



The State PIRGs



# **Dishonorable Discharge**

## **Toxic Pollution of California Waters**



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# Toxic Pollution of California Waters

### Executive Summary

Most California 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 California streams and rivers.

The citizens of California 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 California and nationwide.

Factories and other industrial facilities dumped more than 37.4 million pounds of toxic substances directly into California's waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). California ranked second 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, over one hundred (116) million pounds of toxic materials were flushed to sewage treatment plants in California from 1990 through 1994, 5th in the nation (Table 1.) EPA estimates that twenty-five percent of all discharges nationwide flow through sewage treatment plants untreated (EPA 1995). If this is correct, it raises the total amount of toxics dumped to the state's waters to an estimated 66.4 million pounds (Table 1).

The Pacific Ocean received the greatest amount of toxic water pollution in California from 1990-1994, a total of 34,900,000 pounds, followed by Santa Monica Bay, Suisun Bay, and San Pablo Bay (Table 2). The ten most polluted waterways in California received 36,500,000 pounds of toxic pollution between 1990 and 1994, 97.6% percent of the total in the State.

The top three facilities reporting the most toxic pollution of California's waters over this period were Louisiana-Pacific Corporation in Samoa, which dumped 21,500,000

pounds of toxic chemicals, followed by Simpson Paper Company\*, and Chevron USA Prods. Company in the towns of Eureka, and El Segundo, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were methanol, a total of 33,000,000 pounds, followed by ammonia, and hydrochloric acid (Table 4).

Louisiana-Pacific Corporation dumped the most carcinogens into California's waters, a total of 222,000 pounds, followed by Simpson Paper Company\* and Chevron USA Prods. Company (Table 8). The Pacific Ocean received the greatest amount of cancer-causing toxic chemicals in California, a total of 356,000 pounds, followed by Suisun Bay and Santa Monica Bay (Table 7).

Chevron USA Products Company dumped the greatest amount of persistent toxic metals in California's waters, a total of 77,000 pounds, followed by Louisiana-Pacific Corporation and Simpson Paper Company (Table 8). The Santa Monica Bay received the greatest amount of persistent toxic metals, a total of 77,000 pounds, followed by the Pacific Ocean and the Sacramento River (Table 7).

Chevron USA Prods. Company dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into California's waters, a total of 6,000 pounds, followed by Superior Industries International Inc.\* and Shell Martinez Manufacturing Complex (Table 8). The Santa Monica Bay received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 6,000 pounds, followed by the Carquinez Straits and the Pacific Ocean (Table 7).

These discharges to California's waters include only those wastes released by companies physically located in California. 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.

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\*This facility reported no discharges in 1994, and may also have reported zero discharges for other years.

# 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 90<sup>1</sup> 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 343<sup>2</sup> 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 California’s waters, we used EPA’s assumption that 25 percent of all toxic chemicals transferred to POTWs pass-through untreated<sup>3</sup>. Table 1 presents the EWG estimate of toxic chemicals assumed to be discharged by the POTWs in California. 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 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 pounds<sup>4</sup> 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

<sup>1</sup>Estimate 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).

<sup>2</sup>The 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.

<sup>3</sup>EPA 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.

<sup>4</sup>This 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-Acetylaminofluorene	Chlorothalonil	Nickel compounds
2-Aminoanthraquinone	Chromium	Nitritotriacetic 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)	Safrole
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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# California

## Toxic pollution of California waters (1990-1994)

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

Direct Water Discharges	37,407,418 Pounds
Estimated Sewer Discharges‡	29,005,395 Pounds
<b>Total Discharges to Waters</b>	<b>66,412,813 Pounds</b>

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Pacific Ocean	34,879,722
Santa Monica Bay	761,390
Suisun Bay	332,117
San Pablo Bay	220,949
Searles Lake Brine Aquifers	103,760
Dominguez Channel	86,630
Sacramento River	59,465
Carquinez Straits	49,282
Los Angeles River	11,340
Hutchinson Creek	10,215

