

SUMMARY OF REPORTED WATER USE

FOR ARKANSAS COUNTIES, 1990

By Terrance W. Holland and Carolyn A. Manning

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CONVERSION FACTORS

<u>Multiply</u>	<u>By</u>	<u>To obtain</u>
acre	4,047	square meter
acre-foot (acre-ft)	1,233	cubic meter
foot (ft)	0.3048	meter
inch (in.)	25.4	millimeter
million gallons per day (Mgal/d)	3,785	cubic meter per day

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ABSTRACT

This report provides an aggregation and summarization of the site-specific withdrawal information reported to the Arkansas Soil and Water Conservation Commission for 1990. Reported water withdrawals for 1990 were 6,319 million gallons per day (4,254 million gallons per day for ground water and 2,065 million gallons per day for surface water. The water-use totals in this report reflect only reported site-specific data, and do not represent total water-use in all categories. The largest withdrawals occur in the agricultural region of the Mississippi Alluvial Plain. This report also provides reported water application statistics for livestock and irrigated crops.

INTRODUCTION

This report provides an aggregation and summarization of the water withdrawal information reported to the Arkansas Soil and Water Conservation Commission (ASWCC) for 1990. The ASWCC has been collecting site-specific ground- and surface-water withdrawal information since 1985. Act 81, 1957, as amended, requires all diverters of water from streams, lakes, or ponds to register their diversion of surface water by quantity, location, type of use and name of user on an annual basis with the ASWCC. Act 1051 of 1985, requires all users of ground water excluding domestic use to register their withdrawal of ground water on an annual basis with the ASWCC. Local Soil Conservation Districts (located in each county) (fig. 1) collect reported water-use data for agriculture (irrigated and nonirrigated) water users. Water withdrawal registration forms are mailed separately to public supply, commercial, industrial, mining, and energy water users. The U.S. Geological Survey works in cooperation with the ASWCC in the collection, processing, and storage of water-use data.

The water-use totals in this report reflect only reported site-specific data and do not represent total water use in all categories. Total water use for Arkansas also includes domestic use, mining use, hydroelectric power generation, and supplemental estimates for various unreported uses. Excluding hydroelectric power generation, total water use for Arkansas in 1990 was 7,836 Mgal/d (4,708 Mgal/d for ground water; 3,128 Mgal/d for surface water).

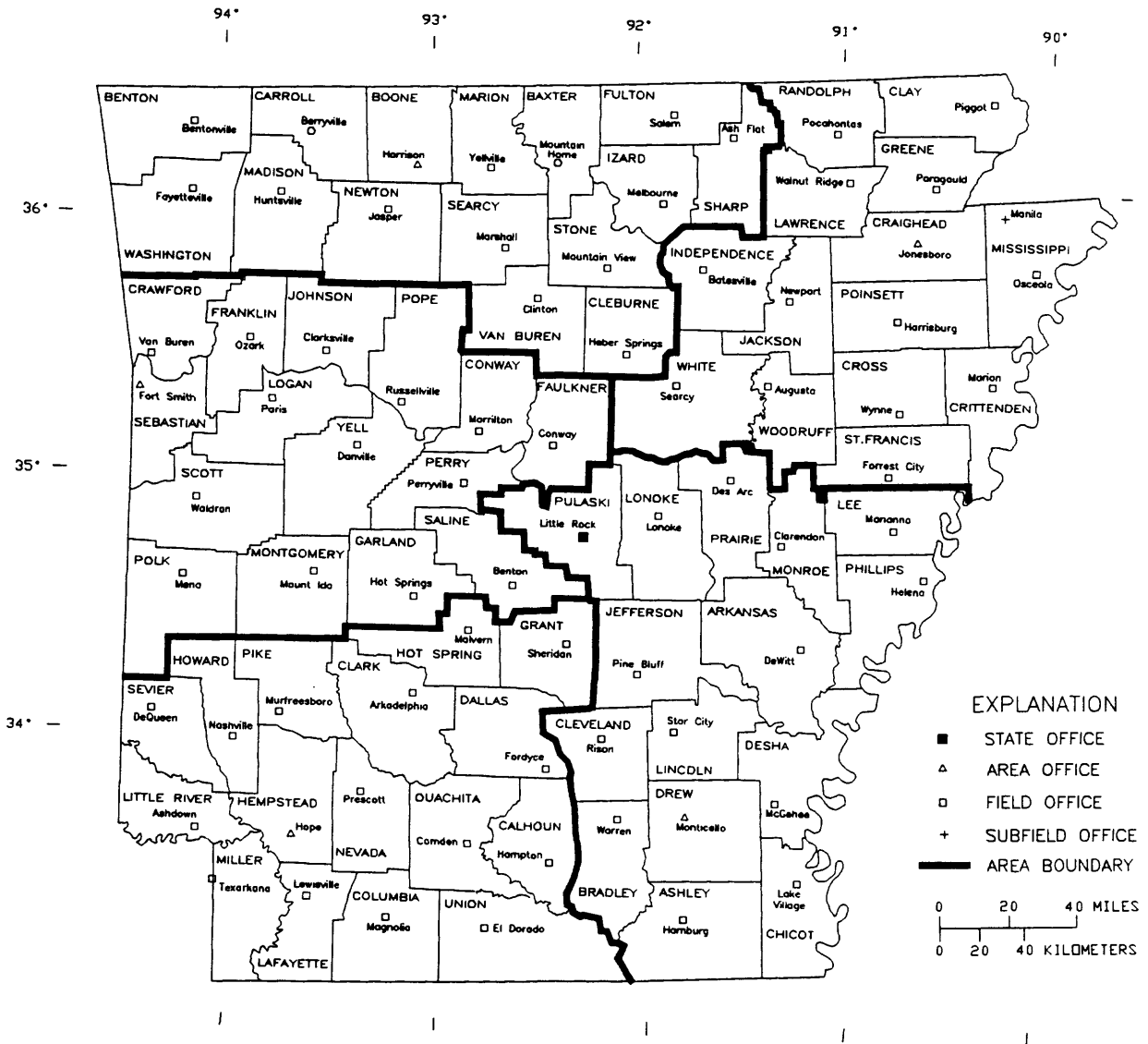


Figure 1.--Location of the five Soil Conservation Districts in Arkansas.

SUMMARY OF REPORTED WATER USE

Reported water withdrawals for 1990 were 4,254 Mgal/d for ground water and 2,065 Mgal/d for surface water (fig. 2 and table 1). Irrigation of crops (irrigated agriculture in table 1) accounts for 94 percent of total ground-water withdrawals and 44 percent of surface-water withdrawals in Arkansas. Livestock accounts for about 4 percent of ground-water withdrawals and 2 percent of surface-water withdrawals (fig. 2 and table 1). Livestock (nonirrigated agriculture in table 1) includes beef and dairy cattle, broilers, hogs, animal feedlots, and animal aquaculture. Water used for the production of energy accounts for 44 percent of the surface-water withdrawals; public supply accounts for less than 1 percent of ground-water withdrawals; and less than 1 percent of the surface-water withdrawals, and other uses (commercial, industrial, and mining) account for 2 percent of ground-water withdrawals and 10 percent of surface-water withdrawals (fig. 2). Although mining water use occurs in Arkansas, there were no reports of water use for mining during the 1990 reporting.

Reported water application statistics for crops and livestock are given in table 2. In table 2, animal aquaculture is the category for catfish, goldfish, and minnows. If those users reporting water use for the production of fish did not report water applied to a particular type of fish, the reported use was lumped into animal aquaculture.

The geographic distribution of reported water withdrawals by county are shown graphically in figure 3 and in tabular form in table 1. The largest withdrawals occur in the agricultural region of the Mississippi Alluvial Plain. Large withdrawals occur in Pope County because of cooling for the nuclear power plant in that county.

Approximately 35,907 wells and 6,904 surface-water intakes have been registered in Arkansas (1990). The geographic distribution of withdrawal points is shown in figure 4. A breakdown of the number of withdrawal registrations by county is given in table 3.

