Distressed Watersheds

Although an impairment designation and a subsequent TMDL does not require states to regulate NPS, a State of Ohio "Distressed Watersheds Designation" can support state-level regulation over agricultural nutrient sources. The Distressed Watershed administrative rules developed in 2010 give the Director of Agriculture the authority to designate a watershed "in distress" based on several criteria including an Ohio EPA impairment designation due to nutrients, evidence that a watershed is a threat to public health, evidence of algal blooms, threats to public water supplies, evidence of contaminants in bathing waters, or nuisance conditions that impact aquatic life. A distressed designation triggers requirements for the storage, handling, and land application of manure, the control of sediments, and the development of nutrient management plans for agricultural operations within a designated watershed. The Ohio Soil and Water Conservation Commission (OSWCC), appointed by the governor, is the approving body for “Watershed in Distress” designations.

Below is a brief description of the role of state agencies in overseeing regulation and enforcement of the diverse activities that influence nutrient pollution.

Ohio Department of Agriculture

The Ohio Department of Agriculture Division of Soil and Water Conservation (DSWC) is charged with overseeing many of the agricultural activities that impact water quality in Lake Erie. In 2016, DSWC was transferred from the Department of Natural Resources (ODNR) to the Ohio Department of Agriculture (ODA) as directed by the 131st General Assembly in HB 64. At the same time, the powers and duties of the chief of the Division of Soil and Water Resources were delegated to the director of Agriculture. Through the Division of Soil and Water Conservation, the ODA also oversees the administration of the county Soil and Water Conservation Districts. However, decision-making and rulemaking is largely delegated to the seven-member Ohio Soil and Water Conservation Commission (OSWCC). The OSWCC is also the approving body for “Watershed in Distress” designations.

Among other regulatory programs, the ODA is responsible for regulation and enforcement of manure application to farm fields and the management of other residual farm products as defined in Chapter 939 of the Ohio Revised Code. Regulatory authority for concentrated animal feeding facilities (CAFFs) falls to the ODA. However, ODA does not regulate large concentrated feeding operations (CAFOs) that discharge to waters of the United States; those are regulated under an Ohio EPA NPDES permit. ODA, through the Soil and Water Conservation Districts, is also in charge of implementing the rules under “watersheds in distress” designations. Currently, only the Grand Lake St. Mary’s watershed falls under these rules, but a 2018 Executive Order by Governor John Kasich, if approved by a majority vote of the OSWCC, would also apply these rules to eight western Lake Erie basin watersheds.

ODA is responsible for the implementation of Senate Bill 1, passed by the Ohio General Assembly in 2015. This legislation places additional restrictions on nutrient applications in the western Lake Erie basin including restrictions on frozen or saturated soils, when rain is forecasted, or during winter months.

Ohio Environmental Protection Agency

The Ohio Environmental Protection Agency (Ohio EPA) is in charge of issuing and enforcing NPDES permits for wastewater, industry, stormwater, and other discharges to waters of the U.S. The agency also investigates and enforces rules related to illicit discharges and spills into waterways. Although Ohio EPA has very limited authority over most agricultural operations, the agency does hold permitting authority for some activities related to the operation of animal feeding operations. Concentrated Animal Feeding Operations (CAFOs)—that meet certain size thresholds—are required to obtain a NPDES permit through Ohio EPA if they discharge to waters of the U.S. Additionally, Ohio EPA holds regulatory authority over the use, storage, and land application of biosolids from wastewater treatment. While Ohio permits the land application of biosolids as a fertilizer, the standards are more stringent than the federal standards for biosolids and more stringent than Ohio’s standards for the land application of manure.

Agenda for Restoration and Protection of Natural Drainage Systems

Natural drainage systems that include networks of meandering streams, wetlands, riparian buffers, vegetated floodplains, forests, and grasslands offer a host of benefits to local communities, provide in-stream and terrestrial habitat, support native species, and improve the quality of local waterways and Lake Erie. Wetlands, forests, and other vegetated areas slow surface runoff and stream flow and concurrently reduce erosion and filter contaminants from runoff. Natural floodplains and floodways are important for the storage and conveyance of water from large rain events and serve an important role in preventing property damage and relieving burdens on engineered drainage systems.

Through on-going stream monitoring and assessment, Ohio EPA has identified degradation of natural drainage systems as one of the top causes of impairment to local streams in northwest Ohio. Through the process of urban, suburban, and agricultural development, many benefits of these natural drainage features have been degraded or eliminated. In urbanized areas, pavement, roofs, and other impervious surfaces increase the volume and velocity of runoff during rain events and load waterways with pollutants (e.g., sediment, nutrients, metals, organics, and hydrocarbons). In our region’s rural areas, the historic and ongoing drainage of swampland and forest through tile drainage and ditches have allowed for a robust agricultural economy while simultaneously accelerating the flow of sediment, nutrients, and other pollutants to local streams, rivers, and Lake Erie.

Some natural drainage benefit can be restored by protecting remaining riparian areas, floodplains, wetlands, forests, and grasslands while investing funds to strategically restore and enhance these features in areas where their natural functionality has been lost. On a smaller scale, green infrastructure practices that emphasize infiltration, evapotranspiration, and rainwater reuse can be implemented at the time of development or as retrofits to restore or mimic natural systems. Restoring the function of natural drainage systems will require an integrated approach that leans on changes to policies, practices, and funding mechanisms.

Recommended Policies for the Restoration and Protection of Natural Drainage Systems

Federal and State

- Ohio EPA should use the Construction General Permit to require stormwater infiltration on all new construction and redevelopment of more than one acre.

Regional

- Integrate balanced growth and low-impact development principles into the TMACOG Long Range Transportation Plan.
- Support public acquisition or establish permanent easement of riparian areas, by voluntary decision of willing property owners, and provide compensation for loss of property values.
- Local governments should review and update codes and ordinances to remove barriers to green infrastructure implementation and protection of natural areas that provide stormwater management services.
- County engineers, drain commissioners, and drainage boards should consider implementing ditch maintenance practices that reduce sediment and pollutant transport downstream while maintaining the drainage required for protection of property and agricultural production.
- Educate and engage local governments, foundations, businesses, non-profits, and neighborhoods to promote the incorporation of green infrastructure into landscape design.
- Support watershed-wide collaboration to identify green infrastructure and natural drainage system restoration projects to meet western Lake Erie water quality goals.

Funding

- Promote the use of stormwater utilities to fund green infrastructure improvements, long-term maintenance, and public education and engagement programs.
- Promote wetland mitigation and stormwater banking to offset impacts made through development and land conversion.
- Support funding for watershed-based planning with measurable goals and strategies for green infrastructure and natural drainage system restoration projects that address causes and sources of watershed impairment.
- Support funding for ongoing and regular updates to “9-element” watershed plans to ensure timely planning of green infrastructure and natural drainage system restoration projects.
- Support funding for the implementation of green infrastructure and natural drainage system restoration projects that are recommended in the watershed plans or that advance the goals of water quality improvement plans.