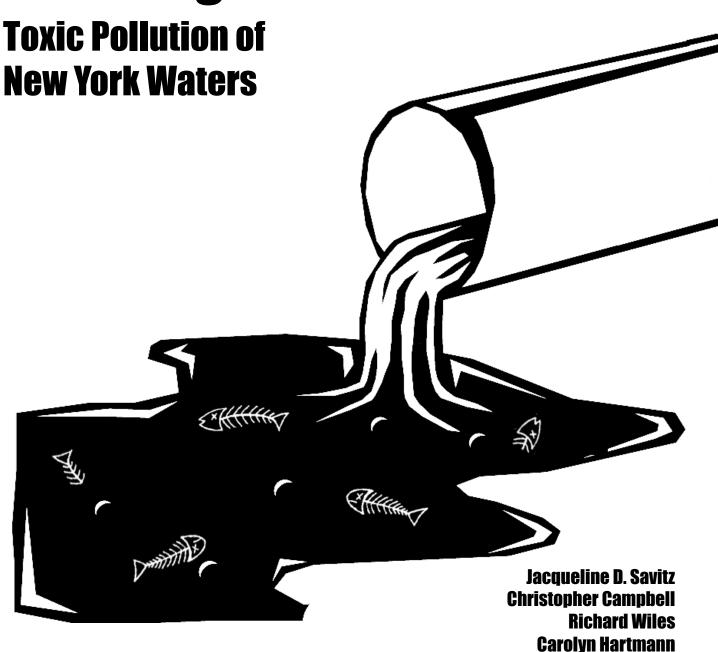




Dishonorable Discharge



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Acknowledgments

We are grateful to Molly Evans who designed and produced the report and to Allison Daly who coordinated its release. Thanks to Ken Cook and Mark Childress for their editing and advice, and to Dale Klaus of U.S. PIRG who assisted with research.

Dishonorable Discharge was made possible by grants from The Joyce Foundation, the W. Alton Jones Foundation, The Pew Charitable Trusts, and Working Assets Funding Service. A computer equipment grant from the Apple Computer Corporation made our analysis possible. The opinions expressed in this report are those of the authors and do not necessarily reflect the views of The Pew Charitable Trusts or our other supporters listed above.

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Dishonorable Discharge

Toxic Pollution of New York Waters

Executive Summary

Most New York 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 New York streams and rivers.

The citizens of New York 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 New York and nationwide.

Factories and other industrial facilities dumped more than 8.1 million pounds of toxic substances directly into New York's waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). New York ranked 18th 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 fifty (50.8) million pounds of toxic materials were flushed to sewage treatment plants in New York from 1990 through 1994, 12th 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 New York raises the total amount of toxics dumped to the state's waters to an estimated 20.8 million pounds (Table 1).

The Genesee River received the greatest amount of toxic water pollution in New York from 1990-1994, a total of 3,670,000 pounds, followed by the Hudson River, the Mohawk River, and Lake Champlain (Table 2). The ten most polluted waterways in New York received 7,360,000 pounds of toxic pollution between 1990 and 1994, 91.0% percent of the total in the State.

The top three facilities reporting the most toxic pollution of New York's waters over this period were Eastman Kodak Company in Rochester, which dumped 2,760,000 pounds of toxic chemicals, followed by Finch Pruyn & Company Inc., and Elf Atochem N.A. Inc. in the towns of Glens Falls, and Piffard, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were ammonia, a total of 2,560,000 pounds, followed by methanol, and tert-butyl alcohol (Table 4).

Eastman Kodak Company dumped the most carcinogens into New York's waters, a total of 879,000 pounds, followed by Schenectady International, Inc. and Buffalo Color Corporation (Table 8). The Genesee River received the greatest amount of cancer-causing toxic chemicals in New York, a total of 879,000 pounds, followed by the Mohawk River and the Battenkill River (Table 7).

