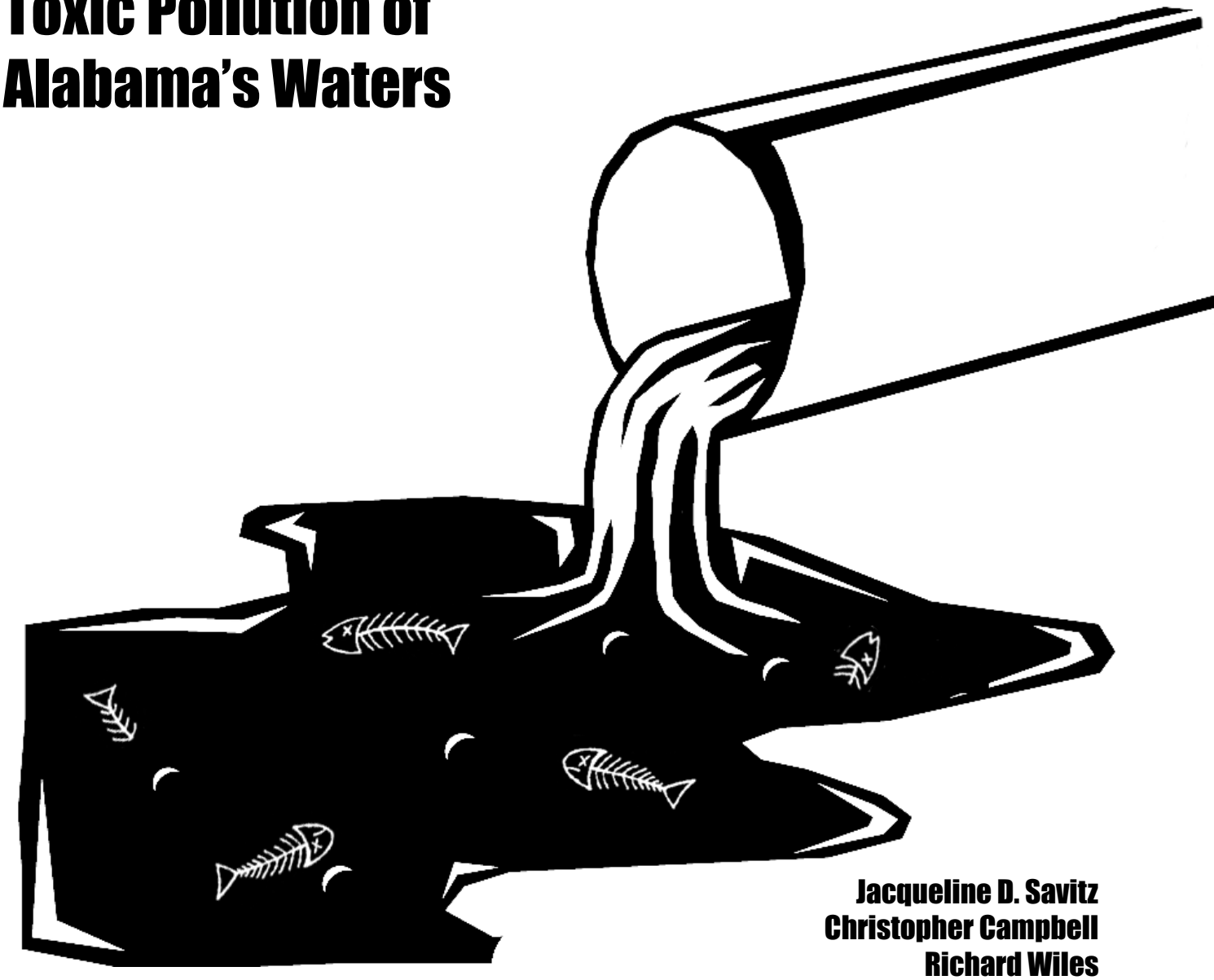
The State PIRGs

ENVIRONMENTAL WORKING GROUP™

Dishonorable Discharge

Toxic Pollution of Alabama's Waters



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Toxic Pollution of Alabama Waters

Executive Summary

Most Alabama 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 Alabama streams and rivers.

