

# Freshwater HABs Newsletter



Zack Holcomb (left), Matt Mahoney (center), and Ariele Kramer (USGS) collect samples in Milford Lake for EPA's Regional Innovation Project.  
Source: John Parker, EPA.

## [US EPA's 2017 Regional/State Innovation Projects](#)

US EPA's Office of Research and Development (ORD) announced a series of projects using innovative approaches to address regional and state science priorities. The selected projects address environmental and human health problems, including HABs, in 14 states across all 10 regions through partnerships between ORD, regional offices, and states. The projects related to HABs are:

### [Use of Next-Generation Molecular Tools for Harmful Algal Blooms and Microbial Source Tracking to Support Watershed Restoration in Kansas and Nebraska \(Region 7\)](#)

As part of the project, EPA Region 7 partnered with the Kansas Department of Health and Environment to use new molecular-based technology to identify the cyanobacterial species that produce toxins and factors that promote toxic blooms. The EPA lab in Kansas City, Kansas will be assisting the state by running PhyloChip and CyanoDTec panels at 2 sites on Milford Lake for 4 weeks during the recreational season. In addition, the team also partnered with the USGS for a 24-hour sampling on August 24-25<sup>th</sup> in order to study the spatial and temporal distribution of cyanobacteria in Milford Lake. Kansas has called the bloom in Milford Lake "Public Enemy Number One." A better understanding of the spatial variability of cyanobacteria and toxin production will inform sampling and management strategies for lakes in Kansas and throughout the nation.

Arielle Kramer (USGS) passes water samples from Milford Lake to Laura Webb, EPA to study the spatial and temporal distribution of cyanobacteria.  
Source: John Parker, EPA



Steven Baker, EPA Region 7, removes a filter with cyanobacteria from Milford Lake during a 24-hour sampling on August 24-25<sup>th</sup>.  
Source: John Parker, EPA

## UPCOMING EVENTS

### [Understanding Algal Blooms: State of the Science Conference](#)

September 14<sup>th</sup>, 2017  
Toledo, OH

### [6<sup>th</sup> International Symposium Marine and Freshwater Toxins Analysis](#)

October 22-25, 2017  
Baiona, Spain

### [9<sup>th</sup> Symposium on Harmful Algae](#)

November 11-17, 2017  
Baltimore, MD

### [19<sup>th</sup> International Conference on Harmful Algae](#)

December 18-19, 2017  
San Diego, CA

### [10<sup>th</sup> Symposium on Harmful Algae in the U.S.](#)

The National HAB Committee has received 2 bids to host the next Symposium in 2019: Gulf Shores-Orange Beach, AL and Toledo, OH. The proposals will be presented at the upcoming 9<sup>th</sup> U.S. HAB Symposium in Baltimore, MD and the symposium participants will vote to select the venue. Additional information will be posted on the [HAB Symposium website](#).

This newsletter was created by [Dr. Lesley V. D'Anglada](#), Office of Science and Technology, Office of Water, U.S. EPA. Mention of trade names, products, or services does not convey and should not be interpreted as conveying official EPA approval, endorsement, or recommendation for use.

### [Montana's Smith River Algae Crowdsourcing Project \(Region 8\)](#)

EPA Region 8, the Montana Department of Environmental Quality, and Montana Fish, Wildlife, and Parks will develop a mobile app to capture crowdsourced data to engage visitors in collecting photos of the excess algae growth on Montana's Smith River during the 2018 recreation season.

### [New Jersey's New Response Strategy for Freshwater HABs and Website](#)

Department of Environmental Protection (DEP) has developed a strategy for a unified statewide approach in responding to incidents of HABs in freshwater bodies across the state, including a toll-free hotline or the WARN NJDEP app for smartphones and tablets. In addition, a new [NJDEP HAB-focused website](#) has been launched to coordinate important information and response activities.

### ["Harmful Algal Blooms and Hypoxia in the Great Lakes Research Plan and Action Strategy: An Interagency Report"](#)

On August 24, the IWG for HABHRCA submitted to Congress a report focusing on the relationships between federal partners and their stakeholders, and the challenges, concerns, and needs related to HABs and hypoxia, and their impact on Great Lakes regional interests and communities.

