

PolicyPennings by Daryll E. Ray & Harwood D. Schaffer

Chesapeake Bay, EPA and agriculture

In late July, Washington Post reporter Darryl Fears wrote and article, “Alarming ‘dead zone’ grows in Chesapeake” (<http://tinyurl.com/kjrktvo>), that summarized the concern of Virginia and Maryland officials who “said the expanding area of oxygen-starved water is on track to become the bay’s largest ever.”

A dead zone is created when excess nutrients like nitrogen and phosphorus enter a waterway in quantities sufficient to lead to the rapid growth of algae, competing with other aquatic life for the available oxygen. As Fears puts it, “dead zones suck out oxygen from deep waters and kill any marine life that can’t get out of the way.”

The water quality problems in the Chesapeake Bay have a long history. According to the United States Department of Agriculture (USDA) June 2014 Economic Research Report Number 166, “An Economic Assessment of Policy Options To Reduce Agricultural Pollutants in the Chesapeake Bay” (<http://tinyurl.com/p6ejayv>) by Marc Ribaud, Jeffrey Savage, and Marcel Aillery, the situation in 1976 was such that “Congress directed the U.S. Environmental Protection Agency (EPA) to undertake a comprehensive study of the Bay’s condition and what measures would be necessary to restore it to its former health.”

Despite 30 years of work to improve the water quality, “a 2007 evaluation concluded that insufficient progress was being made toward load reductions.” As a result the “U.S. EPA established a Total Maximum Daily Load for the Bay.... It sets emission limits for nitrogen, phosphorus, and sediment across the Bay jurisdictions that are believed necessary to meet applicable water quality standards in the Bay and its tidal rivers and embayments.”

According to the USDA report, “Agriculture is the largest contributor of nutrients and sediment to the Bay. Crop production and animal operations contributed about 38 percent of total nitrogen loads, 45 percent of total phosphorus loads, and 60 percent of total sediment loads in 2007.”

A report by the Environmental Integrity Project – DC Office (EIP), “Poultry’s Phosphorus Problem” (<http://tinyurl.com/nvcl8lm>), says that, in Maryland’s Eastern Shore watersheds, the contribution of agriculture is even greater than for the Chesapeake Bay basin as a whole. In the report, EIP writes, “agriculture is the source of 60 to 73 percent of the nitrogen and 68 to 84 percent of the phosphorus in the Eastern Shore watersheds.” Much of that comes from the 1,339 chicken

farms that call the Eastern Shore home. These farms generate “over 1 billion pounds of manure containing an estimated 30.2 million pounds of phosphorus in Eastern Shore watersheds.”

In late 2013, a couple of farm-related organizations and a home builder association filed an appeal of a ruling by the 3rd US Circuit Court of Appeals in Philadelphia that the EPA was operating within its legal authority to work with the states contributing water to the Chesapeake Bay to set limits on the discharge of nutrients and sediments into the bay.

While point sources of pollution like industrial plants and municipal wastewater treatment plants can be regulated by the EPA, agricultural discharge of water is exempt from regulation by the EPA. In general, agricultural activity is a nonpoint source of pollution. Water coming off agricultural land can, however, be regulated by the states, thus the lawsuit against the current process by which the EPA sets the limits for the affected states which the states then allocate among polluters, including agriculture. Some in the agricultural community believe the appeal of the Philadelphia Court’s decision questions the authority of the EPA to effectively determine where farms can operate and homes can be built.

Whether or not the appellants prevail in the legal courtroom, they are likely to lose in the court of public opinion when John Q. and Jane Public read about the extent to which agriculture contributes to the pollution of the Chesapeake Bay, the Mississippi River, and the Gulf of Mexico. A change in public opinion could lead to action by Congress that would eliminate agriculture’s exemption under the Clean Water Act.

A better solution would be for agricultural organizations to get out ahead of the problem by designing and implementing programs and systems that will enable agriculture to meet increasingly stringent nutrient and sediment discharge limits. This likely will require public financial support, but with a proactive strategy to solving pollution problems that affect everyone the chances of gaining that support are enhanced.

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