

Why couldn't we swim in our ponds this summer?

Cape Cod has what the state of Massachusetts calls "impaired ponds," often with thick patches of cyanobacterial blooms. And, no, you shouldn't swim, kayak, fish, wade, or walk your dog around it.

When you're around an impaired pond, even breathing in water droplets or mist can make you sick. Symptoms range from skin irritation, to gastrointestinal problems, to liver and kidney damage. Animals can get very ill very quickly.

While all bodies of water have nutrients in them that support aquatic life, they become harmful nutrient pollution when their growth accelerates. Human influences – from failing septic systems with runoffs to the use of fertilizers and pesticides – turn them into concentrated, toxic algal blooms.

"Everything we do ends up either in a pond or estuaries," says Karen Malkus-Benjamin, Coastal Health Resources Coordinator for the Town of Barnstable Health Division. Watch our interview with her in the video below and learn about cyanobacteria.

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The ponds have been in the news quite a bit. Check out this *Cape Cod Times* story <link> here about frustration over cyanobacteria in Orleans and a second one <link> here about small sacrifices residents in Santuit are being asked to make for the sake of their ponds.

You can't tell if these blue-green algal blooms are harmful just by looking, and some are deep in the water out of sight.

Be careful out there and heed all Heath Department warnings.



Clean water projects can cost millions and, sometimes, just woodchips

Every year, more than 8,000 kilograms of nitrogen flows into the Marstons Mills River from the cranberry bogs. The bogs produce groundwater discharge and "upwelling" of dense nutrient pollution from local septic systems which then flows into Three Bays estuary, already degraded by excess nitrogen.

Barnstable Clean Water Coalition (BCWC) and our partners at the EPA and the Nature Conservancy have just begun a pilot project in the bogs. Watch video below and you'll see us installing a woodchip-based bioreactor in one of the ditches in the bogs.

<insert video>

Woodchips are high carbon and low nitrogen, so they act like a sponge – soaking up some of the nitrogen. Can they reduce the nutrient pollution in the bog's surface water before it flows into the Marstons Mills River and then the delicate estuary? We'll find out.

At the same time, BCWC is also working to help retired cranberry bogs become open spaces, restoring streams, wetlands, and vital habitats. Check out a *Boston Globe* story <link> here.

Also, don't miss the video below about our workshop which included representatives of U.S. EPA Office of Research and Development, MassDEP, The Nature Conservancy, WHOI, the USGS New England Water Science Center, the UMass School for Marine Science and Technology, Barnstable DPW, and local bog owners.

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"Here we have a chance to use the natural system to change cranberry bogs back to the wetland they were historically," says BCWC Executive Director Zee Crocker, "and have nature do the work."