



# Water Runoff Pollution Threatens Louisiana Economy

## *Clean Water is Good for Business*

**Runoff pollution** harms important Louisiana industries including agriculture, fishing and tourism. When runoff pollution is not handled effectively, the economic damage to businesses adds up to billions of dollars every year.

### **What is Runoff Pollution?**

Runoff water is rain and snowmelt not immediately absorbed and filtered by the ground that instead runs off the surface, seeping into streams, ponds, rivers, lakes, and oceans. Byproducts of modern agriculture, urbanization and industry all contaminate runoff water.

**Agricultural runoff** comes from livestock waste and chemical products such as fertilizers and synthetic pesticides. All contain high levels of nitrogen, phosphorous, and other compounds that rain sluices into bodies of water, where they cause pollution and fertilize algae blooms that kill fish.

**Urban runoff** results from oil, grease, antifreeze, brake fluid and other polluting products deposited by motor vehicles on roads, in parking lots and other impervious paved surfaces, and from improper disposal of products such as paint and lawn care chemicals. All mix with rainwater that carries them directly into bodies of water before topsoil can absorb them.

**Industrial runoff** is caused when industries do not properly dispose of their waste. Every year, power plants that burn coal emit millions of tons of coal ash; particulate matter infused with toxins like sulfur dioxide, nitrogen oxide and



### **IN A SNAPSHOT**

- Almost 20% of America's lakes and almost 30% of streams and rivers have high levels of nitrogen and phosphorous pollution, according to EPA studies in 2006 and 2010. Nearly half of our bodies of water are already polluted and need serious public and private effort to curtail damage.
- The U.S. agricultural industry uses 750 million pounds of 20,000 different chemicals every year, including herbicides, pesticides, nutrient fertilizers and others, much of which combines with water to become runoff pollution.
- Louisiana suffers more consequences of upstream pollution than any other state, so it needs more funding to research and implement best management practices. Louisiana's own Coastal Protection and Restoration Authority (CPRA) as well as the EPA should support it.
- A water quality credit trading program is a market-based incentive to reduce pollutants which has already proved successful in Florida and could greatly benefit waters of the Mississippi and Gulf in Louisiana.

carbon monoxide. In excess, these are dispersed to fall on waterways and on the ground, to mix with rainwater as runoff pollution.

### **Runoff Pollution Harms and Costs Louisiana Businesses**

Runoff pollution from farming fertilizers and pesticides poison water sources and cause erosion and soil degradation that make land unfit for growing crops.

Runoff pollution fuels algae blooms that kill local fisheries: NOAA estimates that the "dead zone" at the mouth of the Mississippi River costs the Gulf of Mexico region nearly \$82 million annually in lost seafood.

Runoff pollution hurts tourism and recreation businesses by damaging bodies of water in national and state parks and other outdoor areas. High levels of nutrient pollution have cost \$37 to \$47 million dollars in lost tourism revenue in one lake alone. Removing runoff pollution from waterways with an alum treatment costs hundreds of thousands of dollars and is not permanent. Removing it by dredging can cost millions.



Businesses not directly connected to clean water are still vulnerable to water pollution: All need a healthy workforce, healthy customers and an uncontaminated supply chain to survive. And otherwise-good investments are impacted: property values can erode by as much as \$85,000 on land near water with high nutrient pollution levels.

Businesses use substances that damage the environment to achieve short-term profits but incur long-term, larger losses — and so do the taxpayers in communities around them. Sustainable business practices earn consumer appeal, improve overall well being, foster market vitality and provide more reliable success companies can plan on.

### Water Pollution Damages Economic Potential

Non-point pollution (runoff pollution from a combination of agriculture, industry, and urbanization) is doing great and growing harm in the state. In Louisiana alone, over 6,900 miles of rivers and streams and over 629,000 acres of lakes, reservoirs, and ponds were rated by the EPA in 2012 as impaired — too polluted for human use — with non-point pollution as the primary cause.

This high level of runoff pollution endangers thousands of Louisiana businesses, along with the livelihoods of millions of state residents. Louisiana has over 28,000 farms which generate \$3.8 billion annually in economic value, and most of these farms rely on Louisiana's rivers and lakes for their water. Agriculture is one of the biggest sources of runoff pollution but is also one of the industries that will lose the most if runoff pollution is not controlled.

Louisiana's seafood industry — which employs one in every seventy Louisianans and generates \$2.4 billion annually — is under serious threat from runoff pollution. The notorious "dead zone" at the mouth of the Mississippi River in the Gulf of Mexico is caused by fertilizer runoff that cultivates massive algae growth and chokes off oxygen, killing multitudes of fish and other seafood every year. If we don't actively control runoff pollution very soon, Louisiana businesses will pay the price.

Sensible recommendations to help control water runoff pollution in Louisiana include incentives for more conservative farming methods, regulations to minimize runoff pollution and full enforcement under existing Louisiana law or the Clean Water Act, and research and application of best management practices. Specifically, it would be advisable to:

- **Increase funding and research** for river diversion.

Louisiana suffers more consequences of upstream pollution

than any other state. To mitigate these consequences, an increase in funding is needed to research and implement best management practices. For example, river diversions help to assimilate nutrient (fertilizer) pollution before it reaches the Gulf. Louisiana's own Coastal Protection and Restoration Authority (CPRA) estimates that the state's existing river diversions remove 4,381 tons of nitrogen and 124 tons of phosphorous every year. Diversions have attracted some controversy because of questions about their influence on water salinity (salt levels). River diversion research deserves more funding so we can divert the river in a way that does not harm any biological characteristic of Louisiana's rivers or coastlines.

- **Revitalize and expand conservation programs** to include runoff pollution. Conservation programs recommended by the US Department of Agriculture's Natural Resource Conservation Service in Louisiana should be the backbone of nonpoint source pollution management on the ground. Over 90 such conservation programs have been implemented in Louisiana to improve water quality, including programs for agriculture solid-waste management, prescribed burning, and conservation reserve enhancement. Current programs do not address runoff pollution, so new programs need to help with this challenge. They also need to include stronger procedures for enforcement and to eliminate inefficient practices. For example, in Louisiana, levees hydrologically disconnect the Mississippi River from its natural floodplains, with well-known results. The new conservation program should reconnect the river to its floodplain, which would let the natural process of fertilizer (nutrient) pollution removal to do its job.
- **Establish a water quality credits trading market** with caps. A water quality credit trading program is a market-based incentive to internalize costs to the polluter. To ensure this trading market achieves public water quality goals, a cap for each pollutant should be set and monitored for the Mississippi River watershed in Louisiana. This market-based program has already proved successful in reducing pollutants in Florida and other coastal states, and would be of great benefit both to the waters of the Mississippi River and the Gulf of Mexico as well as many smaller bodies of water in the state.

A combination of these public and private measures and other innovations must be implemented now to reduce water runoff pollution and protect our priceless resource: clean water. ★



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To take action on clean water issues, please visit [asbcouncil.org](http://asbcouncil.org)