

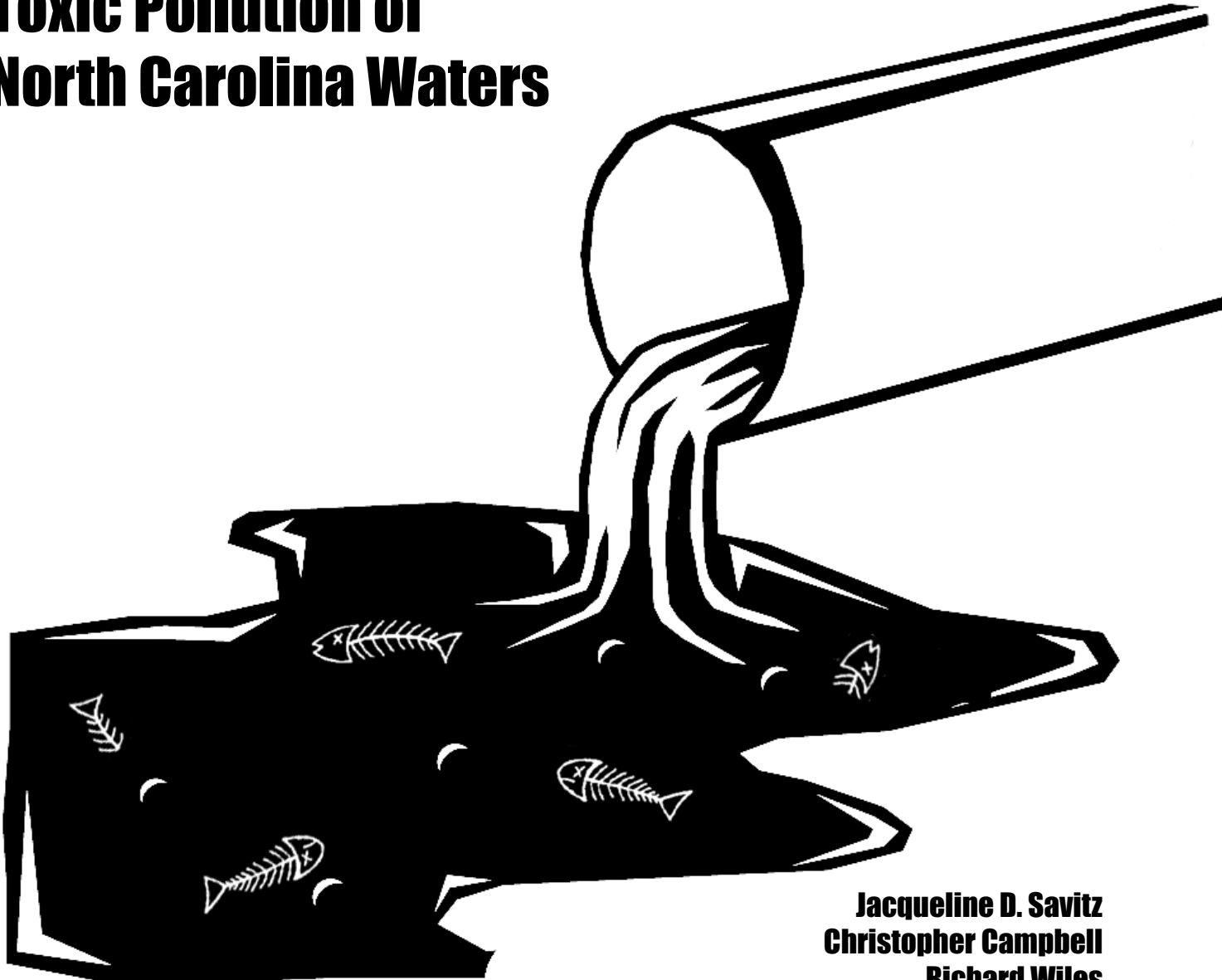


The State PIRGs



# **Dishonorable Discharge**

## **Toxic Pollution of North Carolina Waters**



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# Toxic Pollution of North Carolina Waters

## Executive Summary

Most North Carolina 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 North Carolina streams and rivers.

