

# NPL Site Narrative for Gulfco Marine Maintenance

## GULFCO MARINE MAINTENANCE Freeport, Texas

**Conditions at Proposal (September 5, 2002):** The Gulfco Marine Maintenance (Gulfco), facility encompasses 40 acres in Freeport, Brazoria County, Texas. The facility historically was used as a barge cleaning and servicing facility. The Gulfco site encompasses three buried/backfilled surface impoundments that received contaminated wash water from the barge cleaning operations, areas of contaminated soil, and releases to surface water and ground water. The site is being proposed to the NPL based on evidence that hazardous substances, including semivolatile organic compounds, lead, zinc, and pesticides, have migrated from the facility to the Intracoastal Waterway, pose a threat to nearby drinking water supplies and downstream sensitive environments, and have impacted fisheries downstream of the facility.

Gulfco operated as a barge cleaning and waste disposal facility from 1971 through 1979. Operations at the facility involved the cleaning, servicing, and repair of various chemical barges. Chemical barges were drained and pumped to remove product heels, which then were stored in tanks and sold as product. Each barge was washed with water or a detergent solution. Generated wash waters were stored either in surface impoundments, a floating barge, or on-site storage tanks. The barges were allowed to air dry and certified as safe prior to initiating repair work such as welding and sandblasting.

The surface impoundments received wash water from the cleaning of barges and other transport vessels that carried organic substances including alcohols, ketones, and crude oil. Waste wash water generated during the cleaning of chemical barges and other vessels was hard-piped to the surface impoundments for evaporation and separation. The maximum inventory of waste at any given time was 5.5 million gallons. The surface impoundments were certified closed in August 1982, following removal of the liquids and sludges, solidification of the remaining sludge with soil, and capping with three feet of clay cover and a hard wearing surface. Some sludge reportedly remained in one of the surface impoundments at the time of closure.

Underlying the Gulfco site is the Chicot/Evangeline aquifer system. This aquifer system is a major source of municipal and smaller public water supply systems in the Freeport area. The largest public water supply system within 4 miles of the site is that of the city of Freeport, which supplies approximately 11,300 people. The city of Freeport uses 100 percent of the surface water supplied by the Brazos Water Authority. The city also has seven ground water wells, two of which are maintained for emergency use only, and have not been used for drinking water for several years. The remaining wells are scheduled to be abandoned.

The site lies within the 100-year coastal floodplain along the north bank of the Intracoastal Waterway between Oyster Creek to the east and the Old Brazos River Channel and the Dow Barge Canal to the west. The southern part of the Gulfco site drains to the south where it enters the Intracoastal Waterway, which is a fishery. The surface water migration pathway extends in all directions within contiguous surface water bodies since these surface water bodies are tidally influenced. Surface water flows eastward into the Drum Bay, Christmas Bay, Bastrop Bay, and Galveston Bay. Galveston Bay is the seventh largest estuary in the United States and is designated as a National Estuary as part of the National Estuaries Program.

In addition, Christmas Bay is designated as the Christmas Bay Coastal Preserve of the Texas Coastal Preserve Program, and harbors eight endangered or threatened species including the Bald Eagle, Brown Pelican, Peregrine Falcon, Whooping Crane, Piping Plover, Reddish Egret, White-faced Ibis, and Green Sea Turtle. The 12,199-acre Brazoria National Wildlife Refuge is located to the south of Bastrop Bayou and contains the habitats of three state-threatened species, including the Wood Stork, White-tailed Hawk, and the Swallow-tailed Kite. A wetland area is located approximately 500 feet south of the site across the Intracoastal Waterway. This area is classified as intertidal estuarine, emergent, persistent, and regularly flooded. Twenty miles of wetland frontage lie within 15 stream miles of the site.

**Status (April 2003):** EPA is considering various alternatives for the site.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at [ATSDR - ToxFAQs](http://www.atsdr.cdc.gov/toxfaqs/index.asp) (<http://www.atsdr.cdc.gov/toxfaqs/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.