## States with Blooms, Advisories and/or Beach Closures Reported in August 2017



### BLOOMS, BEACH CLOSURES and/or HEALTH ADVISORIES, AUGUST 2017

**California:** Iron Gate Reservoir, Lake Britton, Lake Temescal, Quarry Lakes, Castaic Lake, Copco Reservoir, Lake Pillsbury, Huichica Pond, Lake Almaden, Lake Chabot, Lake Cunningham, Pyramid Lake, Clear Lake, Discovery Bay, Isabella Lake, Laguna Joaquin, Lower Blue Lake, San Joaquin River, San Luis Reservoir, Diaz Lake, Silverwood Lake, Tahoe Keys Lagoon, Lake Elsinore, Lake Skinner, Clearlake Oaks

**Florida:** St. John's River, Doctor's Lake, Lake Okeechobee, Bull Creek, Dolphin Canal

**Indiana:** Lake James, Mississinewa Lake, Salamonie Lake, Sand Lake, Hardy Lake, Worster Lake, Brookville Lake, Cecil; M. Harden Lake, Monroe Lake, Starve Hollow Lake, Whitewater Lake

**Idaho:** Little Camas Reservoir, Thorn Creek Reservoir, Lake Lowell, Spicer Pond, Henrys Lake, Brownlee Reservoir, Long Tom Reservoir, Mountain Home Reservoir, Mormon Reservoir

**Iowa:** Union Grove Beach, McIntosh Woods Beach

**Kansas:** Overbrook City Lake, Sam's Pond, Marion County Lake, Milford Lake (Zones A, B and C), Perry Lake, Veteran's Lake, Overbrook City Lake, Brown County State Fishing Lake, Central Park lake, Hiawatha City Lake, Melvern Outlet River Pond and Swim Pond, South Lake

**Maryland:** Lake Needwood, Lake Frank

**Massachusetts:** East Monponsett Pond, Hummock Pond, Martin Pond, Oldham Pond, Pratt pond, Santuit Pond, Lake Siog, Wampatuck Pond, West Monponsett Pond

**Michigan:** Sugden Lake and Pontiac Lake

**Minnesota:** Carver Lake

**Nebraska:** Bluestem Lake, Maple Creek, Pawnee Lake, Big Indian Lake, Holmes Lake, Iron Horse Trail, Kirkman's Cove Lake, Swan Creek Lake, Willow Creek Reservoir

**New Hampshire:** Lily Pond, Sandown, Greenwood Pond Beach, Nottingham Town Beach

**New York:** Agawan Lake, Allegheny Reservoir, Avon Marsh Dam Pond, Basic Creek Reservoir, Beaver Lake, Bowne Pond, Brooks Lake, Cayuta Lake, Chautauqua Lake, Conesus Lake, Deans pond, Dryden Lake, Eagle Pond, Findley Lake, Fort Pond, Harlem Meer, Hessian Lake, Hyde Lake, Indian Lake, Jamesville Reservoir, Java Lake, Kissena Lake, Lake Carmel, Lake Lacoma, Lake Neatahwanta, Lake Ontario (Long Point SP), Little We Wah Lake, Maratooka Lake, Mill Pond, Mohegan Lake, Lake Montgomery, Moon Lake, Myosotis Lake, Nassau lake, Newark Reservoir, Oakland Lake, Old Town Pond, Oneida Lake, Orange Lake, Plymouth Reservoir, Prospect Park Lake, Roth Pond, Silver Lake, Smith Pond, The Lake in Central Park, Turtle Pond, Wainscott Pond

**New Jersey:** Swartswood State Park, Shabakunk Creek, colonial Lake, Branch Brook Lake, Deal Lake, Amwell Lake, Pemberton Lake, Fletcher Lake

**North Carolina:** Fontana Lake

**North Dakota:** Harvey Reservoir, Lake LaMoure, Bowman-Haley Reservoir, Lake Tschica, Patterson Lake, Long Lake, Renwick Dam, Fordville Dan, Channel A -Devis Lake, Homme Dam, Upper Des Lacs Lake

**Ohio:** Maumee Bay, Lake Erie, Sandusky Bay, Buckeye Lake, Pike Lake, Caesar Creek South, Kiser Lake

**Oregon:** South Umpqua River - Permanent Advisory, Areas of lake Billy Chinook, Drews Reservoir, Odell Lake, Coffenbury Lake, Howard Bay, Brownlee Reservoir, Agency Lake, Willow Creek Reservoir, Shoalwater Bay

