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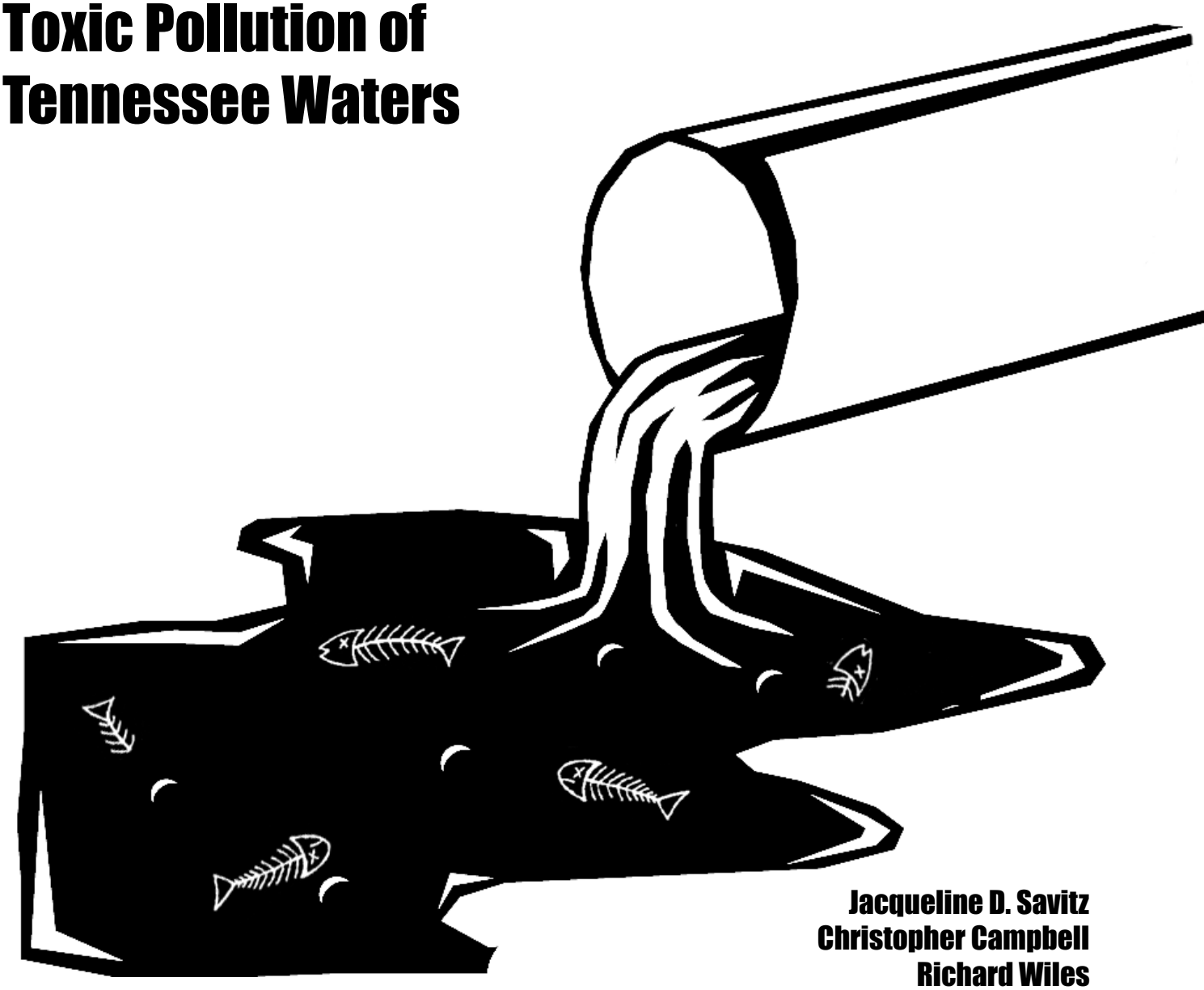
ENVIRONMENTAL WORKING GROUP™

Dishonorable Discharge

Toxic Pollution of Tennessee Waters



Jacqueline D. Savitz
Christopher Campbell
Richard Wiles
Carolyn Hartmann

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1718 Connecticut Avenue, N.W. Suite 600
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Dishonorable Discharge

Toxic Pollution of Tennessee Waters

Executive Summary

Most Tennessee 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 Tennessee streams and rivers.

