

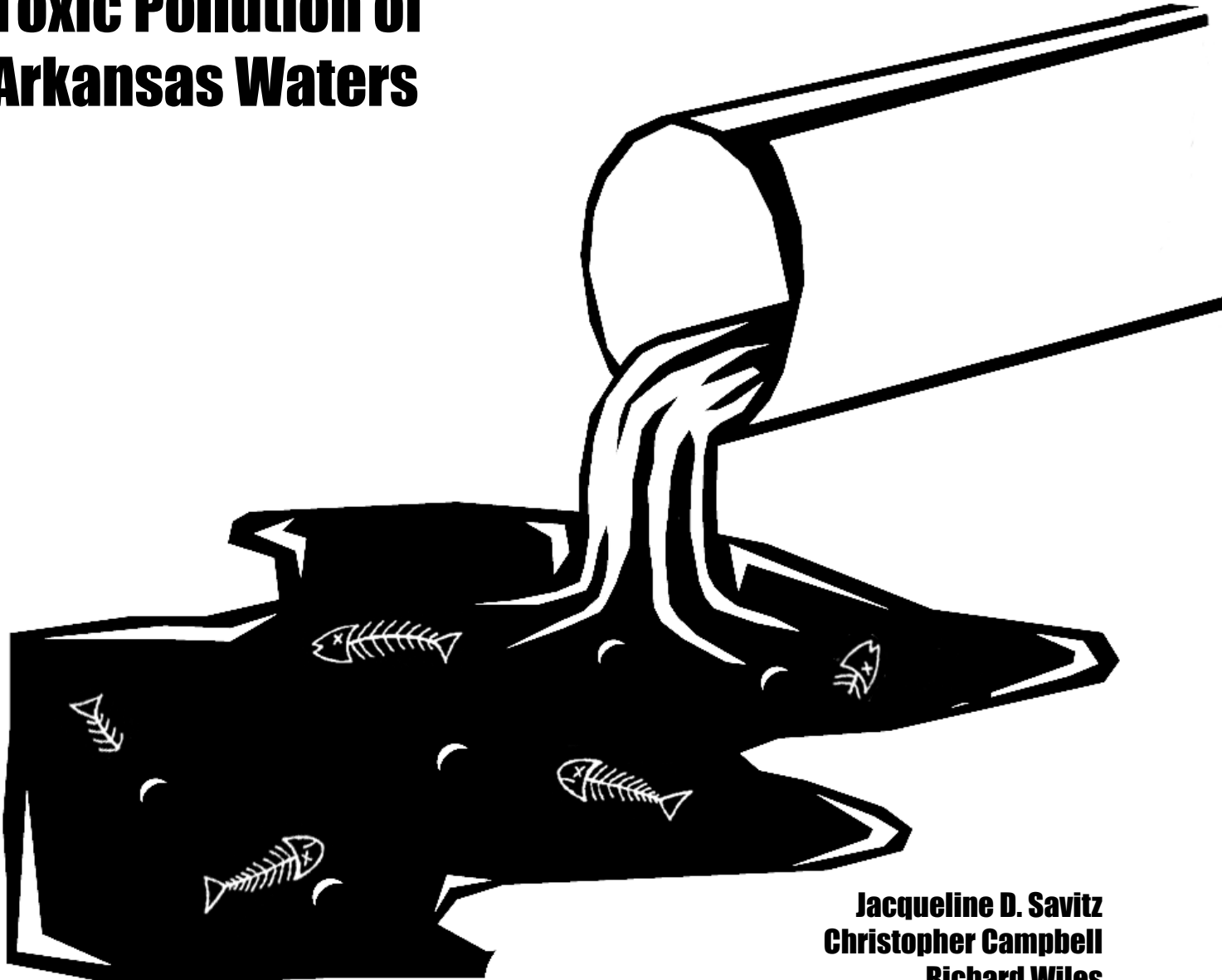


The State PIRGs



# **Dishonorable Discharge**

## **Toxic Pollution of Arkansas Waters**



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# Toxic Pollution of Arkansas Waters

### Executive Summary

Most Arkansas 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 Arkansas streams and rivers.

The citizens of Arkansas 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 Arkansas and nationwide.