The citizens of Alabama 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 Alabama and nationwide.

Factories and other industrial facilities dumped more than 22.8 million pounds of toxic substances directly into Alabama's waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). Alabama ranked 6th 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 four (4.1) million pounds of toxic materials were flushed to sewage treatment plants in Alabama from 1990 through 1994, 33rd 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 Alabama raises the total amount of toxics dumped to the state's waters to an estimated 23.8 million pounds (Table 1).

The Tennessee River received the greatest amount of toxic water pollution in Alabama from 1990-1994, a total of 12,100,000 pounds, followed by the Mobile River, the Alabama River, and Black Creek (Table 2). The ten most polluted waterways in Alabama received 22,200,000 pounds of toxic pollution between 1990 and 1994, 97.4% percent of the total in the State.

The top three facilities reporting the most toxic pollution of Alabama's waters over this period were Monsanto Company in Decatur, which dumped 6,010,000 pounds of toxic chemicals, followed by Champion Intl. Corporation, and Scott Paper Company in the towns of Courtland, and Mobile, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were ammonia, a total of 11,200,000 pounds, followed by methanol, and ammonium nitrate solution (Table 4).

Scott Paper Company dumped the most carcinogens into Alabama's waters, a total of 178,000 pounds, followed by Ciba-Geigy and International Paper (Table 8). The Mobile River received the greatest amount of cancer-causing toxic chemicals in Alabama, a total of 190,000 pounds, followed by the Tombigbee River and the Alabama River (Table 7).

Amoco Chemical Company dumped the greatest amount of persistent toxic metals in Alabama's waters, a total of 729,000 pounds, followed by Gulf States Steel Inc. and Courtaulds Fibers Inc. (Table 8). The Tennessee River received the greatest amount of persistent toxic metals, a total of 759,000 pounds, followed by Black Creek and the Mobile River (Table 7).

Scott Paper Company dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into Alabama's waters, a total of 64,000 pounds, followed by Courtaulds Fibers Inc. and Gulf States Steel Inc. (Table 8). The Mobile River received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 126,000 pounds, followed by Black Creek and the Alabama River (Table 7).

These discharges to Alabama's waters include only those wastes released by companies physically located in Alabama. 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 Alabama, more than 61,000 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 Alabama'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 Alabama. 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 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

Alabama

Toxic pollution of Alabama waters (1990-1994)

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

Direct Water Discharges	22,795,496 Pounds
Estimated Sewer Discharges‡	1,028,459 Pounds
Total Discharges to Waters	**23,823,955 Pounds**

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Tennessee River	12,078,136
Mobile River	4,572,055
Alabama River	1,613,809
Black Creek	1,134,962
Coosa River	993,027
Tombigbee River	803,331
Escambia River	357,620
Black Warrior River	255,639
Chickasaw Creek	197,959
Pond Creek	192,036

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

Facility	City	Toxic chemical release to waters (pounds)
Monsanto Co.	Decatur	6,012,620
Champion Intl. Corp.	Courtland	3,887,851
Scott Paper Co.	Mobile	3,262,340
Laroche Ind. Inc.	Cherokee	1,342,300
Gulf States Steel Inc.	Gadsden	1,134,962
U.S. Pulp & Newsprint	Coosa Pines	988,392
International Paper	Selma	858,047
International Paper	Mobile	830,165
Amoco Chemical Co.	Decatur	745,480
Boise Cascade Corp.	Jackson	475,181

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

Chemical	Toxic chemical release to waters (pounds)
Ammonia	11,232,873
Methanol	6,937,235
Ammonium nitrate (solution)	1,630,560
Zinc compounds	641,493
Manganese compounds	520,533
Chloroform	353,113
Cobalt compounds	319,020
Acetone	233,038
Phenol	114,447
Catechol	96,030