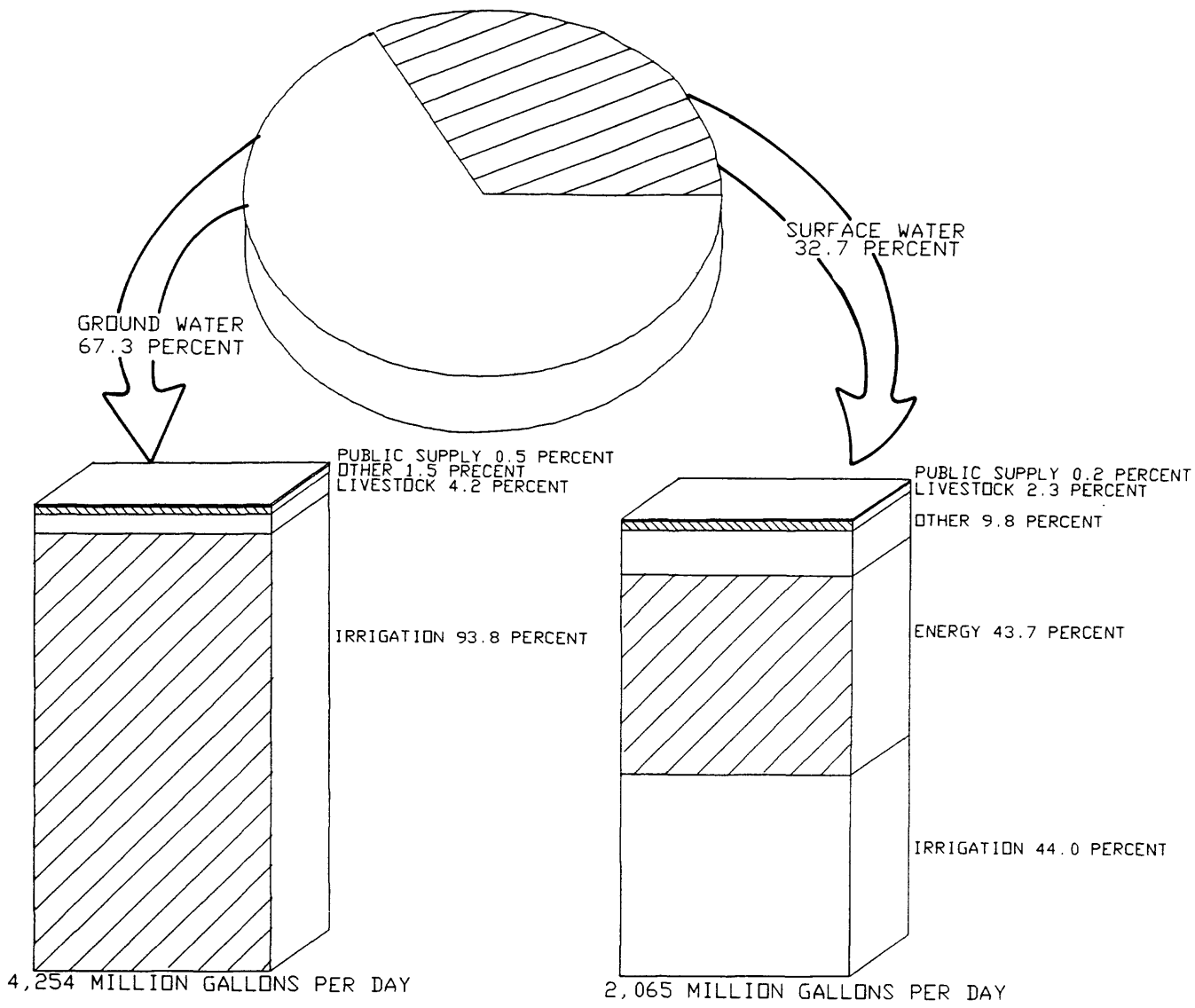


Figure 2.--Reported ground- and surface-water withdrawals by water-use category for Arkansas counties, 1990 (Other includes commercial and industrial water use: livestock is nonirrigated agriculture: and irrigation is irrigated agriculture).

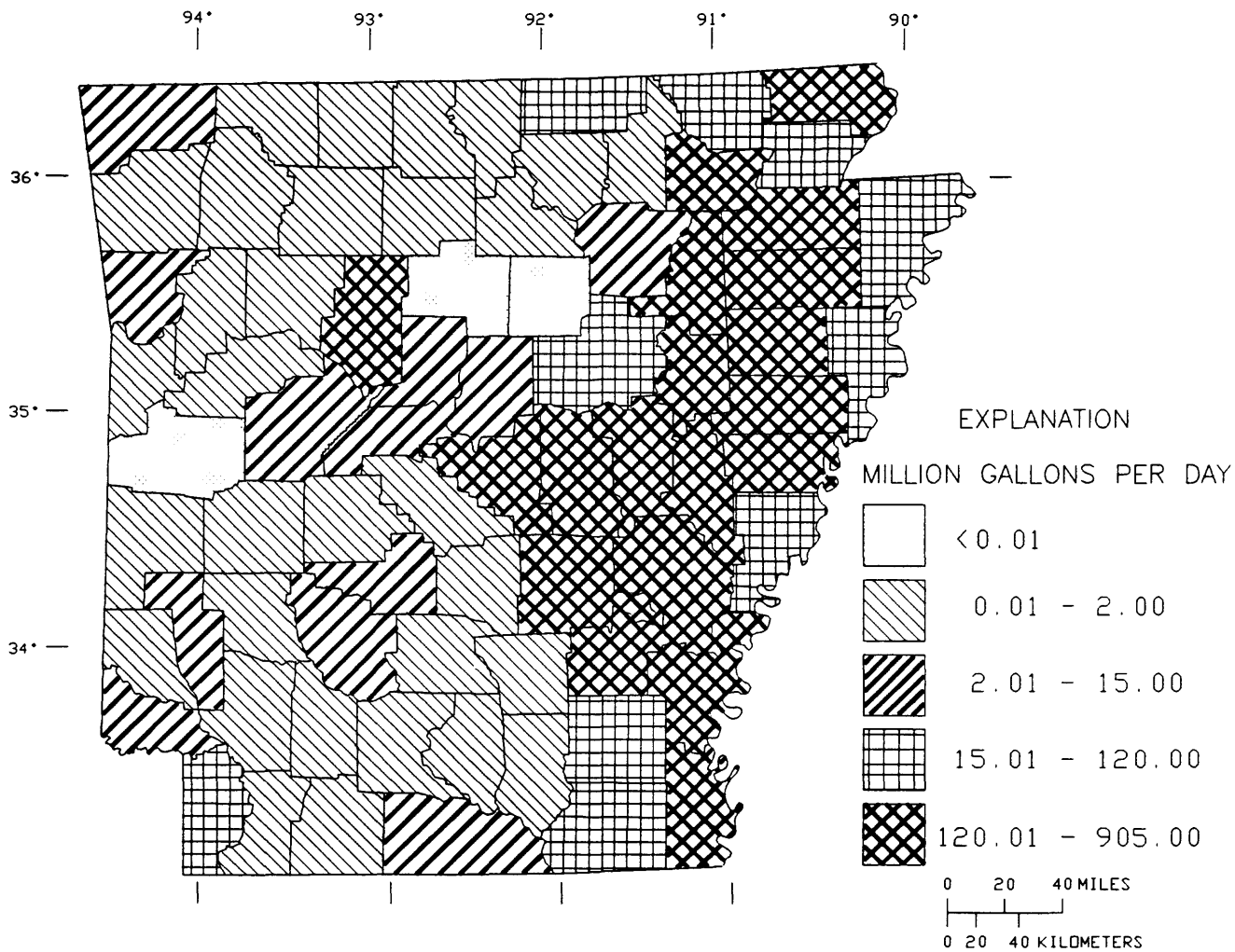
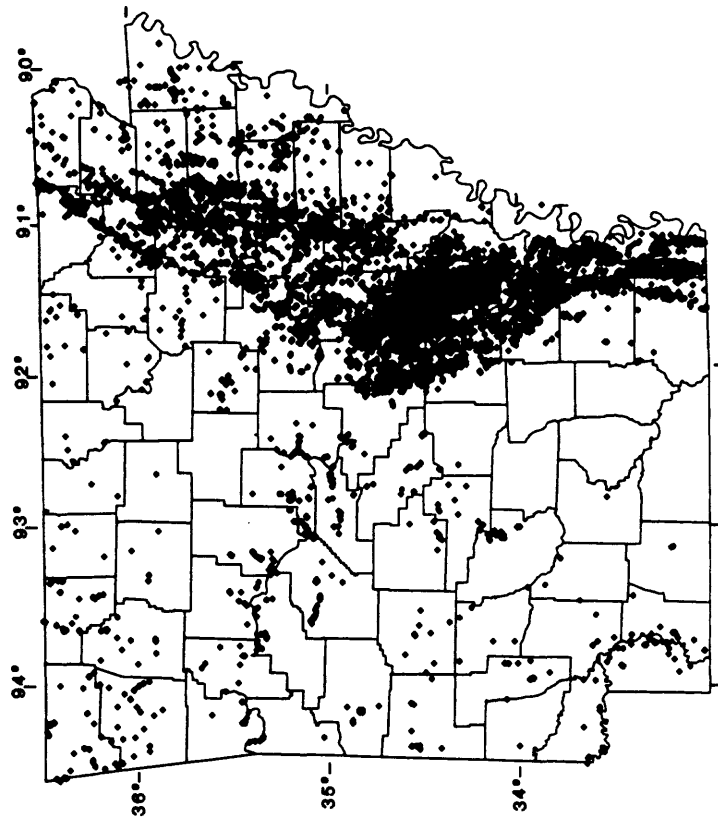
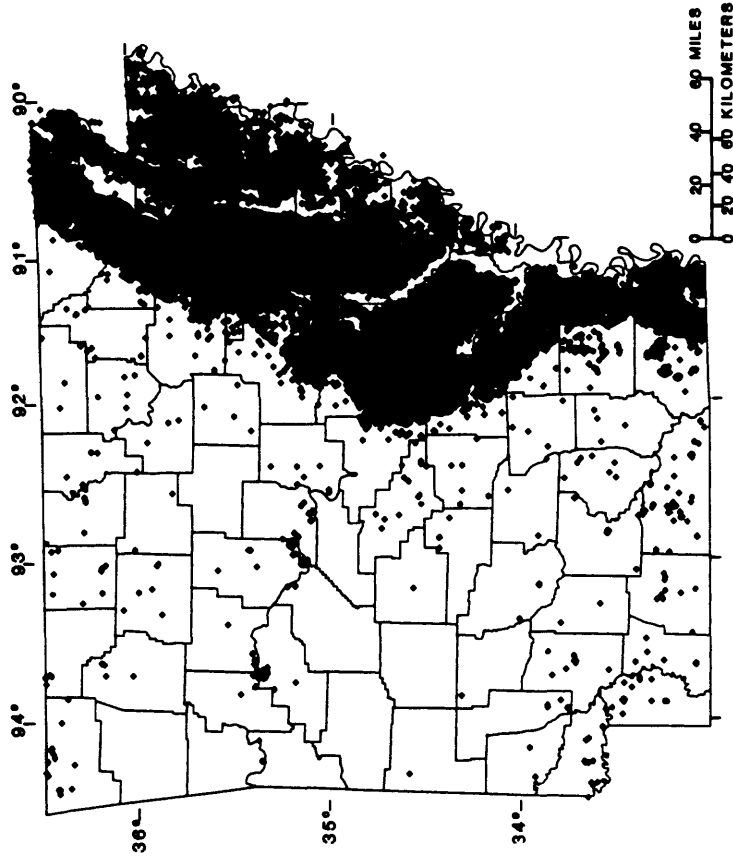


