

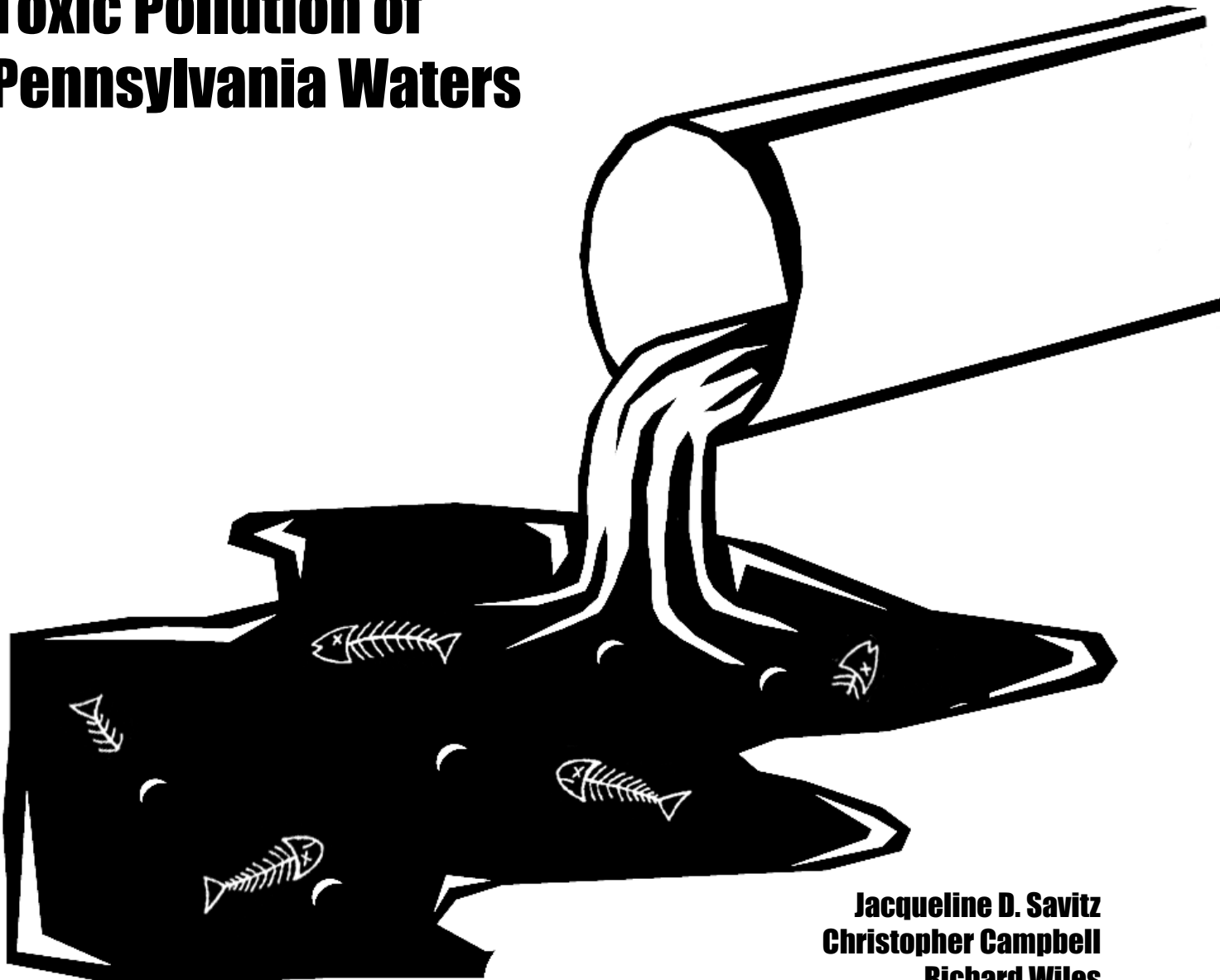


The State PIRGs



Dishonorable Discharge

Toxic Pollution of Pennsylvania Waters



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Toxic Pollution of Pennsylvania Waters

Executive Summary

Most Pennsylvania 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 Pennsylvania streams and rivers.