Eastman Kodak Company dumped the greatest amount of persistent toxic metals in New York's waters, a total of 508,000 pounds, followed by Finch Pruyn & Company Inc. and Bethlehem Steel Corporation (Table 8). The Genesee River received the greatest amount of persistent toxic metals, a total of 507,000 pounds, followed by the Hudson River and Smokes Creek (Table 7).

Eastman Kodak Company dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into New York's waters, a total of 172,000 pounds, followed by Delphi Harrison Thermal Systems and Champion International Corporation (Table 8). The Genesee River received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 172,000 pounds, followed by the Gulf (near Niagara, New York) and the Black River (Table 7).

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

Recommendations

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

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

We recommend:

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

DISHONORABLE DISCHARGE 2

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 New York, 145,000 acres of lakes surveyed 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 amounts of toxic substances dumped into New York'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 New York. 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.

DISHONORABLE DISCHARGE 4

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.

DISHONORABLE DISCHARGE 6

<u>Appendix</u>

Carcinogens

1,1,2,2-Tetrachloroethane

1,1-Dimethylhydrazine (UDMH) (alar trans. prod.)

1,2-Dibromo-3-chloropropane (DBCP)

1.3-Butadiene

1,3-Dichloropropylene

1,3-Propane sultone 1.4-Dioxane

1-Amino-2-methylanthraquinone

1-Naphthylamine 2,4,6-Trichlorophenol

2.4-Diaminoanisole

2,4-Diaminoanisole sulfate 2 4-Diaminotoluene

2,4-Dinitrotoluene 2-Acetylaminofluorene

2-Aminoanthraquinone

2-Methylaziridine (Propyleneimine)

2-Naphthylamine 2-Nitropropane

3.3'-Dichlorobenzidine

3,3'-Dimethoxybenzidine (ortho-Dianisidine)

3.3'-Dimethylbenzidine

4,4'-Diaminodiphenyl ether (4,4'-Oxydianiline)

4.4'-Methylene bis(2-chloroaniline)

4,4'-Methylene bis(N,N-dimethyl) benzenamine

4,4'-Methylenedianiline 4,4'-Thiodianiline

4-Aminobiphenyl (4-aminodiphenyl)

4-Dimethylaminoazobenzene

4-Nitrobiphenyl 5-Nitro-o-anisidine

Acetaldehyde Acetamide

Acrylamide Acrylonitrile

Allyl chloride Aniline

Arsenic Arsenic compounds

Asbestos

Auramine Benzene

Benzidine [and its salts]

Benzotrichloride Benzyl chloride

Beryllium and beryllium compounds

Beryllium compounds

beta-Propiolactone Bis (2-chloroethyl) ether Bis(chloromethyl) ether Bromodichloromethane

Bromoform Cadmium

Cadmium compounds

Captan Carbon tetrachloride

Chlordane

Chloroethane (Ethyl chloride)

Chloroform

Chloromethyl methyl ether

Chlorophenols Chlorothalonil

Chromium Cupferron D&C Red No. 19

DDVP (Dichlorvos) Di -(2-ethylhexyl)phthalate

Dichloromethane (Methylene chloride)

Diepoxybutane Diethyl sulfate

Dimethyl sulfate

Dimethylcarbamoyl chloride

Direct Black 38 Direct Blue 6 Direct Brown 95 Epichlorohydrin Ethyl acrylate

Ethylene dibromide Ethylene dichloride (1,2-Dichloroethane)

Ethylene oxide

Ethylene thiourea (EBDC trans prod.)