Figure 3.--Distribution of total reported water withdrawals for Arkansas counties, 1990.



SURFACE-WATER WITHDRAWAL POINTS



GROUND-WATER WITHDRAWAL POINTS

Figure 4.--Reported surface- and ground-water withdrawal points in Arkansas, 1990.

Table 1.--Reported water withdrawals in Arkansas counties for 1990
 [In million gallons per day; does not include water use for hydroelectric power generation; ---, no data available]

County	Public supply		Commercial		Industrial		Mining		Agriculture (nonirrigated)		Agriculture (irrigated)		Thermoelectric energy		County totals	
	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water
Arkansas	.00	.00	0.58	0.40	---	---	---	---	1.36	14.27	432.04	271.77	---	---	433.98	286.44
Ashley	.15	.00	---	---	2.17	.00	---	---	4.91	.00	64.02	10.11	---	---	71.25	10.11
Baxter	.24	.00	---	---	.00	.00	---	---	---	---	.00	.02	---	---	.24	.02
Benton	.35	.14	.23	.37	---	---	---	---	.36	.52	.00	.77	---	---	.94	1.80
Boone	.35	.00	---	---	---	---	---	---	---	---	.00	.06	---	---	.35	.06
Bradley	.00	.00	---	---	---	---	---	---	---	---	.07	.00	---	---	.07	.00
Calhoun	.05	.00	---	---	---	---	---	---	---	---	.02	.00	---	---	.06	.00
Carroll	.43	.00	---	---	---	---	---	---	.00	.00	.00	.23	---	---	.43	.23
Chicot	.82	.00	---	---	---	---	---	---	22.05	.00	93.91	63.93	---	---	116.78	63.93
Clark	.00	.00	---	---	---	---	---	---	---	---	.00	7.72	---	---	.00	7.72
Clay	.86	.00	---	---	---	---	---	---	1.67	.00	132.69	3.84	---	---	135.22	3.84
Cleburne	.00	.00	---	---	---	---	---	---	.00	.00	.00	.00	---	---	.00	.00
Cleveland	.25	.00	---	---	---	---	---	---	---	---	.02	.00	---	---	.26	.00
Columbia	.09	.00	---	---	.02	.00	---	---	---	---	.00	.10	---	---	.11	.10
Conway	.05	1.08	.00	.03	.00	7.33	---	---	.00	.00	.70	1.99	---	---	.75	10.43
Craighead	.64	.00	---	---	.00	.00	---	---	.44	1.16	229.18	24.10	---	---	230.26	25.26
Crawford	.00	.00	---	---	.00	.45	---	---	---	---	.06	1.81	---	---	.06	2.26
Crittenden	.00	.00	---	---	---	---	---	---	---	---	56.27	.98	---	---	56.27	.98
Cross	.52	.00	---	---	---	---	---	---	.99	.26	304.90	20.73	---	---	306.40	20.99
Dallas	.06	.00	---	---	---	---	---	---	---	---	---	---	---	---	.06	.00
Desha	5.38	.00	---	---	---	---	---	---	5.89	6.62	206.29	66.80	---	---	217.56	73.42
Drew	.13	.00	---	---	---	---	---	---	.55	7.35	23.91	12.66	---	---	24.59	20.01
Faulkner	.00	.00	---	---	---	---	---	---	---	---	.60	4.58	---	---	.60	4.58
Franklin	.00	.00	.00	.00	---	---	---	---	---	---	.26	.21	---	---	.26	.21
Fulton	.20	.00	.00	72.01	---	---	---	---	---	---	.00	.09	---	---	.20	72.10
Garland	.00	.00	.00	.72	.25	.56	---	---	---	---	.00	.01	---	---	.25	1.29
Grant	.00	.00	---	---	.08	.01	---	---	---	---	.06	.00	---	---	.14	.01
Greene	.19	.00	---	---	---	---	---	---	19.25	.00	75.78	1.40	---	---	95.22	1.40
Hempstead	.00	.00	---	---	---	---	---	---	.00	.00	.07	.00	---	---	.07	.00
Hot Spring	.00	.39	.00	.00	.22	.03	---	---	.00	.04	.00	1.54	---	---	.22	2.00
Howard	.42	1.92	.34	.00	.00	.21	---	---	---	---	.00	.02	---	---	.75	2.15
Independence	.00	.00	---	---	---	---	---	---	.00	.00	5.35	2.39	---	---	5.35	2.39
Izard	.17	.00	---	---	---	---	---	---	.00	.00	.16	.00	---	---	.33	.00
Jackson	.20	.00	---	---	---	---	---	---	3.49	.26	247.27	11.59	---	---	250.97	11.85
Jefferson	1.46	.00	---	---	55.00	.00	---	---	5.36	.69	144.60	33.35	.02	.00	206.44	34.04
Johnson	.00	.00	---	---	.00	.00	---	---	---	---	.43	.06	---	---	.43	.06
Lafayette	.38	.00	---	---	---	---	---	---	.00	.00	.00	.93	---	---	.38	.93
Lawrence	.07	.00	---	---	---	---	---	---	.30	.02	219.46	13.43	---	---	219.83	13.45
Lee	.00	.00	---	---	---	---	---	---	1.32	.37	153.98	3.66	---	---	155.30	4.03
Lincoln	.10	.00	---	---	---	---	---	---	4.43	.18	100.66	15.95	---	---	105.20	16.13