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

Facility	City	Toxic chemical release to waters (pounds)
Louisiana-Pacific Corp.	Samoa	21,484,105
Simpson Paper Co.*	Eureka	13,317,670
Chevron USA Prods. Co.	El Segundo	769,558
North American Chemical Co.	Trona	599,180
Tosco Refining Co.	Martinez	284,454
Read-Rite Corp.	Milpitas	256,863
Chevron USA Prods.	Richmond	125,791
TRMI	Wilmington	76,957
Unocal 76 Prods. Co.	Arroyo Grande	65,554
Pacific Refining Co.	Hercules	64,789

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

Chemical	Toxic chemical release to waters (pounds)
Methanol	33,009,530
Ammonia	2,053,916
Hydrochloric acid	608,995
Sulfuric acid	358,405
Acetone	312,055
Ethylene glycol	257,975
Chloroform	233,391
Acetaldehyde	120,000
Catechol	89,680
Manganese	72,719

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

Facility	City	Toxic chemical release to sewers (pounds)
Filtrol Corp.	Los Angeles	33,886,486
Procter & Gamble Mfg. Co.	Sacramento	28,810,260
Unocal Los Angeles Refy.	Carson	4,878,772
Arco Prods. Co.	Carson	4,432,178
Unocal Corp.	Brea	3,861,956
Monsanto Co.	Carson	2,700,163
Read-Rite Corp.	Milpitas	2,021,759
Unocal	Wilmington	1,890,102
Phibro-Tech. Inc.	Santa Fe Springs	1,860,345
International Rectifier	El Segundo	1,834,782

‡ Total discharges of toxic chemicals to sewer systems in California was 116,021,581 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.

# California

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

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

Carcinogens	391,096 Pounds
Persistent Toxic Metals	178,379 Pounds
Reproductive Toxins	29,473 Pounds
<b>Total (see note)</b>	<b>544,785 Pounds</b>

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

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

River or Water Body	Carcinogens** released to waters (lbs.)
Pacific Ocean	355,690
Suisun Bay	5,406
Santa Monica Bay	4,065
San Pablo Bay	3,580
Carquinez Straits	3,390

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Santa Monica Bay	77,479
Pacific Ocean	35,911
Sacramento River	13,879
Suisun Bay	9,586
Dominguez Channel	9,357

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Santa Monica Bay	6,363
Carquinez Straits	3,395
Pacific Ocean	2,755
Suisun Bay	2,725
Dominguez Channel	2,130

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

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

Facility	City	Carcinogens** released to waters (lbs.)
Louisiana-Pacific Corp.	Samoa	222,000
Simpson Paper Co.*	Eureka	132,800
Chevron USA Prods. Co.	El Segundo	4,065
Superior Ind. Intl. Inc.*	Van Nuys	4,003
Chevron USA Prods.	Richmond	3,580

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

Facility	City	Persistent toxic metals released to waters (lbs.)
Chevron USA Prods. Co.	El Segundo	77,479
Louisiana-Pacific Corp.	Samoa	29,000
Simpson Paper Co.	Anderson	13,879
Simpson Paper Co.*	Eureka	6,200
Chevron USA Prods.	Richmond	6,091

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

Facility	City	Reproductive toxins** released to waters (lbs.)
Chevron USA Prods. Co.	El Segundo	6,363
Superior Ind. Intl. Inc.*	Van Nuys	4,003
Shell Martinez Manuf.	Martinez	3,395
Unocal*	Wilmington	2,465
Exxon Co. USA	Benicia	2,049

\* 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.

# The Pacific Ocean in California

Total toxic pollution reported (1990-1994): 34,879,722 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Pacific Ocean in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Louisiana-Pacific Corp.	Samoa	21,484,105
Simpson Paper Co.*	Eureka	13,317,670
Unocal 76 Prods. Co.	Arroyo Grande	65,554
Unisys Corp.*	San Diego	6,575
Unocal*	Wilmington	4,528
PC World*	Irvine	505
U.S. Navy Long Beach Naval	Long Beach	250
Brite Plating Co. Inc.*	Los Angeles	250
Maclin Co.	City Of Industry	135

**Table 2. Toxic chemicals discharged in the greatest amounts to the Pacific Ocean in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	32,972,000
Hydrochloric acid	576,080
Sulfuric acid	319,270
Acetone	306,075
Chloroform	228,600
Ammonia	175,554
Acetaldehyde	120,000
Catechol	87,920
Methyl ethyl ketone	32,500
Chromium compounds	29,015