The citizens of North Carolina 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 North Carolina and nationwide.

Factories and other industrial facilities dumped more than 4.6 million pounds of toxic substances directly into North Carolina's waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). North Carolina ranked 24th 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 twenty (22.8) million pounds of toxic materials were flushed to sewage treatment plants in North Carolina from 1990 through 1994, 20th 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 North Carolina raises the total amount of toxics dumped to the state's waters to an estimated 10.4 million pounds (Table 1).

The Pigeon River received the greatest amount of toxic water pollution in North Carolina from 1990-1994, a total of 1,330,000 pounds, followed by the Cape Fear River, the Catawba River, and the Roanoke River (Table 2). The ten most polluted waterways in North Carolina received 4,290,000 pounds of toxic pollution between 1990 and 1994, 92.4% percent of the total in the State.

The top three facilities reporting the most toxic pollution of North Carolina's waters over this period were Champion International Corporation in Canton, which dumped

1,330,000 pounds of toxic chemicals, followed by ADM, and Du Pont in the towns of Southport, and Leland, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were ammonia, a total of 1,830,000 pounds, followed by methanol, and ammonium nitrate solution (Table 4).

Hoechst Celanese Corporation dumped the most carcinogens into North Carolina's waters, a total of 126,000 pounds, followed by Champion International Corporation and Du Pont (Table 8). North Second Creek received the greatest amount of cancer-causing toxic chemicals in North Carolina, a total of 126,000 pounds, followed by the Pigeon River and the Neuse River (Table 7).

Du Pont dumped the greatest amount of persistent toxic metals in North Carolina's waters, a total of 82,000 pounds, followed by Federal Paper Board Company Inc. and CMI Industries, Inc. (Table 8). The Cape Fear River received the greatest amount of persistent toxic metals, a total of 128,000 pounds, followed by the Yadkin River and the Catawba River (Table 7).

National Spinning Company Inc. dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into North Carolina's waters, a total of 24,000 pounds, followed by Du Pont and Clariant Corporation (Table 8). The Tar River received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 24,000 pounds, followed by the Cape Fear River and the Catawba River (Table 7).

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

## Recommendations

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

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

We recommend:

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

# Dishonorable Discharge

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 North Carolina, over 8,000 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<sup>1</sup> 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<sup>2</sup> 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 North Carolina’s waters, we used EPA’s assumption that 25 percent of all toxic chemicals transferred to POTWs pass-through untreated<sup>3</sup>. Table 1 presents the EWG estimate of toxic chemicals assumed to be discharged by the POTWs in North Carolina. 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<sup>4</sup> 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

<sup>1</sup>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).

<sup>2</sup>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.

<sup>3</sup>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.

<sup>4</sup>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	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	Chloroethanol	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)	Safrole
Acetamide	Ethylene oxide	Styrene
Acrylamide	Ethylene thiourea (EBDC trans prod.)	Styrene oxide
Acrylonitrile	Ethyleneimine	Tetrachloroethylene (Perchloroethylene)
Allyl chloride	Formaldehyde	Thioacetamide
Aniline	Hexachlorobenzene	Thiourea
Arsenic	Hexachloroethane	Toluene-2,4-diisocyanate
Arsenic compounds	Hexamethylphosphoramide	Toluene-2,6-diisocyanate
Asbestos	Hydrazine	Toxaphene (Polychlorinated camphenes)
Auramine	Hydrazine sulfate	Trichloroethylene
Benzene	Hydrazobenzene (1,2-Diphenylhydrazine)	Tris(2,3-dibromopropyl)phosphate
Benzidine [and its salts]	Isosafrole	Urethane (Ethyl carbamate)
Benzotrichloride	Lead	Vinyl bromide
Benzyl chloride	Lead compounds	Vinyl chloride
Beryllium and beryllium compounds	Lindane	Vinyl trichloride (1,1,2-Trichloroethane)
Beryllium compounds	Methyl iodide	