Ethyleneimine Formaldehyde Hexachlorobenzene

Hexachloroethane Hexamethylphosphoramide

Hydrazine Hydrazine sulfate

Hydrazobenzene (1,2-Diphenylhydrazine)

Isosafrole Lead

Lead compounds Lindane Methyl iodide

Michler's ketone Mustard Gas

N-Nitroso-N-ethylurea N-Nitroso-N-methylurea N-Nitrosodi-n-butylamine N-Nitrosodi-n-propylamine N-Nitrosodiethylamine

N-Nitrosodimethylamine N-Nitrosodiphenylamine N-Nitrosomethylvinylamine N-Nitrosomorpholine

N-Nitrosonornicotine N-Nitrosopiperidine

Nickel Nickel compounds

Nitrilotriacetic acid

Nitrofen

Nitrogen mustard (Mechlorethamine)

ortho-Anisidine

ortho-Anisidine hydrochloride

ortho-Toluidine

ortho-Toluidine hydrochloride

p-Aminoazobenzene p-Cresidine p-Dichlorobenzene p-Nitrosodiphenylamine Pentachlorophenol Polybrominated biphenyls

Polychlorinated biphenyls Propylene oxide Saccharin

Safrole Styrene Styrene oxide

Tetrachloroethylene (Perchloroethylene)

Thioacetamide Thiourea

Toluene-2,4-diisocyanate Toluene-2.6-diisocyanate

Toxaphene (Polychorinated camphenes)

Trichloroethylene

Tris(2,3-dibromopropyl)phosphate Urethane (Ethyl carbamate)

Vinyl bromide Vinyl chloride

Vinyl trichloride (1,1,2-Trichloroethane)

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

Zinc & Zinc Compounds

Manganese & Manganese Compounds Mercury & Mercury Compounds Nickel & Nickel Compounds Selenium & Selenium Compound Silver & Silver Compounds Thallium & Thallium 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

Toulene 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).

Lead

Styrene

Dishonorable Discharge

References

Aspelin, A.L. 1994. Pesticides Industry Sales and Usage: 1992 and 1993 Market Estimates. EPA, Washington, DC.

California Code of Regulations, Title 22. Chapter 3. Safe Drinking Water and Toxic Enforcement Act of 1986. Social Security, S 12000, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity.

Dixon, R. L. 1986. Toxic Responses of the Reproductive System. In: Casarett and Doull's Toxicology: The Basic Science of Poisons, Third Edition. C.D. Klaassen, M.O. Amdur, and J. Doull, Eds. Macmillan Publishing Company, New York. pp. 432-477.

Environmental Protection Agency. 1995. National Sediment Contaminant Point Source Inventory: Analysis of Release Data for 1992. Final Draft, March 22, 1995.

Environmental Protection Agency. 1995b. National Water Quality Inventory: 1994 Report to Congress. EPA841-R-95-005. 497pp.

Environmental Protection Agency. 1996. 1994 Toxics Release Inventory, Public Data Release. Office of Pollution Prevention and Toxics. EPA 745-R-96-002.

Environmental Protection Agency. 1996b. Liquid Assets: A Summertime Perspective on the Importance of Clean Water to the Nation's Economy. 800-R-96-002.

Federal Register Notice, (June 27, 1996) 40 CFR Part 372. Addition of Facilities in Certain Industry Sectors; Toxic Chemical Release Reporting; Community Right-to-Know; Proposed Rule. pp.33588-33618.

New Jersey Department of Health. Right to Know Program. Hazardous Substances Fact Sheets.

Office of Technology Assessment, 1989. Statement before the Subcommittee on Superfund, Ocean and Water Protection, Committee on Environment and Public Works, United States Senate, May 10, 1989. (As cited in Federal Register Notice, (June 27, 1996) 40 CFR Part 372. Addition of Facilities in Certain Industry Sectors; Toxic Chemical Release Reporting; Community Right-to-Know; Proposed Rule. pp.33588-33618.)

United States Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, Bureau of the Census. 1993. 1991 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. U.S. Government Printing Office, Washington, DC.

DISHONORABLE DISCHARGE 8

United States Government Accounting Office. 1991. EPA's Toxics Release Inventory is Useful but Can Be Improved. GAO/RCED-91-121. 89pp.