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

Facility	City	Toxic chemical release to sewers (pounds)
Vanity Fair Mills	Monroeville	979,168
Russell Corp.	Alexander City	463,926
Tee Jays Mfg. Co. InC.	Florence	352,297
Borden Packaging & Indl.	Demopolis	248,552
Pemco Aeroplex Inc.	Birmingham	165,768
Merichem Co.	Tuscaloosa	151,858
Gold Kist	Boaz	147,387
Coyne Cylinder Co.	Huntsville	137,800
Dorsey Trailers Inc.	Elba	110,550
GMC Saginaw Div.	Athens	107,151

‡ Total discharges of toxic chemicals to sewer systems in Alabama was 4,113,838 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

Alabama

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

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

Carcinogens	530,381 Pounds
Persistent Toxic Metals	1,675,575 Pounds
Reproductive Toxins	180,996 Pounds
Total (see note)	**2,305,903 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. Alabama waters receiving the greatest amounts of carcinogens, persistent toxic metals, and reproductive toxins** (1990-1994).**

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

River or Water Body	Carcinogens** released to waters (lbs.)
Mobile River	190,254
Tombigbee River	134,422
Alabama River	59,747
Black Creek	41,606
Tennessee River	41,488

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Tennessee River	759,435
Black Creek	343,323
Mobile River	181,410
Alabama River	157,022
Opossum Creek	78,433

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Mobile River	126,098
Black Creek	26,232
Alabama River	8,144
Shirtee Creek	4,250
Chattahoochee River	3,859

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

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

Facility	City	Carcinogens** released to waters (lbs.)
Scott Paper Co.	Mobile	178,000
Ciba-Geigy	Mc Intosh	47,725
International Paper	Selma	45,000
Gulf States Steel Inc.	Gadsden	41,606
James River Corp.	Pennington	36,291

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

Facility	City	Persistent toxic metals released to waters (lbs.)
Amoco Chemical Co.	Decatur	729,000
Gulf States Steel Inc.	Gadsden	343,323
Courtaulds Fibers Inc.	Axis	178,750
Macmillan Bloedel Packaging	Pine Hill	94,000
USS Fairfield Works	Fairfield	78,433

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

Facility	City	Reproductive toxins** released to waters (lbs.)
Scott Paper Co.	Mobile	64,000
Courtaulds Fibers Inc.	Axis	59,700
Gulf States Steel Inc.	Gadsden	26,232
Union Camp Corp.	Prattville	8,002
Avondale Mills Inc.	Sylacauga	4,250

* 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 Alabama

Total toxic pollution reported (1990-1994): 12,078,136 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Monsanto Co.	Decatur	6,012,620
Champion Intl. Corp.	Courtland	3,887,851
Laroche Ind. Inc.	Cherokee	1,342,300
Amoco Chemical Co.	Decatur	745,480
Mead Containerboard	Stevenson	60,240
Norandal USA Inc.	Scottsboro	17,871
GMC Saginaw Div.	Athens	7,930
Imc Global Ops. Inc.	Florence	3,260
Wolverine Tube Inc.	Decatur	530

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	6,468,630
Methanol	3,697,000
Ammonium nitrate (solution)	1,049,550
Manganese compounds	415,463
Cobalt compounds	319,000
Acrylonitrile	19,000
Chlorine	17,836
Antimony compounds	17,502
Acetone	16,200
Chloroform	15,300

‡ 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 Alabama (1990-1994).**

Carcinogens	41,488 Pounds
Persistent Toxic Metals	759,435 Pounds
Reproductive Toxins	2,769 Pounds
Total‡	**796,929 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Monsanto Co.	Decatur	22,218
Champion Intl. Corp.	Courtland	17,900
GMC Saginaw Div.	Athens	1,065
Mead Containerboard	Stevenson	290

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

Facility	City	Persistent toxic metals released to water (lbs)
Amoco Chemical Co.	Decatur	729,000
Monsanto Co.	Decatur	20,450
GMC Saginaw Div.	Athens	7,896
Imc Global Ops. Inc.	Florence	1,510
Wolverine Tube Inc.	Decatur	505

