

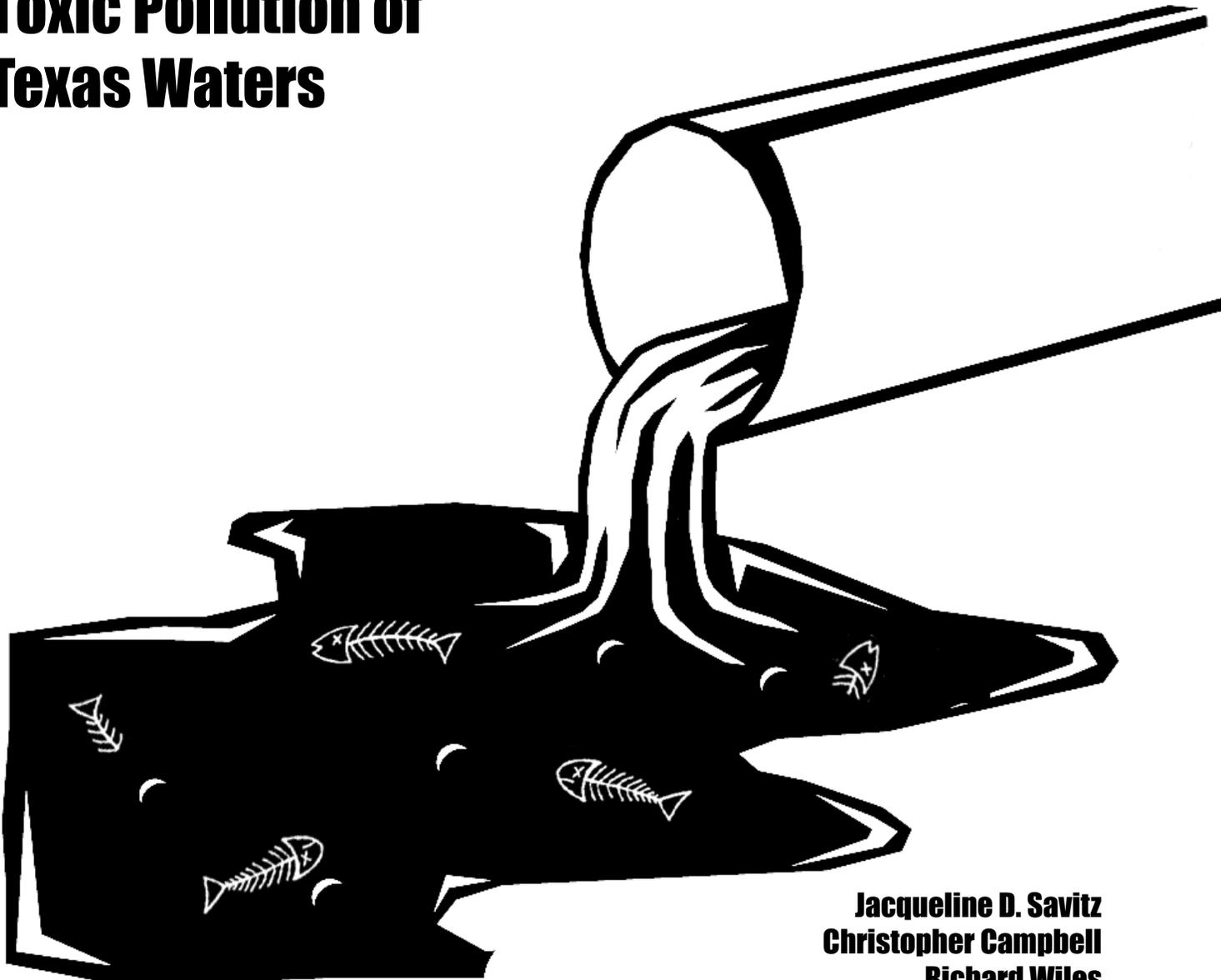


The State PIRGs



Dishonorable Discharge

Toxic Pollution of Texas Waters



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Toxic Pollution of Texas Waters

Executive Summary

Most Texas citizens would be surprised to learn that scores of businesses and facilities across the state *legally* dump tons of toxic chemicals into the state's rivers, streams, lakes, and bays. Many of these same polluters flush millions more pounds of toxic substances down the drain to sewage treatment plants that taxpayers pay to operate and maintain. None of the toxic chemicals sent to publicly financed sewage treatment systems are reported as pollution by the EPA, even though a great deal of the toxic load eventually finds its way to Texas streams and rivers.

The citizens of Texas have a right to know about any pollution of their water, air or land that may pose a risk to human health or the environment. The goal of *Dishonorable Discharge* is to inform the public about the massive level of toxic pollution of the waters in their state, and point out the need for more comprehensive reporting of toxic chemical use, transport, and pollution, in Texas and nationwide.

Factories and other industrial facilities dumped more than 28.8 million pounds of toxic substances directly into Texas waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). Texas ranked 3rd among the states in toxic water pollution reported over those five years. Because of weaknesses and loopholes in federal pollution laws, most, if not all of these toxic discharges are perfectly legal.

As large as they are, these figures substantially underestimate toxic releases to waters and the environment because the TRI requires reporting of only about 340 of the 73,000 chemicals in commerce. The TRI also exempts certain industries from reporting, including utilities, sewage treatment plants, municipal incinerators, and manufacturing facilities with fewer than ten employees.

In addition, almost 150 million pounds of toxic materials were flushed to sewage treatment plants in Texas from 1990 through 1994, 3rd in the nation (Table 1.) EPA estimates that twenty-five percent of all discharges nationwide flow through sewage treatment plants untreated (EPA 1995). Applying this 25 percent estimate to Texas raises the total amount of toxics dumped to the state's waters to an estimated 65.6 million pounds (Table 1).

The Houston Ship Channel received the greatest amount of toxic water pollution in Texas from 1990-1994, a total of 18,200,000 pounds, followed by the Brazos River, the Neches River, and Galveston Bay (Table 2). The ten most polluted waterways in Texas received 26,200,000 pounds of toxic pollution between 1990 and 1994, 91.0% percent of the total in the State.