**Rhode Island:** Blackamore Pond, Roger Williams Park, Sisson Pond, Turner Reservoir and Warwick Pond

**Utah:** Utah Lake, Jordan River, Blackridge Reservoir

**Vermont:** Lake Carmi State Park and North Beach, Shelburne Pond Boat Launch, St. Albans Boat Launch, Highgate Springs, Bulwagga bay Beach, Cohen Park St. Albans, Black Bridge, Melville Landing, Pier of Philipsburg, Ticklenaked Pond, Georgia Beach,

**Virginia:** Mathews Lake, Otter's Path Trail Creek Crossing, Holliday Lake Beach, Chris Greene Lake

**Washington:** Lone Lake, Rufus Woods Lake, Hog Lake, Anderson Lake, [Steilacoom Lake](#), [Spanaway Lake](#)

## RECENTLY PUBLISHED ARTICLES

### [Great Lakes Harmful Algal Blooms \(HABs\) and Hypoxia: Agricultural Aspects](#)

Publication lists to provide a look at current research findings that strengthen the science base needed for effective agricultural policy and management actions to address HABs and hypoxia.

### [Do persistent organic pollutants stimulate cyanobacterial blooms?](#)

Ted D. Harris and Val H Smith. *Inland Waters*, 2016. 6:2, 124-130.

### [Benthic cyanobacteria: A source of cylindrospermopsin and microcystin in Australian drinking water reservoirs](#)

Virginie Gaget, Andrew R. Humpage, Qiong Huang, Paul Monis, Justin D. Brookes. *Water Research*. 2017. Volume 124. Pages 454-464.

### [The Nitrogen Problem: Why Global Warming Is Making It Worse. Analysis](#)

Richard Conniff. *YaleEnvironment360*. Yale School of Forestry & Environmental Studies. August 7, 2017.

### [Climate Change Impacts on Harmful Algal Blooms in U.S. Freshwaters: A Screening-Level Assessment](#)

Steven C. Chapra, Brent Boehlert, Charles Fant, Victor J. Bierman Jr., Jim Henderson, David Mills, Diane M. L. Mas, Lisa Rennels, Lesley Jantarasami, Jeremy Martinich, Kenneth M. Strzepek, and Hans W. Paerl *Environ. Sci. Technol.*, 2017, 51 (16), pp 8933–8943

### [Bloom and bust: Toxic algae's impact on nearby property values](#)

David Wolf, H. Allen Klaiber, *Ecological Economics*, Volume 135, 2017, Pages 209-221

### [A new approach for the estimation of phytoplankton cell counts associated with algal blooms](#)

Majid Nazeer, Man Sing Wong, Janet Elizabeth Nichol. *Science of The Total Environment*, Volume 590, 2017, Pages 125-138.

### [Reeling in the damages: Harmful algal bloom's impact on Lake Erie's recreational fishing industry](#)

David Wolf, Will Georgic, H. Allen Klaiber. *Journal of Environmental Management*, Volume 199, 2017, Pages 148-157.

### [Algal blooms cost Ohio homeowners \\$152 million over six years: Property values fall, as do fishing license sales, two studies find](#)

Ohio State University, *ScienceDaily*. Retrieved August 30, 2017.

### [The good, the bad and the algae](#)

Sandia National Laboratories. *ScienceDaily*. Retrieved August 30, 2017

### [Dynamic Changes of Disinfection Byproduct Precursors following Exposures of \*Microcystis aeruginosa\* to Wildfire Ash Solutions](#)

Kuo-Pei Tsai, Habibullah Uzun, Tanju Karanfil, and Alex T. Chow. *Environ. Sci. Technol.*, 2017, 51 (15), pp 8272–8282.

## Important Links

- ‡ [Great Lakes Harmful Algal Blooms and Hypoxia: Agricultural Aspects](#)
- ‡ [WRF Webcast: Treatment Approaches for Managing Dissolved and Intracellular Cyanotoxins \(08/15\)](#)
- ‡ [U.S. EPA Fish and Shellfish Newsletter - July 2017](#)
- ‡ [Gulf of Mexico 'dead zone' is the largest ever measured](#)
- ‡ [H.R. 3661 - Harmful Algal Blooms Solutions Act of 2017](#)
- ‡ [Upper Mississippi River Harmful Algal Bloom Response Resource Manual](#)



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