

Iowa's Beaches – Fun or Health Risk?

Iowa is home to some wonderful beaches.¹ Across the state, state parks have beaches where we can swim, wade, float, and sunbathe. Every summer the hot weather ushers in a series of swim advisories at Iowa's lakes, a warning that unsafe levels of E. coli or microcystin exist - levels that are harmful to human health.

Water testing is key

The Iowa Department of Natural Resources (DNR) tests the water near 39 beaches. This testing occurs during the swim season which is Memorial Day through Labor Day. The DNR updates the information every Friday. The water samples are taken at 3 depths – ankle, knee, and chest height. DNR issues swim advisories – swimming is not recommended – if testing shows high levels of indicator bacteria or microcystin toxins. The advisory stays in effect until tests show levels below the advisory threshold.²

Unfortunately you cannot look at the water and tell if it has high levels of indicator bacteria or microcystin toxins. Often the water is smelly, but not always. Green mats on the water indicate the presence of algae, but that alone does not indicate the presence of microcystin.



Swimmers at Lake Macbride State Park

How does the water get contaminated?

The DNR testing uses indicator bacteria – E. coli – to test for pathogens in the water. High levels of E. coli indicate that fecal matter is in the water; other pathogens may be present. The fecal matter can come from sewage treatment plants; septic tanks; wildlife, pet, or livestock manure; and baby diapers. Surface water after a rainfall may carry fecal material and sediment to the lake. Sunlight destroys the E. coli bacteria.

¹ For a list of Iowa's beaches, www.traveliowa.com/getinspireddetails/iowa-s-beaches/23/

² For current information on swim advisories, contact the Department of Natural Resources at 515-725-3434. You can also consult the DNR's webpage at www.iowadnr.gov/Environmental-Protection/Water-Quality/Water-Monitoring/Beaches

The Army Corps of Engineers monitors the reservoirs in Iowa. For information about the status of those lakes, their offices can be reached at

- Saylorville Lake - 515-276-4656
- Lake Red Rock - 641-828-7522
- Coralville Lake - 319-338-3543

Cyanobacteria – also called blue-green algae – can produce toxins called microcystins. High levels of nitrogen and phosphorus, from commercial fertilizer or fecal matter, encourage the growth of blue-green algae. The algae create blooms that can then create the toxin. Microcystin can be carried in water droplets.

Health risks

Illnesses from exposure to contaminated water include

- Gastrointestinal symptoms and diarrhea. You can get diarrhea by accidentally swallowing small amounts of contaminated water
- Skin infections and rashes
- Ear, nose, and throat symptoms, such as runny eyes and a sore throat
- Respiratory infections. Microcystin toxins can cause asthma-like symptoms
- Microcystin exposure can result in liver damage

The people most susceptible are children, elderly, people with weakened immune systems.



The Department of Natural Resources says “High levels of indicator bacteria or pathogens have no influence on the quality of fish for human consumption. While alive, the fish is protected from water-borne contaminants by the skin, scales and mucus covering its body. Proper fish cleaning, rinsing, refrigeration and cooking should always be used.”³

Why is this happening?

In spite of voluntary efforts, a significant quantity of nitrogen and phosphorus runs off farm fields and into Iowa’s lakes, rivers, and streams. Swim advisories will continue until nutrient levels are significantly reduced in Iowa’s water bodies. That is why Sierra Club is advocating for numerical standards for N & P for Iowa’s lakes, rivers, and streams, including a reasonable date for each water body to meet the standards.

What you can do

Write to the Department of Natural Resources and ask them to initiate rules to set numerical standards for N & P for Iowa’s lakes, rivers, and streams, including a reasonable date for each water body to meet the standards

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Write to your state senator and state representative and ask that they support a moratorium on building new or expanding existing animal feeding operations (factory farms)