The top three facilities reporting the most toxic pollution of Texas waters over this period were Mobil Mining & Minerals Company in Pasadena, which dumped

15,400,000 pounds of toxic chemicals, followed by Dow Chemical Company, and Exxon Baytown Refinery in the towns of Freeport, and Baytown, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were phosphoric acid, a total of 13,100,000 pounds, followed by ammonia, and sulfuric acid (Table 4).

Huntsman Corporation dumped the most carcinogens into Texas waters, a total of 149,000 pounds, followed by Ameripol Synpol Corporation and Dow Chemical Company (Table 8). The Neches River received the greatest amount of cancer-causing toxic chemicals in Texas, a total of 273,000 pounds, followed by the Brazos River and the Houston Ship Channel (Table 7).

Gulf Reduction Corporation dumped the greatest amount of persistent toxic metals in Texas waters, a total of 413,000 pounds, followed by Star Enterprise and Exxon Baytown Refy. (Table 8). The Buffalo Bayou received the greatest amount of persistent toxic metals, a total of 436,000 pounds, followed by the Houston Ship Channel and the Taylor Bayou (Table 7).

Ameripol Synpol Corporation dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into Texas waters, a total of 98,000 pounds, followed by CDC Coatings and Lyondell Petrochemical Company (Table 8). The Neches River received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 117,000 pounds, followed by the Houston Ship Channel and Carpenter's Bayou (Table 7).

These discharges to Texas waters include only those wastes released by companies physically located in Texas. Many waterways receive additional pollution from sources outside of the state. Information on toxic water pollution in other states can be found in EWG's state reports series, and in the national report, *Dishonorable Discharge*.

Recommendations

Americans have a right to know about any use, transport, or release of toxic substance in their communities that might pose a risk to human health or the environment. Required reporting under the TRI provides only a small portion of this information. Much more complete reporting is needed. Americans also have a right to know about toxic chemicals in the products they buy that may pose a risk to them and their children.

Full accounting of the use of toxic materials reveals many low cost opportunities for pollution prevention. In New Jersey, state officials estimate that every dollar spent on such materials accounting practices generates five to eight dollars in increased efficiency (GAO 1994). Without materials accounting industry will miss many opportunities for substantial low cost reductions in pollution, and the public and policy makers will be unable formulate strategies that most effectively reduce exposure to toxic substances in the environment and consumer products.

We recommend:

- Timely implementation of the EPA's proposed expansion of industries and facilities required to report toxic releases under the TRI.
- Expansion of TRI reporting requirements to include full materials accounting for any facility or industry that uses or releases a toxic substance that may pose a risk to human health and the environment.

Dishonorable Discharge

Toxic pollution of rivers, lakes, streams, and bays is a serious problem in all 50 states. Twenty five years after the passage of the Clean Water Act, nearly forty (40) percent of America's rivers, lakes, and coastal waters remain unsafe for fishing, swimming or basic recreation (EPA 1996b). The pollution that fouls these waterways costs the state's economy millions of dollars in tourism, fishing, and development revenues that otherwise could be earned on or near these waters were they not so polluted (EPA 1996b).

Dishonorable Discharge Underestimates Toxic Pollution

The Toxics Release Inventory (TRI) provides a rough estimate of a small portion of the toxic chemicals that flow into America's waters. The toxic discharges reported in this study are based on TRI reported toxic releases to waterways and so-called "transfers" of toxics to publicly owned treatment works (POTWs) — the term of art that industry and the EPA use when an industrial facility dumps toxic chemicals into the local sewer.

The figures reported in *Dishonorable Discharge* dramatically underestimate the total amounts of toxic compounds that have been discharged, dumped, or made their way into rivers and lakes across the country over the past five years.

About 90¹ percent of all toxic discharges coming out of pipes into water (so-called point source discharges) are not reported to the TRI. This is because the TRI requires reporting on only about 343² of some 73,000 chemicals used in commerce, and because the TRI exempts many polluters (utilities, certain industries, and those with fewer than ten employees) from reporting requirements (EPA 1996).

About half of all toxics that pollute rivers come from surface runoff and air deposition, as opposed to pipes. Comprehensive accounting of this "nonpoint source" pollution is not available for all rivers on a national basis.

Taking all of the limitations of the existing information into account, Environmental Working Group believes that an accurate estimate of the total load of toxic pollution in many rivers and lakes over the past five years might be 20 times greater than the amounts reported here.

Hiding Toxics in the Sewer

The EPA does not include so-called "transfers" of toxic chemicals to sewer systems as an official "release" of a toxic chemical into the environment (EPA 1996). At the same time, the EPA estimates that 25 percent of all toxic chemicals transferred to sewers from industrial facilities pass through treatment and into the waterways that receive wastewater (EPA 1995).

Transfers of toxic chemicals to publicly owned treatment works (POTWs) — otherwise known as sewage treatment plants — were four times greater in 1994 than the amount of toxic chemicals released directly to water that are reported in the entire TRI that year. To estimate the total amounts of toxic substances dumped into Texas waters, we used EPA’s assumption that 25 percent of all toxic chemicals transferred to POTWs pass-through untreated³. Table 1 presents the EWG estimate of toxic chemicals assumed to be discharged by the POTWs in Texas. Estimates of toxic discharges from POTWs to specific rivers and bodies of water could not be accurately estimated because the sewage treatment plants are not required to report to the TRI.

Assuming a 25 percent flow-through also does not permit discharge estimates for individual toxic chemicals that flow through the sewer system into waterways. In reality some chemicals flow through POTW’s untouched, while others are removed and held in the sludge, broken down in treatment, or allowed to evaporate into the ambient air as toxic pollutants.

How Toxic is Toxic?

