Board.

DWQ has had two Acting Executive Secretaries, with John Whitehead's retirement; I recommend that Erica Brown Gaddis, who recently filled his vacancy, be appointed as Acting Executive Secretary to the Water Quality Board. This will allow the Board to transact business should Walter Baker be unavailable. On the advice of the Attorney General's Office, this authority would only be delegated if the Executive Secretary were unavailable.

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

MEMORANDUM

TO: Utah Water Quality Board

THROUGH: Walter L. Baker, Executive Secretary
Water Quality Board

FROM: John K. Mackey, P.E. Manager
Engineering Section

DATE: October 22, 2014

SUBJECT: Bluff Service Area
Request for Plea in Abeyance for Planning Advances (P051 & P051b)

On August 18, 2006, the Water Quality Board authorized a planning advance for Bluff Service Area in the amount of $60,000. The planning advance was for a study that evaluated the reasonable wastewater collection/treatment options for the community. As part of the agreement, Special Provision #1 stated:

> *If a wastewater project is implemented as a result of this study, the Planning Advance must be expeditiously repaid. If a project is not implemented, the Service Area will nevertheless be expected to repay the Planning Advance.*

Subsequently, on June 24, 2009, the Water Quality Board authorized a supplemental planning advance for bluff Service Area in the amount of $104,000. Funding was used to conduct supplemental studies identified in the engineering services request for proposals that included treatment plant site selection and surveying; establishment of Rights-of-Way in contested boundaries; related mapping; investigation of easements; evaluation of the need for and feasibility of a stream crossing; and demonstration of public support of the identified project. As part of the supplemental agreement, Special Provision #1 stated:

> *This Planning Advance must be expeditiously repaid at the completion of the study whether or not a project is implemented as a result of this study.*

The outcome of the planning studies was that Bluff Service Area would not proceed with a construction project due to lack of public support. Division of Water Quality staff reviewed

195 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144870 • Salt Lake City, UT 84114-4870
Telephone (801) 536-4300 • Fax (801) 536-4301 • T.D.D. (801) 536-4414
www.deq.utah.gov

financial information and a note was made that the Division of Finance would be notified to bill Bluff Service Area for the advances when a project moved forward.

In September, Bluff Service Area contacted the Division of Water Quality and explained that their budget information submitted to the State Auditor's Office is out of compliance. State law requires that budgets of local governments, including Special Service Districts, be balanced with Total Revenues equaling Total Expenses. Bluff Service Area has two alternatives: either a payment plan needs to amortized for repayment of the advances or an official plea in abeyance from the Water Quality Board. Either of these alternatives would enable Bluff Service Area to remove the total advance obligation of $164,000 from their financial reporting, and, therefore, come back into compliance with a balanced budget.

For Bluff Service Area to undertake a municipal wastewater project, the community would have to secure a zero percent interest loan in conjunction with a construction grant from the Water Quality Board, similar to the funding provided to other hardship communities. As a result, the community could use construction grant funds to repay the planning advances. Staff recommends that the Water Quality Board issue an official plea in abeyance for the two planning advances, totaling $164,000, until such a time as construction project funding be secured.

U:\ENG_WQ\Ercanton\0Projects\Bluff Service Area\Request WQB Plea in Abeyance.docx
File:\Bluff Service Arez\Administration\Section 3

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

MEMORANDUM

TO: Utah Water Quality Board Members

THROUGH: Walter L. Baker P.E., Director

DATE: October 24, 2014

SUBJECT: Utah Lake Update

The Division of Water Quality (DWQ) was notified by the Executive Director of the Utah Lake Commission on Monday, October 6, 2014, that a dog had died over the weekend after swimming and consuming water near the Lindon Marina on Utah Lake. Based on information provided by the dog's owner and analysis of water samples taken the same day the incident was reported, a cyanobacteria bloom in the lake is the suspected cause of the dog's death.

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, and domestic animals. Elevated levels of nutrients in the water, combined with increased temperatures and calm water, can promote rapid algal growth, resulting in extensive, bright-green blooms that can last for days or weeks.

DWQ is conducting ongoing, comprehensive sampling and monitoring of the lake and downstream areas to determine the extent of the cyanotoxin contamination in these waters. Sampling is critical, since the only way to know if a cyanobacteria bloom is harmful is to test for the presence of toxins in the water. In addition, cyanotoxins can remain in the water once the algal bloom has dissipated, which underscores the importance of continued sampling and monitoring to confirm the presence or absence of these toxins after the bloom subsides.

The Division is coordinating with the Utah County Health Department, Utah State Parks and Recreation, and Division of Wildlife Resources (DWR) on sampling and reporting of results to allow these entities to move forward on public-health advisories, if necessary, for the affected areas.

Staff will provide to the Board a summary of the Division's response to the recent cyanobacteria bloom on Utah Lake including sampling results, DWQ's coordination efforts, as well as lessons learned and steps forward to better prepare for future harmful algal blooms in Utah.

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

MEMORANDUM

TO: Utah Water Quality Board Members

FROM: Walter L. Baker, P.E. Director

DATE: October 24, 2014

SUBJECT: Bear River Development Act

In 1991, the Bear River Development Act was passed by the Legislature. The Act directed the Division of Water Resources to "develop the surface waters of the Bear River and its tributaries". The Bear River Development Project will develop 220,000 ac-ft of water to be delivered to Box Elder, Cache, Davis, Salt Lake, and Weber counties. The Division of Water Resources recently completed a study that includes the potential reservoir storage and conveyance facilities necessary to deliver the water. Currently, the DWR is continuing to refine the results of that study. DWR would like to brief the DWQ Board.

195 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144870 • Salt Lake City, UT 84114-4870
Telephone (801) 536-4300 • Fax (801) 536-4301 • T.D.D. (801) 536-4414
www.deq.utah.gov

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF WATER QUALITY
Walter L. Baker, P.E.
Director

MEMORANDUM

TO: Utah Water Quality Board

THROUGH: Walter L. Baker, P.E.
Executive Secretary

FROM: Lisa Nelson, Project Manager

DATE: October 25, 2014

SUBJECT: Logan Funding Update

Staff will provide the Utah Water Quality Board (WQB) an update on the status of the Inter-local Sewer Agreement between Logan City and six surround communities. Staff will request that the WQB allow an additional 4 months for the communities to negotiate and execute the agreement and that, during that time, the WQB not change the conditions of the January 22, 2014 loan authorization.

WATER 3 COMMENTS PRINT SHARE

The Yellowstone River was one of more than 200 sampled as part of the country's largest water quality assessment project.

Neal Herbert / Yellowstone National Park

More pesticides are permeating urban streams

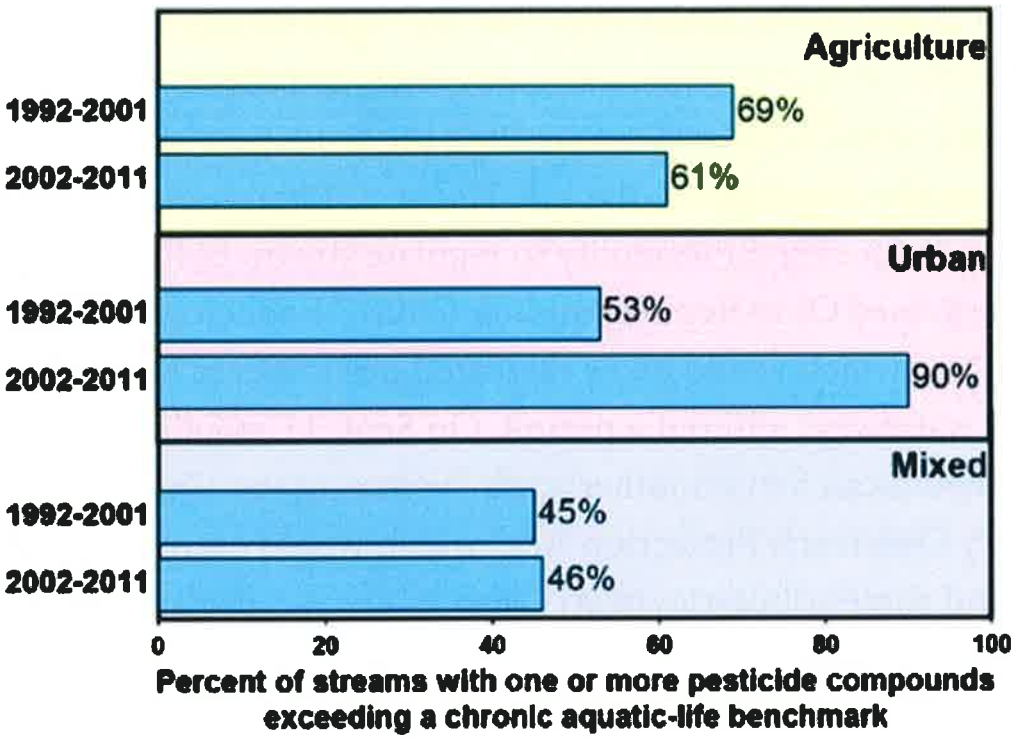
But rural rivers are getting cleaner, a new study says.

Krista Langlois | Sep 30, 2014 | *Web Exclusive*

If you live in a city, the U.S. Geological Survey has some bad news for you: There's a good chance your water is contaminated. A USGS study released earlier this month monitored more than 200 streams from 1992 to 2011 and found that the number of urban waterways contaminated with pesticides increased from 53 percent in the 1990s to 90 percent the following decade. Most pollutants were found at levels only harmful to aquatic life like fish, frogs and insects, while the number of streams with contaminant levels that pose a risk to human health actually dropped. Yet new chemicals are still permeating the environment and our understanding of their negative effects is limited.

Still, the USGS study is the country's most comprehensive assessment of water quality to date, and it does offer some good news — or at least, what passes for good news on the environmental beat. For one thing, farmers are doing a better job at reducing runoff: The number of agricultural rivers with pollutants exceeding aquatic life benchmarks decreased from 69 percent to 61 percent, while pollution in mixed-use streams stayed about the same.

The study also demonstrates how effective federal regulators can be at reducing pollutants — and how slow they are to catch up with real-world conditions. Diazinon, for example, a commonly used pesticide in the '90s that's toxic to bees and birds, was phased out of residential use by the Environmental Protection Agency in 2004. Levels in waterways have since dropped dramatically. Yet for each toxin removed, dozens more are added: Even as the EPA was phasing out diazinon, a new pesticide called fipronil — classified as a "possible human carcinogen" — began showing up in high concentrations in urban streams, apparently in runoff from gardeners.