## Persistent Toxic Metals

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

## Chemicals that Affect Reproduction

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

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

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# North Carolina

## Toxic pollution of North Carolina waters (1990-1994)

**Table 1. Total reported toxic pollution of North Carolina waters (1990-1994).**

Direct Water Discharges	4,646,472 Pounds
Estimated Sewer Discharges‡	5,708,120 Pounds
<b>Total Discharges to Waters</b>	<b>10,354,592 Pounds</b>

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Pigeon River	1,325,423
Cape Fear River	1,319,953
Catawba River	403,973
Roanoke River	391,357
Neuse River	216,743
North Second Creek	196,300
Pamlico River	190,450
Buffalo Creek	98,435
Yadkin River	87,449
Livingston Creek	61,410

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

Facility	City	Toxic chemical release to waters (pounds)
Champion Intl. Corp.	Canton	1,325,423
ADM	Southport	352,114
Du Pont	Leland	350,120
Arcadian Fertilizer L.P.	Wilmington	256,180
Clariant Corp.	Charlotte	244,116
Weyerhaeuser Co.	Plymouth	232,989
Hoechst Celanese Corp.	Salisbury	196,300
PCS Phosphate Co. Inc.*	Aurora	190,450
Du Pont	Kinston	184,893
Hoechst Celanese Polyester	Wilmington	132,654

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

Chemical	Toxic chemical release to waters (pounds)
Ammonia	1,830,400
Methanol	1,091,613
Ammonium nitrate (solution)	343,336
Ethylene glycol	319,595
1,4-Dioxane	193,615
Chlorine	132,048
Acetone	128,241
Chloroform	119,180
Cobalt compounds	55,603
Phenol	47,914

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

Facility	City	Toxic chemical release to sewers (pounds)
Abex	Salisbury	3,427,828
Lundy Packing Co.	Clinton	1,313,700
Burroughs Wellcome Co.	Greenville	1,154,370
Goldtex Inc.	Goldboro	1,113,054
Glen Raven Mills Inc.	Burlington	1,005,727
Belding Corticelli Thread Co.	Hendersonville	804,800
Mohican Mills Inc.	Lincolnton	719,690
Modern Globe	Gastonia	709,955
Stabilus	Gastonia	685,500
Collins & Aikman Corp.	Roxboro	678,549

‡ Total discharges of toxic chemicals to sewer systems in North Carolina was 22,832,483 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.

# North Carolina

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

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

Carcinogens	385,802 Pounds
Persistent Toxic Metals	170,195 Pounds
Reproductive Toxins	53,776 Pounds
<b>Total (see note)</b>	<b>603,890 Pounds</b>

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. North Carolina waters receiving the greatest amounts of carcinogens\*\*, persistent toxic metals, and reproductive toxins\*\* (1990-1994).**

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

River or Water Body	Carcinogens** released to waters (lbs.)
North Second Creek	126,250
Pigeon River	103,180
Neuse River	88,619
Cape Fear River	25,264
Livingston Creek	17,586

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Cape Fear River	127,967
Yadkin River	7,468
Catawba River	6,280
Lumber River	5,448
Rocky River	3,870

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Tar River	24,452
Cape Fear River	9,894
Catawba River	4,778
Hominy Creek	3,660
Yadkin River	2,454

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

**Top dischargers of carcinogenic chemicals\*\* to North Carolina waters (1990-1994).**

Facility	City	Carcinogens** released to waters (lbs.)
Hoechst Celanese Corp.	Salisbury	126,250
Champion Intl. Corp.	Canton	103,180
Du Pont	Kinston	81,889
Wright Chemical Corp.	Riegelwood	19,347
Hoechst Celanese Polyester	Wilmington	16,850

**Top dischargers of persistent toxic metals to North Carolina waters (1990-1994).**

Facility	City	Persistent toxic metals released to waters (lbs.)
Du Pont	Leland	81,737
Federal Paper Board Co. Inc.	Riegelwood	39,000
CMI Ind. Inc.	Elkin	7,465
Hoechst Celanese Polyester	Wilmington	6,050
Cramerton Automotive Prods.	Cramerton	5,152