The citizens of Tennessee 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 Tennessee and nationwide.

Factories and other industrial facilities dumped more than 15.7 million pounds of toxic substances directly into Tennessee's waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). Tennessee ranked 10th 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, almost ninety (89.4) million pounds of toxic materials were flushed to sewage treatment plants in Tennessee from 1990 through 1994, 7th 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 Tennessee raises the total amount of toxics dumped to the state's waters to an estimated 38.1 million pounds (Table 1).

The Tennessee River received the greatest amount of toxic water pollution in Tennessee from 1990-1994, a total of 8,490,000 pounds, followed by the Holston River, the Loosahatchie River, and the Watauga River (Table 2). The ten most polluted waterways in Tennessee received 15,500,000 pounds of toxic pollution between 1990 and 1994, 98.8% percent of the total in the State.

The top three facilities reporting the most toxic pollution of Tennessee's waters over this period were Inland Container Corporation in New Johnsonville, which dumped

7,960,000 pounds of toxic chemicals, followed by Tennessee Eastman Div., and Arcadian Fertilizer L.P. in the towns of Kingsport, and Millington, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were ammonium sulfate solution, a total of 10,400,000 pounds, followed by ammonia, and ethylene glycol (Table 4).

Tennessee Eastman Div. dumped the most carcinogens into Tennessee's waters, a total of 291,000 pounds, followed by Bowater Inc. and Willamette Inds. Inc. (Table 8). The Holston River received the greatest amount of cancer-causing toxic chemicals in Tennessee, a total of 302,000 pounds, followed by the Hiwassee River and the Cumberland River (Table 7).

Rayovac Corporation* dumped the greatest amount of persistent toxic metals in Tennessee's waters, a total of 202,000 pounds, followed by State Ind. Inc. and Bit Manufacturing Inc. (Table 8). The Cumberland River received the greatest amount of persistent toxic metals, a total of 203,000 pounds, followed by the Town Creek and the Oconee River (Table 7).

Tennessee Eastman Div. dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into Tennessee's waters, a total of 287,000 pounds, followed by Du Pont and Spontex Inc. (Table 8). The Holston River received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 287,000 pounds, followed by the Cumberland River and the Duck River (Table 7).

These discharges to Tennessee's waters include only those wastes released by companies physically located in Tennessee. 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 Tennessee, over 111,000 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 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 Tennessee'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 Tennessee. 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

Tennessee

Toxic pollution of Tennessee waters (1990-1994)

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

Direct Water Discharges	15,710,166 Pounds
Estimated Sewer Discharges‡	22,355,026 Pounds
Total Discharges to Waters	**38,065,192 Pounds**

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Tennessee River	8,494,430
Holston River	4,098,240
Loosahatchie River	795,534
Watauga River	649,950
Cumberland River	501,913
Duck River	350,612
Hiwassee River	239,768
Town Creek	201,949
Nolichucky River	117,770
Oconee River	76,387

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

Facility	City	Toxic chemical release to waters (pounds)
Inland Container Corp.	New Johnsonville	7,963,258
Tennessee Eastman Div.	Kingsport	3,944,895
Arcadian Fertilizer L.P.	Millington	738,217
North American Rayon Corp.	Elizabethton	649,950
Packaging Corp. Of America	Counce	393,262
Du Pont	Old Hickory	314,542
Bowater Inc.	Calhoun	239,625
Rayovac Corp.*	Covington	201,952
Occidental Chemical Corp.	Columbia	190,115
Spontex Inc.	Columbia	159,465

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

Chemical	Toxic chemical release to waters (pounds)
Ammonium sulfate (solution)	10,382,262
Ammonia	1,945,868
Ethylene glycol	824,992
2-Methoxyethanol	469,081
1,4-Dioxane	273,441
Manganese compounds	256,176
Zinc compounds	247,182
Carbon disulfide	171,348
Acetone	166,642
Sulfuric acid	148,518