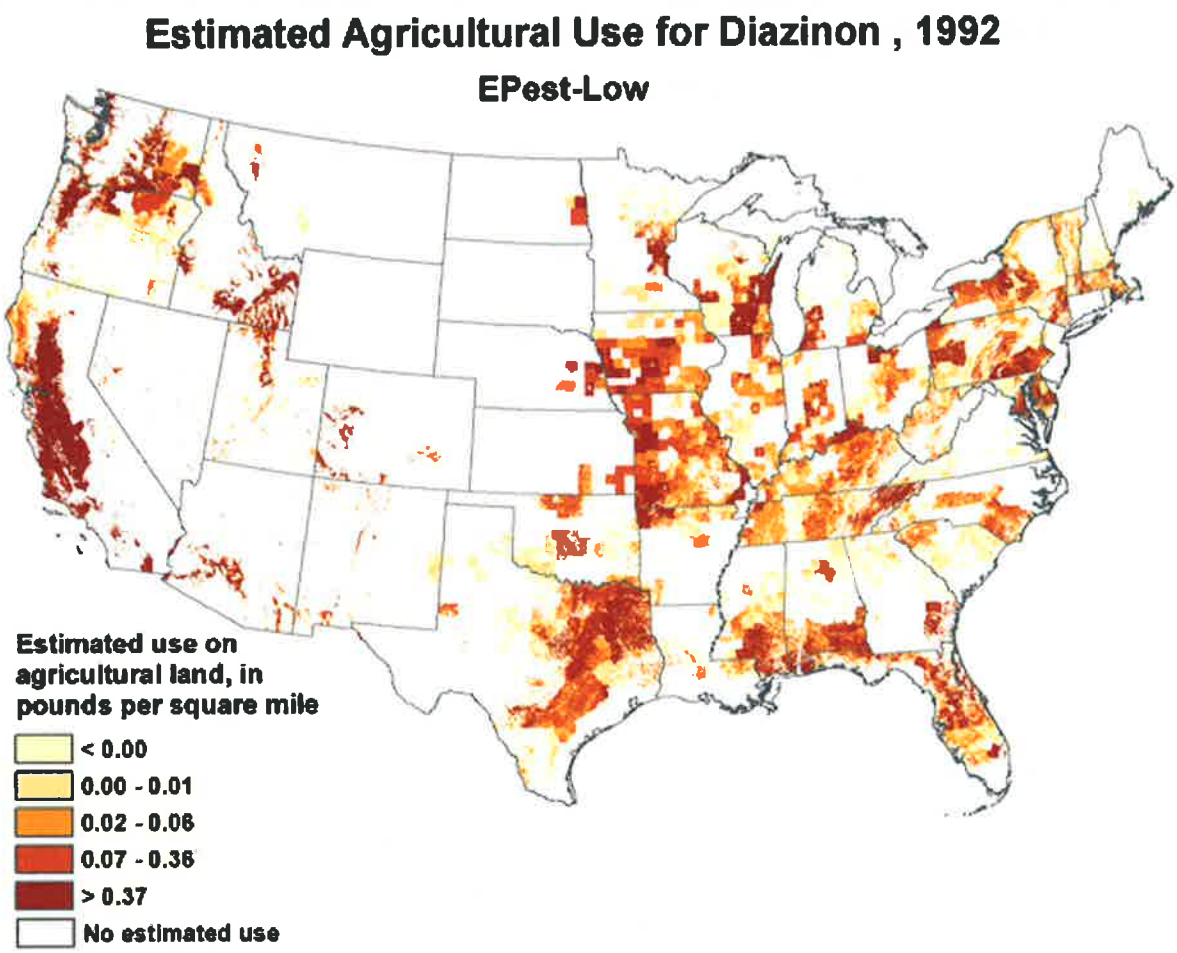
USGS National Water Quality Assessment Program

Altogether, some 15,000 new chemical compounds identified in patents and academic literature are added to the federal database of the American Chemical Society every day, and the "EPA simply cannot keep pace," writes

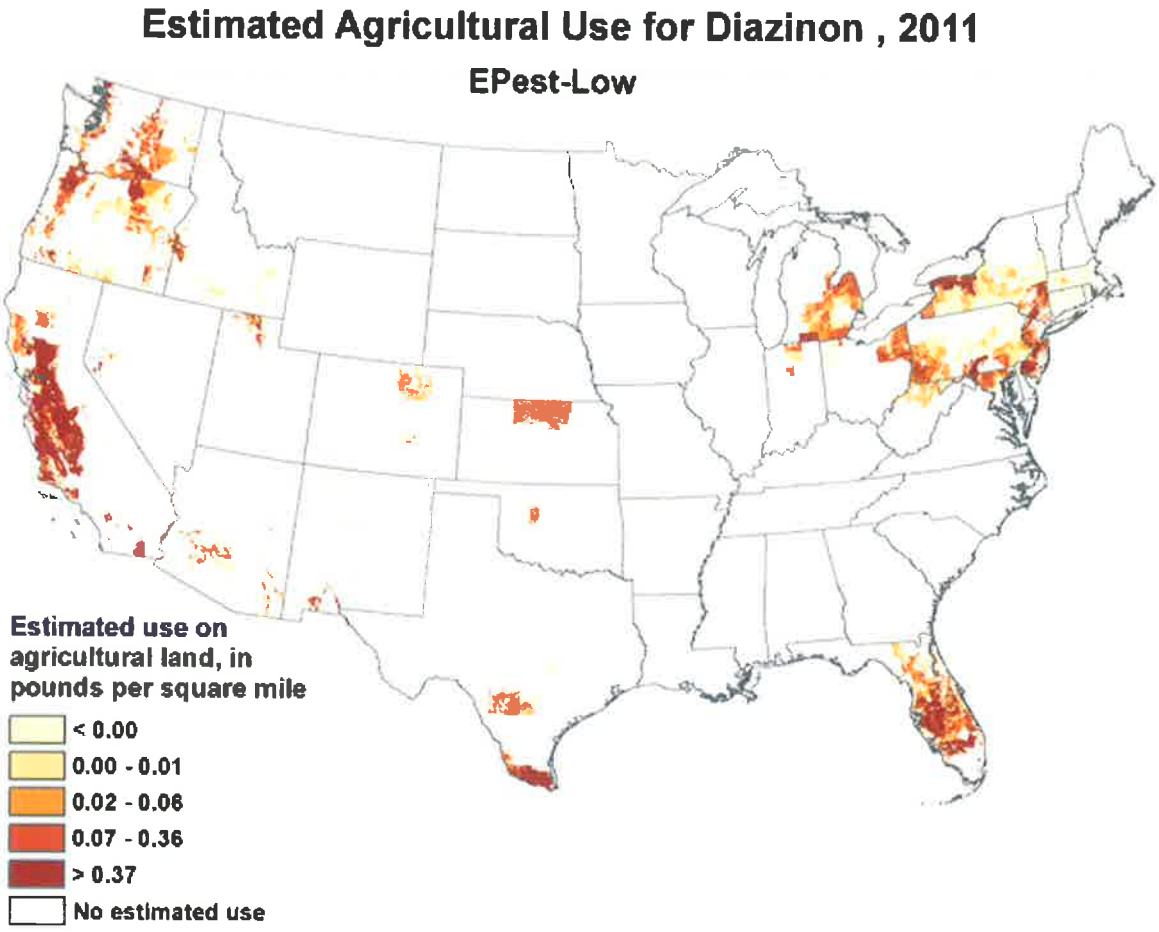
Jerald L. Schnoor, editor-in-chief of the society's Environmental Science and Technology journal. "Their budget is in decline and the list grows exponentially."

The EPA isn't the only federal agency that can't keep pace. Due to "resource constraints," the USGS study was only able to monitor about half of the 400 herbicides and pesticides widely used in U.S. agriculture, meaning that serious pesticides like neonicotinoids — linked to widespread bee decline and banned in Europe — weren't included in water quality assessments. Nor were unregulated chemicals used by oil and gas companies.

Plus, even as the public health organization NSF International recently found that 87 percent of Americans are concerned about trace pesticides in their water and the USGS report credited the reduction of pesticide pollution to EPA regulations, the U.S. House of Representatives is quietly working to reduce the EPA's ability to regulate stream pollution. On July 31, the House passed Ohio Republican Bob Gibbs' "Reducing Regulatory Burdens Act," which would allow regulated pesticides to be dumped into navigable waterways without a permit. On Sept. 11, it followed suit with Florida Republican Steve Southerland's "Waters of the United States Regulatory Overreach Protection Act," which would exempt seasonal streams and some tributaries from Clean Water Act protections. Both bills stalled in the Senate.



USGS Pesticide National Synthesis Project



EPA regulations led to a vast decrease in the use of diazinon, toxic to birds and bees, over two decades.

Krista Langlois is an editorial fellow at High Country News. *She tweets @KristaLanglois2.*

SHARE

Water | *U.S. Environmental Protection Agency* | *Pollution* | *Public health* | *New Research*

More from Water

Flash flood chaser ›

Don't drink the water ›

County commits up to $10,000 annually to proposed three-year groundwater study

by Jeff Richards
Contributing Writer

a month ago | 1418 views | 0 | 41 | | Subscribe

The Grand County Council has officially signed on as a contributing participant for a proposed three-year groundwater study to be overseen and conducted by the Utah Division of Water Rights and the U.S. Geological Survey (USGS), with the cooperation of other state and local agencies.

The total price tag for the study, which is projected to be conducted from 2015 until 2017, is approximately $532,000, Patrick Lambert of the USGS's Utah Water Science Center told the county council during a presentation at its regular meeting on Tuesday, Sept. 16.

Of that total, USGS will contribute 40 percent, with the State of Utah pledging another 22.6 percent. The organizers of the study are asking various stakeholder agencies to come up with the remaining 37.4 percent.

Grand County became the first such participant to officially commit, pledging up to $10,000 annually for the three-year duration of the proposed study. The Grand County Council voted 7-0 to approve the measure on Sept. 16.

The Grand Water and Sewer Service Agency's board members are scheduled to vote on making a similar formal commitment at their Sept. 18 meeting. The GWSSA board first viewed a presentation about the study July 29, as reported in the July 31 issue of The Times-Independent.

Other possible funding participants that have been or are being approached include the Utah School and Institutional Trust Lands Administration (SITLA), Moab city, and San Juan County.

Lambert said the new study will utilize the latest technology and measurement resources to refine the estimates made in previous hydrological studies of the area's water system, particularly in areas where discrepancies have been noted.

The main goal is to develop a new "water budget" and improve the overall understanding of the region's aquifer system, he said.

Particular attention will be paid to groundwater recharge and discharge, which Lambert's presentation likened to monetary deposits and withdrawal.

"Balancing a water budget is like balancing your bank account," he said.

Share This Article | 8+1

similar stories

City agrees to provide funding for water study | 28 days ago
My View Short-term rentals: Enforce the law or change it | 21 hrs ago
Castle Valley Comments October 23, 2014 | 21 hrs ago
Local candidates face off at Civics on Center forum | 14 days ago
My View It's not tourism vs. industry, it's tourism and industry... | 21 days ago

report abuse...

