

Freshwater HABs Newsletter



[EPA Awards Nearly \\$4.4 Million to Restore Lake Champlain and Protect Against Harmful Algal Blooms](#)

The US EPA awarded \$4,395,000 in Lake Champlain restoration funding to help address outbreaks of HABs and the spread of invasive species in Lake Champlain. The funding was awarded to: State of Vermont, State of New York; and New England Interstate Water Pollution Control Commission (NEIWPCC), on behalf of the Lake Champlain Basin Program. Among other things, the funding will help with water quality monitoring and trend analysis, monitor for cyanotoxins in lake water, help notify public health officials and water treatment operators if conditions pose a risk to public health and coordinate restoration activities. For information on EPA's work to improve the water quality of Lake Champlain, visit <https://www.epa.gov/tmdl/lake-champlain-phosphorus-tmdl-commitment-clean-water>.

[2017 Hypoxia Task Force Report to Congress](#)

The [2017 Hypoxia Report to Congress](#) outlined the actions the federal, state, and tribal members have taken toward the goal of reducing nitrogen and phosphorus pollution in the Mississippi/Atchafalaya River Basin and shrinking the size of the Gulf of Mexico hypoxic zone, including:

- Environmental, economic, and social impacts of Gulf of Mexico hypoxia and HABs;
- Size of the hypoxic zone since 1985 and sources of nutrient loading in the MARB;
- Progress of state nutrient reduction strategy development and implementation;
- Federal agency programs that support state implementation of nutrient reduction strategies;
- Lessons learned by presenting broader HTF successes and successful state projects; and
- Focuses on recent HTF efforts to track the environmental results of state strategy implementation.

To learn more about the Hypoxia Task Force, visit: <https://www.epa.gov/ms-htf>.

[EPA's Harmful Algal Bloom Incident Action Checklist](#)

As part of EPA's [Incident Action Checklists for Water Utilities](#), EPA's Water Security Division developed a checklist with information on preparedness and response actions water utilities can take during a HAB incident. The Incident Action checklists are developed to help drinking water and wastewater utilities with emergency preparedness, response and recovery activities.

[Five Star and Urban Waters Restoration Grant Program 2018 Request for Proposals](#)

The National Fish and Wildlife Foundation and the Wildlife Habitat Council, in cooperation with EPA, USDA Forest Service, U.S. Fish and Wildlife Service, FedEx, and Southern Company are pleased to solicit applications. The program will award approximately \$2 million in grants nationwide and the due date is January 31, 2018 by 11:59 PM EST

UPCOMING EVENTS

WEBINARS

[EPA Tools and Resources Webinar: Causal Analysis/Diagnosis Decision Information System \(CADDIS\)](#)

December 13, 2017
3:00 to 4:00 PM EST

CONFERENCES

[SETAC Europe -Global Challenge of freshwater and marine harmful algal blooms \(HABs\): treatment, detection, toxic effects, risk assessment and management](#)

May 13–17, 2018
Rome, Italy

[Adapt Alaska Website](#)

Science-based website with information at a regional scale on issues like [HABs](#), ocean acidification, sea level rise, coastal erosion, and more. Also hosts 5 regional coastal resiliency workshops to address regional issues, posters and upcoming events and trainings.

This newsletter was created by [Dr. Lesley V. D'Anglada](#), Office of Science and Technology, Office of Water, 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. For previous newsletters, go to [Freshwater HABs Newsletter](#).

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



BLOOMS, BEACH CLOSURES and/or HEALTH ADVISORIES, NOVEMBER 2017

California: Copco Reservoir, Iron Gate, Lake Anza, Lake Chabot, Lake Temescal, Long Beach, Lower Kern River

Florida: Doctor's Lake, Colee Hammock Park

Idaho: Blacks Creek Reservoir, Thorn Creek Reservoir, Spicer Pond, Mormon Reservoir

Kansas: Central Park Pond, Hiawatha City Lake, Melvern Outlet River Pond

Massachusetts: Maquan Pond, Riley Pond, Santuit Pond

New Jersey: Branch Brook Lake, Pemberton Lake, Lake Sara, Lake Sylva/Colonial Lake/Shabakunk Creek, Swartswood Lake, Sunset Lake, Washington Valley, Silver Lake, Lake Ceva, Penbryn Lake, Budd Lake

Ohio: Campbell City PWS Plant Intake, Cadiz WTP PWS Intake

Oregon: South Umpqua River

Utah: Mantua Reservoir, Ogden City 21st Street Pond, Utah Lake

Vermont: Lake Carmi State Park

Virginia: Woodstock Pond

Washington: Blackmans Lake, Snohomish, [Palmer Lake](#), [Whitman Lake](#), [Spanaway Lake](#), [Waughop Lake](#) - [Caution Advisory](#)