United States Government Accounting Office. 1994. Poor quality assurance and limited pollutant coverage undermine EPA's Control of Toxic Substances. GAO/PEMD-94-9. 87pp.





New York

Toxic pollution of New York waters (1990-1994)

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

Direct Water Discharges 8,083,165 Pounds
Estimated Sewer Discharges 12,703,853 Pounds

Total Discharges to Waters 20,787,018 Pounds

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Genesee River	3,672,733
Hudson River	1,729,079
Mohawk River	407,518
Lake Champlain	328,970
Oswego River	264,669
Gulf	253,425
Susquehanna River	188,143
Seneca River	174,522
Niagara River	173,548
Jamaica Bay	165,000

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

Chemical	Toxic chemical release to waters (pounds)
Ammonia	2,556,065
Methanol	977,702
tert-Butyl alcohol	856,760
1,4-Dioxane	829,000
Acetone	455,068
Manganese compounds	430,615
Zinc compounds	299,470
Ethylene glycol	279,101
Formaldehyde	192,592
Ammonium sulfate (solution)	171,724

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

Facility	City	Toxic chemical release to waters (pounds)
Eastman Kodak Co.	Rochester	2,764,467
Finch Pruyn & Co. Inc.	Glens Falls	1,104,505
Elf Atochem N.A. Inc.	Piffard	898,591
General Electric Co.	Waterford	557,353
International Paper	Ticonderoga	328,814
Schenectady Intl. Inc.	Rotterdam Junctio	n 273,205
Delphi Harrison Thermal Sys.	Lockport	253,425
Armstrong World Ind. Inc.	Fulton	243,255
Hadco Corp.	Owego	179,755
Pan American World Airways	Jamaica	165,000
	I	

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

Facility	City	Toxic chemical release to sewers (pounds)
Lederle Labs.	Pearl River	8,430,793
Bristol-Myers Squibb Co.	East Syracuse	8,295,500
BASF Corp.	Rensselaer	5,493,801
Nycomed Inc.	Rensselaer	4,485,661
Buffalo Color Corp.	Buffalo	4,219,693
Alox Corp.	Niagara Falls	2,357,327
Olin Corp.	Rochester	2,131,328
Church & Dwight Co. Inc.	Syracuse	1,854,889
Karg Brothers Inc.	Johnstown	980,981
Niacet Corp.	Niagara Falls	907,114

[‡] Total discharges of toxic chemicals to sewer systems in New York was 50,815,413 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.





New York

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

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

Carcinogens 1,144,510 Pounds
Persistent Toxic Metals 1,005,670 Pounds
Reproductive Toxins 285,379 Pounds

Total (see note) 2,380,761 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. New York waters receiving the greatest amounts of carcinogens**, persistent toxic metals, and reproductive toxins** (1990-1994).

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

River or Water Body	Carcinogens** released to waters (lbs.)
Genesee River	879,256
Mohawk River	149,745
Battenkill River	35,200
Buffalo River	30,045
Chemung River	10,072

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Genesee River	507,150
Hudson River	232,977
Smokes Creek	54,800
Niagara River	31,545
Salmon River	24,950

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Genesee River	171,813
Gulf	30,762
Black River	27,902
Long Island Sound	24,362
Hudson River	8,456

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

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

Facility	City	Carcinogens** released to waters (lbs.)
Eastman Kodak Co.	Rochester	879,222
Schenectady Intl. Inc.	Rotterdam Junction	149,605
Buffalo Color Corp.	Buffalo	30,045
Hollingsworth & Vose Co.	Greenwich	26,500
Corning Inc.	Corning	9,855

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

Facility	City	Persistent toxic metals released to waters (lbs.)
Eastman Kodak Co.	Rochester	507,984
Finch Pruyn & Co. Inc.	Glens Falls	188,000
Bethlehem Steel Corp.	Lackawanna	55,001
General Electric Co.	Waterford	37,970
Schoeller Technical Papers	Pulaski	24,950

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

Facility	City	Reproductive toxins** released to waters (lbs.)
Eastman Kodak Co.	Rochester	171,812
Delphi Harrison Thermal Sys.	Lockport	30,762
Champion Intl. Corp.	Deferiet	27,902
AMP-Akzo Co.	Aquebogue	24,362
General Electric Co.	Waterford	6,370

^{*} 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.