Factories and other industrial facilities dumped more than 9 million pounds of toxic substances directly into Arkansas waters between 1990 and 1994, according to a new analysis of the federal Toxics Release Inventory (TRI) (Table 1). Arkansas ranked 15th 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 (4.2) million pounds of toxic materials were flushed to sewage treatment plants in Arkansas from 1990 through 1994, 32nd 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 Arkansas raises the total amount of toxics dumped to the state's waters to an estimated 10.1 million pounds (Table 1).

The Ouachita River received the greatest amount of toxic water pollution in Arkansas from 1990-1994, a total of 4,040,000 pounds, followed by the Mississippi River, the Arkansas River, and Haynes Creek (Table 2). The ten most polluted waterways in Arkansas received 8,850,000 pounds of toxic pollution between 1990 and 1994, 97.9% percent of the total in the State.

The top three facilities reporting the most toxic pollution of Arkansas waters over this period were U.S. Vanadium Corporation in Hot Springs, which dumped 3,710,000 pounds

of toxic chemicals, followed by Viskase Corporation, and Terra Nitrogen Company L.P. in the towns of Osceola, and Blytheville, respectively (Table 3). The toxic chemicals dumped in the greatest amounts were ammonia, a total of 6,140,000 pounds, followed by ammonium sulfate solution, and methanol (Table 4).

Georgia-Pacific Corporation dumped the most carcinogens into Arkansas waters, a total of 22,200 pounds, followed by International Paper and Georgia-Pacific Corporation (Table 8). The Red River received the greatest amount of cancer-causing toxic chemicals in Arkansas, a total of 22,000 pounds, followed by the Ouachita River and the Arkansas River (Table 7).

Georgia-Pacific Corporation dumped the greatest amount of persistent toxic metals in Arkansas waters, a total of 179,000 pounds, followed by International Paper and Green Bay Packaging (Table 8). The Red River received the greatest amount of persistent toxic metals, a total of 179,000 pounds, followed by the Arkansas River and the Mississippi River (Table 7).

Monroe Auto Equipment Company\* dumped the greatest amount of toxic chemicals that cause reproductive damage or birth defects into Arkansas waters, a total of 13,000 pounds, followed by Atlantic Research Corporation and Viskase Corporation (Table 8). The Eight Mile Creek received the greatest amount of toxic chemicals that cause reproductive damage or birth defects, a total of 13,000 pounds, followed by the Dogwood Creek and Two Bayou Creek (Table 7).

These discharges to Arkansas waters include only those wastes released by companies physically located in Arkansas. 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.

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\*This facility reported no discharges in 1994, and may also have reported zero discharges for other years.