The citizens of Pennsylvania 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 Pennsylvania and nationwide.

Factories and other industrial facilities dumped more than 6.7 million pounds of toxic substances directly into Pennsylvania's waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). Pennsylvania ranked 21st 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 64 million pounds of toxic materials were flushed to sewage treatment plants in Pennsylvania from 1990 through 1994, 9th 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 Pennsylvania raises the total amount of toxics dumped to the state's waters to an estimated 22.8 million pounds (Table 1).

The Susquehanna River received the greatest amount of toxic water pollution in Pennsylvania from 1990-1994, a total of 1,960,000 pounds, followed by the Monongahela River, the Bushkill Creek, and the Ohio River (Table 2). The ten most polluted waterways in Pennsylvania received 5,340,000 pounds of toxic pollution between 1990 and 1994, 79.6% percent of the total in the State.

The top three facilities reporting the most toxic pollution of Pennsylvania's waters over this period were Osram Sylvania Inc. in Towanda, which dumped 1,580,000 pounds of

toxic chemicals, followed by Harcros Pigments Inc., and Shenango Inc. in the towns of Easton, and Pittsburgh, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were ammonia, a total of 3,580,000 pounds, followed by ammonium sulfate solution, and ethylene glycol (Table 4).

Sharon Steel Corporation* dumped the most carcinogens into Pennsylvania's waters, a total of 30,500 pounds, followed by Willamette Ind. Inc. and Rohm & Haas Delaware Valley (Table 8). The Shenango River received the greatest amount of cancer-causing toxic chemicals in Pennsylvania, a total of 35,000 pounds, followed by the Susquehanna River and the Clarion River (Table 7).

Zinc Corporation Of America dumped the greatest amount of persistent toxic metals in Pennsylvania's waters, a total of 160,000 pounds, followed by Sharon Steel Corporation* and Bethlehem Steel Corporation (Table 8). Aquashicola Creek received the greatest amount of persistent toxic metals, a total of 162,000 pounds, followed by the Shenango River and the Susquehanna River (Table 7).

Petrowax PA Inc. dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into Pennsylvania's waters, a total of 29,000 pounds, followed by Rohm & Haas Delaware Valley and Sharon Steel Corporation* (Table 8). Potato Creek received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 29,000 pounds, followed by Hog Run Creek and the Shenango River (Table 7).

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

*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). In Pennsylvania, one third of the rivers surveyed by the State had elevated levels of toxic chemicals (EPA 1995b). 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 amount of toxic substances dumped into Pennsylvania’s 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 Pennsylvania. 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-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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Pennsylvania

Toxic pollution of Pennsylvania waters (1990-1994)

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

Direct Water Discharges	6,704,478 Pounds
Estimated Sewer Discharges‡	16,117,280 Pounds
Total Discharges to Waters	22,821,758 Pounds

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Susquehanna River	1,956,196
Monongahela River	744,253
Bushkill Creek	520,299
Ohio River	514,408
Lehigh River	362,721
Delaware River	326,129
Schuylkill River	316,151
Shenango River	254,328
Allegheny River	174,448
Potato Creek	168,940

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

Facility	City	Toxic chemical release to waters (pounds)
Osram Sylvania Inc.	Towanda	1,576,204
Harcros Pigments Inc.	Easton	520,299
Shenango Inc.	Pittsburgh	450,094
LTV Steel Co. Inc.	Pittsburgh	342,091
BP Exploration & Oil Inc.	Trainer	289,590
Sharon Steel Corp.*	Farrell	236,050
Bethlehem Steel Structural	Bethlehem	213,306
Howes Leather Co. Inc.	Curwensville	202,601
Ireco/Dyno Nobel Inc.	Donora	187,000
Petrowax PA Inc.	Smethport	168,940

