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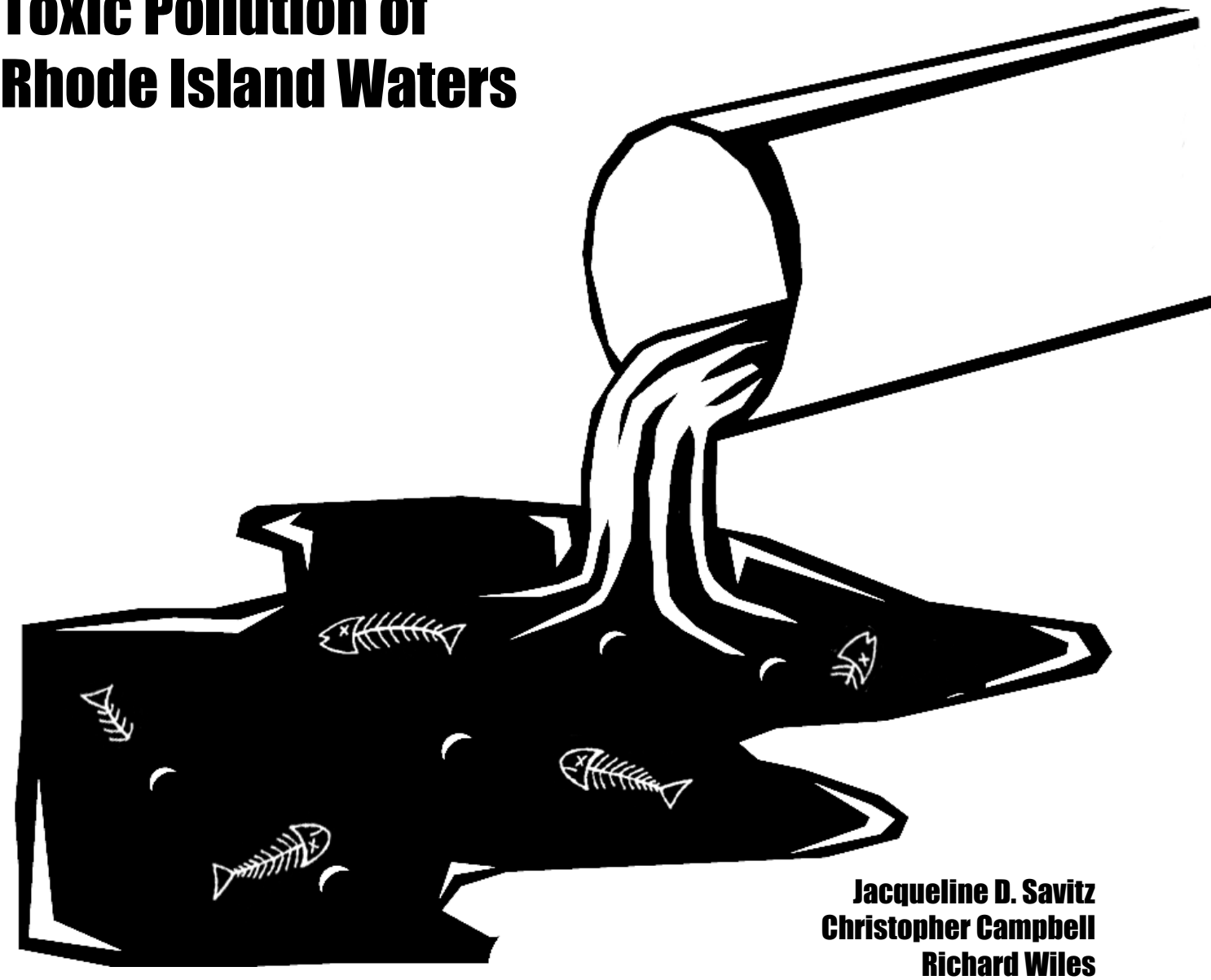
Dishonorable Discharge

Toxic Pollution of Rhode Island Waters



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Dishonorable Discharge

Toxic Pollution of Rhode Island Waters

Executive Summary

Most Rhode Island 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 Rhode Island streams and rivers.

The citizens of Rhode Island 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 Rhode Island and nationwide.

Factories and other industrial facilities dumped more than 562,000 pounds of toxic substances directly into Rhode Island's waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). Because of weaknesses and loopholes in federal pollution laws, most, if not all of these toxic discharges are perfectly legal.