Express yourself:

FOX 13

Update: Toxic blue-green algae in Utah Lake contributed to dog's death

POSTED 11:40 AM, OCTOBER 7, 2014, BY ASHTON EDWARDS AND ROBERT BOYD, *UPDATED AT 01:23PM, OCTOBER 14, 2014*

UPDATE: Preliminary reports show toxic blue-green algae in Utah Lake may have contributed to a dog's death earlier in October.

According to the Department of Environmental Quality, the dog may have died from a heart abnormality and the toxic algae may have contributed to the death.

Also, newer test results from Utah Lake's water show levels of the toxin are declining.

The Department of Water Quality will reevaluate the algae this week to determine if additional monitoring is needed.

Follow

PROVO, Utah – The Utah County Health De| ;oers and pets.

Officials have confirmed a dog died after suspected exposure to toxic blue-green algae in Utah Lake near the Lindon Marina.

Courtesy: Utah County Health Dept.

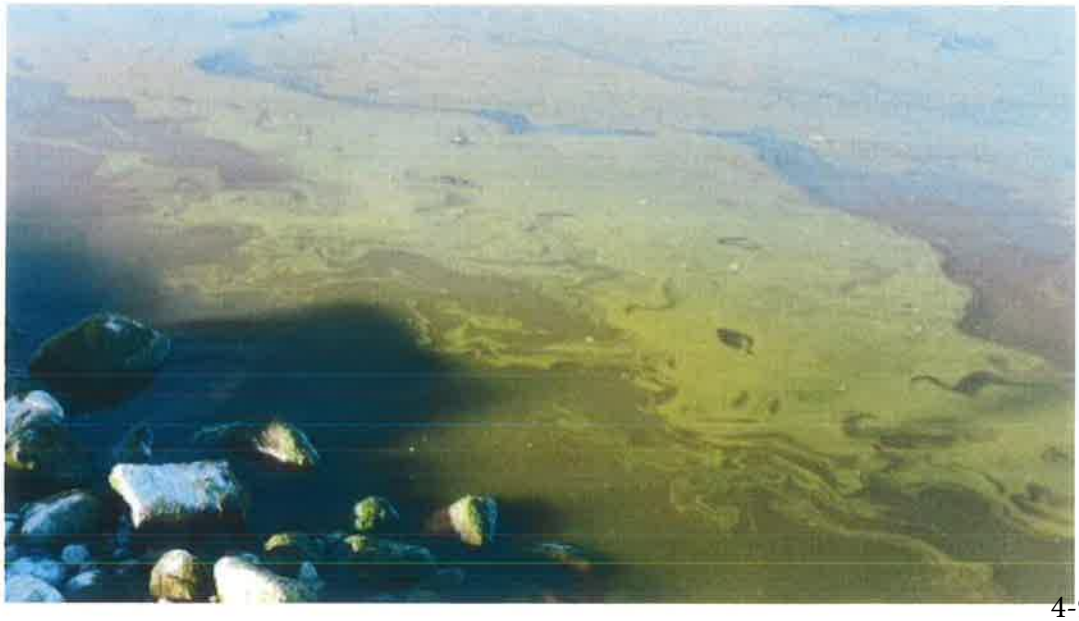
The toxin is a by-product of blue-green algae, or "pond scum," that has collected in the area.

Authorities are warning swimmers and boaters to avoid areas with the bright green algae growth.

Don't allow your pets in the area either.

"The dog owner reported that after playing in the water, and probably drinking some, it started to exhibit strange behavior within 45 minutes including lethargy and vomiting. The dog passed away shortly after that," Dr. Joseph Miner said, Utah County Health Department (UCHD) Director. "Blue-green algae can grow quickly in what are called 'blooms' and can collect in slow-moving or stagnant water areas."

Utah Department of Water Quality program manager Carl Adams said, "The water is the color of car radiator antifreeze; it has a very distinctive color and should be avoided."



Adams said the algae blooms can last for days or weeks

depending on weather conditions.

Courtesy: Utah County Health Dept.

"Calm, warm and sunny conditions promote blue-green algae growth, so it is possible the bloom will persist at least through the weekend given the high pressure system currently over northern Utah," Adams said.

He said the toxic chemicals aren't produced all the time and there is really no easy way to tell if the algae is producing them.

Visitors of Utah Lake are taking the county's warning serious.

"All my grandkids are coming on Friday and that's why we walked down to the beach we thought this would be a fun thing for them to play in and stuff," said Gwen Heslington.

Heslington quickly changed her mind after finding out about the toxic algae, which was present in about a half-acre of the lake.

"So we just kind of did an about face and walked back, we didn't go to the lake," Heslington said.

Fisherman Brian Chambers usually likes to eat the fish he catches in the lake, but not now.

"I don't think I'm going to the rest of this year," Chambers said. "No, not after hearing that a dog died that's kind of serious."

McKenzie Wall was boating with a friend, and said often they would also swim in the lake, but on Tuesday they stayed in the boat.

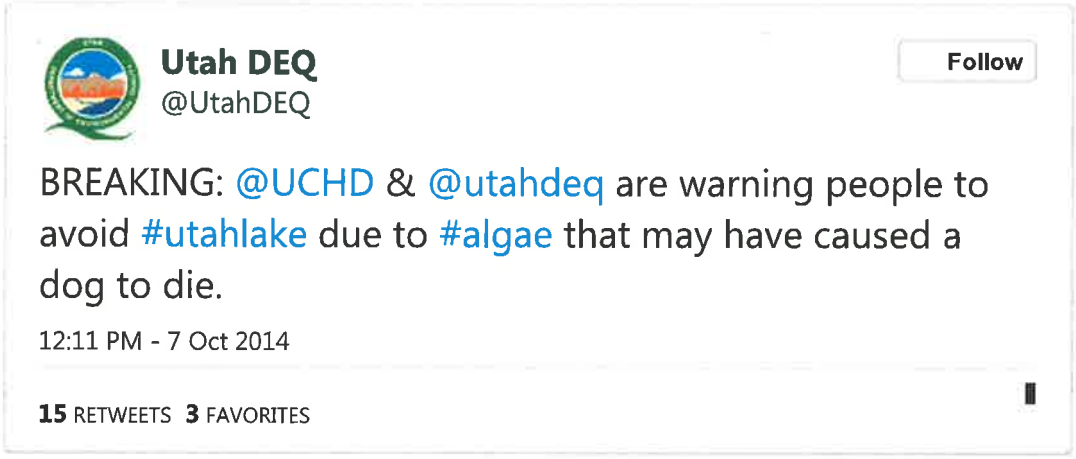
"Like it will get on you and then ahhhh it's gross," Wall said.

The symptoms people usually have after being exposed include:

- Stomach cramps
- Diarrhea
- Vomiting
- Headache
- Fever
- Muscle weakness
- Difficulty breathing

Health officials said if you think you may have been exposed, you should immediately contact your doctor.

MORE: Get complete information on the toxin from the CDC here



Family's dog killed by Utah Lake algae

By Amy Joi O'Donoghue October 7th, 2014 @ 11:59pm

Amy Joi O'Donoghue

PROVO — A dog that played in Utah Lake and most likely drank some of its water died from exposure to blue-green algal toxin, leading authorities to issue public warnings Tuesday for swimming and boating in impacted areas.

Utah County Health Department officials said they were notified after the dog died when it became exposed to the toxin in Utah Lake near the Lindon Marina.

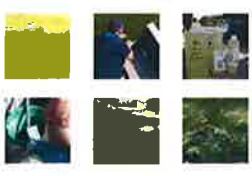
Commonly called "pond scum," the blue-green algae has built up in the area near the marina and is creating bright green areas that should be avoided by boaters and swimmers, health officials said.

"The dog owner reported that after playing in the water and probably drinking some, it started to exhibit strange behavior within 45 minutes, including lethargy and vomiting. The dog passed away shortly after that," said Dr. Joseph Miner, director of the Utah County Health Department.

38 Comments

Post or read comments

Photo Gallery »



10 pics »

Most Popular

Read Commented Sports Deseret News

1. Possible 'consequences' weighed after ...
2. Police seeking public's help to identify ...
3. 1 confirmed dead after motorcycle ...
4. Man arrested after poaching buck deer, ...
5. 4 arrests made in connection to shooting ...

Latest Videos

4 car, 2 bus accident leaves 2 in serious condition
Posted Oct 23rd - 10:48pm
Tweet/Share

Utahns celebrate holidays, birthday with terminally ill boy
Posted Oct 23rd - 10:38pm
Tweet/Share

Police seeking public's help to identify recurring graffiti problem
Posted Oct 23rd - 10:32pm
Tweet/Share

Possible 'consequences' weighed after officers' racy photo shoot
Posted Oct 23rd - 10:28pm
Tweet/Share

Family celebrates anniversary of survival of shaken baby, pushes for awareness
Posted Oct 23rd - 10:15pm
Tweet/Share

Iron County finds creative way to get a new ambulance
Posted Oct 23rd - 7:51pm
Tweet/Share

"Blue-green algae can grow quickly in what are called 'blooms' and can collect in slow-moving or stagnant water areas."

Water quality officials stress that algae blooms may be in other areas aside from the Lindon Marina, so precautions should be taken.

"Individuals should not swim or boat in areas of bright green water," said Carl Adams, Utah Department of Water Quality program manager. "The water is the color of car radiator antifreeze. It has a very distinctive color and should be avoided."

State water quality scientists have taken samples from Utah Lake and are awaiting official results to confirm the presence of cyanobacteria, department officials said Tuesday.

The bluish-green scum is not actually a true algae but a photosynthetic bacteria called cyanobacteria.

Cynobacteria grows when temperatures are high, the water is calm and flourishing with nutrients.

"75 percent of the nutrients could be prevented from flowing into the lake.The nutrients come from local waste water treatment plants," Walt Baker with the Utah Department of Water Quality said.

Symptoms of toxin exposure — which ultimately impact the brain and liver — include stomach cramps, diarrhea, vomiting, headache, fever, muscle weakness and/or difficulty breathing.

The Centers for Disease Control and Prevention said reports of cyanobacteria poisonings date back to the 1800s. Because they grow in recreational and drinking water, the Environmental Protection Agency added them as a priority for investigation as a drinking water contaminant.

Environmental scientists with the Utah Department of Water Quality were on the lake Wednesday taking samples at various locations.

Scientist Robert Bird checked other aspects of the water. He found that the oxygen levels in the water are outside of a normal range.

"Oxygen levels when you get a bloom like that are fairly high and that is an indicator that you have algae growth going on," he said.

Ultimately, the weather will be a leading factor in how long the algae bloom remains in Utah Lake, but until it is gone, the precautions will remain in effect.