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

Chemical	Toxic chemical release to waters (pounds)
Ammonia	3,583,919
Ammonium sulfate (solution)	471,851
Ethylene glycol	356,696
Zinc compounds	320,795
Methyl ethyl ketone	208,262
Molybdenum trioxide	207,412
Cyanide compounds	148,146
Methanol	141,273
Chlorine	139,995
Sulfuric acid	137,646

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

Facility	City	Toxic chemical release to sewers (pounds)
International Paper Co.	Erie	20,627,100
Rohm & Haas DVI	Philadelphia	18,936,272
Allied-Signal Inc.	Philadelphia	8,229,615
Sun Refining & Marketing Co.	Marcus Hook	3,113,970
Mallinckrodt Chemical Inc.	Erie	2,243,083
Williamsport Wirerope Works	Williamsport	1,562,777
Aluminum Finishers Corp.	Philadelphia	897,832
Grumman Allied	Montgomery	731,710
LTV Steel Co. Inc.	Pittsburgh	714,082
Borden Inc.	Wellsboro	609,050

‡ Total discharges of toxic chemicals to sewer systems in Pennsylvania was 64,469,121 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.

Pennsylvania

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

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

Carcinogens	226,195 Pounds
Persistent Toxic Metals	818,127 Pounds
Reproductive Toxins	161,547 Pounds
Total (see note)	982,221 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. Pennsylvania waters receiving the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** (1990-1994).**

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

River or Water Body	Carcinogens** released to waters (lbs.)
Shenango River	34,609
Susquehanna River	17,135
Clarion River	16,339
Ohio River	14,329
Connoquenessing Creek	12,382

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Aquashicola Creek	161,655
Shenango River	153,103
Susquehanna River	89,298
Lehigh River	58,807
Little Conemaugh River	55,050

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Potato Creek	28,838
Hog Run Creek	27,347
Shenango River	21,852
Allegheny River	17,232
Ohio River	14,766

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

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

Facility	City	Carcinogens** released to waters (lbs.)
Sharon Steel Corp.*	Farrell	30,452
Willamette Ind. Inc.	Johnsonburg	16,339
Rohm & Haas Delaware Valley	Bristol	11,760
Appleton Papers Inc.	Roaring Spring	11,500
Armco Inc.	Butler	10,750

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

Facility	City	Persistent toxic metals released to waters (lbs.)
Zinc Corp. Of America	Palmerton	159,781
Sharon Steel Corp.*	Farrell	137,872
Bethlehem Steel Corp.	Steelton	61,401
J-Pitt Steel Inc.*	Johnstown	52,750
Bethlehem Steel Structural	Bethlehem	37,806

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

Facility	City	Reproductive toxins** released to waters (lbs.)
Petrowax PA Inc.	Smethport	28,838
Rohm & Haas Delaware Valley	Bristol	27,347
Sharon Steel Corp.*	Farrell	17,450
Petrowax PA Inc.	Emlenton	10,924
Shenango Inc.	Pittsburgh	10,146

* 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 Susquehanna River in Pennsylvania

Total toxic pollution reported (1990-1994): 1,956,196 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Osram Sylvania Inc.	Towanda	1,576,204
Howes Leather Co. Inc.	Curwensville	202,601
Bethlehem Steel Corp.	Steelton	61,401
Merck & Co. Inc.	Riverside	58,128
Procter & Gamble	Mehoopany	48,541
National Gypsum Co.	New Columbia	4,300
Armstrong World Ind. Marietta	Marietta	2,520
North Star Steel Co.*	Milton	869
Electro-Platers Of York Inc.	Wrightsville	727
Heinz Pet Prods.*	Bloomsburg	

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	1,580,956
Molybdenum trioxide	189,341
Manganese compounds	49,974
Methanol	46,730
Zinc compounds	16,251
Ethylene glycol	15,000
Ammonium sulfate (solution)	11,000
Nickel compounds	10,550
Acetonitrile	7,830
Pyridine	6,800

‡ 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 Susquehanna River in Pennsylvania (1990-1994).**