# Dishonorable Discharge

Toxic pollution of rivers, lakes, streams, and bays is a serious problem in all 50 states. Twenty five years after the passage of the Clean Water Act, nearly forty (40) percent of America's rivers, lakes, and coastal waters remain unsafe for fishing, swimming or basic recreation (EPA 1996b). In Arkansas, over 50,000 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 Arkansas 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 Arkansas. 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<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	Chlorothalonil	Nickel compounds
2-Aminoanthraquinone	Chromium	Nitrotriacetic acid
2-Methylaziridine (Propyleneimine)	Cupferron	Nitrofen
2-Naphthylamine	D&C Red No. 19	Nitrogen mustard (Mechlorethamine)
2-Nitropropane	DDVP (Dichlorvos)	ortho-Anisidine
3,3'-Dichlorobenzidine	Di -(2-ethylhexyl)phthalate	ortho-Anisidine hydrochloride
3,3'-Dimethoxybenzidine (ortho-Dianisidine)	Dichloromethane (Methylene chloride)	ortho-Toluidine
3,3'-Dimethylbenzidine	Diepoxybutane	ortho-Toluidine hydrochloride
4,4'-Diaminodiphenyl ether (4,4'-Oxydianiline)	Diethyl sulfate	p-Aminoazobenzene
4,4'-Methylene bis(2-chloroaniline)	Dimethyl sulfate	p-Cresidine
4,4'-Methylene bis(N,N-dimethyl) benzenamine	Dimethylcarbamoyl chloride	p-Dichlorobenzene
4,4'-Methylenedianiline	Direct Black 38	p-Nitrosodiphenylamine
4,4'-Thiodianiline	Direct Blue 6	Pentachlorophenol
4-Aminobiphenyl (4-aminodiphenyl)	Direct Brown 95	Polybrominated biphenyls
4-Dimethylaminoazobenzene	Epichlorohydrin	Polychlorinated biphenyls
4-Nitrobiphenyl	Ethyl acrylate	Propylene oxide
5-Nitro-o-anisidine	Ethylene dibromide	Saccharin
Acetaldehyde	Ethylene dichloride (1,2-Dichloroethane)	Safrrole
Acetamide	Ethylene oxide	Styrene
Acrylamide	Ethylene thiourea (EBDC trans prod.)	Styrene oxide
Acrylonitrile	Ethyleneimine	Tetrachloroethylene (Perchloroethylene)
Allyl chloride	Formaldehyde	Thioacetamide
Aniline	Hexachlorobenzene	Thiourea
Arsenic	Hexachloroethane	Toluene-2,4-diisocyanate
Arsenic compounds	Hexamethylphosphoramide	Toluene-2,6-diisocyanate
Asbestos	Hydrazine	Toxaphene (Polychlorinated camphenes)
Auramine	Hydrazine sulfate	Trichloroethylene
Benzene	Hydrazobenzene (1,2-Diphenylhydrazine)	Tris(2,3-dibromopropyl)phosphate
Benzidine [and its salts]	Isosafrole	Urethane (Ethyl carbamate)
Benzotrichloride	Lead	Vinyl bromide
Benzyl chloride	Lead compounds	Vinyl chloride
Beryllium and beryllium compounds	Lindane	Vinyl trichloride (1,1,2-Trichloroethane)
Beryllium compounds	Methyl iodide	

## Persistent Toxic Metals

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

## Chemicals that Affect Reproduction

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

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

# References

Aspelin, A.L. 1994. Pesticides Industry Sales and Usage: 1992 and 1993 Market Estimates. EPA, Washington, DC.

California Code of Regulations, Title 22. Chapter 3. Safe Drinking Water and Toxic Enforcement Act of 1986. Social Security, S 12000, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity.

Dixon, R. L. 1986. Toxic Responses of the Reproductive System. In: Casarett and Doull's Toxicology: The Basic Science of Poisons, Third Edition. C.D. Klaassen, M.O. Amdur, and J. Doull, Eds. Macmillan Publishing Company, New York. pp. 432-477.

Environmental Protection Agency. 1995. National Sediment Contaminant Point Source Inventory: Analysis of Release Data for 1992. Final Draft, March 22, 1995.

Environmental Protection Agency. 1995b. National Water Quality Inventory: 1994 Report to Congress. EPA841-R-95-005. 497pp.

Environmental Protection Agency. 1996. 1994 Toxics Release Inventory, Public Data Release. Office of Pollution Prevention and Toxics. EPA 745-R-96-002.

Environmental Protection Agency. 1996b. Liquid Assets: A Summertime Perspective on the Importance of Clean Water to the Nation's Economy. 800-R-96-002.

Federal Register Notice, (June 27, 1996) 40 CFR Part 372. Addition of Facilities in Certain Industry Sectors; Toxic Chemical Release Reporting; Community Right-to-Know; Proposed Rule. pp.33588-33618.

New Jersey Department of Health. Right to Know Program. Hazardous Substances Fact Sheets.

Office of Technology Assessment, 1989. Statement before the Subcommittee on Superfund, Ocean and Water Protection, Committee on Environment and Public Works, United States Senate, May 10, 1989. (As cited in Federal Register Notice, (June 27, 1996) 40 CFR Part 372. Addition of Facilities in Certain Industry Sectors; Toxic Chemical Release Reporting; Community Right-to-Know; Proposed Rule. pp.33588-33618.)

United States Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, Bureau of the Census. 1993. 1991 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. U.S. Government Printing Office, Washington, DC.

United States Government Accounting Office. 1991. EPA's Toxics Release Inventory is Useful but Can Be Improved. GAO/RCED-91-121. 89pp.