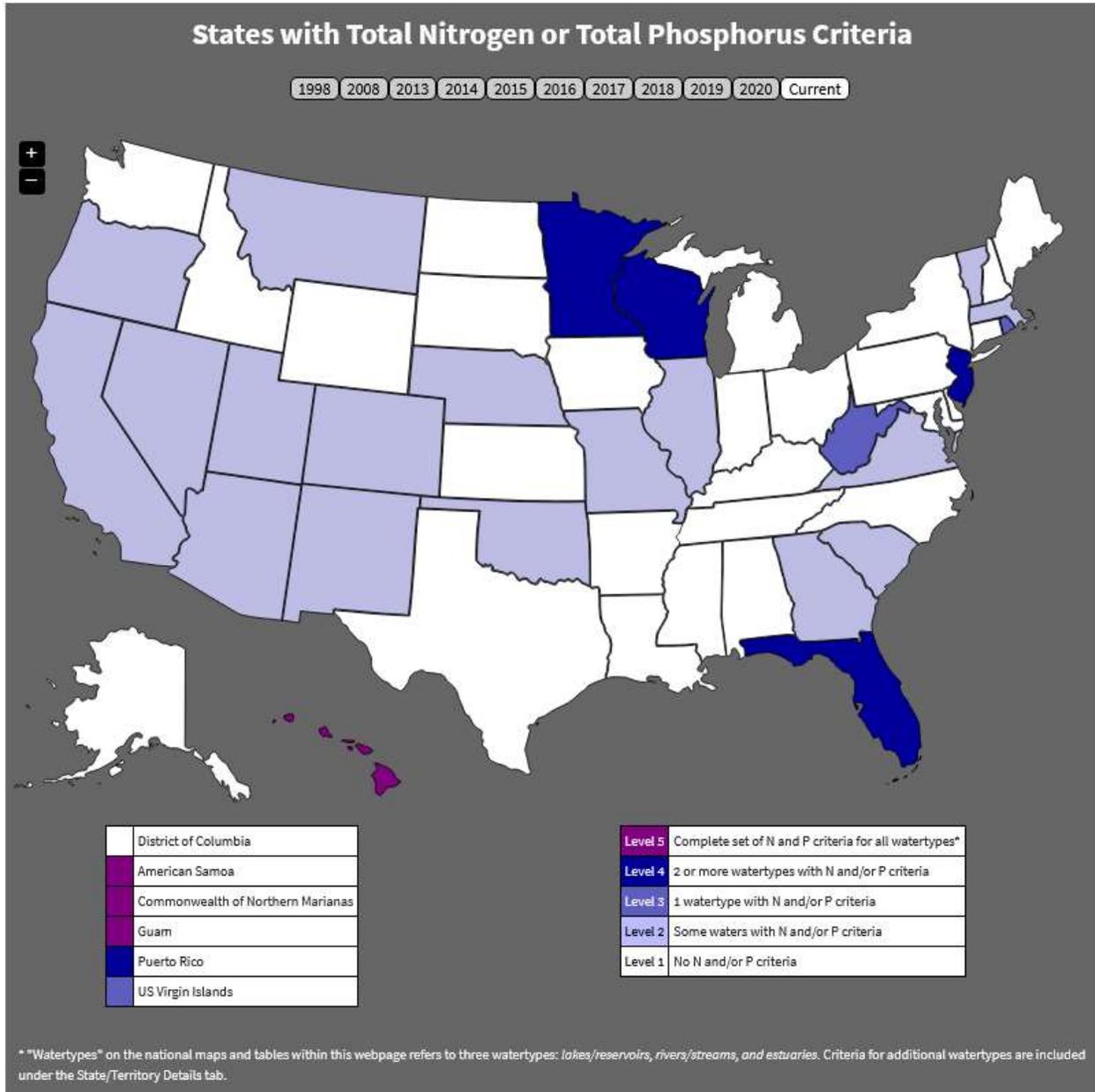
Contact information for state senators - www.legis.iowa.gov/legislators/senate

Contact information for state representatives - www.legis.iowa.gov/legislators/house

Find your legislator - www.legis.iowa.gov/legislators/find

³ www.iowadnr.gov/things-to-do/beach-monitoring

Iowa is falling behind on implementing N & P criteria⁴



⁴ www.epa.gov/nutrient-policy-data/state-progress-toward-developing-numeric-nutrient-water-quality-criteria as of June, 2020