

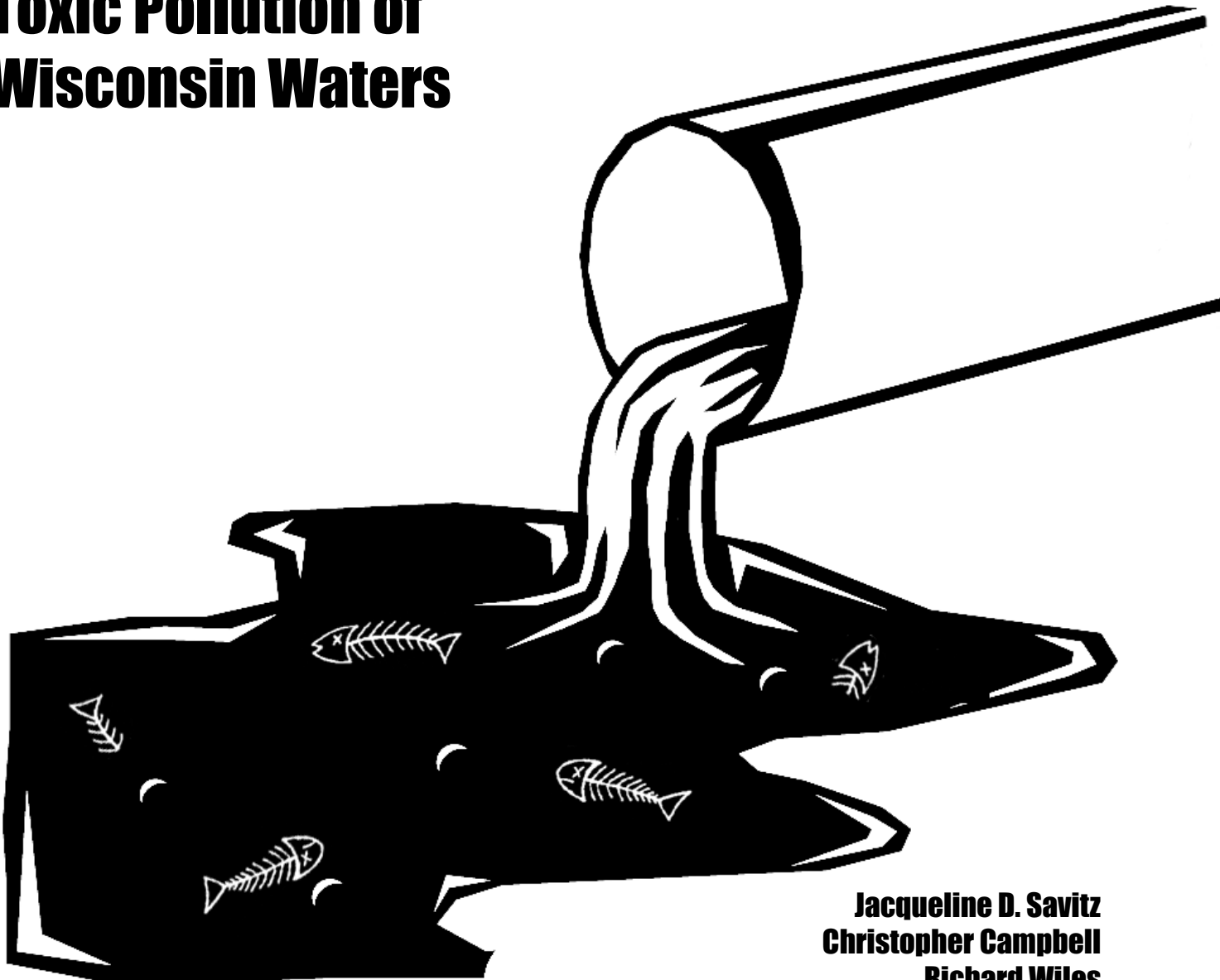


The State PIRGs



Dishonorable Discharge

Toxic Pollution of Wisconsin Waters



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Toxic Pollution of Wisconsin Waters

Executive Summary

Most Wisconsin 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 Wisconsin streams and rivers.

The citizens of Wisconsin 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 Wisconsin and nationwide.

