



Wave Maker's News

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Welcome to the July edition of Wave Maker's! This issue focuses on the Dead Zone. Read to find out more about the size of this year's Dead Zone, the causes of the Dead Zone, and what the Ethanol boom means for the health of the Gulf of Mexico.



The Dead Zone Strikes Again

It's the middle of summer, the time when we join with our families to have picnics, go on vacations, and rest up for a new school year. That is, unless you're a crab or brown shrimp in the Gulf of Mexico. If you were, you would be gasping for breath and desperately trying to escape the Dead Zone, an area with oxygen levels so low that you wouldn't be able to breathe.

Once again the size of this year's Dead Zone is huge. Dr. Nancy Rabalais recently finished her annual mapping of the entire area, and found that the size of the 2007 Dead Zone was 7,900 square miles—the third largest recorded Dead Zone to date. The lack of oxygen in the Dead Zone poses a serious threat to species diversity in the Gulf and to



Photo by Nancy Rabalais



Photo Courtesy of Nancy Rabalais, Louisiana Universities Marine Consortium

the \$2.8 billion commercial and recreational fishing industry. And the kicker is that humans are responsible for the cause of this New Jersey-sized area where practically nothing can live.

So what causes the Dead Zone? The Gulf of Mexico is at the bottom of a huge watershed that drains almost half of the continental United States, via the Mississippi River. When the Mississippi River reaches the Gulf of Mexico, it is loaded with nitrogen and phosphorus pollution that comes from agricultural run-off, sewage treatment plants,

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Farms, Fertilizer, Corn, and Crabs: How Farming Affects the Dead Zone

The Dead Zone forms in the Gulf of Mexico, but the problem starts in the farmland of the Upper Mississippi River Basin in states like Iowa, Illinois, and Ohio. Without an overhaul of our nation's farm policy in upstream Mississippi River states, it will be difficult to make any real progress in reducing the Dead Zone off the coast of Louisiana. The good news is we already know how to stop the

problem. A recent study by 25 leading scientists found that applying fertilizers with greater precision, along with other conservation measures such as wetland restoration and the use of native grasses for biofuels, could dramatically reduce the size of the Dead Zone.

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The Dead Zone "Inaction Plan"

Approximately six years ago, the states in the Mississippi River Basin and federal agencies completed development of an "Action Plan" for reducing the size of the Dead Zone that forms in the Gulf of Mexico every summer. While many of these goals were somewhat vague and weak, the overall goal was to reduce the Dead Zone to a size of 5,000 km² (1,930 mi²).

Years have passed and practically none of the goals outlined in the Action Plan have been met. In the meantime, this year's Dead Zone measured 7,900 square miles and is among the top three largest ever recorded. With little advancement towards the goal of reducing the Dead Zone, it is important to step back and analyze why the Action Plan has not been effective. While there are quite a few reasons for the plan's failure, the three aspects that have contributed the most to the "Inaction" Plan are the reliance on voluntary programs, a hijacked "reassessment" process, and the lack of dedicated funding to fully implement steps to achieve the various goals set back in 2001.

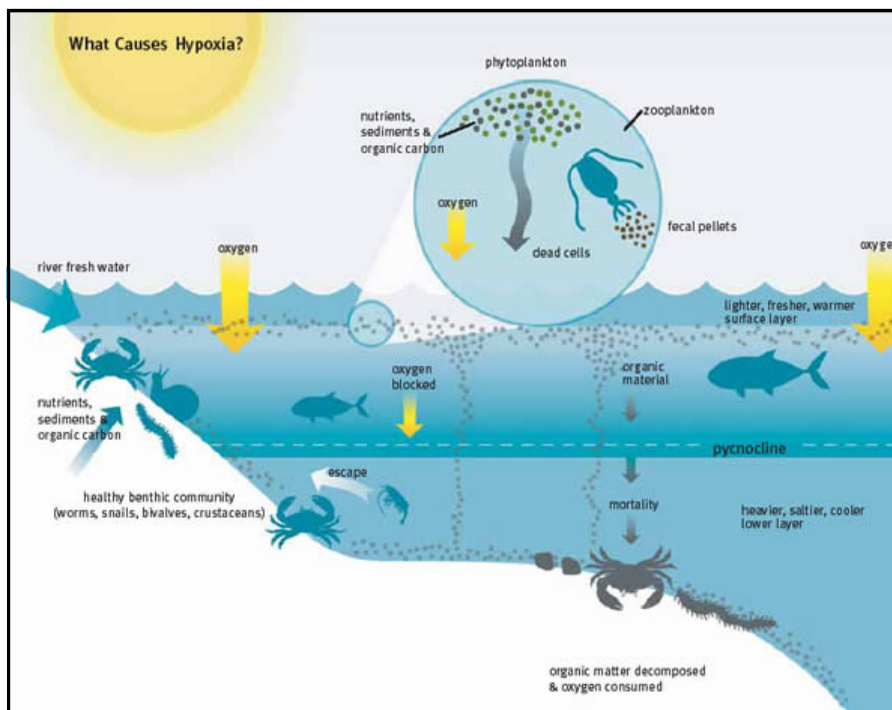
After the inception of the "Action Plan," many of the desired results were to be achieved through voluntary action on the part of farmers and other sources of Dead Zone-causing pollution. The lack of reduction in this pollution suggests that voluntary actions without adequate incentives are not effective. While there are

