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Environmental Law

In this issue, *Columbus Bar Lawyers Quarterly* digs into Environmental Law: from nutrient pollution to climate change, national parks to fracking and water rights to wildlife trafficking. This issue also investigates life as a new attorney, parenting coordination, working remotely and more.

A Tilted Balance:

Emerging Regulation of Nutrient Pollution in Ohio

BY REES ALEXANDER

For many Ohioans, the term “nutrient pollution” was unfamiliar until the summer of 2014. That summer, harmful algae blooms in Lake Erie generated microcystin, a toxin that made its way into the City of Toledo’s drinking water.

The City instructed 400,000 people to not drink or cook with tap water, prompting national media coverage. Environmental stakeholders turned their focus to nutrient pollution, the process in which excess nutrients—primarily phosphorus and nitrogen—flow

into bodies of water and fuel the growth of algae, including harmful algae blooms.

In order to understand current efforts to address Ohio’s nutrient pollution problem, it is necessary to understand the fundamental legal framework regulating water pollution. The Clean Water Act, through its permitting requirements, limits pollution from fixed points, so-called “point sources,” such as industrial and sewer pipes, including city-owned wastewater treatment plants. However, nutrient pollution primarily comes from sources of pollution other than these point sources, or “nonpoint” sources, such as runoff from fertilizer or manure used in

agricultural operations. These nonpoint sources are broadly dispersed over thousands of square miles. The Ohio Department of Agriculture generally oversees some agricultural nonpoint sources.

Ohio, like other states, requires wastewater from regulated point sources such as municipal sewage treatment systems and industrial sources to be treated. However, these laws do not require all types of pollutants to be removed before the wastewater is discharged back into the environment. Instead, the State issues permits that specify acceptable maximum limits of pollutants in discharged wastewater. This is based on



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the idea that trace levels of pollutants need not be removed when acceptably low levels of these pollutants can be diffused without posing a risk to human health or the environment.

With respect to nutrient issues specifically, Ohio EPA and U.S. EPA have worked to reduce excess nutrient levels since long before 2014. U.S. EPA set a policy in 1994 requiring that municipalities develop long-term control plans to control pollution that can contribute to nutrient problems from combined sewer systems, which treat both sanitary sewage and runoff. These combined systems can become inundated during rain events, frequently causing the discharge of untreated or partially-treated sewage. U.S. EPA has required improvements to these systems in over 99 percent of municipalities in the Great Lakes Basin. Additionally, Ohio EPA has long imposed a 1.0 mg/L phosphorus limit on all major Lake Erie Basin dischargers.

After 2014, Ohio has undertaken several other specific actions to combat nutrient pollution, focusing primarily on point sources.

Nutrient Mass Balance Study.

Ohio EPA began implementing a biennial study to evaluate the sources of nutrient pollution in 2016. The initial "Nutrient Mass Balance Study" evaluated the contribution of phosphorus in watersheds draining into Lake Erie and the Ohio River. Perhaps unsurprisingly, the

study concluded that the largest source of phosphorus is from the largely unregulated nonpoint sources, which are composed primarily of pollution from agricultural runoff. In the four watersheds identified as most significant by Ohio EPA, nonpoint sources accounted for 87, 84, 94 and 60 percent of phosphorus loading.

Great Lakes Binational Water Quality Agreement.

In 2012, the U.S. and Canada amended the Great Lakes Water Quality Agreement, which was initially signed in 1972. On June 13, 2015, the governors of Ohio and Michigan and the Premier of Ontario committed to a specific goal of reducing phosphorus loadings to Lake Erie by 40 percent from 2008 levels. The signatories aim to reach this goal by 2025. In November 2017, the Ohio Lake Erie Commission created a Domestic Action Plan that identified specific actions necessary to meet these nutrient reduction goals.

Phosphorus Technical and Financial Capability Study Requirements.

Ohio EPA required municipal sewage treatment systems to conduct studies by December 1, 2017 to evaluate their ability to reduce their phosphorus concentration in discharged wastewater to 1.0 mg/l. Although all large publicly-owned wastewater treatment plants in the sensitive watersheds of Northern Ohio near Lake Erie have this type of a limit, many other large treatment





Photo: NASA Earth Observatory

plants and industrial sources in other parts of the states do not have such stringent limits.

Limited Action with Nonpoint Sources Such as Agriculture.

The General Assembly has enacted a requirement that fertilizer applicators become certified and educated on the handling and application of fertilizer. It has also passed a law limiting the spreading of manure or fertilizer in the Lake Erie Watershed when the ground is frozen or rain events are anticipated. However, the focus on nonpoint source regulations continues to be on voluntary, non-enforceable nutrient reduction efforts, such as nutrient management plans and best practices like the “4R” program, which encourages use of the right source of nutrients at the right rate, time and place.

Ohio EPA continues to focus on further reducing nutrient contributions from the highly-regulated point sources. Recently, Ohio EPA has indicated that it will attempt to introduce legislation introducing strict 1.0 mg/l phosphorus limit for all municipal and industrial wastewater treatment systems. It has done so at least in part based on its determination that the costs to comply with such requirements at smaller facilities “could be a couple thousand dollars”—a conclusion that has already been widely disputed

in the regulated community. The City of London, for example, has reported that its costs will exceed \$3 million. By contrast, Ohio Department of Agriculture does not appear to be pursuing aggressive regulation of nonpoint sources.

Ohio EPA's legislation would undermine the efforts of stakeholders who favor a dynamic approach to nutrient regulation for point sources that accounts for whether the discharge would actually impact water quality in the receiving water body.

While Ohio's efforts with respect to point sources have helped to reduce nutrient pollution, a growing body of data suggests that nonpoint sources such as agriculture are the primary cause of nutrient pollution. Moving forward, it appears unlikely that Ohio will be able to achieve the State's ambitious nutrient reduction goals by pursuing an unbalanced regulatory strategy that focuses largely on point sources.



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