Some 340 substances were required to be reported to the EPA for the years analyzed in this report. According to the EPA:

“For a chemical or chemical category to remain on or be added to the TRI list, it must be known to cause or reasonably be anticipated to cause one of the following:

- Significant adverse acute health effects at concentration levels that are reasonably likely to exist beyond facility boundaries as a result of continuous, or frequently recurring releases;
- In humans — cancer; teratogenic effects; or serious irreversible reproductive dysfunction, neurologic disorders, heritable genetic mutations, or other chronic health effects;
- A significant adverse effect on the environment because of its toxicity, its toxicity and persistence in the environment, or its toxicity and tendency to bioaccumulate in the environment of sufficient seriousness to warrant reporting under EPCRA section 313” (EPA 1996).

For most of the TRI chemicals, federal regulators and scientists have a disturbingly incomplete understanding of the long term toxic effects on the environment or human health. The vast majority of compounds reported in the TRI are not fully studied, even though they have triggered one of the above criteria.

Toxic discharges and runoff to water are a serious and largely unaddressed environmental and human health problem. Most, if not all of the pollution reported in Dishonorable Discharge is legal. Current pollution control laws like the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and the Toxic Substances Control Act (TSCA) do little to move the nation towards reducing the toxic pollution cited in this report. In effect, these laws issue pollution licenses or exemptions from regulations.

One of the more glaring exemptions may be the so-called “domestic sewage exclusion” under RCRA, whereby toxic contaminants sent to sewage treatment plants escape otherwise applicable federal hazardous waste regulations. This accounts for the huge amounts of toxic chemicals that were dumped down the drain by American industry and end up in the nation’s rivers and streams. Another major source of toxic pollution of waters is agricultural pesticides. The runoff of pesticides from agricultural fields is not regulated under any federal law, and is not tabulated by the TRI nor included in this report. About 1.1 billion pounds⁴ of pesticides were used in the United States in 1993 alone (Aspelin 1994).

Dishonorable Discharge is based on data collected by the U.S. Environmental Protection Agency’s Toxics Release Inventory (TRI) for the reporting years 1990 through 1994, which includes the most recent data available. It includes the releases of only 343 chemicals from about 27,000 manufacturing facilities. The limitations of these data have been described above.

Analyzing Discharges by Body of Water

Discharges from TRI facilities were assigned to a given waterway based on the “receiving stream” reported to the EPA. Most waterways reported as “tributary” streams were included with their respective rivers in this report when it was possible to link them. For purposes of this analysis, toxic release data for major rivers themselves are tabulated separately, not summed as part of larger watersheds. For example, a “Tributary to the Mississippi River” was counted as Mississippi River, while the Missouri River was not, even though it eventually joins the Mississippi just above St. Louis. Small streams receiving large quantity discharges (such as Gravelly Run in Virginia and Clear Creek in Colorado) were reported individually, just as they are recorded in the TRI. State-level reports only include discharges to a given river from facilities that are physically located in this state, not discharges from facilities located in other states upstream.

Reporting Toxics Dumped Down the Drain

Enormous quantities of toxic chemicals are discharged to waterways via sewer systems. These so-called “transfers” of toxic chemicals to publicly owned treatment works (POTWs) totaled more than 250 million pounds in 1994, compared to 66 million pounds of direct discharges to waters reported in that same year. While the EPA does not count these transfers as environmental releases in the TRI, the Agency estimates that an average of 25 percent of these transfers flow through sewer systems into receiving waters (EPA 1995).

To better illustrate the amount of toxic chemicals that actually make it into the nation’s waters each year, we assumed that on average 25 percent of the toxic chemicals transferred to POTWs (a.k.a. sewers) by a reporting facility, ultimately pass through the sewage treatment plant untreated and in most cases are discharged to receiving waters.

Toxic chemical releases through POTWs were estimated statewide, but were not attributed to specific rivers at the state level due to the difficulty of verifying the receiving waters. Environmental Working Group will attempt to identify receiving waters more precisely future reports. All other analyses including facility discharges and top chemicals reflect direct discharges only, and not POTW release estimations.

Total discharges of persistent toxic metals, known or possible carcinogens, and chemicals known to cause reproductive effects, were calculated for specific rivers

based on information characterizing the toxic properties of these substances previously published by the EPA, the State of California, and the State of New Jersey, as well as other toxicological literature (Environmental Protection Agency, 1996; California Code of Regulations; New Jersey Department of Health; and Dixon, 1986). EPA's inclusion of known, probable, and possible carcinogens is based on determinations made by the Occupational Safety and Health Administration (OSHA), the National Toxicology Program (NTP), and the International Agency for Research on Cancer (IARC) (EPA 1996). Lists of chemicals included are found in the Appendix.

Notes

¹Estimate based on EPA report (National Sediment Contaminant Point Source Inventory: Analysis of Release Data for 1992. Final Draft.) (EPA, 1995) where data from TRI were compared to the Permit Compliance System (PCS) Database and found to represent only about 9%, at most, of discharges reported in PCS. Estimates from the GAO indicate that PCS regulates only 23% of all toxic water pollution (GAO, 1994).

²The exact number of chemicals required varies with the year. In 1994, 343 chemicals were reported. EPA has recently expanded the inventory to include about 650. These data, to be reported for 1995, will be available in 1997.

³EPA uses this factor since it is unlikely to greatly overestimate or underestimate the exact treatment efficiency (EPA 1995). This number will vary for any specific chemical; however it estimates pass through for chemicals as a whole, and is not applied to specific chemicals in this report.

⁴This value refers to pesticide active ingredients. The total volume of pesticide products, including so-called inert ingredients is far higher.

