Environmentalists Sue EPA Over Dead Zone in Gulf of Mexico

The size of Connecticut and Rhode Island combined, the Gulf’s dead zone is now the second largest in the world.

By Dahr Jamail / Truthout | August 18, 2015

The second largest dead zone in the world is located in the Gulf of Mexico.

Excessive use of chemical fertilizers by industrial agriculture in the U.S. is one of the leading causes of the dead zone. The fertilizers, which contain phosphorous and nitrogen, generate an increase in algae, which then starves other marine life of oxygen in the water.

The Gulf of Mexico dead zone, which is the most closely studied human-caused coastal dead zone, was caused not only by massive amounts of the aforementioned chemicals, but also by other sources of nitrogen from animal feed, sewage treatment plants and urban runoff from the Mississippi River flowing into the Gulf. It has grown dramatically in recent years.

"The dead zone makes an area of the ocean floor — this year about the size of Connecticut and Rhode Island, combined — with oxygen levels so low, critters in these areas must swim away or suffocate and die," Matt Rota, senior policy director for the Gulf Restoration Network (GRN), an environmental group that works to protect the ecology of the Gulf of Mexico, told Truthout. "This dead zone not only causes some mortality but also makes it harder for fishermen, especially shrimpers and others that fish for bottom-dwelling fish, to make their catch."

Photo Credit: NOAA
Sediment is dredged up by ocean currents in the Gulf of Mexico, January 9, 2010. (Photo: NASA Earth Observatory /Jeff Schmaltz; Edited: LW / TO)

The fishermen thus must travel farther to make their catch, leading to much higher fuel costs. Another complicating factor is that the growing dead zone can also disrupt migratory patterns of animal life for species that spend part of their lives in Louisiana estuaries and some in the Gulf.

The U.S. Environmental Protection Agency, which is charged with the task of regulating the chemicals that are causing the dead zone, is now under fire from the Gulf Restoration Network for not doing its job.

"In 2001, state and federal bureaucrats set a goal of reducing the size of the dead zone to 1,950 square miles by 2015," Rota told Truthout. "Well here we are at 2015, and we are over three times that goal."

According to the network's press release on the subject: "In preparation for not meeting their goal, EPA announced in February that it would simply move the goal posts, pushing the deadline to 2035. This announcement did not include any specific new strategies for reaching the target."

So the Gulf Restoration Network is suing the EPA.

Suing for Environmental Protection

GRN's August 4 press release on the action, "Massive Dead Zone Announced, EPA Sidesteps Goal," reads:

Today's Dead Zone announcement from Louisiana researchers

http://www.alternet.org/environment/environmentalists-sue-epa-over-dead-zone-gulf-mexico
revealed that the EPA failed to meet a major goal it set in 2001 to reduce Mississippi River water pollution that is destroying aquatic life in the Gulf of Mexico.

Members of the Mississippi River Collaborative [a partnership of environmental organizations and legal centers from states bordering the Mississippi River as well as regional and national groups working on issues affecting the river and its tributaries] have been warning EPA for nearly a decade that its strategy to rely upon states to develop and enforce pollution protections is not working. In 2012, the groups filed a lawsuit against EPA for its refusal to set and enforce numeric standards for nitrogen and phosphorus pollution as part of its obligation under the Clean Water Act. EPA continues to fight the litigation.

Rota told Truthout that the lawsuit against the EPA, "has basically come down to getting EPA to make a determination that nitrogen and phosphorus pollution is a problem and numerical criteria are necessary. Even more narrowly, the lawsuit has come down to the question, does EPA even have to make a determination of necessity?"

The current case against the EPA began with a 2012 lawsuit against the agency. The case began in U.S. District Court for the Eastern District of Louisiana, where the EPA lost. The EPA appealed to the 5th Circuit Court of Appeals, which rejected its appeal and sent it back to District Court in April, where it is ongoing.

Thus far, the Gulf Restoration Network has won many of its arguments against the EPA in District Court, which the EPA has appealed. Written arguments will likely be given around September, according to Rota.

"The states and EPA need to stop dragging their feet and institute solid goals and timelines to address the Dead Zone and the impacts nitrogen and phosphorus pollution cause throughout the Mississippi River Basin and Gulf of Mexico," Rota added.

**Dead Zones**

The dead zone in the Gulf of Mexico is massive and growing nearly every year.
This year's measurement logs it at 6,474 square miles, large enough to cause both Louisiana State University and the Louisiana University Marine Consortium to issue statements of concern about it.

The aforementioned pollutants from industrial agriculture also cause other environmental problems that result in the death of livestock, pets, fish kills and damage to drinking water supplies.

