

The Washington Post

[Back to previous page](#)

Alarming 'dead zone' grows in the Chesapeake

By [Darryl Fears](#),

A giant underwater "dead zone" in the Chesapeake Bay is growing at an alarming rate because of unusually high nutrient pollution levels this year, according to Virginia and Maryland officials. They said the expanding area of oxygen-starved water is on track to become the bay's largest ever.

This year's Chesapeake Bay dead zone covers a third of the bay, stretching from the Baltimore Harbor to the bay's mid-channel region in the Potomac River, about 83 miles, when it was last measured in late June. It has since expanded beyond the Potomac into Virginia, officials said.

Especially heavy flows of tainted water from the Susquehanna River brought as much nutrient pollution into the bay by May as normally comes in an entire average year, a Maryland Department of Natural Resources researcher said. As a result, "in Maryland we saw the worst June" ever for nutrient pollution, said Bruce Michael, director of the DNR's resource assessment service.

That's bad news for biologists who monitor the bay and horrible news for oysters and fish. Dead zones suck out oxygen from deep waters and kill any marine life that can't get out of the way.

Nutrient pollution from chemicals such as fertilizers provide a feast for bay algae, which bloom and die in a rapid cycle. They decompose into a black glop that sucks oxygen out of deeper waters. Oysters and other shellfish are doomed in dead zones. Fish and crabs can skitter to surface waters where there's more oxygen, but some don't make it, Michael said.

No one knows how many marine creatures perish in dead zones, "because we just don't know what goes on down there," Michael said.

"We know it's not good habitat for fish," he said. Chesapeake Bay shad, rockfish, oysters and crabs are already threatened species.

"If there's not good habitat, they're stressed and they won't reproduce," Michael said. "They're more susceptible to disease and won't eat. We want them to eat a lot of food and reproduce and grow."

Donald Boesch, president of the Center for Environmental Science at the University of Maryland and an expert on dead zones, said this year's water flow will rank at least among the five largest, a result of heavier-than-normal rains and snow melt mixed with high amounts of nitrogen, phosphorus and sediment.

Dead zones are a yearly occurrence caused by pollution in water that runs off cities and farms. They form in summer and usually dissipate in fall, sucking oxygen from deep waters and leaving dead oysters, clams, fish and crabs in their wake.

A similar phenomenon is taking shape in the Mississippi River Valley, where tons of chemical fertilizer run off huge industrial farms, the Nature Conservancy announced recently. Findings by [researchers at Texas A&M University](#) support predictions that remarkably heavy rains and snow melt in the valley will create the largest-ever dead zone in the Gulf of Mexico.

Dead zones run the length of the Atlantic Coast. Environmentalists say they are a testament to reports that pollution loads from ever-expanding cities and suburbs are growing and, in some cases, creating a monster.

The Chesapeake Bay is the nation's largest estuary, a freshwater nursery for many species of fish that grow and venture out to the Atlantic Ocean where larger marine animals rely on them for prey.

In December, the Environmental Protection Agency finalized a "[pollution diet](#)" to dramatically reduce the levels of nitrogen, phosphorus and sediment that states can allow in the bay from municipalities and farms.

The plan is more aggressive than its predecessors in past years that were criticized as ineffective. Under the plan, Chesapeake Bay watershed states — Virginia, Maryland, New York, West Virginia and Pennsylvania — and the District were required to draft and submit strategies to the EPA for reducing nutrient pollution.

The final plans will cost billions to improve municipal water treatment plants that contributed to nitrogen runoff, and to improve conservation efforts by farmers, particularly large animal-feed organizations where phosphorus runs into the bay when rain washes away manure.

But the plan is being challenged by two powerful lobbies and other groups that are [seeking a court order](#) to block it. The American Farm Bureau Federation argued that costly conservation requirements could drive farmers in the Chesapeake Bay watershed out of business, and that states — not the EPA — should determine pollution limits.

The group's lawsuit in a federal district court in Harrisburg, Pa., asks a judge to stop the plan from going forward. The National Association of Home Builders recently joined the suit.

The aim of the farm lobby's lawsuit is not the Chesapeake Bay region. Bob Stallman, its president, said the EPA's cleanup plan could be a harbinger for far-reaching requirements in the Mississippi River basin, where industrial farms are responsible for chemical runoff that lead to huge dead zones in the Gulf of Mexico.

Housing developments with paved driveways, streets and roofs without greenery are another source of nitrogen runoff because they send more rain across lawns than can be absorbed, washing lawn fertilizer into the watershed. Environmentalists say builders have resisted calls to create greener communities with permeable stone and grassy areas that soak up rain.

A spokesman for the National Association of Home Builders could not be reached for comment.

“If we had met our nutrient [pollution] reduction goals in the past, we would have a much smaller dead zone,” said Donald Boesch, president of the Center for Environmental Science at the University of Maryland. “Because the pollution is so high, every year is a bad year. You really have to get the bay in better health so it can clean itself.”

The Chesapeake Bay Foundation, [part of a coalition that sued the EPA in 2009](#) after decades of weaker anti-pollution measures failed to clean the bay, lambasted the farm bureau’s suit to stop the EPA’s plan.

“Farmers, the chicken council, fertilizer institute, hog people, turkey people . . . these are big Washington lobbying associations,” said Will Baker, the foundation’s president. “They’re not mom-and-pop farmers. If you look at the amount of money they’ve given to candidates and lobbying, it’s in the hundreds of millions.”

Baker said the size of this summer’s dead zone “is clear evidence that the bay is still in trouble” and that the EPA’s get-tougher approach to lowering pollution is the best way forward.

“What the litigants are asking is for those of us who enjoy clean water to sacrifice for their profit motive,” Baker said.

A farm bureau official said its lawsuit is not about the quality of the water. “Farmers in the Chesapeake Bay watershed take a back seat to no one in their commitment to helping clean up the bay,” said Paul Schlegel, director of environment and energy policy for the bureau.

“The lawsuit is . . . about what EPA can and cannot do based on the law Congress has written,” Schlegel said.

© The Washington Post Company