Important Links

- ✚ [Manual de Buenas Prácticas sobre Floraciones de Cianobacterias en el Rio Uruguay](#) (en español)
- ✚ [Weed Science Society of America \(WSSA\) Harmful Algal Bloom Fact Sheet](#)
- ✚ [Rhode Island EPSCoR Leading-edge research aims to predict, limit harmful algal blooms](#)
- ✚ [HABs Collaboratory's Current and Emerging Technology in the Great Lakes webinar recording](#)
- ✚ [5th Issue of CYANOnews](#)

RECENTLY PUBLISHED ARTICLES

[Harmful Algal Bloom–Associated Illnesses in Humans and Dogs Identified Through a Pilot Surveillance System — New York, 2015](#)

Mary Figgatt, James Hyde, David Dziwulski, Eric Wiegert, Scott Kishbaugh, Grant Zelin, and Lloyd Wilson. Weekly. November 3, 2017. 66(43);1182–1184

[Relationship of chlorophyll to phosphorus and nitrogen in nutrient-rich lakes](#)

Filstrup, C. and Downing, J. Inland Waters Journal. October 9, 2017, pp. 1-16.

[Revisiting inland hypoxia: diverse exceedances of dissolved oxygen thresholds for freshwater aquatic life](#)

Saari, G.N., Wang, Z. & Brooks, B.W. Environ Sci Pollut Res (2017)

[Ecophysiological examination of the Lake Erie *Microcystis* bloom in 2014: linkages between biology and the water supply shutdown of Toledo, OH.](#)

Steffen, M.M., Davis, T.W., Stough, J.M.A., McKay, R.M.L., Bullerjahn, G.S., Krausfeldt, L.E., Neitzey, M.L., Gilbert, N.E., Boyer, G.L., Johengen, T.H., Gossiaux, D.C., Burtner, A.M., Palladino, D., Rowe, M.D., Dick, G.J., Meyer, K.A., Levy, S., Boone, B., Stumpf, R.P., Wynne, T.T., Zimba, P.V., Gutierrez, D., and Wilhelm, S.W. 2017. *Env. Science Technol.* 51:6745-6755

[Identification of a new to science cyanobacterium, *Toxifilum mysidocida* GEN NOV& SP NOV \(Cyanobacteria, Cyanophyceae\)](#)

Zimba, P.V., Huang, I-S., Foley, J., and Linton, E. *J Phycol.* February, 2017. 53(1):188-197.

[Associations between county-level land cover classes and cyanobacteria blooms in the United States](#)

Jason W. Marion, Feng Zhang, David Cutting, Jiyoung Lee. Ecological Engineering, Volume 108, Part B, November 2017, Pages 556-563.

[Metabolic solutions to the biosynthesis of some diaminomonocarboxylic acids in nature: Formation in cyanobacteria of the neurotoxins 3-N-methyl-2,3-diaminopropanoic acid BMAA\) and 2,4-diaminobutanoic acid \(2,4-DAB\)](#)

Peter B. Nunn and Geoffrey A. Codd. Phytochemistry Volume 144, December 2017, Pages 253-270.

[Cyanobacteria blooms in water: Italian guidelines to assess and manage the risk associated to bathing and recreational activities](#)

Enzo Funari, Maura Manganelli, Franca M. Buratti, and Emanuela Testai. Science of The Total Environment, Volume 598, 15 November 2017, Pages 867-880.

[Climate warming and cyanobacteria blooms: Looks at their relationships from a new perspective](#)

Xingcheng Yan, Xiaoguang Xu, Mingyue Wang, Guoxiang Wang, Songjun Wu, Zhichun Li, Hao Sun, Ao Shi, Yunhao Yang. Water Research, Volume 125, 15 November 2017, Pages 449-457.

[Bloom dynamics and chemical defenses of benthic cyanobacteria in the Indian River Lagoon](#)

Jennifer M. Sneed, Theresa Meickle, Niclas Engene, Sherry Reed, Sarath Gunasekera, Valerie J. Paul. Florida, Harmful Algae, Volume 69, November 2017, Pages 75-82.

[A novel Eulerian approach for modelling cyanobacteria movement: Thin layer formation and recurrent risk to drinking water intakes](#)

Mouhamed Ndong, David Bird, Tri Nguyen Quang, René Kahawita, David Hamilton, Marie Laure de Boutray, Michèle Prévost, Sarah Dorner. Water Research, Volume 127, 15 December 2017, Pages 191-20.3

[The relative importance of water temperature and residence time in predicting cyanobacteria abundance in regulated rivers](#)

YoonKyung Cha, Kyung Hwa Cho, Hyuk Lee, Taegu Kang, Joon Ha Kim. Water Research, Volume 124, 1 November 2017, Pages 11-19.

[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, Volume 124, 1 November 2017, Pages 454-464.



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