Carcinogens	17,135 Pounds
Persistent Toxic Metals	89,298 Pounds
Reproductive Toxins	713 Pounds
Total‡	94,474 Pounds

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

Top dischargers of carcinogens to the Susquehanna River in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Osram Sylvania Inc.	Towanda	8,377
Bethlehem Steel Corp.	Steelton	4,229
Procter & Gamble	Mehoopany	3,541
Merck & Co. Inc.	Riverside	930

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

Facility	City	Persistent toxic metals released to water (lbs)
Bethlehem Steel Corp.	Steelton	61,401
Osram Sylvania Inc.	Towanda	20,560
Merck & Co. Inc.	Riverside	5,670
North Star Steel Co.*	Milton	869
Electro-Platers Of York Inc.	Wrightsville	688

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

Facility	City	Reproductive toxins** released to water (lbs)
Merck & Co. Inc.	Riverside	700

The Monongahela River in Pennsylvania

Total toxic pollution reported (1990-1994): 744,253 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
LTV Steel Co. Inc.	Pittsburgh	341,501
Ireco/Dyno Nobel Inc.	Donora	187,000
USS Clairton Works	Clairton	109,515
Sharon Steel Corp.*	Monessen	78,258
USS Mon Valley Works	Braddock	15,555
Welland Chemical Co. Inc.	Newell	7,066
USS Mon Valley Works	Dravosburg	4,355
Page Aluminized Steel Corp.*	Monessen	556
Hercules Inc.*	West Elizabeth	282
Corning Consumer Prods.	Charleroi	

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	480,885
Cyanide compounds	137,202
Ammonium nitrate (solution)	94,100
Phenol	13,509
Nitric acid	7,000
Zinc compounds	6,540
Lead compounds	2,099
Naphthalene	1,311
Lead	546
Benzene	406

‡ 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 Monongahela River in Pennsylvania (1990-1994).**

Carcinogens	3,132 Pounds
Persistent Toxic Metals	9,506 Pounds
Reproductive Toxins	997 Pounds
Total‡	9,957 Pounds

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

Top dischargers of carcinogens to the Monongahela River in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
USS Mon Valley Works	Dravosburg	2,015
Page Aluminized Steel Corp.*	Monessen	546
LTV Steel Co. Inc.	Pittsburgh	350
Corning Consumer Prods.	Charleroi	165

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

Facility	City	Persistent toxic metals released to water (lbs)
USS Mon Valley Works	Braddock	4,440
USS Mon Valley Works	Dravosburg	4,355
Page Aluminized Steel Corp.*	Monessen	546
Corning Consumer Prods.	Charleroi	165

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

Facility	City	Reproductive toxins** released to water (lbs)
Page Aluminized Steel Corp.*	Monessen	546
LTV Steel Co. Inc.	Pittsburgh	350

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

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Bushkill Creek in Pennsylvania

Total toxic pollution reported (1990-1994): 520,299 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Bushkill Creek in Pennsylvania (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Harcros Pigments Inc.	Easton	520,299

Table 2. Toxic chemicals discharged in the greatest amounts to Bushkill Creek in Pennsylvania (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonium sulfate (solution)	421,923
Ammonia	97,871
Manganese	255
Manganese compounds	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 Bushkill Creek in Pennsylvania (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	505 Pounds
Reproductive Toxins	0 Pounds
Total‡	505 Pounds

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

Top dischargers of carcinogens to Bushkill Creek in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

Top dischargers of persistent toxic metals to Bushkill Creek in Pennsylvania (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Harcros Pigments Inc.	Easton	505

Top dischargers of reproductive toxins to Bushkill Creek in Pennsylvania (1990-1994).**