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

In addition, almost six (5.6) million pounds of toxic materials were flushed to sewage treatment plants in Rhode Island from 1990 through 1994, 30th 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 Rhode Island raises the total amount of toxics dumped to the state's waters to an estimated two million pounds (Table 1).

The Blackstone River received the greatest amount of toxic water pollution in Rhode Island from 1990-1994, a total of 295,000 pounds, followed by the Pawtuxet River, and the Pawcatuck River (Table 2). The three most polluted waterways in Rhode Island received 512,000 pounds of toxic pollution between 1990 and 1994, 90.9% percent of the total in the State.

The top three facilities reporting the most toxic pollution of Rhode Island's waters over this period were Osram Sylvania Inc. in Central Falls, which dumped 295,000

pounds of toxic chemicals, followed by Hoechst-Celanese Corporation, and Eastern Wire Prods. Company* in the towns of Coventry, and Providence, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were ammonia, a total of 346,000 pounds, followed by ethylene glycol, and sulfuric acid (Table 4).

Hoechst-Celanese Corporation dumped the most carcinogens into Rhode Island's waters, a total of 1,200 pounds, followed by Osram Sylvania Inc. and Carol Cable Company Inc.* (Table 8). The Pawtuxet River received the greatest amount of cancer-causing toxic chemicals in Rhode Island, a total of 1,200 pounds, followed by the Blackstone River (Table 7).

Hoechst-Celanese Corporation dumped the greatest amount of persistent toxic metals in Rhode Island's waters, a total of 4,000 pounds, followed by Osram Sylvania Inc. and Carol Cable Company Inc.* (Table 8). The Pawtuxet River received the greatest amount of persistent toxic metals, a total of 3,700 pounds, followed by the Blackstone River (Table 7).

Carol Cable Company Inc.* dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into Rhode Island's waters, a total of 250 pounds, followed by Imperial Wallcoverings Inc. and Hoechst-Celanese Corporation (Table 8). The Pawcatuck River received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 130 pounds, followed by the Pawtuxet River (Table 7).

These discharges to Rhode Island's waters include only those wastes released by companies physically located in Rhode Island. 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). The pollution that fouls these waterways costs the state's economy millions of dollars in tourism, fishing, and development revenues that otherwise could be earned on or near these waters were they not so polluted (EPA 1996b).

Dishonorable Discharge Underestimates Toxic Pollution

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

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

About 90[1] percent of all toxic discharges coming out of pipes into water (so-called point source discharges) are not reported to the TRI. This is because the TRI requires reporting on only about 343[2] 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 Rhode Island's waters, we used EPA's assumption that 25 percent of all toxic chemicals transferred to POTWs pass-through untreated[3]. Table 1 presents the EWG estimate of toxic chemicals assumed to be discharged by the POTWs in Rhode Island. 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 pounds[4] 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

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

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

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

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

Appendix

Carcinogens

1,1,2,2-Tetrachloroethane
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
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
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).

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ENVIRONMENTAL WORKING GROUP™

Dishonorable Discharge

Rhode Island

Toxic pollution of Rhode Island waters (1990-1994)

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

Direct Water Discharges	562,843 Pounds
Estimated Sewer Discharges‡	1,409,105 Pounds
Total Discharges to Waters	**1,971,948 Pounds**

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Blackstone River	294,845
Pawtuxet River	216,539
Pawcatuck River	135

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

Facility	City	Toxic chemical release to waters (pounds)
Osram Sylvania Inc.	Central Falls	294,840
Hoechst-Celanese Corp.	Coventry	216,496
Eastern Wire Prods. Co.*	Providence	51,000
Carol Cable Co. Inc.*	Warren	250
Imperial Wallcoverings Inc.	Ashaway	130

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

Chemical	Toxic chemical release to waters (pounds)
Ammonia	345,819
Ethylene glycol	120,403
Sulfuric acid	51,005
Acetone	39,570
Copper	2,768
Dichloromethane	888
Copper compounds	845
Arsenic compounds	515
Lead	253
o-Anisidine	198

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

Facility	City	Toxic chemical release to sewers (pounds)
Original Bradford Soap Works	West Warwick	2,603,600
Olin Hunt Specialty	Lincoln	805,244
C.N.C. Intl. L.P.	Woonsocket	502,173
Monet Group Inc.	Warwick	451,182
CHN Anodizing	Pawtucket	347,200
Seville Dyeing Co. Inc.	Woonsocket	296,697
Chemart Co.	Lincoln	114,654
Hord Corp.	Pawtucket	77,172
Rochambeau Worsted Co.	Manville	66,850
Monet Group Inc.	East Providence	63,823

‡ Total discharges of toxic chemicals to sewer systems in Rhode Island was 5,636,423 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.