Appendix

Carcinogens

1,1,2,2-Tetrachloroethane	beta-Propiolactone	Michler's ketone
1,1-Dimethylhydrazine (UDMH) (alar trans. prod.)	Bis (2-chloroethyl) ether	Mustard Gas
1,2-Dibromo-3-chloropropane (DBCP)	Bis(chloromethyl) ether	N-Nitroso-N-ethylurea
1,3-Butadiene	Bromodichloromethane	N-Nitroso-N-methylurea
1,3-Dichloropropylene	Bromoform	N-Nitrosodi-n-butylamine
1,3-Propane sultone	Cadmium	N-Nitrosodi-n-propylamine
1,4-Dioxane	Cadmium compounds	N-Nitrosodiethylamine
1-Amino-2-methylantraquinone	Captan	N-Nitrosodimethylamine
1-Naphthylamine	Carbon tetrachloride	N-Nitrosodiphenylamine
2,4,6-Trichlorophenol	Chlordane	N-Nitrosomethylvinylamine
2,4-Diaminoanisole	Chloroethane (Ethyl chloride)	N-Nitrosomorpholine
2,4-Diaminoanisole sulfate	Chloroform	N-Nitrososarcosine
2,4-Diaminotoluene	Chloromethyl methyl ether	N-Nitrosopiperidine
2,4-Dinitrotoluene	Chlorophenols	Nickel
2-Acetylaminoanthraquinone	Chloroethanol	Nickel compounds
2-Aminoanthraquinone	Chromium	Nitrotriacetic acid
2-Methylaziridine (Propyleneimine)	Cupferron	Nitrofen
2-Naphthylamine	D&C Red No. 19	Nitrogen mustard (Mechlorethamine)
2-Nitropropane	DDVP (Dichlorvos)	ortho-Anisidine
3,3'-Dichlorobenzidine	Di-(2-ethylhexyl)phthalate	ortho-Anisidine hydrochloride
3,3'-Dimethoxybenzidine (ortho-Dianisidine)	Dichloromethane (Methylene chloride)	ortho-Toluidine
3,3'-Dimethylbenzidine	Diepoxybutane	ortho-Toluidine hydrochloride
4,4'-Diaminodiphenyl ether (4,4'-Oxydianiline)	Diethyl sulfate	p-Aminoazobenzene
4,4'-Methylene bis(2-chloroaniline)	Dimethyl sulfate	p-Cresidine
4,4'-Methylene bis(N,N-dimethyl) benzenamine	Dimethylcarbamoyl chloride	p-Dichlorobenzene
4,4'-Methylenedianiline	Direct Black 38	p-Nitrosodiphenylamine
4,4'-Thiodianiline	Direct Blue 6	Pentachlorophenol
4-Aminobiphenyl (4-aminodiphenyl)	Direct Brown 95	Polybrominated biphenyls
4-Dimethylaminoazobenzene	Epichlorohydrin	Polychlorinated biphenyls
4-Nitrobiphenyl	Ethyl acrylate	Propylene oxide
5-Nitro-o-anisidine	Ethylene dibromide	Saccharin
Acetaldehyde	Ethylene dichloride (1,2-Dichloroethane)	Safrrole
Acetamide	Ethylene oxide	Styrene
Acrylamide	Ethylene thiourea (EBDC trans prod.)	Styrene oxide
Acrylonitrile	Ethyleneimine	Tetrachloroethylene (Perchloroethylene)
Allyl chloride	Formaldehyde	Thioacetamide
Aniline	Hexachlorobenzene	Thiourea
Arsenic	Hexachloroethane	Toluene-2,4-diisocyanate
Arsenic compounds	Hexamethylphosphoramide	Toluene-2,6-diisocyanate
Asbestos	Hydrazine	Toxaphene (Polychlorinated camphenes)
Auramine	Hydrazine sulfate	Trichloroethylene
Benzene	Hydrazobenzene (1,2-Diphenylhydrazine)	Tris(2,3-dibromopropyl)phosphate
Benzidine [and its salts]	Isosafrole	Urethane (Ethyl carbamate)
Benzotrichloride	Lead	Vinyl bromide
Benzyl chloride	Lead compounds	Vinyl chloride
Beryllium and beryllium compounds	Lindane	Vinyl trichloride (1,1,2-Trichloroethane)
Beryllium compounds	Methyl iodide	

Persistent Toxic Metals

Antimony & Antimony Compounds
Arsenic & Arsenic Compounds
Barium & Barium Compounds
Beryllium & Beryllium Compounds
Cadmium & Cadmium Compounds
Chromium & Chromium Compounds
Cobalt & Cobalt Compounds
Copper & Copper Compounds
Lead & Lead Compounds
Manganese & Manganese Compounds
Mercury & Mercury Compounds
Nickel & Nickel Compounds
Selenium & Selenium Compound
Silver & Silver Compounds
Thallium & Thallium Compounds
Zinc & Zinc Compounds

Chemicals that Affect Reproduction

1,2-Dibromo-3-chloropropane
Cadmium
Carbon disulfide
Diethylhexyl phthalate
o-Dinitrobenzene
m-Dinitrobenzene
p-Dinitrobenzene
Ethylene glycol monoethyl ether
Ethylene glycol monomethyl ether
Ethylene oxide
Hexamethylphosphoramide
Lead
Styrene
Toluene
Trichloroethylene
Xylene(mixed isomers)
o-xylene
m-xylene
p-xylene
Di-n-butyl phthalate
Glycol ethers
Mercury Compounds
Mercury
Benzene
Aluminum
Arsenic
Nickel
Lindane
Vinyl Chloride

Source: Environmental Working Group. Compiled from California Proposition 65, EPA's TRI Public Data Release, New Jersey Department of Health, Hazardous Substances Fact Sheets, and Toxic Responses of the Reproductive System (Dixon 1986).

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Texas

Toxic pollution of Texas waters (1990-1994)

Table 1. Total reported toxic pollution of Texas waters (1990-1994).

Direct Water Discharges	28,796,732 Pounds
Estimated Sewer Discharges‡	36,793,796 Pounds
Total Discharges to Waters	65,590,528 Pounds

Table 2. Texas waters receiving the greatest amounts of toxic pollution (1990-1994).