Table 1.--Reported water withdrawals in Arkansas counties for 1990--Continued

County	Public supply		Commercial		Industrial		Mining		Agriculture (nonirrigated)		Agriculture (irrigated)		Thermoelectric energy		County totals	
	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water	Ground water	Surface water
Little River	0.03	0.00	---	---	---	---	---	---	0.00	0.00	1.30	2.36	---	---	1.33	2.36
Logan	.00	.00	---	---	---	---	---	---	.00	.00	.98	.16	---	---	.98	.16
Lonoke	1.10	.00	---	---	---	---	---	---	59.00	6.26	240.16	66.96	---	---	300.26	73.22
Madison	.28	.00	---	---	---	---	---	---	.00	.04	.00	.00	---	---	.28	.04
Marion	.02	.00	---	---	---	---	---	---	---	---	---	---	---	---	.02	.00
Miller	.04	.00	---	---	---	---	---	---	.03	.00	6.32	58.22	---	---	6.39	58.22
Mississippi	1.46	.00	---	2.18	0.00	---	---	---	.00	.00	97.21	1.45	---	---	100.85	1.45
Monroe	1.27	.00	---	---	---	---	---	---	7.08	4.17	171.56	17.06	---	---	179.92	21.23
Montgomery	.00	.00	---	---	---	---	---	---	---	---	.00	.11	---	---	.00	.11
Nevada	.00	.00	---	.00	.00	---	---	---	.00	.00	.00	.22	---	---	.00	.22
Newton	.13	.00	---	---	---	---	---	---	.00	.01	.00	.21	---	---	.13	.35
Ouachita	.08	.00	---	.00	.00	---	---	---	---	---	---	---	---	---	.08	.00
Perry	.00	.37	---	---	---	---	---	---	.06	.00	.00	4.96	---	---	.06	5.33
Phillips	1.41	.00	---	.00	.00	---	---	---	.02	.00	70.54	.51	.80	.00	72.77	.51
Pike	.00	.00	---	.00	.05	---	---	---	---	---	.00	.74	---	---	.00	.79
Poinsett	1.78	.00	---	---	---	---	---	---	13.10	4.09	372.17	38.99	---	---	387.05	42.48
Polk	.00	.00	---	---	---	---	---	---	---	---	.00	1.18	---	---	.00	1.18
Pope	.00	.00	---	---	---	---	---	---	.09	.05	2.05	.49	.00	901.62	2.14	902.16
Prairie	.23	.00	---	---	---	---	---	---	22.91	.14	142.45	49.19	---	---	165.60	49.33
Pulaski	.00	.00	2.64	86.76	---	---	---	---	.43	.00	20.70	10.27	---	---	23.77	97.03
Randolph	.04	.00	---	---	---	---	---	---	.09	.00	46.03	14.67	---	---	46.15	14.67
St Francis	.00	.00	---	---	---	---	---	---	.02	.00	146.56	9.72	.00	.00	146.59	9.72
Saline	.40	.00	---	---	---	---	---	---	.00	.00	.09	.24	---	---	.49	.24
Scott	---	---	---	---	---	---	---	---	---	---	.00	.00	---	---	.00	.00
Searcy	.07	.30	---	---	---	---	---	---	---	---	---	---	---	---	.07	.30
Sebastian	.00	.00	---	---	---	---	---	---	---	---	.00	.28	---	---	.00	.28
Sevier	.08	.00	---	---	---	---	---	---	.00	.00	.00	.00	---	---	.08	.00
Sharp	.01	.59	---	---	---	---	---	---	---	---	.00	.00	---	---	.01	.59
Stone	.00	.00	---	---	---	---	---	---	---	---	.00	.01	---	---	.00	.01
Union	1.90	.00	---	1.21	.00	---	---	---	---	---	.00	.00	---	---	3.11	.00
Van Buren	.00	.00	---	---	---	---	---	---	---	---	.00	.00	---	---	.00	.00
Washington	.00	.10	---	---	---	---	---	---	.00	.00	.00	.02	---	---	.00	.12
White	.15	.00	.00	33.48	---	---	---	---	.72	.42	43.84	35.52	---	---	44.71	69.42
Woodruff	.50	.00	---	---	---	---	---	---	1.40	.00	129.82	12.83	---	---	131.72	12.83
Yell	1.27	.00	---	.00	.00	---	---	---	---	---	1.01	6.02	---	---	2.28	6.02
Total	25.81	4.89	3.79	193.77	61.13	8.64	---	---	177.32	46.92	3985.55	908.62	.82	901.62	4254.42	2064.46

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990

[Application rate: Avg. average; Min. minimum; Max. maximum; Std. dev., standard deviation; ***, cannot be calculated]

County	Number of reports	Sum of acres	Application rate (acre-feet)					Total-water withdrawals (acre-feet)			
			Avg	Min	25th	50th percentile	75th	Max	Variance	Std. dev.	
Animal Aquaculture											
Arkansas	19	1,304.00	4.26	1.00	3.00	3.00	5.00	10.00	25.05	5.00	3,979.00
Ashley	6	382.50	3.67	3.00	3.00	4.00	4.00	4.00	13.71	3.70	1,410.00
Chicot	13	443.30	4.02	1.00	3.75	4.28	4.50	5.00	17.36	4.17	1,722.69
Clay	10	160.00	4.00	1.00	2.00	2.00	6.00	10.00	28.44	5.33	1,910.00
Craighead	3	160.00	1.00	1.00	***	1.00	***	1.00	1.00	1.00	160.00
Cross	5	41.50	2.30	1.00	1.00	2.00	3.50	4.00	7.24	2.69	117.00
Desha	14	483.00	4.79	1.00	4.00	4.00	5.00	8.00	26.16	5.11	2,138.00
Drew	4	68.00	2.00	2.00	2.00	2.00	2.00	2.00	4.00	2.00	136.00
Faulkner	1	40.00	5.00	5.00	***	***	***	5.00	***	***	200.00
Jackson	9	265.00	4.00	4.00	4.00	4.00	4.00	4.00	16.00	4.00	1,060.00
Jefferson	1	5.00	3.00	3.00	***	***	***	3.00	***	***	15.00
Lawrence	5	32.00	3.10	1.50	1.50	4.00	4.00	4.00	11.16	3.34	94.50
Lee	4	15.50	4.42	4.00	4.00	4.34	4.67	5.00	19.76	4.45	65.00
Lincoln	5	94.00	5.20	3.00	3.00	6.00	6.00	8.00	31.74	5.63	488.00
Loneke	32	1,166.35	3.80	3.00	3.00	4.00	4.00	7.00	15.79	3.97	4,436.05
Mississippi	1	3.00	10.00	10.00	***	***	***	10.00	***	***	30.00
Monroe	14	318.50	4.71	3.00	5.00	5.00	5.00	5.00	22.60	4.75	1,535.00
Poinsett	29	528.00	7.66	4.00	4.00	6.00	6.00	36.00	122.26	11.06	3,776.00
Prairie	10	252.00	4.07	1.00	2.95	4.25	4.90	7.50	20.74	4.55	1,016.10
White	5	44.50	1.24	.50	.50	1.00	1.20	2.50	2.10	1.45	46.50
Woodruff	2	13.00	2.25	.50	***	2.25	***	4.00	11.19	3.34	24.00
Berries											
Cleveland	1	1.25	1.80	1.80	***	***	***	1.80	***	***	2.25
Desha	1	3.00	2.00	2.00	***	***	***	2.00	***	***	6.00
Franklin	2	60.00	.94	.50	***	.94	***	1.38	1.27	1.13	65.20
Garland	1	17.00	.51	.51	***	***	***	.51	***	***	8.67
Johnson	1	32.00	1.03	1.03	***	***	***	1.03	***	***	32.96
Mississippi	1	10.00	2.50	2.50	***	***	***	2.50	***	***	25.00
Newton	1	.50	1.60	1.60	***	***	***	1.60	***	***	.80
Washington	1	6.00	.33	.33	***	***	***	.33	***	***	1.98
White	1	50.00	2.00	2.00	***	***	***	2.00	***	***	100.00
Cash grains											
Craighead	1	31.00	1.00	1.00	***	***	***	1.00	***	***	31.00
Crittenden	2	38.00	.55	.10	***	.55	***	.55	.71	.84	6.50
Perry	1	75.00	.50	.50	***	***	***	.50	***	***	37.50

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet)					Total-water withdrawals (acre-feet)		
			Avg	Min	25th	50th	75th		Max	Variance
Catfish										
Crittenden	1	10.00	4.00	4.00	***	***	4.00	***	***	40.00
Cross	1	30.00	2.00	2.00	***	***	2.00	***	***	60.00
White	1	22.50	7.00	7.00	***	***	7.00	***	***	157.50
Crop maintenance										
Columbia	1	29.50	0.88	0.88	***	***	.88	***	***	25.96
Crop type (not in list)										
Crittenden	1	11.00	0.50	0.50	***	***	.50	***	***	5.50
Corn										
Arkansas	122	7,538.00	2.11	1.00	2.00	2.00	4.00	4.91	2.22	16,918.89
Ashley	1	20.00	.20	.20	***	***	.20	***	***	4.00
Chicot	13	965.00	1.67	.50	1.50	2.00	3.00	3.44	1.85	1,487.50
Clark	1	68.00	.67	.67	***	***	.67	***	***	45.36
Clay	138	7,327.00	1.38	.00	1.00	1.20	8.00	2.59	1.61	10,480.92
Conway	1	200.00	.50	.50	***	***	.50	***	***	100.00
Craighead	39	2,169.00	.99	.40	1.00	1.00	1.20	1.01	1.00	2,157.40
Crittenden	8	1,190.00	.91	.50	1.00	1.00	1.00	.86	.93	995.00
Cross	7	1,145.00	1.00	.50	1.00	1.00	2.00	1.33	1.15	1,011.50
Desho	16	1,023.00	1.78	1.50	2.00	2.00	2.00	3.24	1.80	1,762.50
Drew	5	370.00	1.25	.75	1.00	1.25	2.50	2.09	1.45	497.50
Faulkner	1	50.00	1.00	1.00	***	***	1.00	***	***	50.00
Greene	36	1,888.00	.71	.00	.60	1.00	2.00	.67	.82	1,306.20
Hempstead	1	82.00	.67	.67	***	***	.67	***	***	54.94
Jackson	21	1,104.00	1.78	.50	1.50	2.00	3.00	3.71	1.93	2,214.00
Jefferson	24	1,241.00	2.17	2.00	2.00	2.00	3.00	4.84	2.20	2,737.00
Johnson	2	38.00	1.50	1.50	1.50	***	1.50	2.25	1.50	57.00
Lawrence	6	365.00	1.42	1.00	1.25	2.00	2.00	2.25	1.50	525.00
Lee	3	361.00	1.70	.60	2.00	***	2.50	3.86	1.96	235.00
Lincoln	6	184.00	.97	.40	1.00	1.00	1.70	1.12	1.06	190.30
Lonoke	35	1,368.00	1.74	.33	1.67	2.00	3.00	3.53	1.88	2,335.64
Miller	6	496.00	1.28	.67	1.00	2.00	2.00	1.96	1.40	524.62
Mississippi	13	1,612.00	1.05	.30	1.00	1.00	2.00	1.45	1.20	1,719.40
Monroe	1	62.00	1.00	1.00	***	***	1.00	***	***	62.00
Phillips	8	727.00	1.51	1.00	1.00	1.10	3.00	3.13	1.77	1,052.30
Poinsett	14	839.00	1.11	.50	1.00	1.50	2.00	1.39	1.18	916.00
Prairie	69	1,932.10	1.83	.32	1.32	2.00	3.00	3.80	1.95	3,661.40
Pulaski	1	75.00	1.00	1.00	***	***	1.00	***	***	75.00