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

The Ohio River in Pennsylvania

Total toxic pollution reported (1990-1994): 514,408 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Shenango Inc.	Pittsburgh	450,094
LTV Steel Co. Inc.	Aliquippa	23,744
Neville Chemical Co.	Pittsburgh	13,812
Arco Chemical Co.	Monaca	8,060
Zinc Corp. Of America	Monaca	7,494
Cutler Hammer	Beaver	2,810
J & L Specialty Steel Inc.	Midland	2,538
Hussey Copper Ltd.	Leetsdale	2,520
Teledyne Vasco*	Monaca	1,255
Pittsburgh Tool Steel Inc.	Monaca	

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	442,516
Chromium compounds	14,610
Cyanide compounds	9,649
Chlorine	9,050
Benzene	8,652
Phenol	4,163
Copper	3,505
Zinc compounds	3,324
Copper compounds	3,187
Toluene	2,866

‡ 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 Ohio River in Pennsylvania (1990-1994).**

Carcinogens	14,329 Pounds
Persistent Toxic Metals	30,978 Pounds
Reproductive Toxins	14,766 Pounds
Total‡	44,749 Pounds

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

Top dischargers of carcinogens to the Ohio River in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Shenango Inc.	Pittsburgh	7,827
J & L Specialty Steel Inc.	Midland	1,976
Neville Chemical Co.	Pittsburgh	1,431
Zinc Corp. Of America	Monaca	1,202
Teledyne Vasco*	Monaca	750

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

Facility	City	Persistent toxic metals released to water (lbs)
LTV Steel Co. Inc.	Aliquippa	14,095
Zinc Corp. Of America	Monaca	7,494
J & L Specialty Steel Inc.	Midland	2,538
Hussey Copper Ltd.	Leetsdale	2,520
Cutler Hammer	Beaver	1,250

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

Facility	City	Reproductive toxins** released to water (lbs)
Shenango Inc.	Pittsburgh	10,146
Neville Chemical Co.	Pittsburgh	2,800
J & L Specialty Steel Inc.	Midland	976
Arco Chemical Co.	Monaca	560
Hussey Copper Ltd.	Leetsdale	265

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

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The Lehigh River in Pennsylvania

Total toxic pollution reported (1990-1994): 362,721 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Bethlehem Steel Structural	Bethlehem	213,306
AT&T	Allentown	64,690
Bethlehem Structural Prods.	Bethlehem	56,805
Zinc Corp. Of America	Palmerton	17,248
Ashland Chemical Inc.	Easton	6,904
Bethforge Inc.	Bethlehem	2,770
American Nickeloid Co.	Walnutport	645
Alpo Retfoods Inc.	Allentown	250

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

Chemical	Toxic chemical release to waterbody (pounds)
Ethylene glycol	171,120
Ammonia	129,735
Zinc compounds	29,304
Manganese compounds	22,874
Lead compounds	2,483
Nickel compounds	2,165
Glycol ethers	1,770
Copper compounds	1,383
Cyanide compounds	1,000
Chromium	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 the Lehigh River in Pennsylvania (1990-1994).**

Carcinogens	5,174 Pounds
Persistent Toxic Metals	58,807 Pounds
Reproductive Toxins	2,052 Pounds
Total‡	60,614 Pounds

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

Top dischargers of carcinogens to the Lehigh River in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Bethlehem Steel Structural	Bethlehem	3,551
Bethforge Inc.	Bethlehem	1,020
American Nickeloid Co.	Walnutport	551

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

Facility	City	Persistent toxic metals released to water (lbs)
Bethlehem Steel Structural	Bethlehem	37,806
Zinc Corp. Of America	Palmerton	17,248
Bethforge Inc.	Bethlehem	2,770
American Nickeloid Co.	Walnutport	630
Alpo Retfoods Inc.	Allentown	250

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

Facility	City	Reproductive toxins** released to water (lbs)
AT&T	Allentown	1,770
American Nickeloid Co.	Walnutport	256

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The Delaware River in Pennsylvania

Total toxic pollution reported (1990-1994): 326,129 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
BP Exploration & Oil Inc.	Trainer	289,590
USS Fairless Works	Fairless Hills	21,318
Franklin Smelting & Refining	Philadelphia	7,500
Dickler Chemical Labs. Inc.	Philadelphia	4,500
Lerro Prods. Inc.	Philadelphia	1,750
National Chemical Labs.	Philadelphia	1,175
North America Silica*	Chester	250