Factories and other industrial facilities dumped more than 2.9 million pounds of toxic substances directly into Wisconsin's waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). Wisconsin ranked 29th 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 forty (41.9) million pounds of toxic materials were flushed to sewage treatment plants in Wisconsin from 1990 through 1994, 14th 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 Wisconsin raises the total amount of toxics dumped to the state's waters to an estimated 13.4 million pounds (Table 1).

The Wisconsin River received the greatest amount of toxic water pollution in Wisconsin from 1990-1994, a total of 1,550,000 pounds, followed by the Fox River, the North Fork of Flambeau River, and Lake Michigan (Table 2). The ten most polluted waterways in Wisconsin received 2,890,000 pounds of toxic pollution between 1990 and 1994, 98.0% percent of the total in the State.

The top three facilities reporting the most toxic pollution of Wisconsin's waters over this period were CPI in Wisconsin Rapids, which dumped 443,000 pounds of toxic

chemicals, followed by Flambeau Paper Corporation, and Packaging Corporation Of America* in the towns of Park Falls, and Tomahawk, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were ammonia, a total of 1,840,000 pounds, followed by methanol, and chlorine (Table 4).

CPI dumped the most carcinogens into Wisconsin's waters, a total of 24,500 pounds, followed by Mosinee Paper Corporation and Georgia-Pacific Corporation (Table 8). The Wisconsin River received the greatest amount of cancer-causing toxic chemicals in Wisconsin, a total of 72,000 pounds, followed by Little Lake Butte Des Morts and the Fox River (Table 7).

Weyerhaeuser dumped the greatest amount of persistent toxic metals in Wisconsin's waters, a total of 61,000 pounds, followed by Packaging Corporation Of America* and Fort Howard Corporation (Table 8). The Wisconsin River received the greatest amount of persistent toxic metals, a total of 106,000 pounds, followed by the Fox River and the Sheboygan River (Table 7).

Pope & Talbot Wis Inc.* dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into Wisconsin's waters, a total of 8,000 pounds, followed by CPI - Wisconsin River Div. and Nicolet Paper Company (Table 8). The Wisconsin River received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 9,000 pounds, followed by the Flambeau River and the Fox River (Table 7).

These discharges to Wisconsin's waters include only those wastes released by companies physically located in Wisconsin. 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 Wisconsin, over 190,000 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 Wisconsin'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 Wisconsin. 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	Nitrotriacetic acid
2-Methylaziridine (Propyleneimine)	Cupferron	Nitrofen
2-Naphthylamine	D&C Red No. 19	Nitrogen mustard (Mechlorethamine)
2-Nitropropane	DDVP (Dichlorvos)	ortho-Anisidine
3,3'-Dichlorobenzidine	Di -(2-ethylhexyl)phthalate	ortho-Anisidine hydrochloride
3,3'-Dimethoxybenzidine (ortho-Dianisidine)	Dichloromethane (Methylene chloride)	ortho-Toluidine
3,3'-Dimethylbenzidine	Diepoxybutane	ortho-Toluidine hydrochloride
4,4'-Diaminodiphenyl ether (4,4'-Oxydianiline)	Diethyl sulfate	p-Aminoazobenzene
4,4'-Methylene bis(2-chloroaniline)	Dimethyl sulfate	p-Cresidine
4,4'-Methylene bis(N,N-dimethyl) benzenamine	Dimethylcarbamoyl chloride	p-Dichlorobenzene
4,4'-Methylenedianiline	Direct Black 38	p-Nitrosodiphenylamine
4,4'-Thiodianiline	Direct Blue 6	Pentachlorophenol
4-Aminobiphenyl (4-aminodiphenyl)	Direct Brown 95	Polybrominated biphenyls
4-Dimethylaminoazobenzene	Epichlorohydrin	Polychlorinated biphenyls
4-Nitrobiphenyl	Ethyl acrylate	Propylene oxide
5-Nitro-o-anisidine	Ethylene dibromide	Saccharin
Acetaldehyde	Ethylene dichloride (1,2-Dichloroethane)	Safrrole
Acetamide	Ethylene oxide	Styrene
Acrylamide	Ethylene thiourea (EBDC trans prod.)	Styrene oxide
Acrylonitrile	Ethyleneimine	Tetrachloroethylene (Perchloroethylene)
Allyl chloride	Formaldehyde	Thioacetamide
Aniline	Hexachlorobenzene	Thiourea
Arsenic	Hexachloroethane	Toluene-2,4-diisocyanate
Arsenic compounds	Hexamethylphosphoramide	Toluene-2,6-diisocyanate
Asbestos	Hydrazine	Toxaphene (Polychlorinated camphenes)
Auramine	Hydrazine sulfate	Trichloroethylene
Benzene	Hydrazobenzene (1,2-Diphenylhydrazine)	Tris(2,3-dibromopropyl)phosphate
Benzidine [and its salts]	Isosafrole	Urethane (Ethyl carbamate)
Benzotrichloride	Lead	Vinyl bromide
Benzyl chloride	Lead compounds	Vinyl chloride
Beryllium and beryllium compounds	Lindane	Vinyl trichloride (1,1,2-Trichloroethane)
Beryllium compounds	Methyl iodide	