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet)					Total-water withdrawals (acre-feet)			
			Avg	Min	25th	50th percentile	75th		Max	Variance	Std. dev.
Corn--continued											
Randolph	21	968.00	2.16	0.40	1.00	2.00	3.00	6.00	6.42	2.53	2,153.00
St Francis	1	67.00	1.00	1.00	***	***	***	1.00	***	***	67.00
White	4	337.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	337.00
Woodruff	68	4,546.50	.62	.00	.00	.00	.50	5.00	.74	.86	2,381.60
Well	1	120.00	2.50	2.50	***	***	***	2.50	***	***	2,300.00
Cotton											
Arkansas	2	90.00	1.00	1.00	***	1.00	***	1.00	1.00	1.00	90.00
Ashley	454	37,572.00	1.01	.00	.00	1.00	1.00	3.00	1.21	1.10	37,196.77
Chicot	261	21,867.50	.80	.00	.00	1.00	1.00	3.00	.89	.94	17,466.11
Clay	48	2,504.00	1.10	.40	1.00	1.00	1.40	1.80	1.34	1.16	2,775.40
Craighead	206	14,588.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	14,588.50
Crittenden	46	6,011.40	.74	.00	.00	.50	1.00	2.00	.68	.82	4,198.80
Cross	6	374.90	.92	.50	.50	1.09	1.17	1.17	.95	.98	321.88
Desha	678	43,187.30	1.95	.00	1.00	2.00	2.00	6.00	4.11	2.03	83,350.83
Drew	150	10,215.50	.90	.00	.00	.75	1.00	3.00	.95	.97	9,069.25
Greene	32	1,719.00	.63	.00	.00	.60	1.00	1.50	.44	.67	1,087.40
Jackson	4	108.00	.88	.50	.50	.75	1.00	1.50	.99	1.00	97.00
Jefferson	531	44,387.00	1.00	.00	1.00	1.00	1.00	1.00	.99	1.00	44,148.89
Lafayette	1	44.00	1.00	1.00	***	***	***	1.00	***	***	44.00
Lee	81	8,113.00	1.66	.00	1.00	2.00	2.00	2.00	3.08	1.75	12,234.50
Lincolin	335	23,044.00	.96	.00	.00	1.00	1.00	2.00	1.05	1.03	20,766.51
Lonoke	363	21,188.00	.85	.00	.00	.67	1.00	1.67	.79	.89	18,314.07
Miller	10	1,604.00	1.45	.45	.66	.66	1.00	8.00	7.43	2.73	1,970.67
Mississippi	260	34,989.00	.81	.00	1.00	1.00	1.00	2.00	.76	.87	27,780.75
Monroe	205	13,842.00	1.50	1.00	1.00	1.00	1.00	1.50	2.24	1.50	20,723.00
Phillips	259	29,359.00	1.10	1.00	1.00	1.00	1.00	1.50	1.22	1.10	32,334.87
Poinsett	109	10,351.00	1.29	.00	1.00	1.00	1.50	3.00	2.06	1.44	14,043.10
Prairie	10	612.00	.48	.17	.17	.50	.67	1.00	.33	.57	294.18
Pulaski	25	1,349.00	.99	.67	1.00	1.00	1.00	1.17	.99	.99	1,318.00
Randolph	1	30.00	.40	.40	***	***	***	.40	***	***	30.00
St Francis	58	4,445.50	1.17	1.00	1.00	1.00	1.17	1.17	1.37	1.17	5,201.22
Woodruff	34	1,731.00	.56	.00	.00	.50	.50	2.50	.43	.66	918.50
Ducks (Recreational)											
Arkansas	69	6,960.00	1.95	0.00	1.00	2.00	2.00	18.00	8.32	2.88	10,325.50
Ashley	1	200.00	2.00	2.00	***	***	***	2.00	***	***	400.00
Craighead	1	30.00	2.50	2.50	***	***	***	2.50	***	***	75.00
Crittenden	1	5.00	3.00	3.00	***	***	***	3.00	***	***	15.00

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet)					Total-water withdrawals (acre-feet)			
			Avg	Min	25th	50th	75th		Max	Variance	Std. dev.
Ducks (Recreational)--Continued											
Cross	2	250.00	0.75	0.50	***	0.75	***	1.00	0.69	0.83	200.00
Desha	2	1,440.00	2.75	1.50	***	2.75	***	4.00	10.69	3.27	3,760.00
Jackson	11	2,964.00	1.50	.50	.50	1.00	1.00	4.00	3.95	1.99	8,334.00
Jefferson	2	197.50	3.50	3.00	***	3.50	***	4.00	12.75	3.57	780.00
Lee	5	315.00	2.60	1.00	1.00	2.00	4.00	4.00	8.56	2.93	660.00
Lonoke	17	4,420.00	1.16	.22	.35	1.00	2.00	3.00	2.09	1.44	3,837.50
Miller	2	450.00	1.00	1.00	***	1.00	***	1.00	1.00	1.00	450.00
Monroe	13	1,360.00	2.77	1.00	1.00	1.00	1.50	12.00	24.49	4.95	3,187.50
Poinsett	3	485.00	2.17	.50	***	2.00	***	4.00	7.78	2.79	690.00
Prairie	3	1,345.00	2.17	.50	***	3.00	***	3.00	6.78	2.60	3,672.50
Pulaski	1	150.00	.33	.33	***	***	***	.33	***	***	49.50
St Francis	20	1,940.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1,940.00
White	3	160.00	.67	.50	***	.50	***	1.00	.53	.73	105.00
Florist											
Craighead	2	118.00	1.00	1.00	***	1.00	***	1.00	1.00	1.00	118.00
Fruit Trees											
Calhoun	1	18.00	0.83	0.83	***	***	***	0.83	***	***	14.94
Cleburne	1	2.00	.75	.75	***	***	***	.75	***	***	1.50
Cleveland	1	10.00	1.80	1.80	***	***	***	1.80	***	***	18.00
Greene	1	6.00	1.70	1.70	***	***	***	1.70	***	***	10.20
Johnson	2	35.00	2.45	2.40	***	2.45	***	2.50	6.01	2.45	85.50
Lafayette	1	5.00	.50	.50	***	***	***	.50	***	***	2.50
Logan	1	3.00	.50	.50	***	***	***	.50	***	***	1.50
Newton	1	.50	10.00	10.00	***	***	***	10.00	***	***	5.00
Phillips	2	60.00	1.00	1.00	***	1.00	***	1.00	1.00	1.00	60.00
White	5	209.00	1.68	.18	0.18	2.00	2.24	3.00	4.05	2.01	406.20
Woodruff	6	193.00	1.50	.50	.50	.50	.50	1.50	.25	.50	96.50
Yell	1	.30	1.00	1.00	***	***	***	1.00	***	***	.30
Goldfish											
Jackson	1	2.00	2.00	2.00	***	***	***	2.00	***	***	4.00