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

Facility	City	Toxic chemical release to sewers (pounds)
Kraft Food Ingredients Corp.	Memphis	29,395,835
Witco Corp.	Memphis	10,413,648
QO Chemicals Inc.	Memphis	9,708,153
Hunt-Wesson Inc.	Memphis	9,536,931
Du Pont	Memphis	7,340,468
Enenco. Inc.	Memphis	5,488,937
Great Lakes Chemical Corp.	Newport	3,068,463
Arcadian Fertilizer L.P.	Millington	2,656,844
Cargill Vegetable Oils	Memphis	1,500,685
Mapco Petroleum Inc.	Memphis	1,013,352

‡ Total discharges of toxic chemicals to sewer systems in Tennessee was 89,420,107 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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Dishonorable Discharge

Tennessee

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

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

Carcinogens	369,163 Pounds
Persistent Toxic Metals	660,378 Pounds
Reproductive Toxins	742,671 Pounds
Total (see note)	**1,751,357 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. Tennessee waters receiving the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** (1990-1994).**

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

River or Water Body	Carcinogens** released to waters (lbs.)
Holston River	301,938
Hiwassee River	44,395
Cumberland River	6,088
Hatchie River	3,043
Hyde Creek	1,314

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Cumberland River	203,481
Town Creek	201,949
Oconee River	75,600
Holston River	64,237
Nolichucky River	36,850

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Holston River	286,884
Cumberland River	262,906
Duck River	135,423
Watauga River	37,000
Hatchie River	8,401

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

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

Facility	City	Carcinogens** released to waters (lbs.)
Tennessee Eastman Div.	Kingsport	291,168
Bowater Inc.	Calhoun	44,395
Willamette Inds. Inc.	Kingsport	10,770
Du Pont	Old Hickory	3,441
Harman Automotive Inc.	Bolivar	3,043

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

Facility	City	Persistent toxic metals released to waters (lbs.)
Rayovac Corp.*	Covington	201,952
State Ind. Inc.	Ashland City	82,005
Bit Mfg. Inc.	Copperhill	77,250
Ford Motor Co.	Nashville	67,000
Tennessee Eastman Div.	Kingsport	64,237

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

Facility	City	Reproductive toxins** released to waters (lbs.)
Tennessee Eastman Div.	Kingsport	286,884
Du Pont	Old Hickory	262,181
Spontex Inc.	Columbia	134,323
North American Rayon Corp.	Elizabethton	37,000
Harman Automotive Inc.	Bolivar	8,401

* 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 Tennessee River in Tennessee

Total toxic pollution reported (1990-1994): 8,494,430 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Inland Container Corp.	New Johnsonville	7,963,258
Packaging Corp. Of America	Counce	393,262
Du Pont*	Chattanooga	77,171
Du Pont	New Johnsonville	43,900
A. E. Staley Mfg. Co.*	Loudon	13,201
Chemetals Inc.	New Johnsonville	2,834
Yale Security Inc.	Lenoir City	255
Airco Gases*	Chattanooga	250
Aqua Chem Inc.	Knoxville	250

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonium sulfate (solution)	7,600,000
Ammonia	835,926
Chlorine	40,655
Acetone	9,025
Diethanolamine	3,500
Manganese compounds	2,834
Methyl ethyl ketone	643
Catechol	508
Hydrochloric acid	505
Nickel compounds	250

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

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

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

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

Carcinogens	541 Pounds
Persistent Toxic Metals	3,362 Pounds
Reproductive Toxins	500 Pounds
Total‡	**3,653 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Yale Security Inc.	Lenoir City	250
Aqua Chem Inc.	Knoxville	250

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

Facility	City	Persistent toxic metals released to water (lbs)
Chemetals Inc.	New Johnsonville	2,834
Yale Security Inc.	Lenoir City	250
Aqua Chem Inc.	Knoxville	250

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

Facility	City	Reproductive toxins** released to water (lbs)
Aqua Chem Inc.	Knoxville	250
Packaging Corp. Of America	Counce	250

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Dishonorable Discharge

The Holston River in Tennessee

Total toxic pollution reported (1990-1994): 4,098,240 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Tennessee Eastman Div.	Kingsport	3,944,890
U.S. Army-Holston Ammo	Kingsport	100,831
Willamette Inds. Inc.	Kingsport	37,150
CBP Resources Inc.*	Strawberry Plains	12,323
Holliston Mills Inc.*	Church Hill	3,046