River or Water Body	Toxic chemical release to waterbody (pounds)
Houston Ship Channel	18,235,338
Brazos River	2,442,430
Neches River	1,645,307
Galveston Bay	918,161
Taylor Bayou	787,167
Corpus Christi Bay	578,806
Buffalo Bayou	435,942
Sabine River	407,441
Cedar Bayou	389,261
San Jacinto River/Bay	358,329

Table 3. Polluters reporting the greatest amounts of toxic chemicals discharged to Texas waters (1990-1994).

Facility	City	Toxic chemical release to waters (pounds)
Mobil Mining & Minerals Co.	Pasadena	15,415,200
Dow Chemical Co.	Freeport	1,881,606
Exxon Baytown Refy.	Baytown	1,496,653
Amoco Petroleum Prods.	Texas City	818,235
Star Enterprise	Port Arthur	785,306
Rohm & Haas Texas Inc.	Deer Park	461,278
Gulf Reduction Corp.	Houston	412,691
Miles Inc.	Baytown	387,435
Neches River Treatment Corp.	Beaumont	377,287
Gulf Chemical & Metallurgical	Freeport	374,620

Table 4. Toxic chemicals discharged in the greatest amounts to Texas waters (1990-1994).

Chemical	Toxic chemical release to waters (pounds)
Phosphoric acid	13,129,824
Ammonia	9,600,326
Sulfuric acid	1,468,439
Zinc compounds	730,598
Methanol	681,995
Chlorine	267,496
Phenol	221,291
Ammonium sulfate (solution)	210,019
Acetone	186,162
Ethylene glycol	175,857

Table 5. Polluters reporting the greatest amounts of toxic chemicals discharged to Texas sewage treatment facilities (1990-1994).

Facility	City	Toxic chemical release to sewers (pounds)
Simpson Pasadena Paper Co.	Pasadena	46,208,739
Air Prods. Inc.	Pasadena	36,114,290
Arco Chemical Co.	Pasadena	12,940,710
Oxychem Petrochemicals	Pasadena	5,096,468
Eval Co. Of America	Pasadena	3,975,780
Rohm & Haas Bayport Inc.	La Porte	3,675,807
Union Carbide Corp.	Texas City	3,179,445
Dixie Chemical Co. Inc.	Pasadena	2,764,901
S. B. Foot Tanning Co.	Cactus	2,736,738
Crown Central Petroleum	Pasadena	2,574,237

‡ Total discharges of toxic chemicals to sewer systems in Texas was 147,175,185 in 1990-94. EPA estimates that 25% of all toxic discharges to sewers pass through sewage treatment plants to receiving waters (EPA 1995).

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

Source: Environmental Working Group. Compiled from U.S. Environmental Protection Agency, Toxics Release Inventory 1990-1994.

Texas

Toxic pollution of Texas waters (1990-1994). Carcinogens, persistent toxic metals, and reproductive toxins

Table 6. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged into Texas waters (1990-1994).**

Carcinogens	606,485 Pounds
Persistent Toxic Metals	1,202,977 Pounds
Reproductive Toxins	309,048 Pounds
Total (see note)	1,824,845 Pounds

Note: The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 6 may be larger than the total because a chemical may be in one or more categories, i.e. a chemical may be both a carcinogen and a reproductive toxin. Chemicals were counted only once for the total in Table 6.

Table 7. Texas waters receiving the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** (1990-1994).**

Waters receiving the greatest amounts of carcinogenic chemicals in Texas (1990-1994).**

River or Water Body	Carcinogens** released to waters (lbs.)
Neches River	273,205
Brazos River	47,616
Houston Ship Channel	46,423
Sulphur River	29,861
Paper Mill Creek	21,950

Waters receiving the greatest amounts of persistent toxic metals in Texas (1990-1994).

River or Water Body	Persistent toxic metals released to waters (lbs.)
Buffalo Bayou	435,603
Houston Ship Channel	146,008
Taylor Bayou	107,863
Neches River	96,068
Brazos River	76,179

Waters receiving the greatest amounts of reproductive toxins in Texas (1990-1994).**

River or Water Body	Reproductive toxins** released to waters (lbs.)
Neches River	117,029
Houston Ship Channel	34,466
Carpenter's Bayou	27,928
San Jacinto River/Bay	17,061
Dixon Creek	14,179

Table 8. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to Texas waters (1990-1994).**

Top dischargers of carcinogenic chemicals to Texas waters (1990-1994).**

Facility	City	Carcinogens** released to waters (lbs.)
Huntsman Corp.	Port Neches	149,040
Ameripol Synpol Corp.	Port Neches	98,395
Dow Chemical Co.	Freeport	46,196
International Paper	Domino	29,861
Champion Intl. Lufkin	Lufkin	26,450

Top dischargers of persistent toxic metals to Texas waters (1990-1994).

Facility	City	Persistent toxic metals released to waters (lbs.)
Gulf Reduction Corp.	Houston	412,691
Star Enterprise	Port Arthur	107,752
Exxon Baytown Refy.	Baytown	87,987
Dow Chemical Co.	Freeport	69,014
Lone Star Steel Co.	Lone Star	53,880

Top dischargers of reproductive toxins to Texas waters (1990-1994).**

Facility	City	Reproductive toxins** released to waters (lbs.)
Ameripol Synpol Corp.	Port Neches	98,395
CDC Coatings	Houston	27,923
Lyondell Petrochemical Co.	Channelview	16,094
Phillips 66 Co.	Borger	14,976
Crown Central Petroleum	Pasadena	14,658

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Source: Environmental Working Group. Compiled from U.S. Environmental Protection Agency, Toxics Release Inventory 1990-1994.