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

Facility	City	Reproductive toxins** released to water (lbs)
Monsanto Co.	Decatur	1,786
GMC Saginaw Div.	Athens	978

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

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Dishonorable Discharge

The Mobile River in Alabama

Total toxic pollution reported (1990-1994): 4,572,055 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Scott Paper Co.	Mobile	3,262,340
International Paper	Mobile	830,165
Courtaulds Fibers Inc.	Axis	242,725
Du Pont Agriculture Prods.	Axis	139,798
Hoechst Celanese Corp.	Bucks	70,818
Elf Atochem N.a. Inc.	Axis	13,670
ICI Americas Inc.	Bucks	9,371
Akzo Nobel Chemicals Inc.	Axis	2,328
Atlantic Marine Inc.	Mobile	510
Alabama Shipyard Inc.	Mobile	

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	2,949,573
Methanol	696,229
Ammonium nitrate (solution)	339,860
Chloroform	179,750
Zinc compounds	179,000
Glycol ethers	64,250
Carbon disulfide	60,167
Acetone	50,400
Catechol	21,970
Acetaldehyde	7,000

‡ 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 Mobile River in Alabama (1990-1994).**

Carcinogens	190,254 Pounds
Persistent Toxic Metals	181,410 Pounds
Reproductive Toxins	126,098 Pounds
Total‡	**494,502 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Scott Paper Co.	Mobile	178,000
International Paper	Mobile	8,755
Akzo Nobel Chemicals Inc.	Axis	1,850
Hoechst Celanese Corp.	Bucks	1,600

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

Facility	City	Persistent toxic metals released to water (lbs)
Courtaulds Fibers Inc.	Axis	178,750
Hoechst Celanese Corp.	Bucks	1,639
Atlantic Marine Inc.	Mobile	510
Du Pont Agriculture Prods.	Axis	250
Alabama Shipyard Inc.	Mobile	250

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

Facility	City	Reproductive toxins** released to water (lbs)
Scott Paper Co.	Mobile	64,000
Courtaulds Fibers Inc.	Axis	59,700
Hoechst Celanese Corp.	Bucks	1,600
Akzo Nobel Chemicals Inc.	Axis	478
International Paper	Mobile	250

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

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Dishonorable Discharge

The Alabama River in Alabama

Total toxic pollution reported (1990-1994): 1,613,809 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
International Paper	Selma	858,047
Macmillan Bloedel Packaging	Pine Hill	386,620
Alabama River Pulp Co. Inc.	Claiborne	258,100
Union Camp Corp.	Prattville	105,160
General Electric Co.	Burkville	3,227
Koppers Ind. Inc.	Montgomery	1,905
Kinpak Inc.*	Montgomery	500
Vigoro Ind. Inc.*	Montgomery	250

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

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	1,044,250
Ammonia	253,202
Zinc compounds	155,700
Acetone	54,950
Chloroform	52,150
Catechol	21,073
Glycol ethers	8,000
Acetaldehyde	5,700
Phenol	4,744
Methyl ethyl ketone	4,637

‡ 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 Alabama River in Alabama (1990-1994).**

Carcinogens	59,747 Pounds
Persistent Toxic Metals	157,022 Pounds
Reproductive Toxins	8,144 Pounds
Total‡	**223,949 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
International Paper	Selma	45,000
Alabama River Pulp Co. Inc.	Claiborne	10,950
Koppers Ind. Inc.	Montgomery	1,612
Macmillan Bloedel Packaging	Pine Hill	1,107
Union Camp Corp.	Prattville	800

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

Facility	City	Persistent toxic metals released to water (lbs)
Macmillan Bloedel Packaging	Pine Hill	94,000
International Paper	Selma	53,000
Union Camp Corp.	Prattville	8,700
Koppers Ind. Inc.	Montgomery	1,072
Vigoro Ind. Inc.*	Montgomery	250