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonium sulfate (solution)	2,100,000
Ethylene glycol	812,000
1,4-Dioxane	270,000
2-Methoxyethanol	206,900
Acetone	136,542
2,4-Dinitrophenol	92,000
Methanol	90,350
Sulfuric acid	75,923
2-Ethoxyethanol	44,400
Manganese compounds	40,000

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

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

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

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

Carcinogens	301,938 Pounds
Persistent Toxic Metals	64,237 Pounds
Reproductive Toxins	286,884 Pounds
Total‡	**649,418 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Tennessee Eastman Div.	Kingsport	291,168
Willamette Inds. Inc.	Kingsport	10,770

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

Facility	City	Persistent toxic metals released to water (lbs)
Tennessee Eastman Div.	Kingsport	64,237

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

Facility	City	Reproductive toxins** released to water (lbs)
Tennessee Eastman Div.	Kingsport	286,884

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

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Dishonorable Discharge

The Loosahatchie River in Tennessee

Total toxic pollution reported (1990-1994): 795,534 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Arcadian Fertilizer L.P.	Millington	738,217
Du Pont	Memphis	57,316

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonium sulfate (solution)	682,262
Methyl methacrylate	51,826
Methanol	25,356
Diethanolamine	21,658
Ammonia	10,161
Butyl acrylate	2,622
Toluene	1,250
Chromium compounds	234

‡ 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 Loosahatchie River in Tennessee (1990-1994).**

Carcinogens	27 Pounds
Persistent Toxic Metals	251 Pounds
Reproductive Toxins	1,250 Pounds
Total‡	**1,526 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)

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

Facility	City	Persistent toxic metals released to water (lbs)
Arcadian Fertilizer L.P.	Millington	251

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

Facility	City	Reproductive toxins** released to water (lbs)
Du Pont	Memphis	1,250

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Dishonorable Discharge

The Watauga River in Tennessee

Total toxic pollution reported (1990-1994): 649,950 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
North American Rayon Corp.	Elizabethton	649,950

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	582,300
Carbon disulfide	37,000
Zinc compounds	30,650

‡ 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 Watauga River in Tennessee (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	30,650 Pounds
Reproductive Toxins	37,000 Pounds
Total‡	**67,650 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)

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

Facility	City	Persistent toxic metals released to water (lbs)
North American Rayon Corp.	Elizabethton	30,650

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

Facility	City	Reproductive toxins** released to water (lbs)
North American Rayon Corp.	Elizabethton	37,000

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

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Dishonorable Discharge

The Cumberland River in Tennessee

Total toxic pollution reported (1990-1994): 501,913 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Du Pont	Old Hickory	314,542
State Ind. Inc.	Ashland City	82,005
Ford Motor Co.	Nashville	67,000
Jersey Miniere Zinc*	Clarksville	35,676
Peterbilt Motors Co.	Madison	2,250
BCA*	Gallatin	440

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

Chemical	Toxic chemical release to waterbody (pounds)
2-Methoxyethanol	262,181
Zinc compounds	160,000
Ammonia	28,820
Manganese	18,390
Cobalt compounds	10,000
Manganese compounds	8,800
1,4-Dioxane	3,441
Zinc (fume or dust)	2,780
Ethylene glycol	2,250
Cadmium compounds	1,700

‡ 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 Cumberland River in Tennessee (1990-1994).**

Carcinogens	6,088 Pounds
Persistent Toxic Metals	203,481 Pounds
Reproductive Toxins	262,906 Pounds
Total‡	**469,323 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Du Pont	Old Hickory	3,441
Jersey Miniere Zinc*	Clarksville	2,422
BCA*	Gallatin	220

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

Facility	City	Persistent toxic metals released to water (lbs)
State Ind. Inc.	Ashland City	82,005
Ford Motor Co.	Nashville	67,000
Jersey Miniere Zinc*	Clarksville	35,676
Du Pont	Old Hickory	18,800

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

Facility	City	Reproductive toxins** released to water (lbs)
Du Pont	Old Hickory	262,181
Jersey Miniere Zinc*	Clarksville	500
BCA*	Gallatin	220

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

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Dishonorable Discharge

The Duck River in Tennessee

Total toxic pollution reported (1990-1994): 350,612 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Occidental Chemical Corp.	Columbia	187,932
Spontex Inc.	Columbia	159,465
Universal Fasteners Inc.	Centerville	2,180
Alcan Recycling	Shelbyville	1,035

