

4.5. Analysis of GLO Oil Spill Data by County

The Texas General Land Office (GLO) maintains data on the amounts, types, dates, and locations of eleven petroleum products spilled into waters of four counties in the Galveston Bay watershed (Brazoria, Chambers, Galveston, and Harris). The database contains 1,907 records and spans the years 1998-2003. 2003 was excluded from this analysis as it contained data for a partial year (January through May 2003).

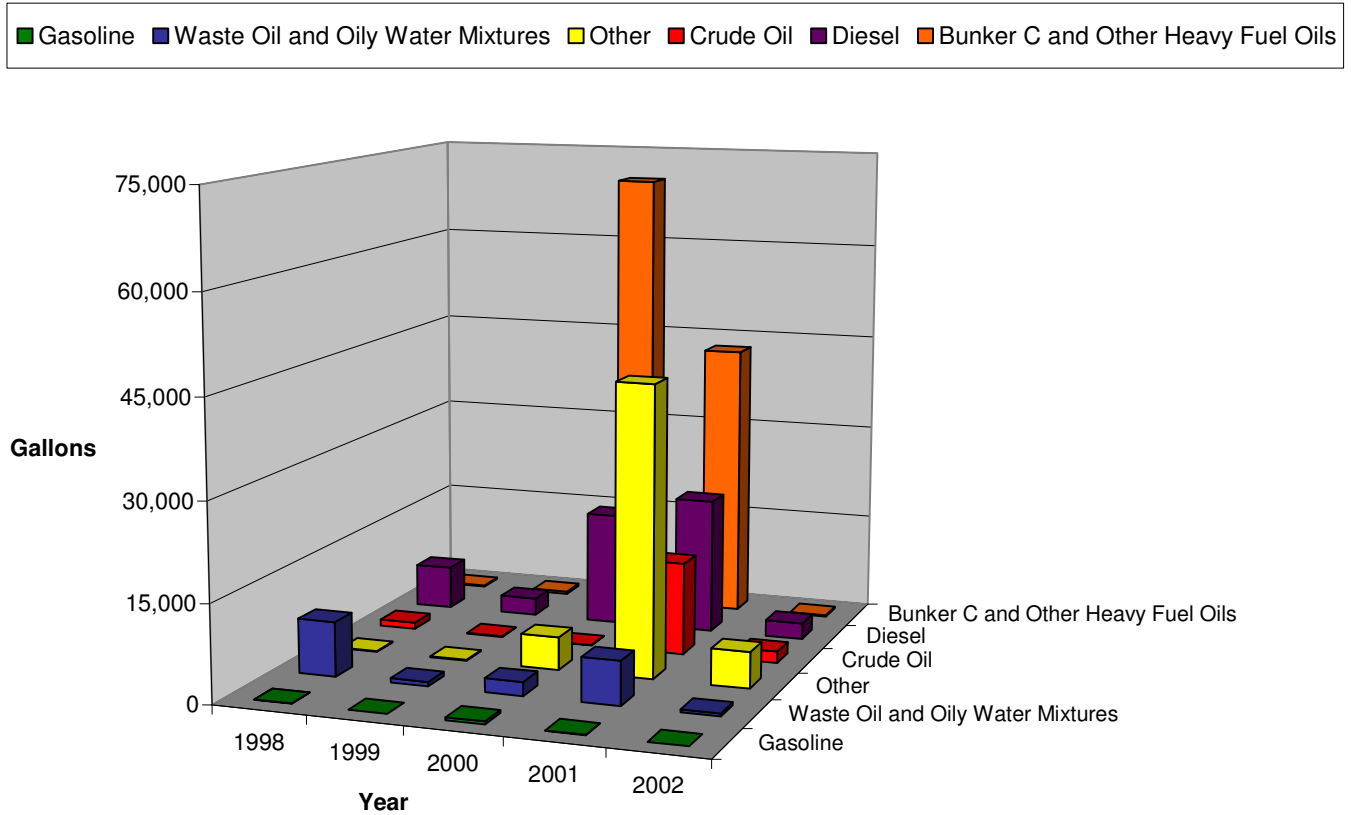
As seen in Table 4.5.1, a total of 262,010 gallons of petroleum products were spilled into waters of Galveston Bay from 1998-2002. Of that, bunker C and other heavy fuels oils comprised 43.5% (114,032 gallons) of the amount spilled. A category of petroleum products termed by the GLO as “Other” comprised the second largest volume spilled (21.2% or 55,642 gallons). Diesel fuel was the third most spilled product comprising 19.3% (50,658 gallons) of the total amount spilled in 1998-2002. Waste oil and crude oil each comprised approximately 7% of the total amount spills. Figures for non-petroleum oils, lubricating oils, gasoline, hydraulic oil, jet fuel/kerosene, and condensate were relatively small.

Table 4.5.1. Gallons of petroleum product by product type spilled into waters of Brazoria, Chambers, Galveston, and Harris Counties; 1998-2002.

Product	Amount (in Gallons)	% of Total Amount Spilled
Bunker C and Other Heavy Fuel Oils	114,032	43.5%
Other	55,642	21.2%
Diesel	50,658	19.3%
Waste Oil and Oily Water Mixtures	18,427	7.0%
Crude Oil	17,358	6.6%
Non-petroleum Oils	3,765	1.4%
Lubricating Oils	539	0.2%
Gasoline	537	0.2%
Hydraulic Oil	489	0.2%
Jet fuel / Kerosene	474	0.2%
Condensate	91	0.0%
Total	262,010	

Looking across time, the years 2000 and 2001 had the highest numbers in terms of gallons of product spilled (see Figure 4.5.1). Bunker C and heavy fuel oils, diesel, crude oil, and the spills categorized by the GLO as “Other” had the highest numbers in terms of volume spilled.

Figure 4.5.1. Total volume by year of six classes of petroleum products spilled into waters of Galveston Bay.



As seen in Table 4.5.2, the Houston Ship Channel had the largest volume of spills (133,084 gallons or 50.8%). Galveston Bay had the second largest volume of petroleum product spilled (52,118 gallons or 19.9%). The Texas City Ship Channel, Greens Bayou, and the San Jacinto River also ranked high in terms of volume spilled. However, when compared to the amounts spilled in the Houston Ship Channel and Galveston Bay (areas with the most shipping traffic), those amounts seem minor.

Table 4.5.2. Amount of petroleum product spilled into the Galveston Bay watershed by water body for the years 1998-2002. Refer to Appendix H for water bodies with less than 100 gallons spilled.

Water Body Name	Amount Spilled (in Gallons)	% of Total Amount Spilled
Houston Ship Channel	133,084	50.8
Galveston Bay	52,118	19.9
Texas City Ship Channel	17,634	6.7
Greens Bayou	14,855	5.7
San Jacinto River	12,021	4.6
Brazos River	9,284	3.5
Sims Bayou	7,536	2.9
Gulf Intracoastal Waterway	5,524	2.1
Gulf of Mexico	2,389	0.9
Galveston Ship Channel	2,155	0.8
Buffalo Bayou	1,441	0.5
Old Brazos River	706	0.3
Double Bayou	580	0.2
Clear Lake	487	0.2
Chocolate Bayou	358	0.1
Clear Creek	335	0.1
Dickinson Bayou	259	0.1
Trinity Bay	229	0.1
Bayport Channel & Turning Basin	223	0.1
Carpenters Bayou	183	0.1
Cedar Bayou	120	0.0
Tucker's Bayou	110	0.0