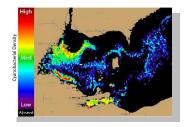
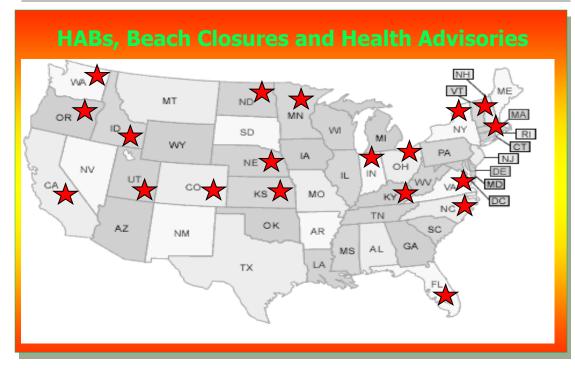


## **Freshwater HABs Newsletter**



NOAA's Lake Erie HABs Bulletin, August 22, 2016



#### **Upcoming Events**

**DWSRF and Capacity Building Webinars**September 20, 1:00-2:00pm

17th ICHA October 9-14, Brazil

16th GLBAC

October 4-7, Michigan

10<sup>th</sup> ICTC October 23-28, China

NALMS 2016

November 1-4, Canada

SETAC 2016 November 6-10, Florida

#### HABs, Beach Closures and Health Advisories, August 2016

- 1. <u>CALIFORNIA</u> Lake Shasta, Klamath River, Iron Gate Reservoir, Copco Reservoir, Upper California Park Lake, Lake Oroville, Clear Lake, Russian River, San Joaquin River, Discovery Bay, Lake Anza, Lake Temescal, Lake Chabot, Quarry Lakes, Lake Del Valle, Mono Lake, Arroyo Del Valle Lake, Pinto Lake, Kelly Lake, San Luis Reservoir, O'Neill Forebay, Isabella River and Pyramid Lake.
- 2. **COLORADO** Stagecoach State Park, Barr Lake State Park, Cherry Creek State Park and De Weese Reservoir.
- 3. FLORIDA Palm Bach County, Martin County downstream of St. Lucie and St. Johns River
- 4. IDAHO Mormon Reservoir, Henrys Lake, Fernan Lake, Hayden Lake and Upper Island Park Reservoir
- 5. <u>INDIANA</u> Cecil M. Harden Lake (Raccoon Lake), Monroe Lake, Brookville Lake, Whitewater Lake, Worster Lake, Mississinewa Lake, Salamonie Lake, Deam Lake, Hardy Lake, Mississinewa Lake, Sand Lake, and Lake James
- 6. KANSAS Central Park Lake, Lake Afton, Milford Reservoir, Overbrook City Lake, South Lake, Park Lake
- 7. **KENTUCKY** Rough River Lake, FFA Lake (Hardinsburg)
- 8. MASSACHUSETTS Mystic River at Blessing of the Bay Boathouse, Tully Lake, and West Monponsett Pond
- 9. MINNESOTA Diamond Lake
- 10. NEBRASKA Branched Oak Lake, Iron Horse Trail, Willow Creek, Pawnee, Kirkman's Cove
- 11. NEW YORK Agawam Lake, Beaverdam Lake, Big Bowman Lake, Black Lake, Chautauqua Lake, Chautauqua Lake, Deans Pond, Dryden Lake, East Marion Lake, Golden Pond, Harlem Meer, Hyde Park Lake, Indian Lake, Lake Neatahwanta, Lake Rippowam, Mecox Bay, Mill Pond (Watermill), Montgomery Lake, Mountain Lake, Nassau Lake, Newark Reservoir, Niger Pond, Old Town Pond, Orange Lake, Peconic River, Prospect Park Lake, Roth Pond, Sagaponack Lake, Sodus Bay, The Lake in Central Park, Unnamed Pond (near Cameron Mills), Unnamed Pond (near Fairport), Wainscott Pond, Williams Pond and Peconic Bay
- 12. NORTH CAROLINA Pamlico, Swan Point, Pantego Creek, Bath Creek, Back Creek, Goose Creek, Duck Creek, Yeats Creek, Runyon Creek, Chocowinity Bay, Broad Creek, Moores Beach and Washington Park
- 13. NORTH DAKOTA Lake Ashtabula
- 14. OHIO Buckeye Lake, Maumee Bay, Sandusky Bay, Lake Erie, Evans Lake, Veto Lake, Lake Rupert, Tycoon Lake, Jackson Lake,
- 15. OREGON South Umpqua River, Ross Island Lagoon and Agency Lake
- 16. UTAH Scofield Reservoir, Sandy Beach, Saratoga Springs Marina, Lincoln Beach, Box Lake, Big East Lake and McKellen Lake
- 17. **VERMONT** Lake Caimi and Lake Champlain
- 18. VIRGINIA Woodstock Pond, York River, Back River, James River and Chesapeake Bay
- 19. WASHINGTON Lake Tapps, Bay Lake and Wapato Lake