Persistent Toxic Metals

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

Chemicals that Affect Reproduction

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

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

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Wisconsin

Toxic pollution of Wisconsin waters (1990-1994)

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

Direct Water Discharges	2,947,055 Pounds
Estimated Sewer Discharges‡	10,472,903 Pounds
Total Discharges to Waters	13,419,958 Pounds

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Wisconsin River	1,553,152
Fox River	531,134
North Fork Flambeau River	364,056
Lake Michigan	202,423
Newton Creek	74,490
Sheboygan River	61,215
Menomonee River	42,682
Little Lake Butte Des Morts	30,768
Twin River Drainage Basin	15,853
Yahara River	11,015

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

Facility	City	Toxic chemical release to waters (pounds)
CPI - Water Quality Center	Wisconsin Rapids	442,800
Flambeau Paper Corp.	Park Falls	364,056
Packaging Corp. Of America*	Tomahawk	312,933
Thilmany	Kaukauna	204,570
Rhineland Paper Co. Inc.	Rhineland	204,268
Racine Wastewater Utility	Racine	195,483
Repap Wisconsin Inc.	Kimberly	190,482
Mosinee Paper Corp.	Mosinee	101,256
Georgia-Pacific Corp.	Port Edwards	93,255
Weyerhaeuser	Rothschild	91,158

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

Chemical	Toxic chemical release to waters (pounds)
Ammonia	1,838,141
Methanol	324,549
Chlorine	296,836
Zinc compounds	69,776
Ethylene glycol	69,409
Chloroform	56,335
Manganese	53,458
Formaldehyde	30,426
Manganese compounds	26,403
Acetone	23,817

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

Facility	City	Toxic chemical release to sewers (pounds)
Pfister & Vogel Leather Co.	Milwaukee	5,694,743
James River Paper Co.	Green Bay	4,178,620
Charter Steel	Saukville	3,545,088
Fort Howard Steel Inc.	Green Bay	3,492,000
Red Star Yeast	Milwaukee	2,825,480
MacWhyte Co.	Kenosha	2,118,038
A. L. Gebhardt Co. Inc.	Milwaukee	1,563,770
Jagemann Plating Co. Inc.	Manitowoc	1,524,206
Plastics Eng. Co.	Sheboygan	1,050,608
Hamlin Inc.	Lake Mills	878,692

‡ Total discharges of toxic chemicals to sewer systems in Wisconsin was 41,891,615 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.

Wisconsin

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

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

Carcinogens	104,835 Pounds
Persistent Toxic Metals	211,464 Pounds
Reproductive Toxins	32,921 Pounds
Total (see note)	327,624 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. Wisconsin waters receiving the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** (1990-1994).**

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

River or Water Body	Carcinogens** released to waters (lbs.)
Wisconsin River	72,005
Little Lake Butte Des Morts	11,227
Fox River	4,751
Lincoln Creek	2,803
Lake Michigan	2,420

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Wisconsin River	106,163
Fox River	60,463
Sheboygan River	11,210
Lincoln Creek	9,315
Lake Michigan	5,021

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Wisconsin River	8,765
Flambeau River	8,391
Fox River	4,466
Lincoln Creek	1,530
Lake Michigan	1,318

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

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

Facility	City	Carcinogens** released to waters (lbs.)
CPI - Water Quality Center	Wisconsin Rapids	24,500
Mosinee Paper Corp.	Mosinee	20,110
Georgia-Pacific Corp.	Nekoosa	18,508
Wisconsin Tissue	Menasha	9,853
Ladish Co. Inc.	Cudahy	6,030