^{**} 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.





The Genesee River in New York

Total toxic pollution reported (1990-1994): 3,672,733 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Genesee River in New York (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Eastman Kodak Co.	Rochester	2,762,164
Elf Atochem N.A. Inc.	Piffard	898,591
Du Pont	Rochester	11,978

Table 2. Toxic chemicals discharged in the greatest amounts to the Genesee River in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
tert-Butyl alcohol	856,238
1,4-Dioxane	829,000
Ammonia	768,980
Manganese compounds	238,000
Methanol	150,445
Zinc compounds	147,000
Acetone	114,000
Ethylene glycol	90,100
2-Methoxyethanol	83,400
Glycol ethers	54,000
l .	1

[‡] 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.

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

Total‡	1,548,199	Pounds
Reproductive Toxins	1 <i>7</i> 1,813	Pounds
Persistent Toxic Metals	507,150	Pounds
Carcinogens	879,256	Pounds

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

Top dischargers of carcinogens** to the Genesee River in New York (1990-1994).

Facility	City	Carcinogens** released to water (lbs)
Eastman Kodak Co.	Rochester	879,201

Top dischargers of persistent toxic metals to the Genesee River in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Eastman Kodak Co.	Rochester	507,150

Top dischargers of reproductive toxins** to the Genesee River in New York (1990-1994).

Facility	City	Reproductive toxins** released to water (lbs)
Eastman Kodak Co.	Rochester	171,812

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

^{*} 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.





The Hudson River in New York

Total toxic pollution reported (1990-1994): 1,729,079 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Hudson River in New York (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Finch Pruyn & Co. Inc.	Glens Falls	1,104,505
General Electric Co.	Waterford	557,353
International Paper Co.	Corinth	31,323
Encore Paper Co.	South Glens Falls	20,650
General Electric Co.	Selkirk	7,418
Scott Worldwide*	Fort Edward	2,800
Allied-Signal Inc.	Troy	2,257
Cibro Petroleum Prods. Inc.*	Albany	1,070
Bicc Utility Cable Co.	Yonkers	750
Passonno Paints Inc.	Watervliet	

Table 2. Toxic chemicals discharged in the greatest amounts to the Hudson River in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	846,548
Methanol	483,742
Manganese compounds	188,020
Acetone	122,000
Copper compounds	32,120
Chlorine	16,891
Zinc compounds	10,251
Toluene	5,955
Chloromethane	4,500
Chloroform	4,450

[‡] 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.

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

Total‡	245.816	Pounds
Reproductive Toxins	8,456	Pounds
Persistent Toxic Metals	232,977	Pounds
Carcinogens	7,347	Pounds

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

Top dischargers of carcinogens** to the Hudson River in New York (1990-1994).

Facility	City	Carcinogens** released to water (lbs)
Encore Paper Co.	South Glens Falls	4,450
Allied-Signal Inc.	Troy	991
General Electric Co.	Selkirk	829
Bicc Utility Cable Co.	Yonkers	750
Cibro Petroleum Prods. Inc.*	Albany	265

Top dischargers of persistent toxic metals to the Hudson River in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Finch Pruyn & Co. Inc.	Glens Falls	188,000
General Electric Co.	Waterford	37,970
General Electric Co.	Selkirk	5,309
Allied-Signal Inc.	Troy	764
Bicc Utility Cable Co.	Yonkers	<i>7</i> 50

Top dischargers of reproductive toxins** to the Hudson River in New York (1990-1994).