#### **Cyanobacteria Monitoring Network**

Three coordinated monitoring projects to map and understand harmful cyanobacteria occurrences, their distribution and within lake characteristics: **BloomWatch**, an app for anyone who observes an algae bloom to image it with their cell phone and submit it to a central database; **CyanoScope** to collect a water sample, view the sample with a battery powered microscope and submit to a central data base for review and taxonomic classification, and **CyanoMonitoring**, a network of professional and trained citizen scientist monitoring freshwater for cyanobacteria. The network also provides training and equipment to determine when, where and why cyanobacteria are blooming in nearby lakes.

#### ASPCA Animal Poison Control Center looking for information on dogs affected by HABs

The American Society for the Prevention of Cruelty to Animals® (ASPCA) Poison Control Center is looking for canine cases known or suspected to be exposed to blue green algae (from 2002 to 2016) to compare to human cases both spatially and temporally and determine if dogs can be used as sentinels of human exposure. If you have information please contact Valentina Merola at 217-337-9702 and/or valentina.merola@aspca.org.

## **Recently Published Articles**

<u>Development of Toxicological Risk Assessment Models for Acute and Chronic Exposure to Pollutants</u> Reichwaldt, E.S.; Stone, D.; Barrington, D.J.; Sinang, S.C.; Ghadouani, A. *Toxins* 2016, *8*, 251.

Spatial and temporal variation in microcystins occurrence in wadeable streams in the southeastern USA Loftin, K.A., Clark, J.M., Journey, C.A., Kolpin, D.W., Van Metre, P.C., and Bradley, P.M., Environmental Toxicology and Chemistry, v. 35, 2016.

<u>Elucidation of Taste- and Odor-Producing Bacteria and Toxigenic Cyanobacteria in a Midwestern Drinking</u>
<u>Water Supply Reservoir by Shotgun Metagenomics Analysis</u>

Otten, T., Graham, J., Harris, T., and Drehera, T. Appl. Environ. Microbiol., June 2016.

<u>Mitigating cyanobacterial harmful algal blooms in aquatic ecosystems impacted by climate change and</u> anthropogenic nutrients

Paerl, H., Gardner, W., Havens, K., Joyner, A., McCarthy, M., Newell, S., Qin, B and Scott, JT. Harmful Algae, Volume 54, April 2016, Pages 213-222

#### Best Practices for Cyanobacterial Harmful Algal Bloom Monitoring

Otten T, Paerl H. p 3.1.2-1-3.1.2-12. In Yates M, Nakatsu C, Miller R, Pillai S (ed), Manual of Environmental Microbiology, Fourth Edition. ASM Press, Washington, DC. 2016.

### **Coming Soon!** FROM EPA's Office of Water, Technical Support Center, Cincinnati

# Modification and Implementation of the Comprehensive Performance Evaluation (CPE) for Optimizing Drinking Water Treatment when Challenged by a Toxic Cyano Bloom

EPA is developing water treatment optimization tools and approaches, including a Comprehensive Performance Evaluation (CPE) to identify factors that could limit plant performance during a HAB. EPA's Technical Support Center (TSC) is partnering with the Ohio EPA to develop four HABs CPE protocols at Ohio water treatment plants challenged by HABs. These CPEs served as a training opportunity for Ohio EPA staff, which included participants from most of the state's district offices and central office. The first pilot CPE was conducted at the Ottawa County Regional Water Treatment Plant in Port Clinton, OH during August 1-5, 2016 and served to identify factors that could limit the plant's performance during a HAB and to develop plans to implement changes to address these factors. Two additional CPEs are scheduled for January 2017 and April 2017. For more information contact Tom Waters at <a href="Waters.Tom@epa.gov">Waters.Tom@epa.gov</a>

This newsletter was created by Dr. Lesley V. D'Anglada (danglada.lesley@epa.gov), Office of Water, U.S.EPA For more information visit EPA's CyanoHABs website at www.epa.gov/cyanohabs