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

Facility	City	Persistent toxic metals released to waters (lbs.)
Weyerhaeuser	Rothschild	61,062
Packaging Corp. Of America*	Tomahawk	35,461
Fort Howard Corp.	Green Bay	33,910
Appleton Papers Inc.	Combined Locks	25,511
Ladish Co. Inc.	Cudahy	7,575

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

Facility	City	Reproductive toxins** released to waters (lbs.)
Pope & Talbot Wis Inc.*	Ladysmith	8,391
CPI - Wisconsin River Div.	Stevens Point	7,300
Nicolet Paper Co.	De Pere	3,345
Ladish Co. Inc.	Cudahy	3,015
CPI - Water Quality Center	Wisconsin Rapids	2,350

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

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

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

The Wisconsin River in Wisconsin

Total toxic pollution reported (1990-1994): 1,553,152 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
CPI - Water Quality Center	Wisconsin Rapids	442,800
Packaging Corp. Of America*	Tomahawk	312,933
Rhineland Paper Co. Inc.	Rhineland	204,268
Mosinee Paper Corp.	Mosinee	101,256
Georgia-Pacific Corp.	Port Edwards	93,255
Weyerhaeuser	Rothschild	91,158
CPI - Wisconsin River Div.	Stevens Point	86,250
Ore-ida Foods Inc.	Plover	81,179
Georgia-Pacific Corp.	Nekoosa	57,580
CPI - Biron Div.	Wisconsin Rapids	

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	962,180
Methanol	307,756
Manganese	49,812
Chlorine	48,134
Chloroform	39,115
Zinc compounds	36,466
Formaldehyde	29,675
Ammonium sulfate (solution)	15,091
Acetone	14,417
Manganese compounds	12,750

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

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

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

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

Carcinogens	72,005 Pounds
Persistent Toxic Metals	106,163 Pounds
Reproductive Toxins	8,765 Pounds
Total‡	185,403 Pounds

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

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

Facility	City	Carcinogens** released to water (lbs)
CPI - Water Quality Center	Wisconsin Rapids	24,500
Mosinee Paper Corp.	Mosinee	20,110
Georgia-Pacific Corp.	Nekoosa	18,508
Wausau Papers	Brokaw	4,147
Weyerhaeuser	Rothschild	2,700

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

Facility	City	Persistent toxic metals released to water (lbs)
Weyerhaeuser	Rothschild	61,062
Packaging Corp. Of America*	Tomahawk	35,461
Hoffer's Inc.	Wausau	3,620
Lignotech USA Inc.	Rothschild	3,005
Milwaukee Valve Co.	Prairie Du Sac	2,265

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

Facility	City	Reproductive toxins** released to water (lbs)
CPI - Wisconsin River Div.	Stevens Point	5,600
CPI - Water Quality Center	Wisconsin Rapids	2,350
Milwaukee Valve Co.	Prairie Du Sac	765

The Fox River in Wisconsin

Total toxic pollution reported (1990-1994): 531,134 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Thilmany	Kaukauna	204,570
Repap Wisconsin Inc.	Kimberly	190,482
Fort Howard Corp.	Green Bay	67,900
Appleton Papers Inc.	Combined Locks	60,127
Nicolet Paper Co.	De Pere	5,742
Amron Corp.	Waukesha	1,016
Sys Bio Ind.*	Waukesha	750
A. L. Gebhardt Co. Inc.	Berlin	292
Green Bay Packaging Inc.*	Green Bay	255

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	402,024
Chlorine	47,211
Zinc compounds	23,834
Barium compounds	19,000
Manganese compounds	12,187
Acetone	9,400
Copper compounds	5,415
Chloroform	4,470
Xylene (mixed isomers)	3,345
Catechol	1,441

‡ 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 Fox River in Wisconsin (1990-1994).**

Carcinogens	4,751 Pounds
Persistent Toxic Metals	60,463 Pounds
Reproductive Toxins	4,466 Pounds
Total‡	69,679 Pounds

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

Top dischargers of carcinogens to the Fox River in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Fort Howard Corp.	Green Bay	4,470
Thilmany	Kaukauna	280

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

Facility	City	Persistent toxic metals released to water (lbs)
Fort Howard Corp.	Green Bay	33,910
Appleton Papers Inc.	Combined Locks	25,511
Amron Corp.	Waukesha	1,015

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

Facility	City	Reproductive toxins** released to water (lbs)
Nicolet Paper Co.	De Pere	3,345
Fort Howard Corp.	Green Bay	1,070