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The Houston Ship Channel in Texas

Total toxic pollution reported (1990-1994): 18,235,338 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Houston Ship Channel in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Mobil Mining & Minerals Co.	Pasadena	15,415,200
Exxon Baytown Refy.	Baytown	1,496,653
Rohm & Haas Texas Inc.	Deer Park	420,591
Exxon Chemical Americas	Baytown	362,276
Occidental Chemical Corp.	Pasadena	141,866
Champion Intl. Corp.	Sheldon	64,542
Ethyl Corp.	Pasadena	59,518
Shell Oil Co.	Deer Park	57,088
Mobil Chemical Co.	Houston	52,843
Occidental Chemical Corp.	Deer Park	

Table 2. Toxic chemicals discharged in the greatest amounts to the Houston Ship Channel in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Phosphoric acid	13,128,200
Ammonia	3,334,299
Sulfuric acid	1,200,959
Methanol	182,856
Zinc compounds	53,379
Barium compounds	44,669
Chlorine	37,372
Chromium compounds	31,629
Cyanide compounds	29,913
Naphthalene	28,475

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to the Houston Ship Channel in Texas (1990-1994).**

Carcinogens	46,423 Pounds
Persistent Toxic Metals	146,008 Pounds
Reproductive Toxins	34,466 Pounds
Total‡	212,028 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to the Houston Ship Channel in Texas (1990-1994).**

Top dischargers of carcinogens to the Houston Ship Channel in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Champion Intl. Corp.	Sheldon	13,875
Occidental Chemical Corp.	Deer Park	12,783
Exxon Baytown Refy.	Baytown	6,956
Newpark Shipbuilding & Ethyl Corp.	Houston	2,525
	Pasadena	2,286

Top dischargers of persistent toxic metals to the Houston Ship Channel in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Exxon Baytown Refy.	Baytown	87,987
Shell Oil Co.	Deer Park	18,773
Exxon Chemical Americas	Baytown	15,080
Rohm & Haas Texas Inc.	Deer Park	13,926
Phillips Petroleum Co.	Pasadena	4,220

Top dischargers of reproductive toxins to the Houston Ship Channel in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Crown Central Petroleum	Pasadena	14,658
Exxon Baytown Refy.	Baytown	12,471
Georgia Gulf Corp.	Pasadena	1,583
Akzo Nobel Chemicals Inc.	Deer Park	1,267
Exxon Chemical Americas	Baytown	834

Source: Environmental Working Group. Compiled from U.S. Environmental Protection Agency, Toxics Release Inventory 1990-1994.

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The Brazos River in Texas

Total toxic pollution reported (1990-1994): 2,442,430 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Brazos River in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Dow Chemical Co.	Freeport	1,881,606
Gulf Chemical & Metallurgical	Freeport	266,969
BASF Corp.	Freeport	175,790
Shintech Inc.	Freeport	118,050

Table 2. Toxic chemicals discharged in the greatest amounts to the Brazos River in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	1,965,777
Methanol	133,270
Molybdenum trioxide	63,782
Zinc compounds	43,690
Chlorine	37,900
Acetone	33,400
Methyl ethyl ketone	23,500
Diethanolamine	20,700
Copper compounds	20,480
1,4-Dioxane	12,803

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to the Brazos River in Texas (1990-1994).**

Carcinogens	47,616 Pounds
Persistent Toxic Metals	76,179 Pounds
Reproductive Toxins	8,682 Pounds
Total‡	124,066 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to the Brazos River in Texas (1990-1994).**

Top dischargers of carcinogens to the Brazos River in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Dow Chemical Co.	Freeport	46,196
BASF Corp.	Freeport	750
Gulf Chemical & Metallurgical	Freeport	510
Shintech Inc.	Freeport	150

Top dischargers of persistent toxic metals to the Brazos River in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Dow Chemical Co.	Freeport	69,014
BASF Corp.	Freeport	6,645
Gulf Chemical & Metallurgical	Freeport	510

Top dischargers of reproductive toxins to the Brazos River in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Dow Chemical Co.	Freeport	8,277
BASF Corp.	Freeport	250
Shintech Inc.	Freeport	150

The Neches River in Texas

Total toxic pollution reported (1990-1994): 1,645,307 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Neches River in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Neches River Treatment Corp.	Beaumont	377,287
Mobil Oil Beaumont Refinery*	Beaumont	302,739
Huntsman Corp.	Port Neches	254,217
Du Pont	Beaumont	215,510
Chevron USA Prods. Co.	Port Arthur	213,551
Ameripol Synpol Corp.	Port Neches	159,945
Fina Oil & Chemical Co.	Port Arthur	59,085
Temple-Inland FPC Bleached	Evadale	57,163
North Star Steel Texas	Rose City	2,921
Mobil Chemical Co. O/a	Beaumont	

Table 2. Toxic chemicals discharged in the greatest amounts to the Neches River in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	686,881
Phenol	166,818
Methanol	143,930
1,3-Butadiene	110,004
Ethylene glycol	107,952
Styrene	99,198
Diethanolamine	80,260
Acetone	39,500
Zinc compounds	29,877
Propylene oxide	29,500

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to the Neches River in Texas (1990-1994).**

Carcinogens	273,205 Pounds
Persistent Toxic Metals	96,068 Pounds
Reproductive Toxins	117,029 Pounds
Total‡	360,467 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to the Neches River in Texas (1990-1994).**

Top dischargers of carcinogens to the Neches River in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Huntsman Corp.	Port Neches	149,040
Ameripol Synpol Corp.	Port Neches	98,395
Neches River Treatment Corp.	Beaumont	8,561
Temple-Inland FPC Bleached	Evadale	5,323
Chevron USA Prods. Co.	Port Arthur	4,914

Top dischargers of persistent toxic metals to the Neches River in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Chevron USA Prods. Co.	Port Arthur	45,200
Neches River Treatment Corp.	Beaumont	33,802
Du Pont	Beaumont	11,658
North Star Steel Texas	Rose City	2,921
Mobil Oil Beaumont Refinery*	Beaumont	2,379

Top dischargers of reproductive toxins to the Neches River in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Ameripol Synpol Corp.	Port Neches	98,395
Huntsman Corp.	Port Neches	9,543
Mobil Oil Beaumont Refinery*	Beaumont	2,750
Neches River Treatment Corp.	Beaumont	2,533
Fina Oil & Chemical Co.	Port Arthur	1,689

Source: Environmental Working Group. Compiled from U.S. Environmental Protection Agency, Toxics Release Inventory 1990-1994.