good performers in the agricultural, industrial, and municipal arenas, the majority of actors are unlikely to reduce pollution unless there is a strong incentive – either economic or legal. The Gulf Restoration Network supports an approach that both offers incentives for good behavior and forces all polluters to meet a minimum bar. The EPA and state agencies need to set concrete requirements for reducing nitrogen and phosphorus pollution. These regulations would set a baseline for polluters to achieve.

Part of the "Action Plan" stated that every five years, the accomplished goals should be analyzed and the plan reassessed to reflect lessons learned. This well-intentioned idea of adapting the plan to take into account pollution reduction successes was hijacked by various interests trying to avoid restrictions on Dead Zone-causing pollution. In order to delay regulation, they actively questioned the science of the Dead Zone, claiming pollution reduction policies should not be required until the science was completely known. Thus the process put in place to adapt to best practices turned into a reassessment of the science of the Dead Zone; despite the fact that scientists agree nitrogen pollution is the major driver of the Dead Zone. Subsequently, the past two years have been spent reassessing the science of the Dead Zone, instead of taking mean-

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What Causes the Dead Zone?



Courtesy of EPA.

What You Can Do

- Educate your friends and neighbors about this problem.
- Ask your state to pursue aggressive nitrogen and phosphorus pollution reduction strategies.
- Ask to your legislators to push to fully fund the [Dead Zone Action Plan](#).
- Reduce fertilizer application to your lawn
- Ensure that your septic system (if applicable) is regularly inspected and working properly.

From the Bread Basket to the Gulf of Mexico (continued from page 1)

Unfortunately, recent trends suggest that the size of the Dead Zone will continue to increase, unless the government dramatically changes current farm policy. This year, farmers are planting a record number of acres of corn, a fertilizer-intensive crop, in order to take advantage of high corn prices brought on by the ethanol fuel boom. With increased fertilizer application, the Mississippi River is likely to contain an increased amount of polluted runoff. To make matters worse, much of the increased corn production is taking place on environmentally sensitive land, including areas that have the potential to experience tremendous amounts of soil erosion. The ethanol boom could spell serious trouble for the Gulf of Mexico as well as streams, rivers, and lakes in the Midwest, which is why many organizations have begun to question whether producing so much corn-based ethanol is a good idea.

While agricultural practices continue to harm the Gulf of Mexico, our farm policy continues to ignore the existence of the Dead Zone. Farm payments in the U.S. go overwhelmingly toward commodity subsidies for corn, soybean, cotton, rice, and wheat, while neglecting to pay farmers for conservation practices that reduce Dead Zone causing pollution. In fact, an Environmental Working Group study found that farms in 124 counties in the Mississippi River Basin account for just five percent of the land, but 40 percent of the spring nitrate fertilizer pollution that ends up in the Gulf. In those same 124 counties, crop subsidy payments were about 500 times greater than conservation payments, with \$11.4 billion spent on crop subsidies compared to \$22.5 million spent on improving water quality.

Negative Ethanol Impacts

- Ethanol production plants require roughly 3 gallons of water to produce 1 gallon ethanol.
- Ethanol plants produce air pollution and ethanol can produce increased smog when blended with gasoline.
- Increased corn production will lead to more soil erosion.
- The jury is still out on whether there is a net energy benefit to ethanol. Some researchers believe that it takes as much energy to produce ethanol as is gained.



