

## Harmful Algal Blooms: Coming to a Lake Near You?

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Have you ever seen something that looks like bright green paint on a lake or slow-moving river? If so, it could have been a Harmful Algal Bloom (HAB). While many algal blooms are non-toxic, the New York State Department of Environmental Conservation (NYS DEC) recommends avoiding “swimming, boating, otherwise recreating in, or drinking water with a bloom.” If you like paddling, swimming, fishing, or taking your dog for a swim, here is what you need to know about HABs.

Harmful Algal Blooms, also known as blue-green algae or cyanobacteria, occur in warm, often stagnant waterbodies. HABs typically occur in July and August when the weather is at its warmest, and especially when there have been many warm, sunny days in a row. This weather fosters algal blooms, or algal overgrowth, but algal blooms can happen even when the weather is cold. While most blooms are green, they can also appear blue-green, yellow, brown, or red (the latter two are less likely in Orange County).

The NYS DEC and the NYS Department of Health are both investigating the causes of HABs, studying stream chemistry, in particular. While there is no one cause of HABs, a key factor is the increase in nutrients in the waterbodies over time; this increase is known as eutrophication. While some of this increase is natural, nutrient contributions are enhanced through factors including but not limited to: fertilizer use, failing septic, leaking sewer pipes, geese overpopulation, and stormwater runoff from construction sites when the soil is bare. The increasingly warm summers that our region is experiencing are also encouraging algal growth.

On the local level, municipal officials can help to reduce nutrient contributions and thus reduce the likelihood of HABs by, for example, ensuring erosion and sediment control measures are strictly enforced at construction sites, fixing leaks in their sewer systems, and/or including zoning provisions that



*Image of dog and owner looking at a Harmful Algae Bloom.*

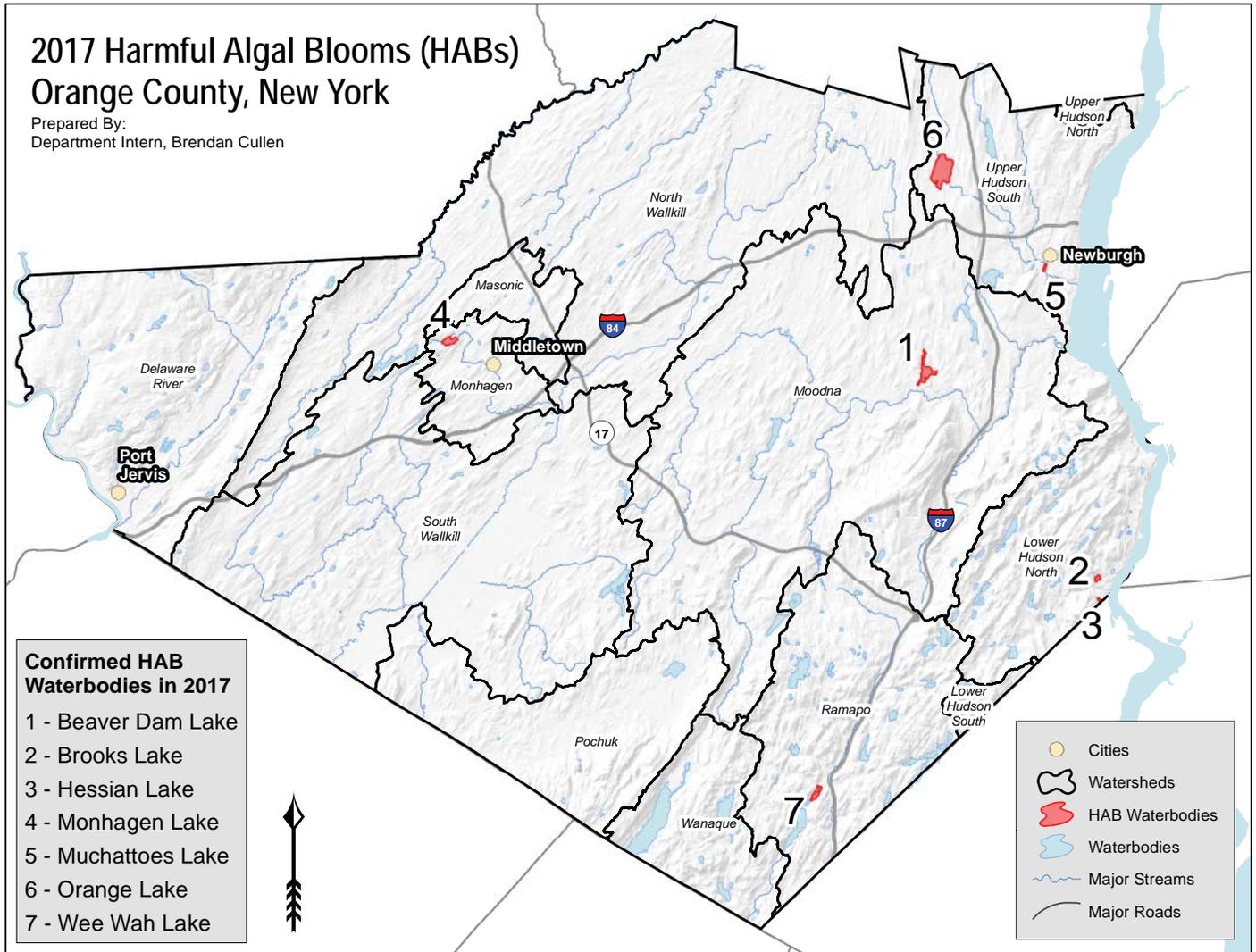
*Pictured from NYSDEC website*

require vegetated buffers along lakes and streams.

Not all algal blooms are toxic, but harmful algal blooms can lead to sickness or death, especially in animals such as dogs. In New York State, there are far more records of dogs dying or getting sick from HABs than of people. This is because their body mass is smaller and they are far more likely to drink from a lake or river than a person. To determine toxicity, a water sample from a bloom needs to be collected and tested in a lab.

The number of waterbodies with HABs in New York State has increased from roughly 55 in 2012 to over 160 in 2017. New York State allocated \$65 million to develop action plans for 12 lakes throughout the State that have suffered from HABs. Monhagen Lake is the only waterbody in Orange County that is proposed to be included in this initiative, and the Action Plan for that Lake was released in late spring 2018. To avoid or minimize future HABs, the Plan recommended such actions as: studying land use in the Lake’s watershed, upgrading an existing community wastewater treatment plant, conducting water quality sampling within the Lake,





land protection, and further research into the water treatment process used to make Monhagen Lake’s water potable.

Many lakes being funded with this State money are not drinking water supplies, but rather used for recreation. Lake George is one of the 12 lakes and has suffered decreased tourism during periods of HABs. Thus, economic hardship related to tourism is another impact of HABs. Note that this does not mean that the lakes were unfit for recreation use for all of 2017 - the blooms can last for brief or long periods and may only affect a small portion of the waterbody.

If you think you see an HAB in a waterway in the State, please report it to the NYSDEC by filling

out the Suspicious Algal Bloom Report Form, which can be downloaded from the [NYSDEC website](#) and emailed to the NYSDEC, or by calling 518-402-8179. The NYSDEC appreciates pictures to accompany Form submittal. A field technician will follow up by visiting the site and collecting the sample for testing. If the sample comes back positive, an email notification is sent to local and state agencies, including the County Health Department, and anyone who signed up for notifications via the NYSDEC website.

Please help keep your environment, community and dogs safe from HABs by learning more, getting involved in your community and reporting what you see!