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet)					Total-water withdrawals (acre-feet)			
			Avg	Min	25th	50th percentile	Max		Variance	Std. dev.	
Grapes											
Franklin	2	80.00	1.12	0.70	***	1.12	***	1.54	1.60	1.26	72.72
Logan	1	21.00	.60	.60	***	***	***	.60	***	***	12.60
White	1	24.00	.50	.50	***	***	***	.50	***	***	12.00
Hay											
Arkansas	70	2,370.70	1.09	0.00	1.00	1.00	1.00	4.00	1.48	1.22	2,704.46
Benton	2	28.00	.38	.25	***	.38	***	.50	.17	.41	11.50
Boone	2	42.50	1.50	1.00	***	1.50	***	2.00	2.75	1.66	45.00
Carroll	3	325.00	.67	.50	***	.50	***	1.00	.53	.73	225.00
Chicot	2	105.00	.38	.25	***	.38	***	.50	.17	.41	30.00
Clark	1	40.00	.67	.67	***	***	***	.67	***	***	26.80
Crawford	3	117.00	3.00	.25	***	.75	***	8.00	27.81	5.27	585.25
Cross	2	132.00	.50	.50	***	.50	***	.50	.25	.50	66.00
Desh	1	10.00	1.50	1.50	***	***	***	1.50	***	***	15.00
Drew	1	30.00	1.00	1.00	***	***	***	1.00	***	***	30.00
Faulkner	1	50.00	1.00	1.00	***	***	***	1.00	***	***	50.00
Fulton	2	30.00	1.50	1.50	***	1.50	***	1.50	2.25	1.50	45.00
Greene	1	30.00	.40	.40	***	***	***	.40	***	***	12.00
Hot Spring	1	16.00	.40	.40	***	***	***	.40	***	***	6.40
Howard	1	80.00	.25	.25	***	***	***	.25	***	***	20.00
Jackson	12	658.00	1.17	.50	.50	1.00	2.00	2.00	1.79	1.34	626.50
Jefferson	1	3.00	1.00	1.00	***	***	***	1.00	***	***	3.00
Lafayette	1	20.00	3.00	3.00	***	***	***	3.00	***	***	60.00
Lee	3	37.00	1.67	1.00	***	2.00	***	2.00	3.11	1.76	66.00
Lincoln	2	62.00	.70	.70	***	.70	***	.70	.49	.70	43.40
Lonoke	8	266.00	.58	.33	.33	.67	.67	.67	.37	.61	159.18
Mississippi	1	13.00	3.40	3.40	***	***	***	3.40	***	***	44.20
Montroe	5	170.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	170.00
Montgomery	2	22.00	1.50	1.00	***	1.50	***	2.00	2.75	1.66	32.00
Newton	4	63.00	1.36	.48	.48	1.75	2.00	3.48	3.91	1.98	131.78
Phillips	2	50.00	1.10	1.10	***	1.10	***	1.10	1.21	1.10	55.00
Poinsett	3	159.00	.73	.30	***	.40	***	1.50	.98	.99	95.90
Polk	8	750.00	1.75	1.00	1.00	2.00	2.00	2.00	3.28	1.81	1,290.00
Pope	8	256.00	.66	.33	.33	.67	.75	1.00	.47	.69	168.80
Prairie	9	373.00	.61	.12	.32	.67	.67	1.32	.49	.70	222.43
Randolph	1	25.00	3.00	3.00	***	***	***	3.00	***	***	75.00
Saline	5	173.00	.67	.16	.16	.50	1.00	1.20	.63	.79	124.70
Stone	1	10.00	.33	.33	***	***	***	.33	***	***	3.30
White	12	353.00	.49	.40	.50	.50	.50	.50	.24	.49	172.50
Woodruff	6	640.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	640.00
Yell	1	40.00	1.25	1.25	***	***	***	1.25	***	***	50.00

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet)					Max	Variance	Std. dev.	Total-water withdrawals (acre-feet)
			Avg	Min	25th	50th	75th				
Arkansas	184	7,333.00	1.59	0.00	1.00	2.00	4.00	3.02	1.74	11,795.55	
Ashley	8	313.00	.54	.30	.50	.50	1.00	.33	.57	158.50	
Benton	2	142.00	.71	.42	***	***	1.00	.67	.82	118.80	
Chicot	34	1,915.00	.57	.00	.00	.29	1.50	.42	.65	1,088.94	
Clark	1	92.00	.67	.67	***	***	.67	***	***	61.36	
Clay	123	5,322.00	.58	.00	.00	.50	1.40	.40	.63	3,024.10	
Craighead	75	3,026.00	.86	.00	.00	1.00	1.00	.82	.90	2,698.85	
Crittenden	17	1,671.00	.77	.50	.50	1.00	1.00	.66	.81	1,214.50	
Cross	33	1,960.00	1.14	.50	1.00	1.00	5.00	1.87	1.37	2,068.00	
Drew	46	2,991.00	1.80	1.00	1.50	2.00	3.00	3.39	1.84	5,189.50	
Drew	4	247.00	.75	.25	.25	.63	1.50	.85	.92	241.75	
Franklin	1	75.00	.30	.30	***	***	.30	***	***	22.50	
Greene	89	3,391.00	.40	.00	.00	.20	1.00	.18	.43	1,443.94	
Independence	3	139.00	.91	.91	***	***	.91	.82	.91	126.49	
Jackson	63	2,782.00	.83	.00	.50	1.00	2.00	.82	.91	2,282.38	
Jefferson	13	813.00	1.54	.50	.50	2.00	2.50	2.89	1.70	1,352.00	
Johnson	1	30.00	1.50	1.50	***	***	1.50	***	***	45.00	
Lawrence	85	3,320.00	.91	.00	.50	1.00	2.00	.98	.99	2,928.18	
Lee	15	851.00	1.93	1.00	2.00	2.00	3.00	3.95	1.99	1,612.00	
Lincoln	21	974.00	.83	.40	.70	1.00	1.40	.75	.87	794.90	
Little River	1	173.00	1.00	1.00	***	***	1.00	***	***	173.00	
Lonoke	12	379.00	.61	.33	.67	.67	.67	.39	.63	239.31	
Miller	1	10.00	.33	.33	***	***	.33	***	***	3.30	
Mississippi	25	1,811.00	.62	.00	.25	1.00	2.00	.57	.75	1,097.00	
Monroe	44	2,342.00	1.05	.00	1.00	1.00	1.50	1.15	1.07	2,513.50	
Phillips	14	1,321.70	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1,321.70	
Poinsett	43	2,175.00	1.06	.50	1.00	1.00	2.00	1.18	1.09	2,402.00	
Pope	1	75.00	1.60	1.60	***	***	1.60	***	***	120.00	
Prairie	28	698.95	.72	.00	.50	1.00	1.00	.60	.77	479.57	
Pulaski	3	210.00	1.44	.33	***	***	3.00	4.01	2.00	363.10	
Randolph	19	1,055.00	1.30	.75	1.00	1.00	2.00	1.94	1.39	1,237.50	
St Francis	32	2,471.00	.98	.50	1.00	1.00	1.00	.98	.98	2,356.00	
White	11	345.00	.50	.50	.50	.50	.50	.25	.50	172.50	
Woodruff	43	2,164.90	.50	.00	.00	.50	.50	.26	.51	1,080.17	

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Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Avg	Min	25th	Application rate (acre-feet)			Max	Variance	Std. dev.	Total-water withdrawals (acre-feet)
						50th	75th	percentile				
Minnows												
Prairie	4	195.00	2.46	0.83	0.83	2.50	4.00	4.00	9.22	3.04	3.04	392.25
Nuts												
Phillips	2	30.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	30.00
Recreation services												
Jefferson	1	30.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	90.00
Rice												
Arkansas	2,092	114,286.38	2.98	0.00	3.00	3.00	3.00	9.00	8.95	2.99	340,579.56	
Ashley	209	15,953.00	2.52	.83	2.00	2.50	3.00	3.00	6.49	2.55	40,186.62	
Benton	1	65.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	195.00	
Chicot	445	46,411.00	2.77	.40	3.00	3.00	3.00	6.00	8.06	2.84	127,951.66	
Clark	7	2,027.00	3.00	3.00	3.00	3.00	3.00	3.00	9.00	3.00	6,081.00	
Clay	699	42,030.00	3.01	.25	3.00	3.00	3.00	3.75	9.09	3.01	127,010.19	
Conway	8	702.00	2.50	2.50	2.50	2.50	2.50	2.50	6.25	2.50	1,755.00	
Craighead	1,307	71,093.22	2.95	2.00	3.00	3.00	3.00	3.10	8.77	2.96	210,249.34	
Crawford	1	193.00	2.75	2.75	3.00	3.00	2.75	2.75	3.00	3.00	530.75	
Crittenden	118	11,363.00	2.99	1.00	3.00	3.00	3.50	3.50	8.99	3.00	34,150.09	
Cross	1,194	79,372.61	3.43	.50	3.00	3.00	5.30	5.30	11.90	3.45	271,364.13	
Desho	527	39,032.59	3.63	.00	3.00	4.00	8.00	8.00	14.48	3.81	141,840.97	
Drew	132	10,609.00	3.01	3.00	3.00	3.00	4.00	4.00	9.05	3.01	31,837.00	
Faulkner	8	1,414.00	2.06	1.46	2.00	2.00	3.00	3.00	4.41	2.10	2,628.00	
Greene	777	37,439.99	2.53	2.00	2.00	2.00	3.00	3.00	6.42	2.53	94,810.98	
Hot Spring	3	197.00	5.67	3.50	3.50	3.50	10.00	10.00	46.19	6.80	1,177.00	
Independence	46	3,188.30	2.14	.00	2.17	2.17	2.50	2.50	4.71	2.17	7,076.54	
Izard	1	40.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	120.00	
Jackson	1,239	72,687.59	2.99	.50	3.00	3.00	3.00	3.00	8.95	2.99	217,149.28	
Jefferson	597	47,297.00	2.50	1.00	2.00	2.00	3.00	3.00	6.28	2.51	118,478.00	
Lafayette	2	310.00	3.00	3.00	3.00	3.00	3.00	3.00	9.00	3.00	930.00	
Lawrence	1,114	62,339.90	3.85	.00	4.00	4.00	6.00	6.00	15.04	3.88	240,516.66	
Lee	630	32,576.20	3.00	.00	3.00	3.00	4.00	4.00	9.00	3.00	97,628.59	
Lincoln	436	30,598.00	2.96	.50	3.00	3.00	4.00	4.00	8.87	2.98	89,831.38	
Little River	6	696.20	3.68	1.40	1.50	3.25	7.50	7.50	19.04	4.36	2,572.20	
Logan	14	453.00	2.33	.60	2.50	2.50	2.50	2.50	5.69	2.38	1,024.50	
Lonoke	1,564	85,569.23	2.93	.30	3.00	3.00	4.00	4.00	8.69	2.95	241,773.72	
Miller	1,45	18,587.00	3.02	.54	3.00	3.00	5.10	5.10	9.79	3.13	67,484.16	