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	207,374
Carbon disulfide	134,323
Manganese	3,480
Hydrogen fluoride	2,183
Copper	1,341
Aluminum (fume or dust)	1,000
Chlorine	596
Nickel	100
Copper compounds	100

‡ 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 Duck River in Tennessee (1990-1994).**

Carcinogens	100 Pounds
Persistent Toxic Metals	5,041 Pounds
Reproductive Toxins	135,423 Pounds
Total‡	**140,364 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Universal Fasteners Inc.	Centerville	100

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

Facility	City	Persistent toxic metals released to water (lbs)
Occidental Chemical Corp.	Columbia	3,480
Universal Fasteners Inc.	Centerville	1,526

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

Facility	City	Reproductive toxins** released to water (lbs)
Spontex Inc.	Columbia	134,323
Alcan Recycling	Shelbyville	1,000
Universal Fasteners Inc.	Centerville	100

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

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Dishonorable Discharge

The Hiwassee River in Tennessee

Total toxic pollution reported (1990-1994): 239,768 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Bowater Inc.	Calhoun	239,625
Olin Corp.	Charleston	143

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	166,907
Chloroform	44,103
Acetone	16,925
Ethylene glycol	6,336
Catechol	3,570
Methyl ethyl ketone	1,320
Acetaldehyde	292
Mercury	143
Chlorine	137

‡ 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 Hiwassee River in Tennessee (1990-1994).**

Carcinogens	44,395 Pounds
Persistent Toxic Metals	143 Pounds
Reproductive Toxins	143 Pounds
Total‡	**44,538 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Bowater Inc.	Calhoun	44,395

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

Facility	City	Persistent toxic metals released to water (lbs)
Olin Corp.	Charleston	143

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

Facility	City	Reproductive toxins** released to water (lbs)
Olin Corp.	Charleston	143

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

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Dishonorable Discharge

Town Creek in Tennessee

Total toxic pollution reported (1990-1994): 201,949 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Rayovac Corp.*	Covington	201,949

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

Chemical	Toxic chemical release to waterbody (pounds)
Manganese compounds	201,949

‡ 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 Town Creek in Tennessee (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	201,949 Pounds
Reproductive Toxins	0 Pounds
Total‡	**201,949 Pounds**

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

Top dischargers of carcinogens to Town Creek in Tennessee (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

Top dischargers of persistent toxic metals to Town Creek in Tennessee (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Rayovac Corp.*	Covington	201,949

Top dischargers of reproductive toxins to Town Creek in Tennessee (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 Nolichucky River in Tennessee

Total toxic pollution reported (1990-1994): 117,770 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Lenzing Fibers Corp.	Lowland	68,850
BASF Corp.	Lowland	47,050
Nuclear Fuel Services Inc.*	Erwin	1,120
Zinc. Prods. Co. A Div. Of	Greeneville	750

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	76,620
Zinc compounds	34,550
Glycol ethers	3,800
Manganese compounds	2,050
Copper	250
Cyanide compounds	250
Chlorine	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 Nolichucky River in Tennessee (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	36,850 Pounds
Reproductive Toxins	3,800 Pounds
Total‡	**40,650 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)

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

Facility	City	Persistent toxic metals released to water (lbs)
Lenzing Fibers Corp.	Lowland	19,350
BASF Corp.	Lowland	17,000
Zinc. Prods. Co. A Div. Of	Greeneville	500

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

Facility	City	Reproductive toxins** released to water (lbs)
BASF Corp.	Lowland	3,800

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

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Dishonorable Discharge

The Oconee River in Tennessee

Total toxic pollution reported (1990-1994): 76,387 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Bit Mfg. Inc.	Copperhill	76,387

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

Chemical	Toxic chemical release to waterbody (pounds)
Copper compounds	75,600
Sulfuric acid	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 Oconee River in Tennessee (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	75,600 Pounds
Reproductive Toxins	0 Pounds
Total‡	**75,600 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)

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

Facility	City	Persistent toxic metals released to water (lbs)
Bit Mfg. Inc.	Copperhill	75,600

Top dischargers of reproductive toxins to the Oconee River in Tennessee (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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