The North Fork Flambeau River in Wisconsin

Total toxic pollution reported (1990-1994): 364,056 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the North Fork Flambeau River in Wisconsin (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Flambeau Paper Corp.	Park Falls	364,056

Table 2. Toxic chemicals discharged in the greatest amounts to the North Fork Flambeau River in Wisconsin (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	336,442
Methanol	16,783
Ethylene glycol	9,209
Chloroform	1,372
Copper	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 North Fork Flambeau River in Wisconsin (1990-1994).**

Carcinogens	1,372 Pounds
Persistent Toxic Metals	250 Pounds
Reproductive Toxins	0 Pounds
Total‡	1,622 Pounds

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

Top dischargers of carcinogens to the North Fork Flambeau River in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Flambeau Paper Corp.	Park Falls	1,372

Top dischargers of persistent toxic metals to the North Fork Flambeau River in Wisconsin (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Flambeau Paper Corp.	Park Falls	250

Top dischargers of reproductive toxins to the North Fork Flambeau River in Wisconsin (1990-1994).**

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

Lake Michigan in Wisconsin

Total toxic pollution reported (1990-1994): 202,423 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Lake Michigan in Wisconsin (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Racine Wastewater Utility	Racine	195,483
Ladish Co. Inc.	Cudahy	2,525
Case Corp.*	Racine	975
Plastics Eng. Co.	Sheboygan	801
Cudahy Tanning Co.	Cudahy	750
Young Radiator Co.*	Racine	510
Kohler Co.	Sheboygan	424
Peterson Builders Inc.*	Sturgeon Bay	355
Johnson Controls Inc.*	Milwaukee	255
Outokumpu Copper Kenosha	Kenosha	

Table 2. Toxic chemicals discharged in the greatest amounts to Lake Michigan in Wisconsin (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Chlorine	195,493
Phenol	1,430
Chromium	1,057
Nickel	1,005
Chromium compounds	787
Copper	755
Cobalt	515
Glycol ethers	303
Lead compounds	300
Manganese	294

‡ 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 Lake Michigan in Wisconsin (1990-1994).**

Carcinogens	2,420 Pounds
Persistent Toxic Metals	5,021 Pounds
Reproductive Toxins	1,318 Pounds
Total‡	5,344 Pounds

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

Top dischargers of carcinogens to Lake Michigan in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Ladish Co. Inc.	Cudahy	2,010
Johnson Controls Inc.*	Milwaukee	250

Top dischargers of persistent toxic metals to Lake Michigan in Wisconsin (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Ladish Co. Inc.	Cudahy	2,525
Cudahy Tanning Co.	Cudahy	750
Young Radiator Co.*	Racine	505
Case Corp.*	Racine	346
Peterson Builders Inc.*	Sturgeon Bay	340

Top dischargers of reproductive toxins to Lake Michigan in Wisconsin (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Ladish Co. Inc.	Cudahy	1,005
Kohler Co.	Sheboygan	298

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.
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Newton Creek in Wisconsin

Total toxic pollution reported (1990-1994): 74,490 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Murphy Oil USA Inc.	Superior	74,490

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	74,490

‡ 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 Newton Creek in Wisconsin (1990-1994).**

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

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

Top dischargers of carcinogens to Newton Creek in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

Top dischargers of persistent toxic metals to Newton Creek in Wisconsin (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)

Top dischargers of reproductive toxins to Newton Creek in Wisconsin (1990-1994).**

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

The Sheboygan River in Wisconsin

Total toxic pollution reported (1990-1994): 61,215 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Kohler Co.	Kohler	51,788
Kohler Co.*	Kohler	4,768
Kohler Co.	Kohler	3,797
Kohler Co.	Kohler	654
Kohler Co.	Kohler	193

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

Chemical	Toxic chemical release to waterbody (pounds)
Ethylene glycol	50,000
Zinc compounds	8,068
Zinc (fume or dust)	1,300
Antimony compounds	707
Lead compounds	258
Manganese	255
Lead	250
Copper	192

‡ 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 Sheboygan River in Wisconsin (1990-1994).**

Carcinogens	565 Pounds
Persistent Toxic Metals	11,210 Pounds
Reproductive Toxins	280 Pounds
Total‡	11,212 Pounds

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

Top dischargers of carcinogens to the Sheboygan River in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Kohler Co.*	Kohler	359
Kohler Co.	Kohler	104