Contributing: Paul Nelson, Devon Dolan and Sam Penrod

Site Index

Dog dies after swimming in Utah Lake; toxin warning issued

By KRISTEN MOULTON (/staff/?ID=18) | and BOB MIMS The Salt Lake Tribune CONNECT (/staff/?ID=18)

First Published Oct 07 2014 05:16PM • Last Updated Oct 15 2014 02:18 pm

(http://www.sltrib.com/news/1681075-158/utah-algae-lake-department-health-green?pid=1875237)

Courtesy of Utah County Health Department Toxic algae is being blamed for a dog's death at Utah Lake.

ARTICLE PHOTO GALLERY (5)

(/csp/mediapool/sites/dt.common.streams.StreamServer.cls?
STREAMOID=zAY$EIWmBRCOUuFYzAvl_M$daE2N3K4ZzOUs[illegible]
&CONTENTTYPE=image/jpeg)

(/csp/mediapool/sites/dt.common.streams.StreamServer.cls?
STREAMOID[illegible]
&CONTENTTYPE=image/jpeg)

(/csp/mediapool/sites/dt.common.streams.StreamServer.cls?
STREAMOID=AwHotaIJp8gE7PzG3qF4g8$daE2N3K4ZzOUsq[illegible]
&CONTENTTYPE=image/jpeg)

(/csp/mediapool/sites/dt.common.streams.StreamServer.cls?
STREAMOID[illegible]
&CONTENTTYPE=image/jpeg)

(/csp/mediapool/sites/sltrib/pages/printfriendly.csp?id=1681075)Share This Article

Stay out of the (scummy) water.

That's the word from the Utah County Health Department, which reported Tuesday that a dog died over the weekend after playing at Utah Lake's Lindon Marina and drinking water contaminated by blue-green algae toxin. The algae, cyanobacteria, (http://health.utah.gov/epi/diseases/blue_green_algae/factsheet.pdf) are sometimes called "pond scum."

TheLabrador retriever apparently became lethargic and started vomiting about 45 minutes after playing in the lake, and died soon after, the health department said in a news release.

Dogs are often vulnerable (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3798876/) because they swim in ponds and lakes.

Toxins that sometimes are a byproduct of blue-green algae are suspected in the dog's death. Water samples were sent Tuesday to a laboratory to confirm the presence of a toxin in Utah Lake.

It was unclear whether the dog's death is the first reported in Utah, but Carl Adams, Utah Department of Water Quality program manager, said blue-green algae were also the culprit when three cows and 15 calves died (http://www.sltrib.com/utah/ci_2412201) 10 years ago. The cattle were drinking from Matt Warner Reservoir in northeastern Utah.

It also caused problems this summer at Lake Erie. (http://www.nytimes.com/2014/08/07/science/cyanobacteria-are-far-from-just-toledos-problem.html?_r=0)

Cyanobacteria is not on the list of illnesses that doctors, hospitals and veterinarians are required to report, said Cyndi Bemis, a Utah Health Department spokeswoman.

The Utah County Health Department advises humans to stay out of areas of the lake where algae drift on the surface or are pushed by wind into coves, marinas, or other still or stagnant water.

"The first advice is don't drink the lake water. Period," said Lance Madigan, a county health department spokesman. "Stay away from the fluorescent green floating stuff."

The lake has several beaches, he said, but water-skiing and jet-skiing are less common now that temperatures are cooler.

The blue-green algae blooms have been reported in recent days at the Lindon Marina and Utah Lake State Park in Provo.

Blooms can come and go day by day, and it's not obvious when they are producing toxins, Madigan said.

Algae develop and die off as a natural part of the lake biology, occuring most often in late summer or early fall, Adams said, and surface in many bodies of water in Utah.

"The bright green coloring of the water is actually a photosynthetic bacteria that grows quickly when given sunlight and nutrients such as phosphorus," he said, according to the news release.

He likened the color of the algae to car radiator fluid.

» Next page... (/csp/mediapool/sites/dt.cms.support.rewrite.cls?page=2)

One page (?fullpage=1) 2 (/csp/mediapool/sites/dt.cms.support.rewrite.cls?page=2)

Share This Article

Herald | MEDIA

Residents warned to avoid green algae in Utah Lake after dog's death

Gabby Prenatt and Kaylee Wood of Lindon canoe near the Lindon Marina on Tues, Oct. 7, 2014. An algae field blooming in Utah Lake prompted local health officials to issue a warning when a dog died after exposure to the green slime. SAMMY JO HESTER, Daily Herald

October 07, 2014 9:00 pm • Cathy Allred Daily Herald 1

LINDON -- An algae field blooming in Utah Lake prompted local health officials to issue a warning after a dog died from exposure to the green slime.

The Utah Department of Health issued a warning to anyone swimming or boating in Utah Lake to avoid the areas of bright green algae growth.

A dog named Drake, a black Labrador, died soon after

Related Galleries

Photos: Utah Lake algae bloom

playing in and lapping lake water near the Lindon Marina last weekend.

Health officials are cautioning people to avoid bright blue-green water and warn that ingesting the funny-colored water can lead to serious health issues, including death.

"It is such a bright green-blue that it probably looks more toxic than it is, although it is definitely toxic," said Dr. Joseph Miner, Utah County Health Department (UCHD) director. "I thought it had been Photoshopped to create that color; it was just a defined area of about a half an acre."

Drake died because of the cyanobacteria algae's toxicity. In less than an hour after he played in the lake water, the dog began exhibiting symptoms of lethargy and vomiting. Less than 15 minutes later, Drake died, according to the Utah County Health Department.

"It does have that potential to be dangerous," said UCHD spokesman Lance Madigan.

It is not common for humans to die from the algae blooms -- most people avoid swimming in the bright green-blue water, Miner said.

Ron Madson operates the privately owned Lindon Marina and said he has put in a call to the Environmental Protection Agency to find out more facts about the current algae bloom.

"I'm not worried about business because the season is already over," Madson said. "There are not a lot of people swimming around the shore."

Symptoms of toxin exposure include stomach cramps, diarrhea, vomiting, headache, fever, muscle weakness and/or difficulty breathing. Those who think they may have been exposed should see a doctor immediately, go to an instant or urgent care facility or visit an emergency unit.

Those with questions about algae poisoning should call Poison Control at (800) 222-1222.

Division of Water Quality determines algae found in Utah Lake is toxic

PROVO -- Algae found in Utah Lake has been determined by the Division of Water Quality (DWQ) to be toxic to humans, pets, wildlife and fish. Read more

You can swim, but don't drink

The toxic algae level in Utah Lake is dissipating, and it is now considered safe to go back in the water. Read more

Lindon Harbor closed as algae returns

LINDON -- A reprieve for Utah Lake was short lived as the Utah County Health Department has closed the Lindon Harbor because of concentrations... Read more

Cyanotoxin Symptoms

Stomach cramps

Diarrhea

Headache

Fever

Muscle Weakness

Respiratory Distress

Pulmonary Distress

If you are exhibiting one or more of these symptoms after swimming in Utah Lake, see a doctor immediately.

The algae doesn't commonly bloom until late summer or early fall. It can grow quickly and can collect in slow-moving or stagnant water areas. Other blooms have and do take place in any area of the lake, said Carl Adams, Utah Department of Water Quality program manager.

With the right combination of wind, temperature and bacteria, the blooms can be as big as 50-100 acres on the surface of the lake water, and last from a few days to a few weeks, Adams said.

The toxin is a byproduct of blue-green algae -- called cyanotoxin and sometimes referred to as "pond scum." Even with the colorful bloom, the algae doesn't always produce toxic compounds.

Adams said there is no easy way to tell when the algae is producing toxins and when it is not. Additional testing is being done to confirm the presence of algae toxin in Utah Lake.

"We have not verified toxic yet, but all indications show that it is," Adams said, adding the biggest indicator was the dead dog.

More on the naturally occurring algae blooms can be found at the Center for Disease Control and

Utah Lake algae toxin kills family's dog

By Amy Joi O'Donoghue, Deseret News

Published: Tuesday, Oct. 7 2014 2:45 p.m. MDT
Updated: Tuesday, Oct. 7 2014 3:33 p.m. MDT

Aerial views of Utah Lake in Utah County on Friday, Mar. 2, 2012.

Kristin Murphy, Deseret News

Summary

A dog died after being exposed to an algal toxin at Utah Lake, leading health officials and state water quality managers to issue a public health warning regarding swimming and other types of exposures. The toxin is a byproduct of blue-green algae.

PROVO — A dog that played in Utah Lake and most likely drank some of its water died from exposure to blue-green algal toxin, leading authorities to issue public warnings Tuesday for swimming and boating in impacted areas.

Utah County Health Department officials said they were notified after the dog died when it became exposed to the toxin in Utah Lake near the Lindon Marina.

Commonly called "pond scum," the blue-green algae has built up in the area near the marina and is creating bright green areas that should be avoided by boaters and swimmers, health officials said.

"The dog owner reported that after playing in the water and probably drinking some, it started to exhibit strange behavior within 45 minutes, including lethargy and vomiting. The dog passed away shortly after that," said Dr. Joseph Miner, director of the Utah County Health Department. "Blue-green algae can grow quickly in what are called 'blooms' and can collect in slow-moving or stagnant water areas."

Water quality officials stress that algae blooms may be in other areas aside from the Lindon Marina, so precautions should be taken.

"Individuals should not swim or boat in areas of bright green water," said Carl Adams, Utah Department of Water Quality program manager. "The water is the color of car radiator antifreeze. It has a very distinctive color and should be avoided."

State water quality scientists have taken samples from

State water quality scientists have taken samples from Utah Lake and are awaiting official results to confirm the presence of cyanobacteria, department officials said Tuesday.

The bluish-green scum is not actually a true algae but a photosynthetic bacteria called cyanobacteria.

Symptoms of toxin exposure — which ultimately impact the brain and liver — include stomach cramps, diarrhea, vomiting, headache, fever, muscle weakness and/or difficulty breathing.

The Centers for Disease Control and Prevention said reports of cyanobacteria poisonings date back to the 1800s. Because they grow in recreational and drinking water, the Environmental Protection Agency added them as a priority for investigation as a drinking water contaminant.

Email: amyjoi@deseretnews.com

Twitter: amyjoi16

Get The Deseret News Everywhere

Subscribe Mobile Facebook Twitter RSS Email

Most Commented

In Utah Across Site

Utahns support bill making clear clergy... 118
Utahns not as strongly opposed to... 97
Love not attending Salt Lake City... 61
GOP senators, congressmen offer support... 44
Group meeting in Salt Lake to plan 2015... 34
Support for statewide nondiscrimination... 19
Owens participates in Rotary Club... 17
Fossil fuels rally planned for Thursday... 17

Recommended Stories

Pollution plan is not flawed
The 10th Circuit Court of Appeals rejected arguments that regulators improperly accepted a pollution plan.

Medical problems
Protect your children from common ailments so that they can enjoy the holiday this year.

National parks vandalized
Investigators are tracking a serial vandal responsible for painting images in national parks across the West.

