

POLLUTION EVENTS & SOURCES: SUMMARY



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Photo by Chris Kuhlman

SUMMARY

- Galveston Bay suffered a large oil spill in 2014.
- Trash and toxic contaminants in the Bay are inadequately monitored.
- A long history of industrial contamination has polluted Galveston Bay sediment. Some contaminants are known to persist in the environment for many years, even after they are no longer produced.



Galveston Bay received a D for pollution events and pollution sources in 2014. A vessel collision in March spilled approximately 168,000 gallons of heavy fuel oil, impacting wildlife, habitat, and the safety of our seafood supply. Petroleum is highly toxic to Bay animals, and to any humans who might consume fish or shellfish contaminated by oil. More than 1.2 billion barrels of oil pass near Texas' wetlands, bays, and beaches each year.

Galveston Bay's long history of industrial manufacturing has caused environmental damage. The pollution from this manufacturing has left toxic compounds in the sediment of our rivers, bayous, and Galveston Bay itself. Trash and toxics can threaten the environment and human health. But they are inadequately monitored across large portions of the Bay, resulting in the assessment of "incomplete" grades for two of our three indicators.

Living with the Damage

Oil spills and toxic contamination are environmental risks we live with as Galveston Bay's local economy benefits from shipping and industrial activity. The good news is that the Bay is a less toxic place now than in the years before the Clean Water Act of 1972. As we learn more about the harmful compounds that result from manufacturing products and chemicals, we have strengthened regulations and found innovative ways to reduce pollution from industrial runoff and wastewater. Industries along the Bay have invested in technologies to reduce pollutants and improve safety, and those investments are paying off.

However, some toxics, like PCBs, have been banned for decades but are still present in the environment. There are also more people living and contributing to pollution and trash in the Houston area now than there were in the 1970s, and the population is expected to keep growing. There is still plenty of work to be done to clean up Galveston Bay.

WHAT YOU CAN DO

Back the Bay by Keeping it Clean

REPORT

- Environmental emergencies, discharges, spills or air releases can be reported to the Texas General Land Office and the Texas Commission on Environmental Quality at 1-800-832-8224.
- The Galveston Bay Action Network is an interactive tool for submitting and viewing water-related pollution and waste dumping reports across the four counties that touch Galveston Bay (Brazoria, Chambers, Galveston, and Harris). Reports are sent directly to the appropriate authorities, so you do not have to do research to find out where to send your concerns.

SPEAK UP

- Contact local officials and legislators about making the cleanup and preservation of Galveston Bay a priority.
- Participate in public processes to clean up known pollution sites, like the San Jacinto River Waste Pits.

PICK IT UP

- Remember that pollution and litter are everyone's problem. If you see trash, pick it up before it ends up in the Bay.

MAINTAIN YOUR VEHICLE

- According to the U.S. Environmental Protection Agency, a single quart of spilled or leaked motor oil can pollute 2 million gallons of drinking water.

TOXICS IN SEDIMENT

- Toxic chemicals pose a threat to the environment and our health.
- Contaminants often attach to particles of soil, rather than water.
- Toxics are known to biomagnify, or build up, in the food chain, contaminating our seafood.

Toxic chemicals pose a threat to our environment and health. Many of these toxic contaminants are found in higher concentrations in sediment — the materials (like soil and rocks) that are washed down rivers and bayous. Sediment eventually settles to the bottom of a body of water. Toxic contaminants within sediment can attach to particles of soil and then find their way into the food chain.

The report card looks at five of these contaminants: PCBs, dioxins, PAHs, pesticides, and metals.

ORGANICS:

- PCBs, or polychlorinated biphenyls, can be found in electrical transformers and other equipment. While the manufacture of PCBs has been banned since 1979, they may be present in products and materials produced before the ban. PCBs are considered a legacy pollutant, a class of toxics that persist in the environment from contamination that largely occurred in the past.
- Dioxins are chlorinated byproducts of chemical manufacturing, incineration, and the pulp and paper industry. The EPA Superfund site known as the San Jacinto River Waste Pits is a former paper mill waste disposal site that is a significant source of dioxin contamination in Galveston Bay, and it's most likely not the only one. Dioxin may also enter the Bay through the air.
- PAHs, or polycyclic aromatic hydrocarbons, are a class of chemicals most often deposited into the Bay through the air. PAHs result from the incomplete burning of coal, oil, gas, garbage, or other organic substances. They may also get deposited into the Bay as urban runoff that washes away vehicle pollution.
- Pesticides are substances intended to control insects. Herbicides are used to control weeds and other unwanted plants. Pesticides and herbicides are both used on farmland and residential and commercial properties. When it rains, runoff from yards, farmland, and roadsides carry these chemicals into local streams, bayous, rivers and the Bay itself.

METALS:

- Heavy metals — such as mercury, lead, and chromium — reach the Bay from sources linked to the land, water, and air. For example, mercury and lead can enter the air through manufacturing processes and the burning of coal or waste. Metals are also used in a variety of industrial processes, and found in sources such as paint and batteries.