United States Government Accounting Office. 1994. Poor quality assurance and limited pollutant coverage undermine EPA's Control of Toxic Substances. GAO/PEMD-94-9. 87pp.

# Arkansas

## Toxic pollution of Arkansas waters (1990-1994)

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

Direct Water Discharges	9,036,970 Pounds
Estimated Sewer Discharges‡	1,046,353 Pounds
<b>Total Discharges to Waters</b>	<b>10,083,323 Pounds</b>

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

River or Water Body	Toxic chemical release to waterbody (pounds)
Ouachita River	4,041,624
Mississippi River	2,956,994
Arkansas River	762,410
Haynes Creek	461,280
Red River	298,375
Caney Creek	129,958
Ditch # 9 Crittenden County Drainage District	79,269
West Two Bayou	46,985
Loutre Creek	35,353
Big Creek	35,261

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

Facility	City	Toxic chemical release to waters (pounds)
U.S. Vanadium Corp.	Hot Springs	3,709,500
Viskase Corp.	Osceola	1,364,900
Terra Nitrogen Co. L.P.	Blytheville	1,201,256
El Dorado Chemical Co.	El Dorado	461,280
International Paper	Pine Bluff	357,210
Georgia-Pacific Corp.	Crossett	324,048
Georgia-Pacific Corp.	Ashdown	298,375
Gaylord Container Corp.	Pine Bluff	217,450
Nitrogen Prods. Inc.*	Helena	213,768
Green Bay Packaging	Morrilton	171,939

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

Chemical	Toxic chemical release to waters (pounds)
Ammonia	6,141,947
Ammonium sulfate (solution)	1,358,250
Methanol	364,751
Ammonium nitrate (solution)	349,260
Zinc compounds	259,104
Ethylene glycol	131,666
Acetone	116,899
Cyclohexane	48,083
Chloroform	31,703
Chlorine	31,665

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

Facility	City	Toxic chemical release to sewers (pounds)
Gerber Prods. Co.	Fort Smith	2,140,878
Pilgrim's Pride Corp.	De Queen	878,100
Darling Intl. Inc.	Russellville	234,079
Smoky Hollow Foods	Little Rock	212,160
Conagra Poultry	El Dorado	165,981
Ok Foods Inc.	Fort Smith	72,000
Rogers Tool Works Inc.	Rogers	48,912
Delta Consolidated Ind. Inc.	Jonesboro	44,981
ITT Automotive Searcy Plant	Searcy	44,800
Cargill Inc.	Ozark	33,364

‡ Total discharges of toxic chemicals to sewer systems in Arkansas was 4,185,414 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.

# Arkansas

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

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

Carcinogens	83,722 Pounds
Persistent Toxic Metals	303,564 Pounds
Reproductive Toxins	25,340 Pounds
<b>Total (see note)</b>	<b>399,448 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. Arkansas waters receiving the greatest amounts of carcinogens\*\*, persistent toxic metals, and reproductive toxins\*\* (1990-1994).**

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

River or Water Body	Carcinogens** released to waters (lbs.)
Red River	22,225
Ouachita River	17,925
Arkansas River	16,598
Big Creek	9,500
Mississippi River	3,021

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

River or Water Body	Persistent toxic metals released to waters (lbs.)
Red River	179,000
Arkansas River	50,232
Mississippi River	25,140
Ouachita River	18,830
Bayou Meto	5,240

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

River or Water Body	Reproductive toxins** released to waters (lbs.)
Eight Mile Creek	12,605
Dogwood Creek	4,595
Two Bayou Creek	3,199
Mississippi River	1,851
Ouachita River	1,010

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

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

Facility	City	Carcinogens** released to waters (lbs.)
Georgia-Pacific Corp.	Ashdown	22,225
International Paper	Pine Bluff	15,200
Georgia-Pacific Corp.	Crossett	13,925
Spurlock Adhesives Inc.	Malvern	9,500
Atlantic Research Corp.	East Camden	3,302

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

Facility	City	Persistent toxic metals released to waters (lbs.)
Georgia-Pacific Corp.	Ashdown	179,000
International Paper	Pine Bluff	22,000
Green Bay Packaging	Morrilton	21,953
Potlatch Corp.	Mc Gehee	19,730
Georgia-Pacific Corp.	Crossett	14,570