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

Facility	City	Reproductive toxins** released to water (lbs)
Union Camp Corp.	Prattville	8,002
Koppers Ind. Inc.	Montgomery	142

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Dishonorable Discharge

Black Creek in Alabama

Total toxic pollution reported (1990-1994): 1,134,962 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Gulf States Steel Inc.	Gadsden	1,134,962

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	685,452
Zinc compounds	158,523
Phenol	60,593
Manganese compounds	50,500
Barium compounds	36,651
Cyanide compounds	29,706
Manganese	27,724
Copper	16,090
Nickel	12,980
Chromium compounds	12,758

‡ 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 Black Creek in Alabama (1990-1994).**

Carcinogens	41,606 Pounds
Persistent Toxic Metals	343,323 Pounds
Reproductive Toxins	26,232 Pounds
Total‡	**356,575 Pounds**

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

Top dischargers of carcinogens to Black Creek in Alabama (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Gulf States Steel Inc.	Gadsden	41,606

Top dischargers of persistent toxic metals to Black Creek in Alabama (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Gulf States Steel Inc.	Gadsden	343,323

Top dischargers of reproductive toxins to Black Creek in Alabama (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Gulf States Steel Inc.	Gadsden	26,232

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

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Dishonorable Discharge

The Coosa River in Alabama

Total toxic pollution reported (1990-1994): 993,027 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
U.S. Pulp & Newsprint	Coosa Pines	988,392
Goodyear Tire & Rubber Co.	Gadsden	3,615
Emco Inc.	Gadsden	1,020

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

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	922,729
Catechol	24,846
Acetone	17,671
Chloroform	11,005
Methyl ethyl ketone	5,466
Zinc compounds	3,340
Ammonia	3,243
Acetaldehyde	1,709
Phenol	1,693
Nickel	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 the Coosa River in Alabama (1990-1994).**

Carcinogens	13,474 Pounds
Persistent Toxic Metals	4,130 Pounds
Reproductive Toxins	1,000 Pounds
Total‡	**17,344 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
U.S. Pulp & Newsprint	Coosa Pines	12,714
Emco Inc.	Gadsden	760

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

Facility	City	Persistent toxic metals released to water (lbs)
Goodyear Tire & Rubber Co.	Gadsden	3,360
Emco Inc.	Gadsden	770

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

Facility	City	Reproductive toxins** released to water (lbs)
Emco Inc.	Gadsden	750
Goodyear Tire & Rubber Co.	Gadsden	250

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

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Dishonorable Discharge

The Tombigbee River in Alabama

Total toxic pollution reported (1990-1994): 803,331 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Boise Cascade Corp.	Jackson	449,411
Ciba-Geigy	Mc Intosh	158,841
James River Corp.	Pennington	134,635
Gulf States Paper Corp.	Demopolis	60,345

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

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	385,770
Ammonia	131,837
Chloroform	83,868
Acetone	62,423
Zinc compounds	40,987
Nitrilotriacetic acid	24,910
Epichlorohydrin	20,750
Methyl isobutyl ketone	18,704
Catechol	8,150
Methyl ethyl ketone	5,677

‡ 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 Tombigbee River in Alabama (1990-1994).**

Carcinogens	134,422 Pounds
Persistent Toxic Metals	42,087 Pounds
Reproductive Toxins	1,045 Pounds
Total‡	**177,554 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Ciba-Geigy	Mc Intosh	47,725
James River Corp.	Pennington	36,291
Gulf States Paper Corp.	Demopolis	35,950
Boise Cascade Corp.	Jackson	14,456

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

Facility	City	Persistent toxic metals released to water (lbs)
Boise Cascade Corp.	Jackson	36,800
James River Corp.	Pennington	5,287

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

Facility	City	Reproductive toxins** released to water (lbs)
Ciba-Geigy	Mc Intosh	1,045

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

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Dishonorable Discharge

The Escambia River in Alabama

Total toxic pollution reported (1990-1994): 357,620 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Container Corp. Of America	Brewton	357,620