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	291,017
Chromium compounds	11,520
Zinc compounds	5,530
Chlorine	4,929
Glycol ethers	2,105
Sulfuric acid	1,250
Lead	1,250
Nickel	1,250
Cadmium	1,250
Chromium	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 the Delaware River in Pennsylvania (1990-1994).**

Carcinogens	5,143 Pounds
Persistent Toxic Metals	24,639 Pounds
Reproductive Toxins	5,943 Pounds
Total‡	26,870 Pounds

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

Top dischargers of carcinogens to the Delaware River in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Franklin Smelting & Refining	Philadelphia	5,000

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

Facility	City	Persistent toxic metals released to water (lbs)
USS Fairless Works	Fairless Hills	17,139
Franklin Smelting & Refining	Philadelphia	7,500

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

Facility	City	Reproductive toxins** released to water (lbs)
Franklin Smelting & Refining	Philadelphia	3,750
National Chemical Labs.	Philadelphia	1,115
Dickler Chemical Labs. Inc.	Philadelphia	1,000

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The Schuylkill River in Pennsylvania

Total toxic pollution reported (1990-1994): 316,151 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Lonza Inc.	Conshohocken	121,280
Sun Refining & Marketing Co.	Philadelphia	113,815
Sun Refining & Marketing Co.	Philadelphia	34,837
Doehler-Jarvis Pottstown Inc.	Pottstown	13,010
Simpson Paper Co.	Miquon	10,876
Carpenter Technology Corp.	Reading	8,347
Crompton & Knowles Colors	Gibraltar	6,484
Baldwin Hardware Corp.	Reading	2,594
ICI Explosives USA Inc.	Tamaqua	2,255
Reading Tube Corp.	Reading	

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	160,264
Ethylene glycol	118,010
Methanol	7,590
Copper	4,773
Manganese	3,585
Zinc compounds	3,485
Nickel	2,478
Copper compounds	2,078
Diethanolamine	1,854
Toluene	1,648

‡ 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 Schuylkill River in Pennsylvania (1990-1994).**

Carcinogens	5,596 Pounds
Persistent Toxic Metals	21,371 Pounds
Reproductive Toxins	5,300 Pounds
Total‡	24,699 Pounds

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

Top dischargers of carcinogens to the Schuylkill River in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Carpenter Technology Corp.	Reading	3,590
Baldwin Hardware Corp.	Reading	1,066
Crompton & Knowles Colors	Gibraltar	771

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

Facility	City	Persistent toxic metals released to water (lbs)
Carpenter Technology Corp.	Reading	8,125
Doehler-Jarvis Pottstown Inc.	Pottstown	3,000
Sun Refining & Marketing Co.	Philadelphia	2,960
Crompton & Knowles Colors	Gibraltar	2,565
Baldwin Hardware Corp.	Reading	1,793

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

Facility	City	Reproductive toxins** released to water (lbs)
Carpenter Technology Corp.	Reading	2,478
Lonza Inc.	Conshohocken	1,640
Baldwin Hardware Corp.	Reading	1,066

The Shenango River in Pennsylvania

Total toxic pollution reported (1990-1994): 254,328 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Sharon Steel Corp.*	Farrell	236,050
Wheatland Tube Co.	Wheatland	7,265
Sharon Tube Co.	Sharon	6,000
Armco	Sharon	1,577
Damascus Bishop Tube Co.	Greenville	1,285
Armco	Wheatland	871
Sharpsville Quality Prods.*	Sharpsville	755
Greenville Metals Inc.	Transfer	275
Syracuse China Corp.*	New Castle	250

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	94,036
Zinc compounds	48,639
Manganese	34,299
Manganese compounds	14,571
Nickel	12,704
Copper	7,425
Lead	6,883
Chromium compounds	6,876
Chromium	6,563
Nickel compounds	5,922