Facility	City	Reproductive toxins** released to water (lbs)
General Electric Co.	Waterford	6,370
Cibro Petroleum Prods. Inc.*	Albany	<i>7</i> 95
Bicc Utility Cable Co.	Yonkers	<i>7</i> 50
Passonno Paints Inc.	Watervliet	250
Allied-Signal Inc.	Troy	174

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

^{*} 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.





The Mohawk River in New York

Total toxic pollution reported (1990-1994): 407,518 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Mohawk River in New York (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Schenectady Intl. Inc.	Rotterdam Junctio	n 273,205
General Electric Co.	Schenectady	128,394
Revere Copper Prods. Inc.	Rome	5,040
Mohawk Paper Mills Inc.*	Waterford	750
Remington Arms Co. Inc.*	Ilion	109

Table 2. Toxic chemicals discharged in the greatest amounts to the Mohawk River in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Formaldehyde	149,600
Ammonia	128,387
Methanol	107,300
Acetone	10,555
Zinc compounds	3,655
Copper compounds	3,250
Phenol	1,515
n-Butyl alcohol	755
Cresol (mixed isomers)	515
Xylene (mixed isomers)	515

[‡] 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.

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

Total‡	157.237	Pounds
Reproductive Toxins	712	Pounds
Persistent Toxic Metals	7,065	Pounds
Carcinogens	149,745	Pounds

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

Top dischargers of carcinogens** to the Mohawk River in New York (1990-1994).

Facility	City	Carcinogens** released to water (lbs)
Schenectady Intl. Inc.	Rotterdam Junction	149,605
Revere Copper Prods. Inc.	Rome	140

Top dischargers of persistent toxic metals to the Mohawk River in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Revere Copper Prods. Inc.	Rome	5,040
Schenectady Intl. Inc.	Rotterdam Junction	n 1,260
Mohawk Paper Mills Inc.*	Waterford	<i>7</i> 50

Top dischargers of reproductive toxins** to the Mohawk River in New York (1990-1994).

Facility	City	Reproductive toxins** released to water (lbs)
Schenectady Intl. Inc.	Rotterdam Junction	n 565
Revere Copper Prods. Inc.	Rome	140

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

^{*} 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.





Lake Champlain in New York

Total toxic pollution reported (1990-1994): 328,970 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Lake Champlain in New York (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
International Paper	Ticonderoga	328,814
Ayerst Labs. Inc.	Rouses Point	156

Table 2. Toxic chemicals discharged in the greatest amounts to Lake Champlain in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	156,684
Methanol	140,400
1,2,4-Trimethylbenzene	9,000
Diethanolamine	8,900
Zinc compounds	7,005
Ethylene glycol	2,950
Chloroform	2,320
Catechol	1,380
Acetone	310

[‡] 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.

Table 3. Total carcinogens**, persistent toxic metals, and reproductive toxins** discharged to Lake Champlain in New York (1990-1994).

Total±	9.346	Pounds
Reproductive Toxins	0	Pounds
Persistent Toxic Metals	7,005	Pounds
Carcinogens	2,341	Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens**, persistent toxic metals, and reproductive toxins** discharged to Lake Champlain in New York (1990-1994).

Top dischargers of carcinogens** to Lake Champlain in New York (1990-1994).

Facility	City	Carcinogens** released to water (lbs)
International Paper	Ticonderoga	2,320

Top dischargers of persistent toxic metals to Lake Champlain in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
International Paper	Ticonderoga	6,870
Ayerst Labs. Inc.	Rouses Point	135

Top dischargers of reproductive toxins** to Lake Champlain in New York (1990-1994).

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

^{*} 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.





The Oswego River in New York

Total toxic pollution reported (1990-1994): 264,669 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Oswego River in New York (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Armstrong World Ind. Inc. Miller Brewing Co.	Fulton Fulton	243,255 21,414

Table 2. Toxic chemicals discharged in the greatest amounts to the Oswego River in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	263,414
Zinc compounds	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.