**Top dischargers of reproductive toxins\*\* to North Carolina waters (1990-1994).**

Facility	City	Reproductive toxins** released to waters (lbs.)
National Spinning Co. Inc.	Washington	24,452
Du Pont	Leland	9,403
Clariant Corp.	Charlotte	4,772
BASF Corp.*	Enka	3,660
CMI Ind. Inc.	Elkin	2,440

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

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

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

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# The Pigeon River in North Carolina

Total toxic pollution reported (1990-1994): 1,325,423 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Pigeon River in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Champion Intl. Corp.	Canton	1,325,423

**Table 2. Toxic chemicals discharged in the greatest amounts to the Pigeon River in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	768,000
Ammonia	360,600
Chloroform	102,200
Phenol	44,880
Acetone	31,800
Catechol	13,553
Methyl ethyl ketone	3,250
Acetaldehyde	780
Formaldehyde	200
Cresol (mixed isomers)	160

‡ 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 Pigeon River in North Carolina (1990-1994).**

Carcinogens	103,180 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>103,180 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Pigeon River in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Champion Intl. Corp.	Canton	103,180

**Top dischargers of persistent toxic metals to the Pigeon River in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)

**Top dischargers of reproductive toxins\*\* to the Pigeon River in North Carolina (1990-1994).**

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

# The Cape Fear River in North Carolina

Total toxic pollution reported (1990-1994): 1,319,953 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Cape Fear River in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
ADM	Southport	352,114
Du Pont	Leland	350,120
Arcadian Fertilizer L.P.	Wilmington	256,180
Hoechst Celanese Polyester	Wilmington	132,654
Federal Paper Board Co. Inc.	Riegelwood	120,143
General Electric Co.	Wilmington	64,201
Danaher Controls*	Elizabethtown	33,700
Du Pont	Fayetteville	9,410
Guilford Mills Inc.	Kenansville	656
Swift Textiles Inc.*	Erwin	

**Table 2. Toxic chemicals discharged in the greatest amounts to the Cape Fear River in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	600,446
Ammonium nitrate (solution)	254,686
Methanol	135,002
Ethylene glycol	77,756
Cobalt compounds	49,412
Chromium compounds	39,241
Sulfuric acid	33,725
Manganese compounds	27,279
Acetone	22,030
1,4-Dioxane	11,598

‡ 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 Cape Fear River in North Carolina (1990-1994).**

Carcinogens	25,264 Pounds
Persistent Toxic Metals	127,967 Pounds
Reproductive Toxins	9,894 Pounds
<b>Total‡</b>	<b>162,516 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Cape Fear River in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Hoechst Celanese Polyester	Wilmington	16,850
Federal Paper Board Co. Inc.	Riegelwood	4,320
Du Pont	Leland	2,686
Du Pont	Fayetteville	942
General Electric Co.	Wilmington	301

**Top dischargers of persistent toxic metals to the Cape Fear River in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Du Pont	Leland	81,737
Federal Paper Board Co. Inc.	Riegelwood	39,000
Hoechst Celanese Polyester	Wilmington	6,050
Guilford Mills Inc.	Kenansville	523
General Electric Co.	Wilmington	301

**Top dischargers of reproductive toxins\*\* to the Cape Fear River in North Carolina (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Du Pont	Leland	9,403
Swift Textiles Inc.*	Erwin	250
General Electric Co.	Wilmington	192

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

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# The Catawba River in North Carolina

Total toxic pollution reported (1990-1994): 403,973 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Catawba River in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Clariant Corp.	Charlotte	244,116
Cramerton Automotive Prods.	Cramerton	117,752
Crompton & Knowles Colors	Lowell	38,727
Baxter Healthcare Corp.	Marion	3,250
Hoechst-Celanese Corp.	Mount Holly	128

**Table 2. Toxic chemicals discharged in the greatest amounts to the Catawba River in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	234,250
Chlorine	112,600
Ethylene glycol	41,320
Cobalt compounds	5,191
Glycol ethers	4,560
2,4-Dinitrophenol	2,520
1,2,4-Trimethylbenzene	1,090
Copper compounds	684
o-Anisidine	340
o-Toluidine	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 the Catawba River in North Carolina (1990-1994).**