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Galveston Bay in Texas

Total toxic pollution reported (1990-1994): 918,161 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Galveston Bay in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Amoco Petroleum Prods.	Texas City	818,235
Sterling Chemicals Inc.	Texas City	81,109
Amoco Chemical Co.	Texas City	13,950
Hempel Coatings USA Inc.	Houston	4,028
M-I Drilling Fluids Co.*	Galveston	750

Table 2. Toxic chemicals discharged in the greatest amounts to Galveston Bay in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	634,697
Methyl tert-butyl ether	131,900
Chlorine	81,094
Methanol	23,000
Naphthalene	10,710
Zinc compounds	10,405
Xylene (mixed isomers)	7,034
Phenol	6,290
Toluene	2,763
1,2,4-Trimethylbenzene	2,578

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to Galveston Bay in Texas (1990-1994).**

Carcinogens	1,092 Pounds
Persistent Toxic Metals	13,038 Pounds
Reproductive Toxins	10,752 Pounds
Total‡	23,785 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to Galveston Bay in Texas (1990-1994).**

Top dischargers of carcinogens to Galveston Bay in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Amoco Petroleum Prods.	Texas City	963
Amoco Chemical Co.	Texas City	104

Top dischargers of persistent toxic metals to Galveston Bay in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Amoco Petroleum Prods.	Texas City	12,010
M-I Drilling Fluids Co.*	Galveston	750
Hempel Coatings USA Inc.	Houston	278

Top dischargers of reproductive toxins to Galveston Bay in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Amoco Petroleum Prods.	Texas City	7,728
Hempel Coatings USA Inc.	Houston	2,815
Amoco Chemical Co.	Texas City	137

Taylor Bayou in Texas

Total toxic pollution reported (1990-1994): 787,167 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Taylor Bayou in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Star Enterprise	Port Arthur	785,306
Quantum Chemical Co.*	Port Arthur	1,750

Table 2. Toxic chemicals discharged in the greatest amounts to Taylor Bayou in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	649,242
Barium compounds	36,978
Barium	22,773
Phenol	13,736
Zinc compounds	13,353
Zinc (fume or dust)	11,066
Antimony compounds	4,191
Methyl tert-butyl ether	4,153
Chromium compounds	3,826
Nickel compounds	3,404

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to Taylor Bayou in Texas (1990-1994).**

Carcinogens	12,635 Pounds
Persistent Toxic Metals	107,863 Pounds
Reproductive Toxins	6,410 Pounds
Total‡	111,939 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to Taylor Bayou in Texas (1990-1994).**

Top dischargers of carcinogens to Taylor Bayou in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Star Enterprise	Port Arthur	12,635

Top dischargers of persistent toxic metals to Taylor Bayou in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Star Enterprise	Port Arthur	107,752

Top dischargers of reproductive toxins to Taylor Bayou in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Star Enterprise	Port Arthur	6,410

Corpus Christi Bay in Texas

Total toxic pollution reported (1990-1994): 578,806 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Corpus Christi Bay in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
American Chrome & Chemicals	Corpus Christi	298,600
Coastal Refining & Marketing	Corpus Christi	78,488
Valero Refining Co.	Corpus Christi	71,349
Southwestern Refining Co. Inc.	Corpus Christi	59,574
Koch Refining Co. L.p.	Corpus Christi	35,592
Citgo Refining & Chemicals	Corpus Christi	29,319
Citgo Refining & Chemicals	Corpus Christi	5,879

Table 2. Toxic chemicals discharged in the greatest amounts to Corpus Christi Bay in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	297,329
Ammonium sulfate (solution)	210,000
Chlorine	22,347
Antimony compounds	11,575
p-Xylene	9,080
Nickel compounds	7,318
Chromium compounds	4,971
Diethanolamine	4,777
Molybdenum trioxide	4,074
Zinc compounds	2,008

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to Corpus Christi Bay in Texas (1990-1994).**

Carcinogens	9,364 Pounds
Persistent Toxic Metals	28,186 Pounds
Reproductive Toxins	10,894 Pounds
Total‡	38,525 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to Corpus Christi Bay in Texas (1990-1994).**

Top dischargers of carcinogens to Corpus Christi Bay in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Valero Refining Co.	Corpus Christi	5,862
Coastal Refining & Marketing	Corpus Christi	1,678
Southwestern Refining Co.	Corpus Christi	969
Citgo Refining & Chemicals	Corpus Christi	850

Top dischargers of persistent toxic metals to Corpus Christi Bay in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Valero Refining Co.	Corpus Christi	18,164
Coastal Refining & Marketing	Corpus Christi	3,836
American Chrome &	Corpus Christi	3,500
Southwestern Refining Co.	Corpus Christi	1,465
Citgo Refining & Chemicals	Corpus Christi	654

Top dischargers of reproductive toxins to Corpus Christi Bay in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Koch Refining Co. L.p.	Corpus Christi	9,072
Citgo Refining & Chemicals	Corpus Christi	850
Valero Refining Co.	Corpus Christi	635
Southwestern Refining Co.	Corpus Christi	332

Buffalo Bayou in Texas

Total toxic pollution reported (1990-1994): 435,942 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Buffalo Bayou in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Gulf Reduction Corp.	Houston	412,691
Gulf Reduction Corp.	Houston	20,888
Lead Prods. Co. Inc.	Houston	1,755
Minh Food Corp.	Pasadena	324
Reed Tool Co.	Houston	264

Table 2. Toxic chemicals discharged in the greatest amounts to Buffalo Bayou in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Zinc compounds	425,018
Lead compounds	9,004
Lead	1,000
Ethylene glycol	324
Copper compounds	312
Copper	264

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to Buffalo Bayou in Texas (1990-1994).**

Carcinogens	10,019 Pounds
Persistent Toxic Metals	435,603 Pounds
Reproductive Toxins	1,000 Pounds
Total‡	435,613 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to Buffalo Bayou in Texas (1990-1994).**