Examples of the latter include an August 2014 incident where Toledo residents were warned not to drink or bath in their tap water after an algae bloom caused by phosphorous pollution exploded. Recently in Des Moines, record-high levels of nitrates forced that city's Water Works to activate a very expensive nitrate removal system to avoid nitrate exposure risks to humans that include cancers, miscarriages and blue baby syndrome.

In the UN's Global Environment Outlook Year Book 2003 report, 146 dead zones were recorded around the world. By 2009, it more than doubled to 407, and the number continues to grow.

Last year, a Smithsonian-led study showed that global dead zones will increase in both size and number due to human-caused climate disruption. The U.S. National Oceanographic and Atmospheric Administration has also released a study showing that rising global temperatures cause oceans to warm, which translates into a decreased capacity to hold oxygen, which of course augments dead zone activity.

The Gulf of Mexico dead zone varies in size and shape, but has been steadily increasing in size since it was first measured in 1985. It forms annually at the mouth of the Mississippi River, and spans an area that encompasses the entire coast of Louisiana and over to Texas.

Dr. Nancy Rabalais is a marine scientist and executive director of the Louisiana Universities Marine Consortium. She is the scientist who initially discovered the Gulf's dead zone and has tracked it every year since the mid-1980s.

Rabalais told Truthout that she believes the solution to the Gulf of Mexico dead
zone "lies at the source of the nutrients, up in the watershed."

"One of the issues with these areas offshore is that there are similar water quality problems further upstream in the watershed," she explained about the pollution stemming from industrial agriculture. "So if those are addressed, it will help both their quality and ours down here in the Gulf."

The impact of the dead zone in the Gulf of Mexico extends far across the US and is not limited to even coastal states.

"The nutrients that affect the Gulf of Mexico come from 41 percent of the lower 48 United States, primarily from the upper Mississippi River basin and the Ohio River basin," Rabalais explained. "These increased nutrients also affect drinking water quality in the upper part of the watershed and can cause noxious and toxic cyanobacterial blooms in freshwater aquatic systems and reservoirs. These are local water problems."

According to Rabalais, there was a need to put water supplies on tertiary treatment in Des Moines, Iowa, and Columbus, Ohio, many times in the spring. There are contaminated high nitrates in drinking water wells in those areas, among many others in the Midwest.

"These excess nutrients indicate not just a nutrient footprint but a carbon footprint," Rabalais said. "Use of fossil fuels, over-fertilization of large-scale corn production, animal manure from confined animal feed operations, some from cities and industry all contribute. Personal choices of automobile type, energy usage, food and lifestyle contribute more than necessary to the excess nutrient blight."

In addition to killing vast amounts of sea life, dead zones have other deleterious impacts.

A May 2011 study published in Proceedings of The Royal Society revealed that female Atlantic croaker fish are showing "masculinization" of their ovaries, hence displaying endocrine implications on the fish exposed to the dead zone.

The study also stated: "There was a marked impairment of testicular growth and spermatogenesis in croakers at the hypoxic sites." Hypoxia, or low oxygen, is an environmental phenomenon where the concentration of oxygen in the water column decreases to a level that can no longer support living aquatic organisms.

The study went on to call dead zones "one of the most dramatic global
changes owing to human activities over the last half-century."

When Truthout asked Rota what it would mean for the Gulf of Mexico if the dead zone is allowed to continue to grow, his outlook was bleak.

"We will continue to have a massive area where there is too little oxygen for sea life to live," he said. "Some scientists suggest that we could see an ecological regime shift where the longer we let things go, the harder it will be for the environment to recover."

Rabalais is one of those scientists.

"The size is not getting smaller despite the efforts of the Mississippi River Nutrient/Gulf of Mexico Task Force and its Action Plan to reduce the size to 5,000 km² by 2015," she told Truthout. "The date has now been extended to 2035. The goal was set in 2001 and reset in 2008, but although the goal remains the same, the date is now extended 20 more years. If no progress has been made in 15 years, how much can be expected in 20 more?"

She was blunt about what she believes the solution to dead zone in the Gulf of Mexico needs to be.

"There are good efforts to reduce nutrients but they are smaller scale," Rabalais concluded. "There needs to be a societal and political shift in the agriculture industry and US farm policy."

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Dahr Jamail, a Truthout staff reporter, is the author of The Will to Resist: Soldiers Who Refuse to Fight in Iraq and Afghanistan (Haymarket Books, 2009, and Beyond the Green Zone: Dispatches From an Unembedded Journalist in Occupied Iraq (Haymarket Books, 2007). Jamail reported from Iraq for more than a year, as well as from Lebanon, Syria, Jordan and Turkey over the last ten years, and has won the Martha Gellhorn Award for Investigative Journalism, among other awards.