



Bay Briefings



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Spills, Fills, and Dumping

Overview

Spills related to industry and shipping are often thought to be the most common and the most dangerous to the environment. However, sensitive habitats and wildlife populations can be harmed as much by the improper disposal of trash as by the spilling of oil and other chemicals. In addition to causing environmental harm, spills and illegal dumping affect the human population by contaminating seafood and by destroying the beauty of our bays and bayous. The Galveston Bay Estuary Program supports ongoing activities that reduce solid waste and prevent and respond to spills of hazardous materials. These activities include trash control, natural-resource damage assessments, and spill management.

Spills and Dumping

Given the highly urban and industrial nature of much of the Lower Galveston Bay watershed, the potential for environmental harm caused by spills and dumping is always present. This type of environmental contamination comes from a variety of sources, including municipal solid waste, industrial spills, spills related to the shipping industry, and derelict structures such as abandoned boats and crab traps.

Petroleum, one of the most pervasive contaminants, comes from industrial, municipal, and individual sources. Petroleum is highly toxic to some estuarine organisms, particularly to their larval stages.

Of the five counties surrounding Galveston Bay (Brazoria, Chambers, Galveston, Harris, and Liberty), the majority of petrochemical spills occur in Harris and Galveston counties.

The Galveston Bay Indicators Project, a study by the Estuary Program, compared the number of vessel spills and incidents to the volume of vessel traffic entering the regional ports of Houston, Galveston, and Texas City. Vessel incidents include collisions of ships with other ships, stationary objects, and the ground. Study results indicate that vessel safety has increased dramatically over the past decades and, given the high volume of marine traffic in Galveston Bay, spills are relatively few.

Solid Waste

In addition to chemical spills and dumping, solid waste poses a problem in the Lower Galveston Bay watershed when it is not disposed of properly. Litter originates from streets and parking lots and enters Galveston Bay and the surrounding bayous directly through storm sewers. Waste that enters storm sewers historically has not been treated or captured in any way.

Solid waste can harm wildlife through accidental ingestion, and can reduce the quality of life and the aesthetic or scenic quality of wild places.

Marine debris, such as abandoned vessels and crab traps, is also a problem in the Lower Galveston Bay watershed. In addition to being a hazard to navigation, abandoned vessels can leak fuel and oil and are a nuisance and eyesore. Abandoned crab traps can be lost in storms or forgotten by the person who deployed them. Abandoned traps, or “ghost traps,” pose a navigation hazard but, more importantly, they continue to capture commercially and recreationally important species as long as they remain submerged. On land, abandoned tires



Litter, while unsightly, poses a threat to wildlife. Sabine Street outfall at Buffalo Bayou. Source: Buffalo Bayou Partnership.

are another form of dangerous solid waste, posing a fire hazard and serving as a breeding ground for mosquitoes and mosquito-borne pathogens.

Hazardous household waste, such as batteries, automotive fluids, acids, pesticides, paints, and solvents, is one of the most dangerous types of municipal waste. When disposed of improperly, the substances directly enter the environment. To combat the problem, the city of Houston and other municipalities operate a number of collection facilities for residents' household hazardous waste.

Since 1994, citizens have gathered once a year to participate in Trash Bash®/E, an environmental-stewardship event in which volunteers gather at locations throughout the Lower Galveston Bay watershed to collect solid waste. The program has won numerous awards and has collected more than 1,500 tons of solid waste and 4,100 tires to date.

What the Estuary Program Is Doing

The Galveston Bay Estuary Program supports ongoing efforts in debris reduction and preventing and responding to spills of hazardous materials. In general, the Estuary Program focuses on the following:

- Facilitating the process of turning environmental damage into opportunities for habitat conservation.
- Cooperating with Texas Sea Grant's Clean Marina Program to address waste generated by boaters.
- Supporting implementation of Phases I and II of the NPDES Storm Water Program under the Clean Water Act, which is



Trash Bash® volunteers on White Oak Bayou in 2005. Source: MD Anderson Family YMCA.

anticipated to bring about major reductions in spills and solid waste associated with urban runoff.

- Helping fund and coordinate annual Trash Bash events to increase public attention to the problem of solid waste.

What You Can Do

- Participate in local bay cleanups.
- Keep your vehicles and boats free of leaks and well maintained.
- Minimize use of lawn chemicals.
- Properly dispose of household chemicals and waste.

Visit the Estuary Program Web site at www.gbep.state.tx.us for information on local cleanups, lawn chemicals, and other issues.



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