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

Facility	City	Reproductive toxins** released to waters (lbs.)
Monroe Auto Equipment Co.*	Paragould	12,855
Atlantic Research Corp.	East Camden	7,794
Viskase Corp.	Osceola	1,800
Georgia-Pacific Corp.	Crossett	1,010
Sterling Plumbing Group*	Sheridan	500

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

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

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

The Environmental Working Group is a non-profit environmental research organization based in Washington, D.C.  
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# The Ouachita River in Arkansas

Total toxic pollution reported (1990-1994): 4,041,624 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
U.S. Vanadium Corp.	Hot Springs	3,709,500
Georgia-Pacific Corp.	Crossett	324,048
International Paper	Camden	7,301
Celotex Corp.	Camden	760

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	3,710,752
Methanol	253,084
Acetone	26,719
Chloroform	11,215
Zinc (fume or dust)	8,770
Catechol	7,334
Phenol	6,055
Zinc compounds	5,805
Acetaldehyde	3,460
Nickel compounds	3,250

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

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

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

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

Carcinogens	17,925 Pounds
Persistent Toxic Metals	18,830 Pounds
Reproductive Toxins	1,010 Pounds
<b>Total‡</b>	<b>34,515 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Ouachita River in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Georgia-Pacific Corp.	Crossett	13,925
U.S. Vanadium Corp.	Hot Springs	3,250
International Paper	Camden	750

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

Facility	City	Persistent toxic metals released to water (lbs)
Georgia-Pacific Corp.	Crossett	14,570
U.S. Vanadium Corp.	Hot Springs	3,500
Celotex Corp.	Camden	760

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

Facility	City	Reproductive toxins** released to water (lbs)
Georgia-Pacific Corp.	Crossett	1,010

# The Mississippi River in Arkansas

Total toxic pollution reported (1990-1994): 2,956,994 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Viskase Corp.	Osceola	1,364,900
Terra Nitrogen Co. L.P.	Blytheville	1,199,155
Nitrogen Prods. Inc.*	Helena	213,768
CPS Chemical Co. Of Arkansas	West Memphis	110,522
Potlatch Corp.	Mc Gehee	60,230
Cedar Chemical Corp.	West Helena	6,114
Fruit Of The Loom	Osceola	2,021
Cypress Chemical Co.	Helena	250

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	1,433,758
Ammonium sulfate (solution)	1,358,250
Cyclohexane	48,083
Methanol	42,770
Zinc compounds	20,492
Allyl alcohol	19,150
Acetone	15,550
Methyl methacrylate	3,005
Copper compounds	2,271
Manganese compounds	2,100

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

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

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

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

Carcinogens	3,021 Pounds
Persistent Toxic Metals	25,140 Pounds
Reproductive Toxins	1,851 Pounds
<b>Total‡</b>	<b>29,980 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Mississippi River in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Potlatch Corp.	Mc Gehee	1,604
CPS Chemical Co. Of	West Memphis	1,349

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

Facility	City	Persistent toxic metals released to water (lbs)
Potlatch Corp.	Mc Gehee	19,730
Terra Nitrogen Co. L.P.	Blytheville	3,360
Fruit Of The Loom	Osceola	2,021

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

Facility	City	Reproductive toxins** released to water (lbs)
Viskase Corp.	Osceola	1,800

# The Arkansas River in Arkansas

Total toxic pollution reported (1990-1994): 762,410 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
International Paper	Pine Bluff	357,210
Gaylord Container Corp.	Pine Bluff	217,450
Green Bay Packaging	Morrilton	171,939
Ok Foods Inc.	Fort Smith	4,621
Tyson Foods Inc.*	Dardanelle	3,696
Bekaert Corp.	Van Buren	1,913
Hoover Treated Wood Prods.	Pine Bluff	1,500
Wheatland Tube Co.*	Little Rock	1,356
Century Tube Corp.	Pine Bluff	1,260
U.S. Army Pine Bluff Arsenal	Pine Bluff	

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

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	618,572
Acetone	61,541
Zinc compounds	46,198
Chloroform	14,100
Catechol	11,272
Methyl ethyl ketone	2,600
Zinc (fume or dust)	1,856
Acetaldehyde	1,320
Chlorine	1,145
Phenol	853