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ENVIRONMENTAL WORKING GROUP™

Dishonorable Discharge

Rhode Island

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

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

Carcinogens	2,029 Pounds
Persistent Toxic Metals	4,574 Pounds
Reproductive Toxins	519 Pounds
Total (see note)	**6,039 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. Rhode Island waters receiving the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** (1990-1994).**

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

River or Water Body	Carcinogens** released to waters (lbs.)
Pawtuxet River	1,215
Blackstone River	540

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Pawtuxet River	3,717
Blackstone River	545

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Pawcatuck River	130
Pawtuxet River	115

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

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

Facility	City	Carcinogens** released to waters (lbs.)
Hoechst-Celanese Corp.	Coventry	1,215
Osram Sylvania Inc.	Central Falls	540
Carol Cable Co. Inc.*	Warren	250

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

Facility	City	Persistent toxic metals released to waters (lbs.)
Hoechst-Celanese Corp.	Coventry	3,684
Osram Sylvania Inc.	Central Falls	540
Carol Cable Co. Inc.*	Warren	250

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

Facility	City	Reproductive toxins** released to waters (lbs.)
Carol Cable Co. Inc.*	Warren	250
Imperial Wallcoverings Inc.	Ashaway	130
Hoechst-Celanese Corp.	Coventry	115

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

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

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

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ENVIRONMENTAL WORKING GROUP™

Dishonorable Discharge

The Blackstone River in Rhode Island

Total toxic pollution reported (1990-1994): 294,845 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Osram Sylvania Inc.	Central Falls	294,840

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	294,300
Arsenic compounds	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.

* 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 Blackstone River in Rhode Island (1990-1994).**

Carcinogens	540 Pounds
Persistent Toxic Metals	545 Pounds
Reproductive Toxins	0 Pounds
Total‡	**545 Pounds**

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

Top dischargers of carcinogens to the Blackstone River in Rhode Island (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Osram Sylvania Inc.	Central Falls	540

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

Facility	City	Persistent toxic metals released to water (lbs)
Osram Sylvania Inc.	Central Falls	540

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

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

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

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Dishonorable Discharge

The Pawtuxet River in Rhode Island

Total toxic pollution reported (1990-1994): 216,539 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Hoechst-Celanese Corp.	Coventry	216,496

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

Chemical	Toxic chemical release to waterbody (pounds)
Ethylene glycol	120,403
Ammonia	51,514
Acetone	39,570
Copper	2,738
Dichloromethane	888
Copper compounds	845
o-Anisidine	198
Barium compounds	134
Toluene	115
Aniline	107

‡ 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 Pawtuxet River in Rhode Island (1990-1994).**

Carcinogens	1,215 Pounds
Persistent Toxic Metals	3,717 Pounds
Reproductive Toxins	115 Pounds
Total‡	**5,047 Pounds**

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

Top dischargers of carcinogens to the Pawtuxet River in Rhode Island (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Hoechst-Celanese Corp.	Coventry	1,215

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

Facility	City	Persistent toxic metals released to water (lbs)
Hoechst-Celanese Corp.	Coventry	3,684

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

Facility	City	Reproductive toxins** released to water (lbs)
Hoechst-Celanese Corp.	Coventry	115

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

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Dishonorable Discharge

The Pawcatuck River in Rhode Island

Total toxic pollution reported (1990-1994): 135 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Imperial Wallcoverings Inc.	Ashaway	130

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

Chemical	Toxic chemical release to waterbody (pounds)
Glycol ethers	130

‡ 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 Pawcatuck River in Rhode Island (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	130 Pounds
Total‡	**130 Pounds**

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

Top dischargers of carcinogens to the Pawcatuck River in Rhode Island (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

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

Facility	City	Persistent toxic metals released to water (lbs)

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

Facility	City	Reproductive toxins** released to water (lbs)
Imperial Wallcoverings Inc.	Ashaway	130

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

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