Table 3. Total carcinogens**, persistent toxic metals, and	
reproductive toxins** discharged to the Oswego River in	n
New York (1990-1994).	

Totalt	1 250	Pounds
Reproductive Toxins	0	Pounds
Persistent Toxic Metals	1,250	Pounds
Carcinogens	0	Pounds

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

Top dischargers of carcinogens** to the Oswego River in New York (1990-1994).

Facility	City	Carcinogens** released to water (lbs)

Top dischargers of persistent toxic metals to the Oswego River in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Armstrong World Ind. Inc.	Fulton	1,250

Top dischargers of reproductive toxins** to the Oswego River in New York (1990-1994).

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

^{*} 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.





The Gulf in New York

Total toxic pollution reported (1990-1994): 253,425 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Gulf in New York (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Delphi Harrison Thermal Sys.	Lockport	253,425

Table 2. Toxic chemicals discharged in the greatest amounts to the Gulf in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Acetone	200,000
Glycol ethers	27,800
Zinc compounds	11,300
sec-Butyl alcohol	5,300
Ethylene glycol	3,000
Lead	1,580
Trichloroethylene	1,230
Freon 113	1,100
Manganese	580
Chromium compounds	556

[‡] 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.

Table 3. Total carcinogens**, persistent toxic metals, and reproductive toxins** discharged to the Gulf in New York (1990-1994).

Total‡	44.025	Pounds
Reproductive Toxins	30,762	Pounds
Persistent Toxic Metals	14,698	Pounds
Carcinogens	3,259	Pounds

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

Top dischargers of carcinogens** to the Gulf in New York (1990-1994).

Facility	City	Carcinogens** released to water (lbs)
Delphi Harrison Thermal Sys.	Lockport	3,259

Top dischargers of persistent toxic metals to the Gulf in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Delphi Harrison Thermal Sys.	Lockport	14,698

Top dischargers of reproductive toxins** to the Gulf in New York (1990-1994).

Facility	City	Reproductive toxins** released to water (lbs)
Delphi Harrison Thermal Sys.	Lockport	30,762

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

^{*} 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.





The Susquehanna River in New York

Total toxic pollution reported (1990-1994): 188,143 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Hadco Corp.	Owego	179,755
IBM Corp.	Endicott	5,390
Amphenol Corp.	Sidney	1,565
Endicott Forging*	Endicott	1,000
Loral Federal Sys.*	Owego	433

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonium sulfate (solution)	148,000
Ammonia	26,700
Copper compounds	3,500
Glycol ethers	1,750
Methanol	1,305
Formaldehyde	1,260
Phenol	1,005
Manganese compounds	750
Cyanide compounds	647
Dichloromethane	520

[‡] 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.

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

Total‡	10,113	Pounds
Reproductive Toxins	2,663	Pounds
Persistent Toxic Metals	6,028	Pounds
Carcinogens	3,193	Pounds

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

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

Facility	City	Carcinogens** released to water (lbs)
Hadco Corp.	Owego	1,250
Amphenol Corp.	Sidney	898
IBM Corp.	Endicott	540
Endicott Forging*	Endicott	500

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

Facility	City	Persistent toxic metals released to water (lbs)
IBM Corp.	Endicott	3,500
Endicott Forging*	Endicott	1,000
Hadco Corp.	Owego	750
Loral Federal Sys.*	Owego	400
Amphenol Corp.	Sidney	378

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

Facility	City	Reproductive toxins** released to water (lbs)
Hadco Corp.	Owego	1,750
Amphenol Corp.	Sidney	893

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

^{*} 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.