Carcinogens	803 Pounds
Persistent Toxic Metals	6,280 Pounds
Reproductive Toxins	4,778 Pounds
<b>Total‡</b>	<b>11,650 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Catawba River in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Clariant Corp.	Charlotte	425
Crompton & Knowles Colors	Lowell	362

**Top dischargers of persistent toxic metals to the Catawba River in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Cramerton Automotive Prods.	Cramerton	5,152
Clariant Corp.	Charlotte	974
Hoechst-Celanese Corp.	Mount Holly	128

**Top dischargers of reproductive toxins\*\* to the Catawba River in North Carolina (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Clariant Corp.	Charlotte	4,772

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

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# The Roanoke River in North Carolina

Total toxic pollution reported (1990-1994): 391,357 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Roanoke River in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Weyerhaeuser Co.	Plymouth	232,989
Perdue Farms Inc.	Lewiston Woodville	100,900
Champion Intl. Corp.	Roanoke Rapids	52,522
Alamac Knit Fabrics	Hamilton	3,327
Liberty Fabrics Inc.*	Jamesville	1,369
Weyerhaeuser Wood Prods.	Plymouth	250

**Table 2. Toxic chemicals discharged in the greatest amounts to the Roanoke River in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	151,400
Ammonia	147,569
Acetone	57,696
Catechol	13,350
Chloroform	7,380
Methyl ethyl ketone	5,199
Acetaldehyde	3,102
1,2,4-Trichlorobenzene	2,563
Ethylene glycol	1,369
Copper compounds	764

‡ 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 Roanoke River in North Carolina (1990-1994).**

Carcinogens	10,847 Pounds
Persistent Toxic Metals	764 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>11,611 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Roanoke River in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Weyerhaeuser Co.	Plymouth	10,595
Weyerhaeuser Wood Prods.	Plymouth	250

**Top dischargers of persistent toxic metals to the Roanoke River in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Alamac Knit Fabrics	Hamilton	764

**Top dischargers of reproductive toxins\*\* to the Roanoke River in North Carolina (1990-1994).**

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

# The Neuse River in North Carolina

Total toxic pollution reported (1990-1994): 216,743 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Neuse River in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Du Pont	Kinston	184,893
Weyerhaeuser Paper Co.	Vanceboro	29,615
Data General Corp.*	Clayton	1,265
U.S. Marine Corps	Cherry Point	500
Burlington Ind.*	Wake Forest	470

**Table 2. Toxic chemicals discharged in the greatest amounts to the Neuse River in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ethylene glycol	81,818
1,4-Dioxane	67,117
Ammonia	26,236
Acetaldehyde	14,772
Acetone	11,340
Chloroform	6,480
Catechol	3,410
Methanol	2,295
Glycol ethers	1,096
Diethanolamine	799

‡ 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 Neuse River in North Carolina (1990-1994).**

Carcinogens	88,619 Pounds
Persistent Toxic Metals	1,000 Pounds
Reproductive Toxins	1,346 Pounds
<b>Total‡</b>	<b>90,465 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Neuse River in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Du Pont	Kinston	81,889
Weyerhaeuser Paper Co.	Vanceboro	6,480
Data General Corp.*	Clayton	250

**Top dischargers of persistent toxic metals to the Neuse River in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Data General Corp.*	Clayton	1,000

**Top dischargers of reproductive toxins\*\* to the Neuse River in North Carolina (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Du Pont	Kinston	846
Data General Corp.*	Clayton	250
U.S. Marine Corps	Cherry Point	250

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

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# North Second Creek in North Carolina

## Total toxic pollution reported (1990-1994): 196,300 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to North Second Creek in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Hoechst Celanese Corp.	Salisbury	196,300

**Table 2. Toxic chemicals discharged in the greatest amounts to North Second Creek in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
1,4-Dioxane	114,900
Ethylene glycol	54,200
Acetaldehyde	11,350
Methanol	10,650
Ammonia	2,700
Biphenyl	1,250
Antimony compounds	1,250