Comments Leave a comment »

DeseretNews.com encourages a civil dialogue among its readers. We welcome your thoughtful comments.
— About comments

About the Author

Amy Joi O'Donoghue

Amy Joi O'Donoghue is the environmental reporter the Deseret News, specializing in coverage of issues that affect land, air, water and energy development. She has worked here since 1998 and has been an assistant city more ..

Connect:

FOX 13

Update: Toxic blue-green algae in Utah Lake contributed to dog's death

POSTED 11:40 AM, OCTOBER 7, 2014, BY ASHTON EDWARDS AND ROBERT BOYD, *UPDATED AT 01:23PM, OCTOBER 14, 2014*

UPDATE: Preliminary reports show toxic blue-green algae in Utah Lake may have contributed to a dog's death earlier in October.

According to the Department of Environmental Quality, the dog may have died from a heart abnormality and the toxic algae may have contributed to the death.

Also, newer test results from Utah Lake's water show levels of the toxin are declining.

The Department of Water Quality will reevaluate the algae this week to determine if additional monitoring is needed.

Follow

PROVO, Utah – The Utah County Health De| ;oers and pets.

Officials have confirmed a dog died after suspected exposure to toxic blue-green algae in Utah Lake near the Lindon Marina.

Courtesy: Utah County Health Dept.

The toxin is a by-product of blue-green algae, or "pond scum," that has collected in the area.

Authorities are warning swimmers and boaters to avoid areas with the bright green algae growth.

Don't allow your pets in the area either.

"The dog owner reported that after playing in the water, and probably drinking some, it started to exhibit strange behavior within 45 minutes including lethargy and vomiting. The dog passed away shortly after that," Dr. Joseph Miner said, Utah County Health Department (UCHD) Director. "Blue-green algae can grow quickly in what are called 'blooms' and can collect in slow-moving or stagnant water areas."

Utah Department of Water Quality program manager Carl Adams said, "The water is the color of car radiator antifreeze; it has a very distinctive color and should be avoided."

Adams said the algae blooms can last for days or weeks

depending on weather conditions.

Courtesy: Utah County Health Dept.

"Calm, warm and sunny conditions promote blue-green algae growth, so it is possible the bloom will persist at least through the weekend given the high pressure system currently over northern Utah," Adams said.

He said the toxic chemicals aren't produced all the time and there is really no easy way to tell if the algae is producing them.

Visitors of Utah Lake are taking the county's warning serious.

"All my grandkids are coming on Friday and that's why we walked down to the beach we thought this would be a fun thing for them to play in and stuff," said Gwen Heslington.

Heslington quickly changed her mind after finding out about the toxic algae, which was present in about a half-acre of the lake.

"So we just kind of did an about face and walked back, we didn't go to the lake," Heslington said.

Fisherman Brian Chambers usually likes to eat the fish he catches in the lake, but not now.

"I don't think I'm going to the rest of this year," Chambers said. "No, not after hearing that a dog died that's kind of serious."

McKenzie Wall was boating with a friend, and said often they would also swim in the lake, but on Tuesday they stayed in the boat.

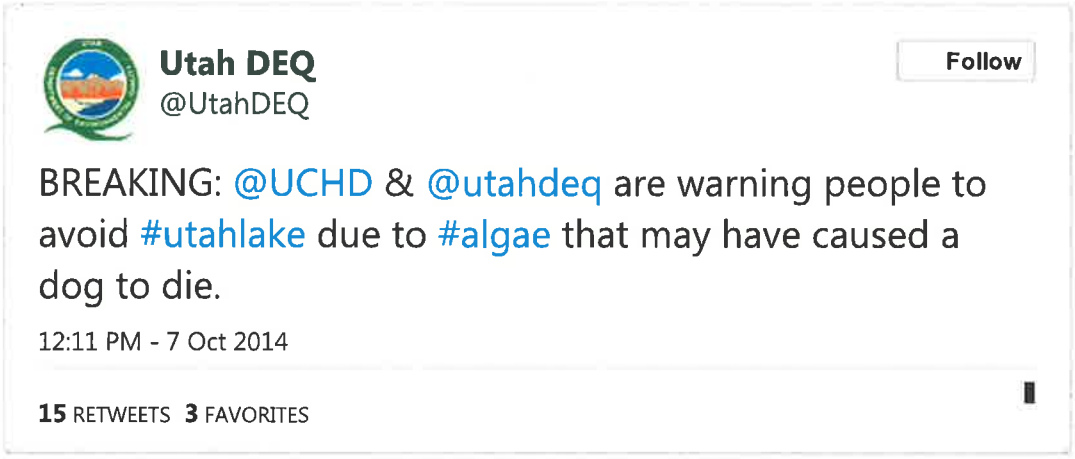
"Like it will get on you and then ahhhh it's gross," Wall said.

The symptoms people usually have after being exposed include:

- Stomach cramps
- Diarrhea
- Vomiting
- Headache
- Fever
- Muscle weakness
- Difficulty breathing

Health officials said if you think you may have been exposed, you should immediately contact your doctor.

MORE: Get complete information on the toxin from the CDC here



Volunteers monitor water quality across Utah

10/08/2014 08:52 PM 10/08/2014 08:56 PM

LOGAN, Utah (ABC 4 Utah) - Much of the water we drink, use for recreation and depend on for farming travels through some of the 89,000 miles of streams in our state. So, how do we monitor that water?

Utah State University is working with others to create an army of water watchers to keep an eye on the quantity and quality of our water.

"This is our water quality probe. So, the first thing we are going to measure is PH and temperature."

Brian Greene knows a lot about Utah water and he loves teaching others how to monitor it.

"Hold it under water this way fill it all the way up."

We caught up with him while he was showing Ru Mahoney from the Stokes Nature Center how to take readings in the Logan River.

"A lot of times we focus on the quantity of water we have - how much water we have. Its important remember that we can have all the bad water, but its actually quality we want. We need clean, healthy water for all our beneficial uses - for fishing for recreation for people drinking water for our farmers and economy," said Greene.

Greene is part of Utah Water Watch, a program put together by Utah State University and the Division of Water Quality to create water watchers throughout the state.

"We have volunteers all across the state who monitor from the Virgin River to in St. George all the way to Bear Lake on the border of Idaho," said Greene.

But Greene says - while the current volunteers have submitted more than 500 reports on rivers and streams this year - the state needs hundreds even thousands more to volunteer.

"We are trying to get them out there collecting real scientific data," said Greene.

Greene says anyone can volunteer.

They will be trained how to do things like measure oxygen levels.

"That looks around 10 - so that 10 milligrams per liter so that is in the healthy range."

Every volunteer is supplied with all the tools they need ... to gather the information... the state needs.

And Greene says the more people out checking our water sources - the more that can be done to protect our water sources.

"We have internal screening - so if it outside of the healthy range were able to flag that data if they're outside the

healthy range we can flag that data and share that with the water shed scientists and the local water coordinator and hopefully they can do something about it," said Greene.

Several hundred people have been trained to be Utah Water Watchers, but Greene says some states have 30,000 volunteers. With 2,050 lakes in Utah and 89,000 miles of streams there is a lot of water to constantly be test.

For more information or to find out how you can volunteer, click here (http://extension.usu.edu/utahwaterwatch/).

USU RT (/tag?tag=USU RT)

You May Like

- 1.  New information may reveal motive in the murder of 15-year-old... a day ago good4utah.com Good4Utah.com
- 2.  Quadruplet mom-to-be has emergency surgery to save babies 18 hours ago good4utah.com Good4Utah.com

Utah Works

APEX FAMILY DENTAL NEEDS YOUR VOTE. (/UTAHWORKS/STORY/D/STORY/APEX-FAMILY-DENTAL-NEEDS-YOUR-VOTE/82306/ZQ12WXJF7ECRPC9SXCNYJQ)

Hello friends. Apex Dental has been a long time friend of ABC4 and they need your help. You can vote today, Tuesday October 21 and Wednesday 22 and then it's over. They are close to winning this contest but they need every vote. I'll show you how...

Utah Works and Little Shop of Horrors at The Grand Theatre (/utahworks/story/d/story/utah-works-and-little-shop-of-horrors-at-the-grand/11421/jcMQcgMc8EuC5irDQU8iEg)

Little Shop of Horrors with Utah Works (/utahworks/story/d/story/little-shop-of-horrors-with-utah-works/50730/u57HbPutQE6k0d_4Q6_0SA)

Utah Works with Gretchen Jensen: The Grand Theatre (/utahworks/story/d/story/utah-works-with-gretchen-jensen-the-grand-theatre/33157/RaoVnbT6-kyno6JOYuMAUA)

Utah Works: Duerden's Appliance (/utahworks/story/d/story/utah-works-duerdens-appliance/38959/6_3IPPA3UEutihwsCeR6Xg)

Utah Works: Duerden's Appliance (/utahworks/story/d/story/utah-works-duerdens-appliance/39135/qu1bfx9zP0qCVOWegc8Uwg)

0

Area of Utah Lake where dog died tests positive for harmful toxin

By Jessica Ivins

October 9th, 2014 @ 3:03pm

Sam Penrod

Jessica Ivins

SALT LAKE CITY — Tests confirm the presence of a harmful toxin in the bright green algae populating Utah Lake, officials with the Utah Division of Water Quality announced Thursday.

Lab results from water gathered at the Lindon Harbor Jetty earlier this week show elevated levels of microsystin, a cyanotoxin found in algae. The toxin is known to cause liver damage and can pose significant risks to humans, wildlife, and fish.

Health officials issued public warnings to boaters and swimmers on Tuesday after a dog died shortly after swimming in the lake. It's likely the dog — which started acting lethargic and vomiting just 45 minutes after the swim — swallowed some of the water affected by the algae,

Officials warned of the danger of the blue-green algae, commonly known as "pond scum," that has built up in the area near the marina. Swimmers, boaters, anglers and hunters are warned to avoid the bright green areas of the lake.

Although algae is a natural part of the ecosystem in the lake, when combined with phosphorus and other conditions, it can produce the toxic algal blooms, officials said.

"In Utah Lake, 75 percent of the phosphorus loading comes from the wastewater treatment plants which discharge into the lake," said Walt Baker, director of the Division of Water Quality. "Reducing nutrient

15 Comments

Post or read comments

Related Stories

Family's dog killed by Utah Lake algae

Most Popular

Read Commented Sports Deseret News

1. Possible 'consequences' weighed after ...
2. Police seeking public's help to identify ...
3. 1 confirmed dead after motorcycle ...
4. Man arrested after poaching buck deer, ...
5. 4 arrests made in connection to shooting ...