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet) of					Max	Variance	Std. dev.	Total-water withdrawals (acre-feet)
			Avg	Min	25th	50th	75th				
Rice--Continued											
Mississippi	160	14,976.00	3.00	3.00	3.00	3.00	3.12	9.00	3.00	44,936.99	
Monroe	805	42,575.70	2.95	1.00	3.00	3.00	5.00	8.84	2.97	125,959.09	
Nevada	1	120.00	1.00	1.00	***	***	1.00	***	***	120.00	
Perry	8	1,032.00	2.98	2.50	3.00	3.00	3.00	8.66	2.94	3,006.00	
Phillips	323	21,201.50	2.98	2.00	3.00	3.00	3.00	8.95	2.99	63,274.50	
Pike	1	330.00	2.50	2.50	***	***	2.50	***	***	825.00	
Poinsett	1,417	104,695.00	2.99	2.00	3.00	3.00	3.50	8.96	2.99	312,511.94	
Pope	12	432.50	2.96	2.50	3.00	3.00	3.00	8.77	2.96	1,257.50	
Prairie	970	48,581.69	3.00	2.25	3.00	3.00	4.50	9.10	3.02	144,131.16	
Pulaski	132	7,311.50	3.11	2.00	3.00	3.00	5.00	9.89	3.15	22,684.75	
Randolph	284	17,242.00	2.99	2.00	3.00	3.00	3.00	8.92	2.99	51,513.50	
St Francis	633	41,173.59	3.09	1.00	3.00	3.00	3.12	9.63	3.10	127,014.70	
White	793	29,917.18	2.57	1.30	2.00	2.00	3.00	6.66	2.58	76,200.48	
Woodruff	850	46,605.65	2.66	.50	2.00	2.00	6.00	7.46	2.73	121,675.02	
Yell	13	1,314.00	3.69	3.00	4.00	4.00	4.50	13.91	3.73	5,046.50	
Shrubs											
Montgomery	1	5.00	1.00	1.00	***	***	1.00	***	***	5.00	
Sports clubs											
Benton	5	181.00	1.86	0.10	1.10	2.30	2.30	4.43	2.10	414.10	
Jefferson	2	280.00	2.00	2.00	***	***	2.00	4.00	2.00	560.00	
Sod											
Arkansas	1	12.60	3.20	3.20	***	***	3.20	***	***	40.32	
Benton	5	232.00	2.05	.25	0.25	1.50	5.50	8.34	2.89	312.13	
Boone	3	40.50	1.56	.17	***	2.00	2.50	3.93	1.98	16.12	
Chicot	1	29.00	2.00	2.00	***	***	2.00	***	***	58.00	
Cleburne	2	1.07	.48	.25	***	.48	.70	.33	.57	.57	
Craighead	1	85.00	4.50	4.50	***	***	4.50	***	***	382.50	
Crittenden	1	40.00	1.40	1.40	***	***	1.40	***	***	56.00	
Faulkner	2	130.00	.50	.50	***	.50	.50	.25	.50	65.00	
Franklin	1	160.00	.30	.30	***	***	.30	***	***	48.00	
Fulton	4	34.50	1.38	.50	.50	1.50	2.00	2.29	1.51	48.00	
Greene	2	75.00	.54	.08	***	.54	1.00	***	***	15.20	
Hot Spring	1	10.00	.50	.50	***	***	.50	***	***	5.00	
Johnson	1	1.00	.21	.21	***	***	.21	***	***	.21	
Lawrence	1	40.00	1.00	1.00	***	***	1.00	***	***	40.00	
Logan	1	.50	2.00	2.00	***	***	2.00	***	***	1.00	

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet)					Max	Variance	Std. dev.	Total-water withdrawals (acre-feet)
			Avg	Min	25th	50th	75th percentile				
Sod--Continued											
Lonoke	5	326.00	1.40	1.00	1.00	1.00	2.00	2.26	1.50	506.00	
Miller	1	65.00	2.20	2.20	***	***	2.20	***	***	143.00	
Mississippi	7	272.00	2.60	1.50	2.17	3.00	3.00	7.08	2.66	697.69	
Montgomery	2	3.00	2.35	***	***	***	4.70	16.57	4.07	14.10	
Newton	2	36.00	1.00	1.00	***	***	1.00	1.00	1.00	36.00	
Perry	9	688.00	5.03	1.86	1.00	4.50	26.92	94.73	9.73	3,284.28	
Phillips	2	140.00	1.60	1.60	***	***	1.60	2.56	1.60	3,224.00	
Poinsett	1	36.00	1.50	1.50	***	***	1.50	***	***	18.00	
Pope	2	2.00	1.00	1.00	***	***	1.00	1.00	1.00	2.00	
Pulaski	6	730.00	1.13	1.00	1.00	1.25	2.00	1.68	1.30	807.50	
Saline	1	2.00	1.72	1.72	***	***	1.72	***	***	3.44	
Stone	1	20.00	3.33	3.33	***	***	3.33	***	***	6.60	
White	8	722.00	3.38	1.00	1.00	6.00	10.00	23.66	4.86	3,582.00	
Yell	4	111.00	2.25	1.00	1.00	3.33	3.33	3.09	3.30	36.63	
Sorghum											
Ashley	2	35.00	0.50	0.50	***	0.50	0.50	0.25	0.50	17.50	
Chicot	1	60.00	0.67	0.67	***	***	0.67	***	***	40.50	
Cross	1	49.00	1.50	1.50	***	***	1.50	***	***	73.50	
Desh	3	172.00	1.33	1.00	***	1.00	2.00	2.11	1.45	282.00	
Drew	3	285.00	0.50	0.50	***	0.50	0.50	0.25	0.50	142.50	
Lonoke	3	157.00	0.44	0.33	***	0.33	0.67	0.24	0.48	57.59	
Mississippi	1	35.00	0.50	0.50	***	***	0.50	***	***	17.50	
Monroe	1	30.00	1.00	1.00	***	***	1.00	***	***	30.00	
Phillips	1	145.00	1.00	1.00	***	***	1.00	***	***	145.00	
Polk	1	20.00	1.00	1.00	***	***	1.00	***	***	20.00	
Woodruff	1	15.00	3.33	3.33	***	***	3.33	***	***	4.95	
Soybeans											
Arkansas	2,222	192,195.97	1.83	0.00	1.00	2.00	6.00	3.90	1.97	358,353.25	
Ashley	150	9,682.00	0.80	0.00	0.00	2.00	2.00	0.88	0.94	7,490.19	
Bradley	1	125.00	0.50	0.50	***	***	0.50	***	***	62.50	
Chicot	269	29,393.20	0.61	0.00	0.00	1.00	3.00	0.50	0.71	18,142.61	
Clark	8	3,645.00	0.67	0.67	0.67	0.67	0.67	0.44	0.67	2,431.21	
Clay	556	31,129.30	0.65	0.00	0.00	1.00	3.00	0.56	0.75	20,353.36	
Conway	16	2,823.00	0.51	0.25	0.25	0.60	0.83	0.31	0.55	1,228.78	
Craighead	1,008	57,477.01	0.98	1.00	1.00	1.00	3.00	0.99	0.99	56,778.04	
Crawford	3	835.00	1.08	0.75	***	***	1.50	1.32	1.15	935.00	
Crittenden	213	29,232.80	0.85	0.00	0.00	1.00	2.25	0.82	0.90	23,528.14	