Top dischargers of carcinogens to Buffalo Bayou in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Gulf Reduction Corp.	Houston	8,188
Lead Prods. Co. Inc.	Houston	1,755

Top dischargers of persistent toxic metals to Buffalo Bayou in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Gulf Reduction Corp.	Houston	412,691
Gulf Reduction Corp.	Houston	20,888
Lead Prods. Co. Inc.	Houston	1,755
Reed Tool Co.	Houston	264

Top dischargers of reproductive toxins to Buffalo Bayou in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Lead Prods. Co. Inc.	Houston	1,000

The Sabine River in Texas

Total toxic pollution reported (1990-1994): 407,441 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Sabine River in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Du Pont	Orange	156,159
Eastman Chemical Co.	Longview	156,150
Inland Container Corp.	Orange	67,290
Stroh Brewery Co.	Longview	17,700
Longview Refining Assoc. Inc.*	Longview	5,305
Letourneau Inc.	Longview	4,510
Bicc Utility Cable Co.	Scottsville	290

Table 2. Toxic chemicals discharged in the greatest amounts to the Sabine River in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	340,050
Zinc compounds	42,080
Methanol	5,200
Copper compounds	3,739
Acetone	2,405
Nickel	1,250
Copper	1,250
Nickel compounds	1,000
Catechol	760
Manganese	750

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to the Sabine River in Texas (1990-1994).**

Carcinogens	4,330 Pounds
Persistent Toxic Metals	51,442 Pounds
Reproductive Toxins	4,300 Pounds
Total‡	55,275 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to the Sabine River in Texas (1990-1994).**

Top dischargers of carcinogens to the Sabine River in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Letourneau Inc.	Longview	1,750
Du Pont	Orange	1,000
Inland Container Corp.	Orange	750
Longview Refining Assoc.	Longview	535
Eastman Chemical Co.	Longview	278

Top dischargers of persistent toxic metals to the Sabine River in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Inland Container Corp.	Orange	36,400
Du Pont	Orange	6,273
Eastman Chemical Co.	Longview	4,472
Letourneau Inc.	Longview	4,260

Top dischargers of reproductive toxins to the Sabine River in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Longview Refining Assoc.	Longview	2,800
Letourneau Inc.	Longview	1,500

Cedar Bayou in Texas

Total toxic pollution reported (1990-1994): 389,261 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Cedar Bayou in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Miles Inc.	Baytown	387,435
Amoco Chemicals*	Baytown	1,516
Chevron Chemical Co.	Baytown	310

Table 2. Toxic chemicals discharged in the greatest amounts to Cedar Bayou in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	345,723
4,4'-Isopropylidenediphenol	13,373
Acetone	9,850
Hydrazine	2,750
Aniline	1,250
Chloroform	1,250
Dichloromethane	1,250
o-Toluidine	1,250
Chlorobenzene	1,250
Nickel	1,250

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to Cedar Bayou in Texas (1990-1994).**

Carcinogens	11,785 Pounds
Persistent Toxic Metals	2,750 Pounds
Reproductive Toxins	2,265 Pounds
Total‡	13,045 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to Cedar Bayou in Texas (1990-1994).**

Top dischargers of carcinogens to Cedar Bayou in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Miles Inc.	Baytown	11,785

Top dischargers of persistent toxic metals to Cedar Bayou in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Miles Inc.	Baytown	2,750

Top dischargers of reproductive toxins to Cedar Bayou in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Miles Inc.	Baytown	2,265

The San Jacinto River/Bay in Texas

Total toxic pollution reported (1990-1994): 358,329 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the San Jacinto River/Bay in Texas (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Lyondell Petrochemical Co.	Channelview	258,860
Quantum Chemical Corp.	La Porte	71,227
Arco Chemical Co.	Channelview	16,615
Dow Chemical Co.	La Porte	7,323
KMCO Inc.	Crosby	2,020
Du Pont*	La Porte	1,349
Aristech Chemical Corp.	La Porte	660
Southwestern Barge Fleet*	Channelview	155
Evans Cooperage Of	Houston	115

Table 2. Toxic chemicals discharged in the greatest amounts to the San Jacinto River/Bay in Texas (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	163,418
Acetonitrile	43,500
Zinc compounds	27,286
Methyl ethyl ketone	22,410
Acetone	18,480
Methanol	18,222
Nickel	11,895
Vinyl acetate	8,964
sec-Butyl alcohol	7,540
Cyanide compounds	5,391

‡ The sum of carcinogens, persistent toxic metals, and reproductive toxins listed in Table 3 may be larger than the total because a chemical may be in one or more categories. Chemicals were counted only once for the total in Table 3.

* This polluter did not report any discharges to water in 1994. See Table 9 for year to year pollution figures.

** Carcinogens and reproductive toxins defined by the State of California Proposition 65, EPA's TRI Public Data Release and other literature. See full report for references.

Table 3. Total carcinogens, persistent toxic metals, and reproductive toxins** discharged to the San Jacinto River/Bay in Texas (1990-1994).**

Carcinogens	21,244 Pounds
Persistent Toxic Metals	52,740 Pounds
Reproductive Toxins	17,061 Pounds
Total‡	59,937 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to the San Jacinto River/Bay in Texas (1990-1994).**

Top dischargers of carcinogens to the San Jacinto River/Bay in Texas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Lyondell Petrochemical Co.	Channelview	17,430
Dow Chemical Co.	La Porte	1,811
Quantum Chemical Corp.	La Porte	1,710
Arco Chemical Co.	Channelview	168

Top dischargers of persistent toxic metals to the San Jacinto River/Bay in Texas (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Lyondell Petrochemical Co.	Channelview	34,975
Quantum Chemical Corp.	La Porte	16,335
Arco Chemical Co.	Channelview	796
Du Pont*	La Porte	619

Top dischargers of reproductive toxins to the San Jacinto River/Bay in Texas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Lyondell Petrochemical Co.	Channelview	16,094
KMCO Inc.	Crosby	565
Arco Chemical Co.	Channelview	274