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

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

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

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

Carcinogens	16,598 Pounds
Persistent Toxic Metals	50,232 Pounds
Reproductive Toxins	260 Pounds
<b>Total‡</b>	<b>66,167 Pounds</b>

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

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

Facility	City	Carcinogens** released to water (lbs)
International Paper	Pine Bluff	15,200
Hoover Treated Wood Prods.	Pine Bluff	500
Bekaert Corp.	Van Buren	423
U.S. Army Pine Bluff Arsenal	Pine Bluff	255
Green Bay Packaging	Morrilton	220

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

Facility	City	Persistent toxic metals released to water (lbs)
International Paper	Pine Bluff	22,000
Green Bay Packaging	Morrilton	21,953
Bekaert Corp.	Van Buren	1,913
Hoover Treated Wood Prods.	Pine Bluff	1,500
Wheatland Tube Co.*	Little Rock	1,356

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

Facility	City	Reproductive toxins** released to water (lbs)
Century Tube Corp.	Pine Bluff	255

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

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# Haynes Creek in Arkansas

Total toxic pollution reported (1990-1994): 461,280 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
El Dorado Chemical Co.	El Dorado	461,280

**Table 2. Toxic chemicals discharged in the greatest amounts to Haynes Creek in Arkansas (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonium nitrate (solution)	347,780
Ammonia	113,250
Ethylene glycol	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 Haynes Creek in Arkansas (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 Haynes Creek in Arkansas (1990-1994).**

**Top dischargers of carcinogens\*\* to Haynes Creek in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

**Top dischargers of persistent toxic metals to Haynes Creek in Arkansas (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)

**Top dischargers of reproductive toxins\*\* to Haynes Creek in Arkansas (1990-1994).**

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

# The Red River in Arkansas

Total toxic pollution reported (1990-1994): 298,375 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Georgia-Pacific Corp.	Ashdown	298,375

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

Chemical	Toxic chemical release to waterbody (pounds)
Zinc compounds	179,000
Ammonia	61,200
Methanol	34,000
Acetaldehyde	17,000
Chloroform	5,220
Acetone	610
Phenol	500
Methyl ethyl ketone	430
Catechol	405

‡ 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 Red River in Arkansas (1990-1994).**

Carcinogens	22,225 Pounds
Persistent Toxic Metals	179,000 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>201,225 Pounds</b>

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

**Top dischargers of carcinogens\*\* to the Red River in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Georgia-Pacific Corp.	Ashdown	22,225

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

Facility	City	Persistent toxic metals released to water (lbs)
Georgia-Pacific Corp.	Ashdown	179,000

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

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

# Caney Creek in Arkansas

Total toxic pollution reported (1990-1994): 129,958 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Hudson Foods Inc.	Hope	129,464
Sloan Valve Co.	Augusta	489

**Table 2. Toxic chemicals discharged in the greatest amounts to Caney Creek in Arkansas (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	129,464
Copper	305
Lead	189

‡ 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 Caney Creek in Arkansas (1990-1994).**

Carcinogens	189 Pounds
Persistent Toxic Metals	494 Pounds
Reproductive Toxins	189 Pounds
<b>Total‡</b>	<b>494 Pounds</b>

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

**Top dischargers of carcinogens\*\* to Caney Creek in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Sloan Valve Co.	Augusta	189

**Top dischargers of persistent toxic metals to Caney Creek in Arkansas (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Sloan Valve Co.	Augusta	489

**Top dischargers of reproductive toxins\*\* to Caney Creek in Arkansas (1990-1994).**

Facility	City	Reproductive toxins** released to water (lbs)
Sloan Valve Co.	Augusta	189

# Ditch # 9 Crittenden County Drainage District in Arkansas

Total toxic pollution reported (1990-1994): 79,269 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to Ditch # 9 Crittenden County Drainage District in Arkansas (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
Coastal Unilube Inc.	West Memphis	79,269

**Table 2. Toxic chemicals discharged in the greatest amounts to Ditch # 9 Crittenden County Drainage District in Arkansas (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ethylene glycol	77,500
Zinc compounds	750
Diethanolamine	749
Phosphoric acid	270