‡ 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 Pacific Ocean in California (1990-1994).**

Carcinogens	355,690 Pounds
Persistent Toxic Metals	35,911 Pounds
Reproductive Toxins	2,755 Pounds
<b>Total‡</b>	<b>387,006 Pounds</b>

**Table 4. Polluters reporting the greatest amounts of carcinogens\*\*, persistent toxic metals, and reproductive toxins\*\* discharged to the Pacific Ocean in California (1990-1994).**

**Top dischargers of carcinogens\*\* to the Pacific Ocean in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Louisiana-Pacific Corp.	Samoa	222,000
Simpson Paper Co.*	Eureka	132,800
Unocal*	Wilmington	585
Brite Plating Co. Inc.*	Los Angeles	250

**Top dischargers of persistent toxic metals to the Pacific Ocean in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Louisiana-Pacific Corp.	Samoa	29,000
Simpson Paper Co.*	Eureka	6,200
Brite Plating Co. Inc.*	Los Angeles	250
U.S. Navy Long Beach Naval	Long Beach	250

**Top dischargers of reproductive toxins\*\* to the Pacific Ocean in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Unocal*	Wilmington	2,465
Brite Plating Co. Inc.*	Los Angeles	250

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

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# Santa Monica Bay in California

Total toxic pollution reported (1990-1994): 761,390 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to Santa Monica Bay in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Chevron USA Prods. Co.	El Segundo	761,390

**Table 2. Toxic chemicals discharged in the greatest amounts to Santa Monica Bay in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	632,579
Manganese	72,689
Methyl tert-butyl ether	34,500
Phenol	9,721
Nickel	2,391
Chlorine	1,700
m-Xylene	1,497
Copper	1,195
1,2,4-Trimethylbenzene	976
o-Xylene	815

‡ 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 Santa Monica Bay in California (1990-1994).**

Carcinogens	4,065 Pounds
Persistent Toxic Metals	77,479 Pounds
Reproductive Toxins	6,363 Pounds
<b>Total‡</b>	<b>81,023 Pounds</b>

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

**Top dischargers of carcinogens\*\* to Santa Monica Bay in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Chevron USA Prods. Co.	El Segundo	4,065

**Top dischargers of persistent toxic metals to Santa Monica Bay in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Chevron USA Prods. Co.	El Segundo	77,479

**Top dischargers of reproductive toxins\*\* to Santa Monica Bay in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Chevron USA Prods. Co.	El Segundo	6,363

# Suisun Bay in California

Total toxic pollution reported (1990-1994): 332,117 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to Suisun Bay in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Tosco Refining Co.	Martinez	284,454
Exxon Co. USA	Benicia	41,922
USS-Posco Ind.	Pittsburg	4,637
General Chemical Corp.*	Pittsburg	1,020

**Table 2. Toxic chemicals discharged in the greatest amounts to Suisun Bay in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	318,150
Chromium compounds	4,304
Nickel compounds	3,365
Phenol	1,355
Benzene	937
Nickel	900
Zinc compounds	630
Toluene	473
Xylene (mixed isomers)	405
Naphthalene	328

‡ 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 Suisun Bay in California (1990-1994).**

Carcinogens	5,406 Pounds
Persistent Toxic Metals	9,586 Pounds
Reproductive Toxins	2,725 Pounds
<b>Total‡</b>	<b>11,418 Pounds</b>

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

**Top dischargers of carcinogens\*\* to Suisun Bay in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Exxon Co. USA	Benicia	2,764
Tosco Refining Co.	Martinez	2,315
USS-Posco Ind.	Pittsburg	263

**Top dischargers of persistent toxic metals to Suisun Bay in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
USS-Posco Ind.	Pittsburg	4,637
Exxon Co. USA	Benicia	2,620
Tosco Refining Co.	Martinez	2,272

**Top dischargers of reproductive toxins\*\* to Suisun Bay in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Exxon Co. USA	Benicia	1,989
Tosco Refining Co.	Martinez	726