‡ 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 Shenango River in Pennsylvania (1990-1994).**

Carcinogens	34,609 Pounds
Persistent Toxic Metals	153,103 Pounds
Reproductive Toxins	21,852 Pounds
Total‡	155,368 Pounds

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

Top dischargers of carcinogens to the Shenango River in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Sharon Steel Corp.*	Farrell	30,452
Sharon Tube Co.	Sharon	1,250
Wheatland Tube Co.	Wheatland	1,250
Damascus Bishop Tube Co.	Greenville	770
Armco	Sharon	637

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

Facility	City	Persistent toxic metals released to water (lbs)
Sharon Steel Corp.*	Farrell	137,872
Wheatland Tube Co.	Wheatland	7,000
Sharon Tube Co.	Sharon	3,500
Armco	Sharon	1,310
Damascus Bishop Tube Co.	Greenville	1,270

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

Facility	City	Reproductive toxins** released to water (lbs)
Sharon Steel Corp.*	Farrell	17,450
Sharon Tube Co.	Sharon	3,500
Armco	Sharon	637
Damascus Bishop Tube Co.	Greenville	265

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

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The Allegheny River in Pennsylvania

Total toxic pollution reported (1990-1994): 174,448 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
United Refining Co.	Warren	98,020
Petrowax PA Inc.	Emlenton	62,361
Allegheny Ludlum Corp.	Brackenridge	6,075
Osram Sylvania Inc.	Warren	5,205
Pittsburgh Flatroll Co.	Pittsburgh	2,380
Edgewater Corp.	Oakmont	260

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	93,381
Methyl ethyl ketone	50,056
Toluene	11,924
Nickel compounds	2,906
Nickel	2,773
Copper	2,109
Chromium compounds	1,787
Lead compounds	1,250
Zinc (fume or dust)	1,048
Benzene	1,000

‡ 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 Allegheny River in Pennsylvania (1990-1994).**

Carcinogens	8,464 Pounds
Persistent Toxic Metals	13,972 Pounds
Reproductive Toxins	17,232 Pounds
Total‡	27,916 Pounds

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

Top dischargers of carcinogens to the Allegheny River in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Allegheny Ludlum Corp.	Brackenridge	3,500
Osram Sylvania Inc.	Warren	3,048
United Refining Co.	Warren	1,000
Pittsburgh Flatroll Co.	Pittsburgh	656
Edgewater Corp.	Oakmont	260

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

Facility	City	Persistent toxic metals released to water (lbs)
Allegheny Ludlum Corp.	Brackenridge	6,000
Osram Sylvania Inc.	Warren	5,185
Pittsburgh Flatroll Co.	Pittsburgh	2,380
Edgewater Corp.	Oakmont	260

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

Facility	City	Reproductive toxins** released to water (lbs)
Petrowax PA Inc.	Emlenton	10,924
Osram Sylvania Inc.	Warren	3,048
United Refining Co.	Warren	3,000
Edgewater Corp.	Oakmont	260

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

The Environmental Working Group is a non-profit environmental research organization based in Washington, D.C.
Phone: (202) 667-6982 • Fax: (202) 232-2592 • Email: info@ewg.org • Web: http://www.ewg.org

Potato Creek in Pennsylvania

Total toxic pollution reported (1990-1994): 168,940 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Potato Creek in Pennsylvania (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Petrowax PA Inc.	Smethport	168,940

Table 2. Toxic chemicals discharged in the greatest amounts to Potato Creek in Pennsylvania (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Methyl ethyl ketone	139,622
Toluene	28,838
Ammonia	480

‡ 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 Potato Creek in Pennsylvania (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	28,838 Pounds
Total‡	28,838 Pounds

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

Top dischargers of carcinogens to Potato Creek in Pennsylvania (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

Top dischargers of persistent toxic metals to Potato Creek in Pennsylvania (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)

Top dischargers of reproductive toxins to Potato Creek in Pennsylvania (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Petrowax PA Inc.	Smethport	28,838