‡ 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 Ditch # 9 Crittenden County Drainage District in Arkansas (1990-1994).**

Carcinogens	0 Pounds
Persistent Toxic Metals	750 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>750 Pounds</b>

**Table 4. Polluters reporting the greatest amounts of carcinogens\*\*, persistent toxic metals, and reproductive toxins\*\* discharged to Ditch # 9 Crittenden County Drainage District in Arkansas (1990-1994).**

**Top dischargers of carcinogens\*\* to Ditch # 9 Crittenden County Drainage District in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)

**Top dischargers of persistent toxic metals to Ditch # 9 Crittenden County Drainage District in Arkansas (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Coastal Unilube Inc.	West Memphis	750

**Top dischargers of reproductive toxins\*\* to Ditch # 9 Crittenden County Drainage District in Arkansas (1990-1994).**

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

# West Two Bayou in Arkansas

Total toxic pollution reported (1990-1994): 46,985 Pounds

**Table 1. Polluters discharging the greatest amounts of toxic chemicals to West Two Bayou in Arkansas (1990-1994).**

Facility	City	Toxic chemical release to water (pounds)
International Paper	Camden	46,985

**Table 2. Toxic chemicals discharged in the greatest amounts to West Two Bayou in Arkansas (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Methanol	30,722
Acetone	12,258
Catechol	2,560
Methyl ethyl ketone	570
Ammonia	379
Acetaldehyde	250
Ammonium nitrate (solution)	210

‡ 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 West Two Bayou in Arkansas (1990-1994).**

Carcinogens	250 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>250 Pounds</b>

**Table 4. Polluters reporting the greatest amounts of carcinogens\*\*, persistent toxic metals, and reproductive toxins\*\* discharged to West Two Bayou in Arkansas (1990-1994).**

**Top dischargers of carcinogens\*\* to West Two Bayou in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
International Paper	Camden	250

**Top dischargers of persistent toxic metals to West Two Bayou in Arkansas (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)

**Top dischargers of reproductive toxins\*\* to West Two Bayou in Arkansas (1990-1994).**

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

# Loutre Creek in Arkansas

Total toxic pollution reported (1990-1994): 35,353 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Lion Oil Co.	El Dorado	35,353

**Table 2. Toxic chemicals discharged in the greatest amounts to Loutre Creek in Arkansas (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	32,254
Chromium	1,311
Chromium compounds	1,113
Phenol	675

‡ 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 Loutre Creek in Arkansas (1990-1994).**

Carcinogens	1,311 Pounds
Persistent Toxic Metals	2,424 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>2,424 Pounds</b>

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

**Top dischargers of carcinogens\*\* to Loutre Creek in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Lion Oil Co.	El Dorado	1,311

**Top dischargers of persistent toxic metals to Loutre Creek in Arkansas (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)
Lion Oil Co.	El Dorado	2,424

**Top dischargers of reproductive toxins\*\* to Loutre Creek in Arkansas (1990-1994).**

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

# Big Creek in Arkansas

Total toxic pollution reported (1990-1994): 35,261 Pounds

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

Facility	City	Toxic chemical release to water (pounds)
Spurlock Adhesives Inc.	Malvern	35,261

**Table 2. Toxic chemicals discharged in the greatest amounts to Big Creek in Arkansas (1990-1994).**

Chemical	Toxic chemical release to waterbody (pounds)
Ammonia	24,800
Formaldehyde	9,500
Methanol	950

‡ 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 Big Creek in Arkansas (1990-1994).**

Carcinogens	9,500 Pounds
Persistent Toxic Metals	0 Pounds
Reproductive Toxins	0 Pounds
<b>Total‡</b>	<b>9,500 Pounds</b>

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

**Top dischargers of carcinogens\*\* to Big Creek in Arkansas (1990-1994).**

Facility	City	Carcinogens** released to water (lbs)
Spurlock Adhesives Inc.	Malvern	9,500

**Top dischargers of persistent toxic metals to Big Creek in Arkansas (1990-1994).**

Facility	City	Persistent toxic metals released to water (lbs)

**Top dischargers of reproductive toxins\*\* to Big Creek in Arkansas (1990-1994).**

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