# San Pablo Bay in California

Total toxic pollution reported (1990-1994): 220,949 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to San Pablo Bay in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Chevron USA Prods.	Richmond	125,778
Pacific Refining Co.	Hercules	64,789
Unocal San Francisco. Refinery	Rodeo	30,377

**Table 2. Toxic chemicals discharged in the greatest amounts to San Pablo Bay in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	189,791
Methyl tert-butyl ether	23,005
Nickel compounds	3,180
Zinc compounds	1,500
Copper compounds	1,464
Phenol	750
Chromium compounds	540
Lead compounds	394
Chlorine	255

‡ 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 San Pablo Bay in California (1990-1994).**

Carcinogens	3,580 Pounds
Persistent Toxic Metals	7,078 Pounds
Reproductive Toxins	21 Pounds
<b>Total‡</b>	<b>7,099 Pounds</b>

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

**Top dischargers of carcinogens\*\* to San Pablo Bay in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Chevron USA Prods.	Richmond	3,574

**Top dischargers of persistent toxic metals to San Pablo Bay in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Chevron USA Prods.	Richmond	6,078
Unocal San Francisco.	Rodeo	1,000

**Top dischargers of reproductive toxins\*\* to San Pablo Bay in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)

# Searles Lake Brine Aquifers in California

## Total toxic pollution reported (1990-1994): 103,760 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to Searles Lake Brine Aquifers in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
North American Chemical Co.	Trona	103,760

**Table 2. Toxic chemicals discharged in the greatest amounts to Searles Lake Brine Aquifers in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	103,760

‡ 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 Searles Lake Brine Aquifers in California (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>0 Pounds</b>

**Table 4. Polluters reporting the greatest amounts of carcinogens\*\*, persistent toxic metals, and reproductive toxins\*\* discharged to Searles Lake Brine Aquifers in California (1990-1994).**

**Top dischargers of carcinogens\*\* to Searles Lake Brine Aquifers in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

**Top dischargers of persistent toxic metals to Searles Lake Brine Aquifers in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)

**Top dischargers of reproductive toxins\*\* to Searles Lake Brine Aquifers in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)

# The Dominguez Channel in California

Total toxic pollution reported (1990-1994): 86,630 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Dominguez Channel in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
TRMI	Wilmington	76,957
Shell Oil Co.*	Carson	2,687
Unocal Los Angeles Refy.	Carson	2,299
Mobil Oil Torrance Refinery*	Torrance	1,726
Rohm & Haas*	Long Beach	950
Western Tube & Conduit	Long Beach	750
Dow Chemical Co.	Torrance	699
ICI Acrylics Inc.*	Compton	250
TRMI	Carson	209

**Table 2. Toxic chemicals discharged in the greatest amounts to the Dominguez Channel in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	70,309
Zinc compounds	6,858
Methanol	1,665
Vinyl acetate	950
Chromium compounds	943
Cresol (mixed isomers)	630
Benzene	605
Toluene	576
Xylene (mixed isomers)	558
Copper	530

‡ 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 Dominguez Channel in California (1990-1994).**

Carcinogens	1,207 Pounds
Persistent Toxic Metals	9,357 Pounds
Reproductive Toxins	2,130 Pounds
<b>Total‡</b>	<b>11,491 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Dominguez Channel in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
TRMI	Wilmington	640
Shell Oil Co.*	Carson	326
Mobil Oil Torrance Refinery*	Torrance	200

**Top dischargers of persistent toxic metals to the Dominguez Channel in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
TRMI	Wilmington	3,400
Shell Oil Co.*	Carson	2,065
Unocal Los Angeles Refy.	Carson	1,949
Western Tube & Conduit	Long Beach	750
Mobil Oil Torrance Refinery*	Torrance	600

**Top dischargers of reproductive toxins\*\* to the Dominguez Channel in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Mobil Oil Torrance Refinery*	Torrance	1,080
TRMI	Wilmington	1,025

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

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# The Sacramento River in California

Total toxic pollution reported (1990-1994): 59,465 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Sacramento River in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Simpson Paper Co.	Anderson	59,465

**Table 2. Toxic chemicals discharged in the greatest amounts to the Sacramento River in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	35,830
Manganese compounds	12,879
Ammonia	4,154
Acetone	2,952
Chloroform	1,900
Copper compounds	1,000
Catechol	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 Sacramento River in California (1990-1994).**