Latest Videos

4 car, 2 bus accident leaves 2 in serious condition
Posted Oct 23rd - 10:48pm
Tweet/Share

Utahns celebrate holidays, birthday with terminally ill boy
Posted Oct 23rd - 10:38pm
Tweet/Share

Police seeking public's help to identify recurring graffiti problem
Posted Oct 23rd - 10:32pm
Tweet/Share

Possible 'consequences' weighed after officers' racy photo shoot
Posted Oct 23rd - 10:28pm
Tweet/Share

Family celebrates anniversary of survival of shaken baby, pushes for awareness
Posted Oct 23rd - 10:15pm
Tweet/Share

Iron County finds creative way to get a new ambulance
Posted Oct 23rd - 7:51pm
Tweet/Share

loading into our lakes and streams is our top priority."

Scientists continue to test different sections of the lake for toxins Thursday. Precautions will remain in effect until the algae bloom is gone from the lake. Weather will play a leading factor in its elimination, according to scientists.

Exposure to cyanotoxin can produce symptoms such as headache, fever, diarrhea, abdominal pain, nausea, vomiting and skin rash. Anyone concerned about exposure to the water or algae should contact their doctor, or call the Utah Poison Control Center at 800-222-1222.

"In Utah Lake, 75 percent of the phosphorus loading comes from the wastewater treatment plants which discharge into the lake. Reducing nutrient loading into our lakes and streams is our top priority."

–Walt Baker, Utah Division of Water Quality

Jessica Ivins is a content manager for KSL.com and contributor to the Motherhood Matters section.

Site Index

Energy & Environment

5:47 PM THU OCTOBER 9, 2014

Utah Lake 'Pond Scum" Is Toxic, State Finds

By JUDY FAHYS (/PEOPLE/JUDY-FAHYS)

A view of the microsystin, a toxic bacteria that has made parts of Utah Lake unhealthy, especially for dogs and other animals.
Credit Courtesy: / Utah Division of Wildlife Resources

Listen
1:47

Environmental officials have confirmed (http://www.deq.utah.gov/locations/U/utahlake/algalbloom2014.htm) that levels of toxic algae are elevated at Utah Lake. But they say ordinary activities are fine as long as people steer clear of the bright blue-ish green blooms.

Water tests came back on Thursday showing some of the pond scum on Utah Lake has reached worrisome levels. Environmental officials tested the blue green algae near the Lindon Marina on Monday, after they heard that a dog that had been playing in it died Sunday.

Carl Adams oversees the watershed protection program at the Utah Division of Water Quality, and he says there's a good way to avoid the cyanotoxin that killed the dog.

"If you see icky water, stay away from it," says Adams. "Common sense, really, that if the water does not look good, it probably isn't and you should probably limit your contact with it."

Environmental scientists tested the algae for several types of toxic bacteria. The results

showed a cyanotoxin called microsystin (http://www.cdc.gov/nceh/hsb/hab/) at 11 parts per billion. Utah does not have its own standards for it. But microsystin levels between 6 and 14 in some other states trigger health advisories.

People exposed to too much of the toxic bacteria are most likely to get itchy skin, a headache, fever, diarrhea or difficulty breathing.

But the toxin can make animals sick enough to die. Adams says microsystin can be found in lakes everywhere, and the trouble starts when runoff from fertilizers and other sources pump too much phosphorous into the water.

"But the concern becomes when the concentrations get high enough," Adams says, "and currently the weather conditions here in northern Utah are such that it's very conducive to algae bloom where you have these thick sheens or mats of algae."

One way the state has tried to prevent against these blooms is by limiting the phosphorous content in detergent.

The Utah County Health Department (http://www.utahcountyonline.org/Dept2/Health/Health%20Promotion/Public%20Information/NewsDetails.asp?ID=123827) has teamed up with the state Division of Wildlife Resources (http://State Division of Wildlife Resources) to post advisories around Utah Lake before the weekend.

TAGS: Utah Lake (/term/utah-lake) toxic bacteria (/term/toxic-bacteria) algae (/term/algae)

Related Content:

Environment & Public Lands
State Funding For Catching Carp in Utah Lake? (/post/state-

Environment & Public Lands
Utah Lake Commission Hopes to Speed Up Carp

(Http://Www.Standard.Net)

Tests confirm presence of toxin in Utah Lake

FRIDAY , OCTOBER 10, 2014 - 1:53 PM

"Utah Lake Algae"

Submitted to the Standard-Examiner

LINDON — Lab results for samples collected by the Division of Water Quality at the Lindon Harbor Jetty show elevated levels of microsystin, a cyanotoxin often found in algal blooms.

Levels of this toxin, which can cause liver damage, were detected at 11 micrograms per liter (ug/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 ug/L.

For comparison purposes, public health advisory levels have been set at 6 ug/L in Washington, Ohio, Virginia, and Vermont, and at 10 ug/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."

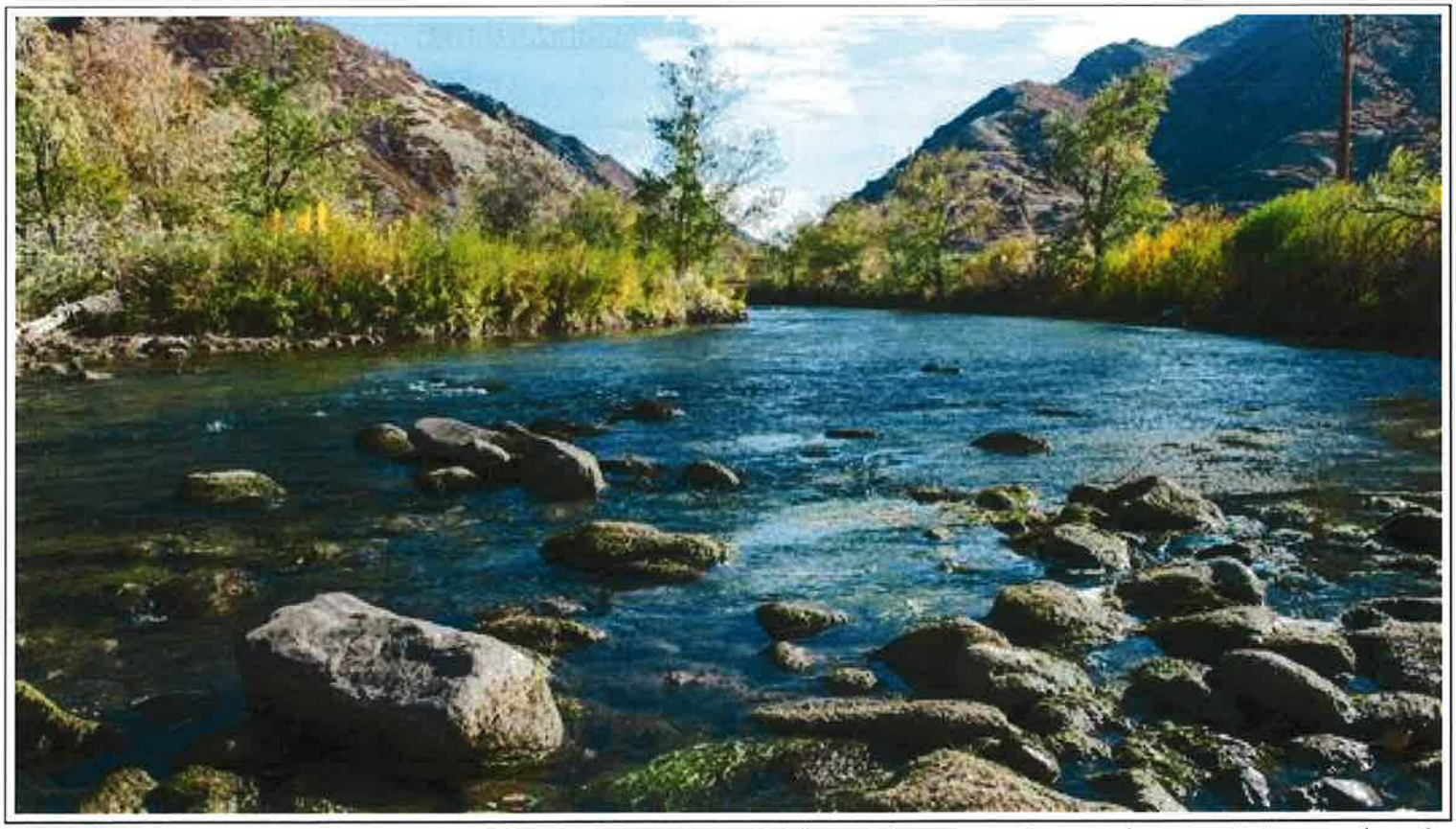
"In Utah Lake, 75 percent of the phosphorus loading comes from the wastewater treatment plants which discharge into the lake. Reducing nutrient loading to our lakes and streams is our top priority, and we are implementing these reductions through our Utah Nutrient Strategy."

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."

POPULAR STORIES FOR ENVIRONMENT



(/Environment/2014/10/23/How-low-can-you-go-Weber-River-running-at-bare-minimum.html)

How low can you go? Weber River running at bare minimum (/Environment/2014/10/23/How-low-can-you-go-Weber-River-running-at-bare-

minimum.html)

RIVERDALE — The Weber River isn't much of one right now. A river, that is. Hikers and anglers along this stretch of the waterway...

(http://www.standard.net)

332 STANDARD WAY, OGDEN UT 84412
801-625-4200 · 1-800-651-2105

FOX 13

Tests confirm toxic algae in Utah Lake; threat to humans, pets, wildlife

POSTED 2:15 PM, OCTOBER 9, 2014, BY ASHTON EDWARDS AND CARLY FIGUEROA, *UPDATED AT 07:39PM, OCTOBER 9, 2014*

PHOTO GALLERY

VIEW GALLERY (2 IMAGES)

SALT LAKE CITY – Officials have just released the test results from the toxic blue-green algae suspected to be growing in parts of Utah Lake.

The results confirm elevated levels of the cyanotoxin from the algae in the lake.

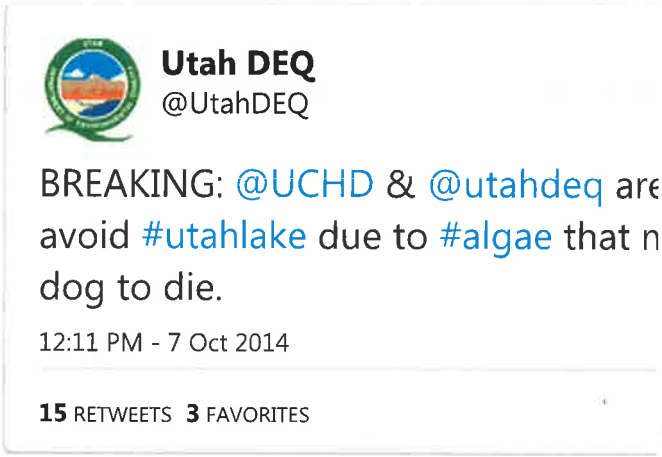
Researchers took water samples from the Lindon Harbor Jetty for the tests.

The toxin can cause liver damage among oth

Follow

nans, pets and wildlife.