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of repolts	Sum of acres	Application rate (acre-feet)					Max	Variance	Std. dev.	Total-water withdrawals (acre-feet)
			Avg	Min	25th	50th	75th				
Soybeans--Continued											
Cross	1,189	100,221.31	1.00	0.00	1.00	1.00	8.00	1.15	1.07	104,374.89	
Desha	533	35,037.09	1.82	.00	1.00	2.00	7.00	3.77	1.94	64,734.63	
Drew	75	5,033.00	.74	.00	.00	.75	2.00	.69	.83	3,469.50	
Faulkner	18	2,867.00	.76	.30	.50	1.00	1.50	.71	.84	2,086.10	
Franklin	7	945.00	.31	.20	.30	.30	.50	.11	.33	275.50	
Greene	351	16,589.00	.41	.00	.00	.00	1.00	.22	.47	6,898.97	
Hempstead	1	41.00	.67	.67	***	***	.67	***	***	27.47	
Hot Spring	3	450.00	1.72	.25	***	***	4.40	8.36	2.89	696.25	
Independence	21	1,542.20	1.13	1.13	1.13	1.13	1.13	1.28	1.13	1,742.69	
Izard	1	130.00	.42	.42	***	***	.42	***	***	54.60	
Jackson	884	57,585.28	1.04	.00	1.00	1.00	3.00	1.26	1.12	63,364.80	
Jefferson	439	34,217.00	1.00	.00	1.00	1.00	3.00	1.01	1.01	34,239.20	
Johnson	3	218.00	1.50	1.50	***	***	1.50	2.25	1.50	327.00	
Lafayette	1	41.00	1.25	1.00	1.00	1.00	1.50	***	***	58.50	
Lawrence	457	27,387.50	1.00	.00	.50	1.00	8.00	1.41	1.19	28,144.82	
Lee	565	38,763.90	1.95	.00	2.00	2.00	3.00	3.86	1.97	72,896.30	
Lincoln	429	29,394.00	.71	.00	.00	1.00	1.70	.58	.76	19,839.83	
Little River	1	600.00	1.00	1.00	***	***	1.00	***	***	600.00	
Logan	9	429.00	.52	.30	.50	.60	.60	.28	.53	219.00	
Louisa	1,505	106,446.98	.69	.00	.00	.00	67.00	3.48	1.86	71,751.63	
Miller	4	398.00	.85	.50	.50	.94	1.00	.77	.88	35,353.20	
Mississippi	349	47,359.00	.74	.00	1.00	1.00	3.00	.68	.83	35,929.25	
Monroe	835	52,732.00	1.00	.00	1.00	1.00	5.00	1.05	1.02	52,741.85	
Nevada	1	250.00	.50	.50	***	***	.50	***	***	125.00	
Perry	11	2,048.00	1.41	.80	1.20	1.50	2.00	2.08	1.44	2,917.00	
Phillips	303	34,317.80	1.02	1.00	1.00	1.00	3.00	1.09	1.04	35,337.80	
Poinsett	1,309	104,719.30	1.24	.00	1.00	1.00	6.00	1.77	1.33	128,485.64	
Pope	17	1,039.00	.88	.30	.50	.60	3.00	1.27	1.13	1,098.00	
Prairie	972	74,133.11	.81	.00	.00	1.00	3.00	.77	.88	59,095.45	
Pulaski	142	11,738.00	.96	.00	1.00	1.00	3.00	1.02	1.01	11,650.42	
Randolph	122	7,179.00	1.75	.20	1.00	1.50	4.50	3.92	1.98	12,520.99	
St Francis	619	49,640.49	1.08	.50	1.00	1.00	45.00	4.30	2.07	49,910.48	
Saline	1	97.00	1.00	1.00	***	***	1.00	***	***	97.00	
Sebastian	1	121.00	2.50	2.50	***	***	2.50	***	***	302.50	
Washington	1	18.20	1.00	1.00	***	***	1.00	***	***	18.20	
White	497	19,555.49	.61	.00	.00	.00	1.50	.42	.65	12,876.86	
Woodruff	962	66,186.97	.54	.00	.00	.00	5.00	.37	.61	35,132.61	
Yell	28	2,955.00	.79	.25	.25	.83	2.00	.85	.92	2,738.35	

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet)					Total-water withdrawals (acre-feet)		
			Avg	Min	25th	50th Percentile	Max		Variance	Std. dev.
Timber										
Arkansas	1	30.00	0.09	0.09	***	***	0.09	***	***	2.70
Chicot	1	280.00	1.75	1.75	***	***	1.75	***	***	490.00
Columbia	1	59.20	1.42	1.42	***	***	1.42	***	***	84.06
Mississippi	1	.00	.00	.00	***	***	.00	***	***	.00
Pulaski	1	40.00	2.00	2.00	***	***	2.00	***	***	80.00
Vegetables										
Benton	1	25.00	0.17	0.17	***	***	0.17	***	***	4.25
Bradley	4	28.00	.70	.70	***	***	.70	.49	***	19.60
Calhoun	1	2.00	2.00	2.00	***	***	2.00	***	***	4.00
Chicot	2	207.00	.50	.50	***	***	.50	.25	***	103.50
Cleburne	2	.50	2.75	1.50	***	***	4.00	10.69	***	3.27
Craighead	1	5.00	1.00	1.00	***	***	1.00	***	***	5.00
Crawford	1	24.00	1.15	1.15	***	***	1.15	***	***	27.60
Crittenden	2	78.00	1.00	1.00	***	***	1.00	1.00	***	78.00
Cross	1	10.00	.35	.35	***	***	.35	***	***	3.50
Desha	2	2.00	3.00	3.00	***	***	3.00	9.00	***	6.00
Faulkner	1	7.00	2.00	2.00	***	***	2.00	***	***	14.00
Franklin	2	80.00	.50	.50	***	***	.50	.25	***	40.00
Grant	1	46.00	1.50	1.50	***	***	1.50	***	***	69.00
Jackson	13	2,024.00	1.78	1.00	1.00	2.00	2.05	3.46	1.86	3,553.65
Jefferson	2	130.00	1.00	1.00	***	***	1.00	1.00	***	130.00
Johnson	2	6.00	.30	.10	***	***	.50	.17	***	1.80
Lee	3	10.00	1.33	1.00	***	***	2.00	2.11	1.45	17.00
Lincoln	10	827.00	1.30	1.00	1.00	1.50	1.76	1.33	1.33	1,045.50
Logan	1	15.00	.80	.80	***	***	.80	***	***	12.00
Mississippi	7	290.00	1.09	.10	.60	1.50	1.52	1.23	1.23	365.70
Monroe	1	16.00	1.50	1.50	***	***	1.50	***	***	24.00
Newton	3	6.60	17.67	1.00	***	***	50.00	***	33.11	17.00
Phillips	5	68.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	68.00
Polk	5	18.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	18.00
Pulaski	6	258.00	.46	.35	.35	.35	1.00	.28	.53	90.95
St Francis	2	21.00	.38	.25	***	***	.50	.17	.41	5.50
Saline	5	87.00	.13	.10	.10	.16	.20	.02	.14	11.06
White	3	71.00	.42	.25	***	***	.50	.19	.44	30.50
Woodruff	1	2.00	.50	.50	***	***	.50	***	***	1.00
Vell	1	.50	2.00	2.00	***	***	2.00	***	***	1.00

Table 2.--Water application statistics for crops and livestock for Arkansas counties, 1990--Continued

County	Number of reports	Sum of acres	Application rate (acre-feet)			Max	Variance	Std. dev.	Total-water withdrawals (acre-feet)		
			Avg	Min	25th percentile					50th percentile	75th percentile
Wheat											
Conway	3	346.00	0.39	0.00	***	0.17	***	1.00	0.44	0.66	124.82
Craighead	2	214.50	1.00	1.00	***	1.00	***	1.00	1.00	1.00	214.50
Crittenden	3	388.00	.57	.20	***	.50	***	1.00	.48	.70	192.00
Desha	1	20.00	1.50	1.50	***	***	***	1.50	***	***	30.00
Jackson	2	200.00	.91	.91	***	.91	***	.91	.83	.91	182.00
Jefferson	5	400.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	400.00
Lee	4	230.00	2.00	2.00	2.00	2.00	2.00	2.00	4.00	2.00	460.00
Lonoke	1	40.00	.50	.50	***	***	***	.50	***	***	20.00
Mississippi	5	502.00	.78	.60	.60	.70	1.00	1.00	.65	.81	398.40
Phillips	3	295.00	1.00	1.00	***	1.00	***	1.00	1.00	1.00	295.00
Pulaski	1	200.00	1.00	1.00	***	***	***	1.00	***	***	200.00
Woodruff	1	80.00	.50	.50	***	***	***	.50	***	***	40.00

Table 3.--Number of withdrawal registrations for Arkansas counties, 1990

[GW, ground water; SW, surface water]

County	Number of registrations		Number of registrations		
	GW	SW	GW	SW	
Arkansas	2,027	1,053	Little River	13	15
Ashley	671	86	Logan	26	13
Baxter	1	9	Lonoke	2,534	718
Benton	11	29	Madison	2	5
Boone	0	11	Marion	1	3
Bradley	2	3	Miller	62	38
Calhoun	1	3	Mississippi	822	58
Carroll	0	16	Monroe	1,649	204
Chicot	890	387	Montgomery	1	8
Clark	0	18	Nevada	0	5
Clay	1,975	59	Newton	2	9
Cleburne	0	10	Ouachita	1	4
Cleveland	0	4	Perry	3	32
Columbia	1	5	Phillips	936	16
Conway	27	25	Pike	1	6
Craighead	1,954	194	Poinsett	2,532	398
Crawford	3	10	Polk	2	15
Crittenden	498	34	Pope	22	27
Cross	2,183	188	Prairie	1,761	388
Dallas	0	2	Pulaski	164	107
Desha	1,159	574	Randolph	461	124
Drew	214	189	St Francis	1,229	88
Faulkner	8	35	Saline	3	23
Franklin	20	18	Scott	0	9
Fulton	2	14	Searcy	1	1
Garland	3	3	Sebastian	0	7
Grant	1	7	Sevier	1	2
Greene	1,425	58	Sharp	2	5
Hempstead	1	13	Stone	0	1
Hot Spring	8	13	Union	0	24
Howard	4	7	Van Buren	0	0
Independence	59	14	Washington	1	4
Izard	0	2	White	1,139	224
Jackson	2,299	167	Woodruff	1,612	125
Jefferson	1,297	407	Yell	8	43
Johnson	6	8			
Lafayette	90	16			
Lawrence	1,490	137			
Lee	1,752	41			
Lincoln	834	286	Total	35,907	6,904