Carcinogens	1,900 Pounds
Persistent Toxic Metals	13,879 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>15,779 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Sacramento River in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Simpson Paper Co.	Anderson	1,900

**Top dischargers of persistent toxic metals to the Sacramento River in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Simpson Paper Co.	Anderson	13,879

**Top dischargers of reproductive toxins\*\* to the Sacramento River in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)

# The Carquinez Straits in California

Total toxic pollution reported (1990-1994): 49,282 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Carquinez Straits in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Shell Martinez Manuf. Complex	Martinez	41,765
California & Hawaiian Sugar	Crockett	7,500

**Table 2. Toxic chemicals discharged in the greatest amounts to the Carquinez Straits in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	45,870
Nickel	3,390

‡ 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 Carquinez Straits in California (1990-1994).**

Carcinogens	3,390 Pounds
Persistent Toxic Metals	3,407 Pounds
Reproductive Toxins	3,395 Pounds
<b>Total‡</b>	<b>3,412 Pounds</b>

**Table 4. Polluters reporting the greatest amounts of carcinogens\*\*, persistent toxic metals, and reproductive toxins\*\* discharged to the Carquinez Straits in California (1990-1994).**

**Top dischargers of carcinogens\*\* to the Carquinez Straits in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Shell Martinez Manuf.	Martinez	3,390

**Top dischargers of persistent toxic metals to the Carquinez Straits in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Shell Martinez Manuf.	Martinez	3,390

**Top dischargers of reproductive toxins\*\* to the Carquinez Straits in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Shell Martinez Manuf.	Martinez	3,395

# The Los Angeles River in California

Total toxic pollution reported (1990-1994): 11,340 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Los Angeles River in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Filtrol Corp.	Los Angeles	6,285
Filtrol Corp.	Los Angeles	1,500
Ni Ind. Inc.	Vernon	1,148
Arrowhead Brass Prods. Inc.	Los Angeles	785
P. Kay Metal Supply Inc.	Los Angeles	510
Ketema*	Los Angeles	505
Dial Corp.*	South Gate	250
Techni-Cast Corp.	South Gate	226

**Table 2. Toxic chemicals discharged in the greatest amounts to the Los Angeles River in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	7,785
Zinc compounds	1,115
Lead	775
Sulfuric acid	750
Copper	523
Zinc (fume or dust)	198

‡ 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 Los Angeles River in California (1990-1994).**

Carcinogens	829 Pounds
Persistent Toxic Metals	2,745 Pounds
Reproductive Toxins	838 Pounds
<b>Total‡</b>	<b>2,800 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Los Angeles River in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
P. Kay Metal Supply Inc.	Los Angeles	510
Arrowhead Brass Prods. Inc.	Los Angeles	275

**Top dischargers of persistent toxic metals to the Los Angeles River in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Ni Ind. Inc.	Vernon	1,148
Arrowhead Brass Prods. Inc.	Los Angeles	780
P. Kay Metal Supply Inc.	Los Angeles	510
Techni-Cast Corp.	South Gate	226

**Top dischargers of reproductive toxins\*\* to the Los Angeles River in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
P. Kay Metal Supply Inc.	Los Angeles	510
Arrowhead Brass Prods. Inc.	Los Angeles	270

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

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# Hutchinson Creek in California

Total toxic pollution reported (1990-1994): 10,215 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to Hutchinson Creek in California (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
U.S. Air Force	Beale A F B	10,215

**Table 2. Toxic chemicals discharged in the greatest amounts to Hutchinson Creek in California (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Chlorine	10,215

‡ 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 Hutchinson Creek in California (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>0 Pounds</b>

**Table 4. Polluters reporting the greatest amounts of carcinogens\*\*, persistent toxic metals, and reproductive toxins\*\* discharged to Hutchinson Creek in California (1990-1994).**

**Top dischargers of carcinogens\*\* to Hutchinson Creek in California (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

**Top dischargers of persistent toxic metals to Hutchinson Creek in California (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)

**Top dischargers of reproductive toxins\*\* to Hutchinson Creek in California (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)