Courtesy of EPA

If we are to eliminate the Dead Zone, we must first address the discrepancy in funding between crop subsidies and conservation incentives. There are currently two farm conservation programs that remain vastly under funded. The Environmental Quality Incentives Program (EQIP) offers small amounts of funding to complete conservation projects on farms. In 2004, there were over 11,000 farmers who made requests to the program that went unfunded to the tune of \$52 million. The Wetlands Reserve Program provides payments to farmers to keep their land as wetlands, rather than converting the wetlands to farmland. In 2004, there were 2,450 farmers who were unable to enroll in the program due to lack of funding. In this year's farm bill, lawmakers must increase the funding for these two conservation programs.

Fortunately, there are amendments to this year's farm bill that would help reduce Dead Zone causing pollution. The Discovery Watershed Program Bill would provide a small amount of funding for farm projects to improve water quality. While this funding is far from what is needed, it could help by demonstrating that it is feasible and cost effective to reduce fertilizer runoff from farms. Rep. Ron Kind's Upper Mississippi River Basin Protection Act, which has passed in the House, but not yet in the Senate, would provide money to study runoff in the Upper Mississippi River Basin where much of the Dead Zone-causing pollution originates.

If you are interested in helping to reduce the Dead Zone, be sure to write your Senators and tell them to increase funding for conservation programs such as EQIP and the Wetlands Reserve Program. Also, let them know that you support the Discovery Watershed Program and the Upper Mississippi River Basin Protection Act. For the good of the Gulf, we must fix our broken farm policy. ■



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GRN Photo

UNITED FOR A HEALTHY GULF

This year's Dead Zone (continued from page 1)

and other industries. The polluted water acts as a fertilizer for algae, resulting in large algal blooms. When the algae die, they sink to the saltier water below and decompose, depleting already low oxygen in the deeper water. Because the salty bottom waters do not mix well with the lighter, fresh water from the Mississippi River, oxygen in the water is not replenished, resulting in a large dead zone in bottom waters.

In order to make sure the Gulf fishery remains productive, the size of the Dead Zone must be reduced, and the GRN is working hard to make sure this monumental task happens. It will happen by using different strategies and tools, such as making sure the Farm Bill has adequate incentives to prevent Dead Zone-causing pollution from running off of agricultural fields and making sure that

the agencies responsible for our nation's environmental well-being do their jobs well and effectively. Before any of this can happen, we need the people that are concerned about Dead Zone to speak up!

If there were an area the size of New Jersey in the middle of America's Heartland where nothing could live or grow, people would be outraged. Even though the Gulf of Mexico Dead Zone is less visible, it is no less important. But action to fix the Dead Zone can only happen if people hear about the problem—that's where you, our Wave Makers, come in. In this issue we will pass on detailed information regarding what is happening with the Dead Zone and what we can do to stop its continued growth and reduce its size. ■

Inaction allows for continued growth (continued from page 2)

ingful and achievable steps to end damage to the Gulf fishery. We are now nearing the end of this process and a new plan should be out in the next six months. It should be of no surprise that the scientists still think, what they thought six years ago, that reducing nitrogen pollution from agricultural fields, industries, and sewage treatment plants will reduce the size of the Dead Zone.

In addition to the road blocks mentioned earlier, the federal government has not dedicated sufficient funds to implement the action plan. To top off all of the issues that have stymied the reduction of the Dead Zone, there has been almost no money dedicated to the problem. The prevention of thousands of pounds of phosphorus and nitrogen pollution will require money. Without these funds a newly reassessed Action Plan will accomplish what we already have:

practically nothing. The Dead Zone needs to become a priority to all of our environmental agencies, the Governors of all of the states that contribute to the problem, and the U.S. Congress.

Because the destruction of the fisheries of the Northern Gulf due to Dead Zone-causing pollution has not been a priority to our States' and Nation's leaders, the people must act. By writing to our congressional representatives and our governors, writing letters to our local newspapers, and telling our friends, families, and colleagues to do the same, we can work together to make the Dead Zone a national priority and demand a real action plan.

You can take action now by visiting healthygulf.org to send a letter to your congressional delegation, and the taskforce charged with writing the new Dead Zone Action Plan. ■

Have a Question? Want to learn more or get involved?

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