The Seneca River in New York

Total toxic pollution reported (1990-1994): 174,522 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Seneca River in New York (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Evans Chemetics Anheuser-Busch Inc.	Waterloo Baldwinsville	157,677 16,790

Table 2. Toxic chemicals discharged in the greatest amounts to the Seneca River in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	86,890
Methyl isobutyl ketone	42,400
n-Butyl alcohol	36,300
Ethylene glycol	5,830
Zinc compounds	1,470
Hydrochloric acid	1,400
Epichlorohydrin	124

[‡] 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.

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

Total±	1.702	Pounds
Reproductive Toxins	0	Pounds
Persistent Toxic Metals	1,525	Pounds
Carcinogens	177	Pounds

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

Top dischargers of carcinogens** to the Seneca River in New York (1990-1994).

Facility	City	Carcinogens** released to water (lbs)
Evans Chemetics	Waterloo	177

Top dischargers of persistent toxic metals to the Seneca River in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Evans Chemetics	Waterloo	1,470

Top dischargers of reproductive toxins** to the Seneca River in New York (1990-1994).

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

^{*} 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.





The Niagara River in New York

Total toxic pollution reported (1990-1994): 173,548 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Niagara River in New York (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
FMC Corp.	Tonawanda	124,883
Spaulding Composites Co.	Tonawanda	18,000
Du Pont	Niagara Falls	8,985
General Motors Corp.*	Buffalo	6,400
Occidental Chemical Corp.	North Tonawanda	5,158
Occidental Chemical Corp.	Niagara Falls	3,803
AAM Tonawanda Forge*	Tonawanda	2,181
Dunlop Tire Corp.	Tonawanda	1,461
Sivaco Natl. Wire Ny	Tonawanda	1,227
Esab Welding Flux Plant	Niagara Falls	

Table 2. Toxic chemicals discharged in the greatest amounts to the Niagara River in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	123,000
Zinc compounds	19,876
Barium compounds	9,334
Ethylene glycol	8,581
Phenol	4,027
Sulfuric acid	2,789
Tetrachloroethylene	2,220
Manganese compounds	1,920
Formaldehyde	750
1,2-Dichlorobenzene	340

[‡] 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.

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

Total‡	34.634	Pounds
Reproductive Toxins	125	Pounds
Persistent Toxic Metals	31,545	Pounds
Carcinogens	2,970	Pounds

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

Top dischargers of carcinogens** to the Niagara River in New York (1990-1994).

City	Carcinogens** released to water (lbs)
Niagara Falls	2,220
North Tonawanda	750
	Niagara Falls

Top dischargers of persistent toxic metals to the Niagara River in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Spaulding Composites Co.	Tonawanda	18,000
Du Pont	Niagara Falls	8,950
Dunlop Tire Corp.	Tonawanda	1,461
Esab Welding Flux Plant	Niagara Falls	1,142
Occidental Chemical Corp.	Niagara Falls	999

Top dischargers of reproductive toxins** to the Niagara River in New York (1990-1994).

Facility	City	Reproductive toxins** released to water (lbs)
Occidental Chemical Corp.	Niagara Falls	119

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

^{*} 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.





Jamaica Bay in New York

Total toxic pollution reported (1990-1994): 165,000 Pounds

Table 1.	Polluters	discl	narging	the g	greatest	amoun	ts of to	ĸic
	chemical							

Facility	City	Toxic chemical release to water (pounds)
Pan American World Airways	Jamaica	165,000

Table 2. Toxic chemicals discharged in the greatest amounts to Jamaica Bay in New York (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ethylene glycol	165,000

[‡] 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.

Table 3.	. Total carcinogens**, persistent toxi	c metals, and
	reproductive toxins** discharged to	Jamaica Bay in New

0 Pounds
0 Pounds
0 Pounds
0 Pounds

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

Top dischargers of carcinogens** to Jamaica Bay in New York (1990-1994).

Facility	City	Carcinogens** released to water (lbs)

Top dischargers of persistent toxic metals to Jamaica Bay in New York (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)

Top dischargers of reproductive toxins** to Jamaica Bay in New York (1990-1994).

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

^{*} 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.