Related: Dog dies after exposed to toxic blue



"It is very difficult to predict and assess harmful algae blooms," Walt Baker said, director of the Division of Water Quality. "But what we can control is one of the major contributing factors to algae blooms; nutrients, principally phosphorus."

Officials said elevated levels of nutrients in the water, combined with warm temperatures, abundant sunlight and calm water, can lead to rapid growth of the bright-green blooms.

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

He said environmental scientists from the DWQ are continuing 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.

If you are concerned about your exposure to water or algae, officials said you should contact the Utah Poison Control Center at (800) 222-1222 or your medical care provider.

Symptoms of cyanotoxin poisoning include headache, fever, diarrhea, abdominal pain, nausea and vomiting and sometimes allergic-like reactions from skin contact.

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," Baker said. "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."

Groundwater rule brings wave of protest from Western governors, farm bureau

By Amy Joi O'Donoghue, Deseret News

Published: Saturday, Oct. 11 2014 7:15 p.m. MDT
Updated: Saturday, Oct. 11 2014 7:15 p.m. MDT

A proposal by the U.S. Forest Service to consider groundwater impacts when it issues a special use permit has drawn the ire of Western governors and groups like the Utah Farm Bureau, who contend the agency is overstepping its regulatory authority.

Photos courtesy of Kaye Nelson

Enlarge photo»

Summary

A proposal by the U.S. Forest Service to consider groundwater impacts when it issues a special use permit has drawn the ire of Western governors and groups like the Utah Farm Bureau, who contend the agency is overstepping its regulatory authority.

SALT LAKE CITY — The head of the U.S. Forest Service said the agency is within its rights to prevent contamination of groundwater with a proposed directive that has Western states' governors, the farm bureau and state water right managers alarmed.

Tom Tidwell, who was in Salt Lake City this week attending a global forest science conference, said the proposed directive released earlier this summer is merely an attempt to ensure the agency isn't despoiling water resources.

"We do not want to contaminate groundwater through the decisions we make or the activities we have on the national forests," he said. "We do not want to dewater people's wells, people's springs or impact people's water rights through these activities. The only way we can do that is to evaluate the impact of our activities."

> "It challenges the sovereign water rights of the state, so the beginning point is getting them to recognize this is beyond their authority and get them to withdraw it."
>
> Randy Parker, Utah Farm Bureau

Critics to the proposal — which is an internal policy move that can be acted on at the discretion of the agency — say the administrative change is anything but benign.

"The directive would imperil historic water rights and challenge state authority by seeking to obtain water rights for 'groundwater and groundwater dependent surface water needed by the forest service,'" wrote Randy Parker, executive director of the Utah Farm

Bureau.

Parker and other opponents weighed in with protests on the proposal in a public comment period that ended last week.

In comments from the Western Governors' Association, the group noted the agency is attempting to exert regulatory authority in a domain clearly reserved for the states.

"(These) portions of the proposed directive assume that the service has some type of authority over the management of groundwater, which is does not. ... The USFS does not have the authority to limit the amount of withdrawals authorized by a state. Limiting the quantity of groundwater withdrawals through special use authorizations would, in effect, amount to superseding states' authority to issue water rights."

Tidwell was called on to defend the directive during a congressional meeting earlier this summer and reiterated in an interview that the review of groundwater resources is not a swipe at states' authority.

"I know there has been a concern and I have tried to be very clear that this does not in any way infringe on the states' authority to allocate water," he said.

Tidwell added that there have been instances in the past — particularly with large mining operations — where groundwater has been contaminated or at risk of contamination.

"We have been able to show that we can mitigate those impacts and make sure contamination does not occur," he said, adding that states are "very quick to sue for damages" when contamination has happened.

But Utah State Engineer Kent Jones told state water leaders late this summer that the directive is concerning because of its potential to impact thousands of water rights held by individuals and cities.

If a permitted use under review by the Forest Service is deemed to put at risk groundwater resources, the concern is the agency could take action that would impair the right to use that water, Jones said.

Critics say such interference would have far-reaching effects.

"Recognizing that 70 percent or more of Utah's water falls as rain and snow on National Forest Service administered lands, the proposed directive would create uncertainty for water rights and their approved beneficial uses across the state," Parker wrote.

Parker said groups are going to continue to put pressure on the agency to pull back its proposal.

"It challenges the sovereign water rights of the state, so the beginning point is getting them to recognize this is beyond their authority and get them to withdraw it," he said, adding there may be legal options that are pursued if the agency does not.

Email: amyjoi@deseretnews.com, Twitter: amyjoi16

(Http://Www.Standard.Net)

After toxin found, caution stressed in water bodies statewide

FRIDAY , OCTOBER 10, 2014 - 5:23 PM

"Utah Lake Algae"

(/profile?userid=851&lname=Larsen&fname=Leia)

Leia Larsen

Outdoor Reporter

(/profile?userid=851&lname=Larsen&fname=Leia)

A dangerous toxin has bloomed in Utah Lake, and according to local health officials, nutrient loads are a concern throughout the state.

The Utah Division of Water Quality confirmed high levels of microsystin, a bacterial toxin in Utah Lake on Oct. 9. The toxin is often found in algal blooms and can cause liver damage, according to a Utah DWQ press release. Officials were alerted to the Utah Lake toxin after a dog became sick after swimming in its waters and died.

While no other cases of the toxin have been confirmed in the state, DWQ officials caution all swimmers, boaters, anglers and other recreationists to be careful in open water.

"These things are episodic, and depend on conditions in a water body," said Leah Ann Lamb, assistant water quality director at Utah DWQ.

Utah Lake is shallow, and local water treatment plants discharge nutrients to the lake. Recent sunshine, calm waters and warm temperature combined to make the perfect cocktail for the microsystin to flourish in the lake.

"People need to know that natural water is not chlorinated, so there's a natural risk when you're in outdoor water," Lamb said.

Lamb said no other cases of the toxin have been reported in the state, including in northern Utah, but said toxic blooms can happen any time and are often handled by local health departments.

"It's a large state," she said. "No one is sitting at each lake and stream, sampling every day."

Officials with the Weber-Morgan and Davis County health departments said they were not aware of any issues in local waters, but noted they do not regularly test for bacterial toxins.

"We did sample in the summer, but once the water season is over, we don't usually sample," said Lori Buttars with the Weber-Morgan Health Department.

According to Bob Ballew with the Davis County Health Department, water is not regularly tested in the area.

"If we saw a large blue-green algae bloom, we would test for it," he said, "but we're not seeing it anywhere."

The Standard-Examiner also contacted the Bear River Health Department for updates, but calls were not immediately returned.

Not all algal blooms are toxic, and algae are often a natural part of many freshwater bodies. Still, Lamb warned outdoor water-lovers to be aware.

"After being in a river or lake, wash your hands," she said, "especially if the water is green and gunky."

Symptoms of cyanotoxin poisoning include headache, fever, diarrhea, abdominal pain, nausea and vomiting. Occasionally swimmers can have skin reactions from contact with contaminated water. Individuals concerned about exposure should seek medical attention or contact the Utah Poison Control Center at 800-222-1222.

Utah currently doesn't have public health standards developed for the toxin, which is also sometimes called blue-green algae, but is actually photosynthetic bacteria. States such as Washington, Ohio, Virginia and Vermont have set a standard of 10 micrograms per liter, or ug/L. Levels in Utah Lake were found at 11 ug/L. Lamb said the state is currently working on developing its own standards for the bacteria.

"It's an emerging science," she said. "We do have standards for E. coli, which is an indicator of potentially unhealthy water."

The state is also working on standards to mitigate one of the sources causing the toxin – high nutrient loads.

"The situation down at Utah Lake is, wastewater treatment water drains to the lake," she said. "That's us flushing our toilets, so everyone's in this game of excess nutrients."

Wastewater treatment plants will need to adopt new standards on the most common source of household nutrient pollution, phosphorus. In Utah Lake, 75 percent of the phosphorus loading comes from wastewater treatment plants. A new law for stricter standards throughout the state is currently in review, and expected to become law by November or December.

"The state is addressing this, but we're not there yet," Lamb said.

Posted: Saturday, October 18, 2014 7:15 pm

By Shannon Nielsen |

With the EPA starting to audit counties and cities for stormwater violations, Cache County is trying its best to get a stormwater plan together.

Zan Murray of JUB Engineers presented the Cache County Council with the beginnings of a plan for stormwater regulation during a council meeting Tuesday.

"If you can see a common theme in here, it's paperwork," he said. "It's inspections; it's cooperation, agreements; it's a lot of paperwork."

The big problem the EPA is seeing when doing audits, he said, is proper paperwork and documentation of what's happening. That is why they are focusing on areas with the most stormwater pollution and trying to prevent it, he said.

Murray added that the key for Cache County is to create an organized plan.

"It takes a lot of time in order to enact this all," he explained.

Josh Runhaar, the county development director, said the next steps are the 30 day comment period and a public hearing to review any comments.

"We're trying to have at least this first step in place by the end of the year," he said. "This is going to be a long process still."

This program and the plans, he said, are aimed at staying in compliance with the EPA's stormwater regulations, which have been more strictly enforced in recent years. Hyrum was audited about 10 years ago, he said, which was very costly. Providence has been audited recently, and though the results aren't out yet, they are likely not good, he said.

rces, energy, and I don't even have the entire scope of what it's

id, they're not inexpensive. The potential is up to $32,000 per

said, which is why they are working to stay in line with the EPA.

"Compliance is not a request," he said. "We are trying to be efficient and effective."

snielsen@hjnews.com

Twitter: @evelccm9

More about **Environmental Protection Agency**

- **ARTICLE**: Ballot box rematch: Donna McAleer, Rob Bishop discuss issues
- **ARTICLE**: Satellite sees hot spot of methane in Four Corners area
- **ARTICLE**: What's up with that? High gas prices explained
- **ARTICLE**: USU scientist discusses concerns with EPA's regulation of pesticides

More From This Site

- Police: Logan man who called himself Jesus connected to two sexual abuse

(Http://Www.Standard.Net)

How low can you go? Weber River running at bare minimum

THURSDAY , OCTOBER 23, 2014 - 3:51 PM

"Photo showing the water level of the Weber River at the mouth of Weber Canyon on October 23, 2014.

(/profile?userid=25&lname= Saal&fname=Mark)

Mark Saal

Columnist

(/profile?userid=25&lname= Saal&fname=Mark)

RIVERDALE — The Weber River isn't much of one right now. A river, that is.

Hikers and anglers along this stretch of the waterway through Riverdale say the Weber is as low as they've ever seen it. One fly fisherman on Wednesday afternoon illustrated the point nicely. Although he'd been wading in the river, only the bottom couple of inches of his jeans were wet.

"It is low, you weren't imagining it," said Tage Flint, general manager of the Weber Basin Water Conservancy District. "The flows go way down as soon as the irrigation season ends. Agriculture no longer uses the water, and we stop making releases from the dams on their behalf."