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

Facility	City	Persistent toxic metals released to water (lbs)
Kohler Co.*	Kohler	4,766
Kohler Co.	Kohler	3,797
Kohler Co.	Kohler	1,788
Kohler Co.	Kohler	651
Kohler Co.	Kohler	193

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

Facility	City	Reproductive toxins** released to water (lbs)
Kohler Co.*	Kohler	280

The Menomonee River in Wisconsin

Total toxic pollution reported (1990-1994): 42,682 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Niagara Of Wisconsin Paper	Niagara	39,600
A. L. Gebhardt Co. Inc.	Milwaukee	1,034
Waupaca Fndy. Inc.	Marinette	810
Harnischfeger Mining	Milwaukee	500
A. L. Gebhardt Co. Inc.	Milwaukee	376
Bradley Corp.	Menomonee Falls	283

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	35,600
Chlorine	4,000
Ammonium sulfate (solution)	860
Chromium compounds	555
Copper	281
Manganese	275
Copper compounds	270
Manganese compounds	270
Chromium	268
Nickel compounds	265

‡ 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 Menomonee River in Wisconsin (1990-1994).**

Carcinogens	545 Pounds
Persistent Toxic Metals	2,198 Pounds
Reproductive Toxins	7 Pounds
Total‡	2,203 Pounds

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

Top dischargers of carcinogens to the Menomonee River in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Waupaca Fndy. Inc.	Marinette	265
Harnischfeger Mining	Milwaukee	250

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

Facility	City	Persistent toxic metals released to water (lbs)
Waupaca Fndy. Inc.	Marinette	810
Harnischfeger Mining	Milwaukee	500
A. L. Gebhardt Co. Inc.	Milwaukee	376
Bradley Corp.	Menomonee Falls	282
A. L. Gebhardt Co. Inc.	Milwaukee	174

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

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

Little Lake Butte Des Morts in Wisconsin

Total toxic pollution reported (1990-1994): 30,768 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to Little Lake Butte Des Morts in Wisconsin (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
Wisconsin Tissue	Menasha	17,020
P. H. Glatfelter Co.	Neenah	13,748

Table 2. Toxic chemicals discharged in the greatest amounts to Little Lake Butte Des Morts in Wisconsin (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	14,301
Chloroform	11,227
Ethylene glycol	4,142
Naphthalene	868
Chlorine	230

‡ 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 Little Lake Butte Des Morts in Wisconsin (1990-1994).**

Carcinogens	11,227 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
Total‡	11,227 Pounds

Table 4. Polluters reporting the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** discharged to Little Lake Butte Des Morts in Wisconsin (1990-1994).**

Top dischargers of carcinogens to Little Lake Butte Des Morts in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Wisconsin Tissue	Menasha	9,853
P. H. Glatfelter Co.	Neenah	1,374

Top dischargers of persistent toxic metals to Little Lake Butte Des Morts in Wisconsin (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)

Top dischargers of reproductive toxins to Little Lake Butte Des Morts in Wisconsin (1990-1994).**

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

The Twin River Drainage Basin in Wisconsin

Total toxic pollution reported (1990-1994): 15,853 Pounds

Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Twin River Drainage Basin in Wisconsin (1990-1994).

Facility	City	Toxic chemical release to water (pounds)
S & R Ellisville Dairy Corp.*	Luxemburg	15,853

Table 2. Toxic chemicals discharged in the greatest amounts to the Twin River Drainage Basin in Wisconsin (1990-1994).

Chemical	Toxic chemical release to waterbody (pounds)
Phosphoric acid	15,853

‡ 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 Twin River Drainage Basin in Wisconsin (1990-1994).**

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

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

Top dischargers of carcinogens to the Twin River Drainage Basin in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

Top dischargers of persistent toxic metals to the Twin River Drainage Basin in Wisconsin (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)

Top dischargers of reproductive toxins to the Twin River Drainage Basin in Wisconsin (1990-1994).**

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

The Yahara River in Wisconsin

Total toxic pollution reported (1990-1994): 11,015 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Kraft Foods Corp.	Madison	11,015

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	11,005

‡ 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 Yahara River in Wisconsin (1990-1994).**

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

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

Top dischargers of carcinogens to the Yahara River in Wisconsin (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

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

Facility	City	Persistent toxic metals released to water (lbs)

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

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