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

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	180,005
Ammonia	125,500
Acetone	30,400
Chloroform	10,790
Catechol	5,480
Methyl ethyl ketone	2,560
Acetaldehyde	1,800
Phenol	1,025

‡ 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 Escambia River in Alabama (1990-1994).**

Carcinogens	12,640 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
Total‡	**12,640 Pounds**

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

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

Facility	City	Carcinogens** released to water (lbs)
Container Corp. Of America	Brewton	12,640

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

Facility	City	Persistent toxic metals released to water (lbs)

Top dischargers of reproductive toxins to the Escambia River in Alabama (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 Black Warrior River in Alabama

Total toxic pollution reported (1990-1994): 255,639 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Hunt Refining Co. A Corp.	Tuscaloosa	154,548
Empire Coke Co.	Tuscaloosa	90,921
Lawter Intl.inc.	Moundville	8,105
Uniroyal Goodrich Tire Co.	Tuscaloosa	1,947
Merichem Co.	Tuscaloosa	118

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	245,459
Formaldehyde	5,800
1,1,1-Trichloroethane	2,270
Chlorine	1,173
Zinc compounds	774

‡ 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 Black Warrior River in Alabama (1990-1994).**

Carcinogens	5,805 Pounds
Persistent Toxic Metals	774 Pounds
Reproductive Toxins	6 Pounds
Total‡	**6,580 Pounds**

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

Top dischargers of carcinogens to the Black Warrior River in Alabama (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Lawter Intl.inc.	Moundville	5,800

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

Facility	City	Persistent toxic metals released to water (lbs)
Uniroyal Goodrich Tire Co.	Tuscaloosa	774

Top dischargers of reproductive toxins to the Black Warrior River in Alabama (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

Chickasaw Creek in Alabama

Total toxic pollution reported (1990-1994): 197,959 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
UOP	Chickasaw	197,550
Coastal Mobile Refining Co.	Chickasaw	165
Gulf Coast Galvanizing Inc.	Citronelle	154

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonium nitrate (solution)	165,000
Diethanolamine	20,000
Ammonia	6,500
Barium compounds	3,300
Molybdenum trioxide	1,750
Nickel compounds	1,000
Zinc compounds	154

‡ 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 Chickasaw Creek in Alabama (1990-1994).**

Carcinogens	1,045 Pounds
Persistent Toxic Metals	4,454 Pounds
Reproductive Toxins	155 Pounds
Total‡	**4,609 Pounds**

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

Top dischargers of carcinogens to Chickasaw Creek in Alabama (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
UOP	Chickasaw	1,000

Top dischargers of persistent toxic metals to Chickasaw Creek in Alabama (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
UOP	Chickasaw	4,300
Gulf Coast Galvanizing Inc.	Citronelle	154

Top dischargers of reproductive toxins to Chickasaw Creek in Alabama (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

Pond Creek in Alabama

Total toxic pollution reported (1990-1994): 192,036 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
U.S. TVA Environmental*	Muscle Shoals	183,900
Occidental Chemical Corp.	Muscle Shoals	8,076

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	108,000
Ammonium nitrate (solution)	75,900
Chlorine	4,124
Hydrazine	1,945
Hydrochloric acid	1,795
Mercury	185

‡ 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 Pond Creek in Alabama (1990-1994).**

Carcinogens	1,945 Pounds
Persistent Toxic Metals	245 Pounds
Reproductive Toxins	185 Pounds
Total‡	**2,190 Pounds**

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

Top dischargers of carcinogens to Pond Creek in Alabama (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Occidental Chemical Corp.	Muscle Shoals	1,945

Top dischargers of persistent toxic metals to Pond Creek in Alabama (1990-1994).

Facility	City	Persistent toxic metals released to water (lbs)
Occidental Chemical Corp.	Muscle Shoals	185

Top dischargers of reproductive toxins to Pond Creek in Alabama (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Occidental Chemical Corp.	Muscle Shoals	185

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

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