However, while the river is lower each fall after that irrigation season ends, Flint admits this year may be seeing slightly lower flows than usual.

"It may be a little more noticeable this year, because some users downstream who usually use water into November aren't using it now," he said. "This year, with the dry conditions, they began relying on irrigation earlier in the season, so their water rights have ended early this year."

As a result, Flint says water managers are running the least possible amount of water allowed out of Echo Reservoir.

"We're right down to the minimum fish load — the minimum water release to keep the fish happy," he said.

Water flow is measured in CFS, or cubic feet per second. Whereas a typical flow throughout the summer on the Weber River is somewhere between 600 and 900 CFS — and during spring runoff it could be much higher at "several thousand CFS," according to Flint — right now the flow on the river is around 50 to 100 CFS.

Flint says the river may also seem lower than in past years because this fall has been so warm.

"Maybe it's because it's seemed so summer-like the last few weeks," he suggested. "We're not used to seeing water flows that low in weather this good."

Paul Thompson, the Division of Wildlife Resources Northern Region Aquatics Manager, says the Weber River is fairly low right now, but it's not too far off where it's been in years past.

"I see it like this many falls," he said.

However, Thompson does concede that the typical low flows this time of year may have arrived a bit earlier this time around.

That's the way Ben Sant sees it as well. Sant has been fishing the Weber River since he was 5 years old.

"I was given a fly rod when I was little," the 31-year-old Ogden man said. "I grew up on that river."

Sant says, in his experience, the Weber River is running a bit lower, a bit earlier, than usual.

"This is running at a level we usually see by December or January," he said.

Sant laments the human impact on the Weber River, due to the "needs of man."

"The attention goes to irrigation, before the ecosystem or health of the river," he said.

Sant also says fly fishermen actually prefer these lower water levels; it drives the fish to congregate in the deeper pools.

"It's decent fishing right now," Sant says. "Fishermen actually prefer the lower water. You have these little honeypots, if you will, where all the fish are."

But Sant also knows the river's flow doesn't have anything to do with what's good for fishing — or the fish.

"Unfortunately, when it comes down to fish or irrigation, irrigation always wins," Sant said.

But Flint believes dams have been beneficial to the fish on the river. Without dams, it's possible in a severe drought that the Weber River would run even lower and could result in fish kills.

"That's another product of dams and water projects," Flint said. "It keeps the fishing flow up. The concept is that these are consistent flows regardless of the water year we have."

Stan Hadden, the former Weber Riverkeeper who is currently volunteering as the environmental affairs officer for Riverdale City, says it's obvious, looking at the river, that water managers have dialed the Weber back to its lowest allowable flow.

"That's what they're doing, releasing the minimum amount of water to sustain life on the river," he said.

Hadden understands the need to control rivers so they don't cause extensive damage to homes and property, but he also worries there are some who would try to over-control it.

"I'm very glad they did stipulate that there would be a minimum requirement of water released, or people would get greedy and shut it off completely," he said.

Curiously, however, there are spots on the Weber River where it's actually flowing higher right now than it does during the summer, according to Thompson. For example, during the irrigation season, the Stoddard Diversion Dam takes out almost all of the water being released from Echo Reservoir. As a result, between Morgan and Mountain Green the Weber River flows higher in the fall than in the summer.

The Ogden River is also typically low this time of year, too. Thompson said the Ogden is running at about 10 CFS right now, which is about as low as it will go.

However low the Weber River goes, Hadden figures it will all work out.

"Just pray for a lot of snow in the hills, and rain down here, and we'll be OK," he said.

Contact Mark Saal at 801-625-4272, or msaal@standard.net. Follow him on Twitter at @Saalman. Like him on Facebook at facebook.com/SEMarkSaal.

Herald | MEDIA

Lindon Harbor closed as algae returns

Sammy Jo Hester, Daily Herald

Algae washes ashore near the Lindon Marina, on Oct. 7, 2014. An algae field blooming in Utah Lake prompted local health officials to issue a warning when a dog died after exposure to the green slime. SAMMY JO HESTER, Daily Herald

October 21, 2014 4:15 pm • Barbara Christiansen DAILY HERALD 0

LINDON -- A reprieve for Utah Lake was short lived as the Utah County Health Department has closed the Lindon Harbor because of concentrations of toxic algae near the shoreline.

The results of testing of samples taken Oct. 10 have shown the level of microcystins in the water is almost 70 times the health advisory level. Those levels have a high probability of producing acute health effects to people and animals.

You can swim, but don't drink

The toxic algae level in Utah Lake is dissipating, and it is now considered safe to go back in the water. Read more

Division of Water Quality determines algae found in Utah Lake is toxic

PROVO -- Algae found in Utah

The guidelines were established by the Environmental Protection Agency and the World Health Organization.

"These data highlight how variable toxin concentrations can be within a small area," the Utah County Health Department website shows. "Earlier sampling results were more broadly representative of microcystin levels within the harbor area, and other samples taken on October 10, 2014, showed that the concentrations of microcystins had dipped below levels that could trigger a public health advisory."

"The Department of Environmental Quality is continuing to monitor the lake," said Lance Madigan, spokesman for the Utah County Health Department. "It is something we will have to continue to monitor."

Lake has been determined by the Division of Water Quality (DWQ) to be toxic to humans, pets, wildlife and fish. Read more

Residents warned to avoid green algae in Utah Lake after dog's death

UTAH COUNTY – Utah Lake algae fields are blooming and its byproduct, a release of compounds commonly known as pond scum, have already claimed ... Read more

Testing will continue. A third group of samples has undergone testing, and those results have not yet come back.

The initial testing began in early October after a dog died soon after swimming and playing in the lake, drinking some of the water.

"Algal blooms in the lake are the suspected source of the toxic cyanobacteria that may be responsible for the dog's death," the DEQ website says.

Since that time, there was a decrease in toxins in the area and recreation was again permitted in Utah Lake. Subsequent testing, however, has reversed the situation.

"We have determined the harbor water is contaminated by toxic algae," said Donna Spangler, communications director for the Utah Department of Environmental Quality.

She said the main area of concern was along the Lindon Harbor shoreline.

"We haven't gotten the third sample back yet," she said.

There was no indication when those results would be available.

"We are still advising people to avoid swimming when they see the blue-green algae," Madigan said. "But we are definitely telling them to avoid the harbor and keep their pets out."

He has posted signs in the area telling of the closure.

"The Utah Department of Environmental Quality has determined the harbor water is contaminated by a toxic algae which is strongly suspected to have killed dogs and is known to be dangerous to humans," the signs say. "By order of the Utah County Health Department, the harbor is closed to swimming and bathing for humans and animals."

The ongoing testing is important, since the toxins can remain in the water after the algal bloom has dissipated, the health department site indicates.

Phosphates and nitrates can contribute to the algal blooms. Both are naturally occurring substances, Madigan said.

"Nitrogen can be pulled from the atmosphere, and it is also in fertilizers and commercial compounds," he said.

Weather conditions such as rain, hail and wind can help break up the algae. Meanwhile, calm, sunny weather can encourage its growth.

Daily Herald reporter **Barbara Christiansen** can be reached at (801) 344-2907 or bchristiansen@heraldextra.com. Twitter: @bchristiansen3.

The Salt Lake Tribune

Op-ed: Dog deaths are wake-up call for nutrient pollution in Utah

BY WALT BAKER

PUBLISHED: OCTOBER 25, 2014 07:45AM
UPDATED: OCTOBER 25, 2014 07:45AM

If you are like most people, you probably associate the word "nutrients" with things that keep our bodies healthy and help our lawns and gardens grow. Nutrients, we all know, are essential to life. But too much of a good thing can also be bad. This is the case with excess nutrients, particularly in our lakes and streams. The recent deaths of two healthy dogs after they drank contaminated water at Utah Lake have called attention to the harm posed by high levels of nutrients in our waters.

Courtesy photo | Utah County Health Department
A blue-green algae bloom in Utah Lake, near the Lindon marina, is suspected in the death of a dog that played in the water over the weekend. The algae, photographed Tuesday morning, can sometimes produce a toxin. Utah County Health Department officials are warning people not to swim in water where the algae ó sometimes called "pond scum" ó exists.

Nutrients, especially nitrogen and phosphorus, support the growth of the algae and plants that provide food and habitat for aquatic insects and fish. However, excess nitrogen and phosphorus from fertilizer, animal wastes, and wastewater treatment plants (WWTPs) can lead to nutrient pollution that causes algae to grow faster than streams and lakes can handle. The resulting algae "blooms" harm water quality and taint drinking water sources.

Some algae blooms contain cyanobacteria, a type of bacteria that can produce harmful toxins such as microcystins, which causes liver damage. Water samples from the recent bright-green algal bloom in Utah Lake showed elevated concentrations of microcystins, with one shoreline location registering toxin levels more than 70 times higher than the public health advisory level. Reservoirs and lakes throughout Utah experience algal blooms regularly during the late summer and early fall. Unfortunately, we can't tell whether the bright-green scum collecting on the water and shorelines is toxic just by looking at it, and water that tests negative for toxins one day can test positive the next.

Currently, 43 percent of the total acres of Utah's lakes and reservoirs are impaired due to excess nutrients. This is a very serious problem, and one that will only increase as our population and economy grows. In response, the Utah Division of Water Quality (DWQ) has been working with key stakeholders to develop a nutrient reduction strategy for Utah's waters that it will continue to roll out over the next ten years.

Part of that strategy involves setting limits on nutrients from WWTPs. Seventy-eight percent of the nearly 300 tons per year of phosphorus entering Utah Lake comes from WWTPs. Our proposed technology-based phosphorus effluent-limit rule would require WWTPs to reduce phosphorus concentrations to 1 milligram per liter (mg/L), a 66 to 83 percent reduction in the 3 mg/L to 6 mg/L currently entering Utah Lake or one of its feeder streams. Putting this rule into action will result in significant nutrient reductions to Utah Lake and other lakes and streams across the state at an estimated cost of $2.50 per month per household.

It is easier — and less costly — to prevent nutrient pollution than fix waters that have already been compromised. Technology-based phosphorus limits for WWTPs are just one example of how we need to tackle excess nutrient pollution. We are also working to reduce excess nutrients from agricultural and other nonpoint sources and using an adaptive-management approach to develop site-specific nutrient standards.

Ultimately, nutrient pollution is a problem that affects all of us, and it will take all of us working together to address it. Safe drinking water, clean lakes, and healthy streams are critical to Utah's quality of life and economic growth. We all need to do our part, whether it's reducing the amount of fertilizer we apply to our lawns or paying a couple of dollars more a month to keep nutrients out of our waters.

The deaths of these two beloved pets was a tragic wake-up call about the consequences of nutrient pollution. To learn more about DWQ's strategies for reducing nutrient pollution, visit nutrients.utah.gov/ or read personal stories from our division staff at dequtah.blogspot.com/

Walt Baker is director of the Utah Division of Water Quality.