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

\* 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 North Second Creek in North Carolina (1990-1994).**

Carcinogens	126,250 Pounds
Persistent Toxic Metals	1,250 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>127,500 Pounds</b>

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

**Top dischargers of carcinogens\*\* to North Second Creek in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Hoechst Celanese Corp.	Salisbury	126,250

**Top dischargers of persistent toxic metals to North Second Creek in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Hoechst Celanese Corp.	Salisbury	1,250

**Top dischargers of reproductive toxins\*\* to North Second Creek in North Carolina (1990-1994).**

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

# The Pamlico River in North Carolina

Total toxic pollution reported (1990-1994): 190,450 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Pamlico River in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
PCS Phosphate Co. Inc.*	Aurora	190,450

**Table 2. Toxic chemicals discharged in the greatest amounts to the Pamlico River in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	190,450

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

\* 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 Pamlico River in North Carolina (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>0 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Pamlico River in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

**Top dischargers of persistent toxic metals to the Pamlico River in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)

**Top dischargers of reproductive toxins\*\* to the Pamlico River in North Carolina (1990-1994).**

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

# Buffalo Creek in North Carolina

Total toxic pollution reported (1990-1994): 98,435 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to Buffalo Creek in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Hoechst Celanese Corp.	Shelby	98,435

**Table 2. Toxic chemicals discharged in the greatest amounts to Buffalo Creek in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonium nitrate (solution)	85,000
Ethylene glycol	11,900
Methanol	515
Antimony	500
Antimony compounds	500

‡ 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 Buffalo Creek in North Carolina (1990-1994).**

Carcinogens	20 Pounds
Persistent Toxic Metals	1,000 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>1,020 Pounds</b>

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

**Top dischargers of carcinogens\*\* to Buffalo Creek in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

**Top dischargers of persistent toxic metals to Buffalo Creek in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Hoechst Celanese Corp.	Shelby	1,000

**Top dischargers of reproductive toxins\*\* to Buffalo Creek in North Carolina (1990-1994).**

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

# The Yadkin River in North Carolina

Total toxic pollution reported (1990-1994): 87,449 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to the Yadkin River in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
ABT Co. Inc.	Roaring River	41,150
CMI Ind. Inc.	Elkin	40,225
North Carolina Finishing Co.	Salisbury	6,057

**Table 2. Toxic chemicals discharged in the greatest amounts to the Yadkin River in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	71,450
Chromium compounds	7,300
Methanol	2,807
Glycol ethers	2,440
Phenol	1,750
Chlorine	1,000
Ammonium sulfate (solution)	505
Chromium	160

‡ 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 Yadkin River in North Carolina (1990-1994).**

Carcinogens	160 Pounds
Persistent Toxic Metals	7,468 Pounds
Reproductive Toxins	2,454 Pounds
<b>Total‡</b>	<b>9,922 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Yadkin River in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
CMI Ind. Inc.	Elkin	160

**Top dischargers of persistent toxic metals to the Yadkin River in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
CMI Ind. Inc.	Elkin	7,465

**Top dischargers of reproductive toxins\*\* to the Yadkin River in North Carolina (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
CMI Ind. Inc.	Elkin	2,440

# Livingston Creek in North Carolina

Total toxic pollution reported (1990-1994): 61,410 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to Livingston Creek in North Carolina (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Wright Chemical Corp.	Riegelwood	61,410

**Table 2. Toxic chemicals discharged in the greatest amounts to Livingston Creek in North Carolina (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	42,844
Formaldehyde	17,586
Methanol	970

‡ 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 Livingston Creek in North Carolina (1990-1994).**

Carcinogens	17,586 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>17,586 Pounds</b>

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

**Top dischargers of carcinogens\*\* to Livingston Creek in North Carolina (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Wright Chemical Corp.	Riegelwood	17,586

**Top dischargers of persistent toxic metals to Livingston Creek in North Carolina (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)

**Top dischargers of reproductive toxins\*\* to Livingston Creek in North Carolina (1990-1994).**

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