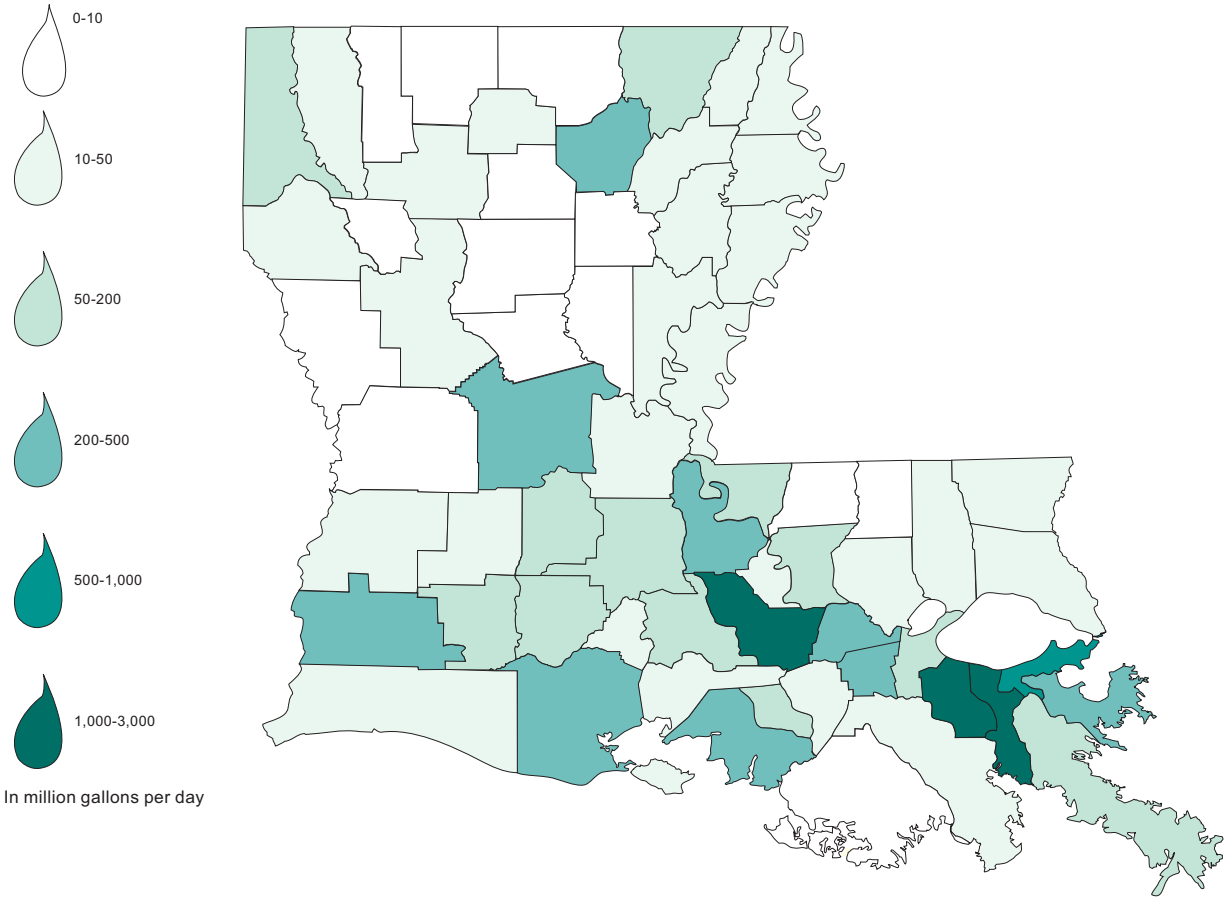
Water Use In Louisiana, 2000

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Water Resources Special Report No. 15



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
PUBLIC WORKS AND WATER RESOURCES DIVISION
WATER RESOURCES SECTION
in cooperation with the
U.S. GEOLOGICAL SURVEY

2002

STATE OF LOUISIANA

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PUBLIC WORKS AND WATER RESOURCES DIVISION

WATER RESOURCES SECTION

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U.S. DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

WATER RESOURCES

SPECIAL REPORT NO. 15

WATER USE IN LOUISIANA, 2000

By

B. Pierre Sargent

U.S. GEOLOGICAL SURVEY

Published by

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

Baton Rouge, Louisiana

2002

STATE OF LOUISIANA

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CONVERSION FACTORS AND ABBREVIATED WATER-QUALITY UNIT

Multiply	By	To obtain
acre	4,047	square meter
acre-foot (acre-ft)	0.00123	cubic hectometer
gallon per day (gal/d)	0.003785	cubic meter per day
mile (mi)	1.609	kilometer
million gallons per day (Mgal/d)	3,785	cubic meters per day
square mile (mi^2)	2.590	square kilometer

Abbreviated water-quality unit:

milligrams per liter (mg/L)

WATER USE IN LOUISIANA, 2000

By B. Pierre Sargent

ABSTRACT

In 2000, approximately 10,400 Mgal/d (million gallons per day) of water was withdrawn from ground- and surface-water sources in Louisiana. Total ground-water withdrawals were 1,600 Mgal/d, and total surface-water withdrawals were 8,700 Mgal/d. From 1995 to 2000, ground-water withdrawals in Louisiana increased by 29 percent, and surface-water withdrawals increased by 3 percent. Total water withdrawals in Louisiana increased by 6 percent from 1995 to 2000.

Water withdrawal totals in 2000 for various categories of use were as follows: public supply, 760 Mgal/d; industry, 2,700 Mgal/d; power generation, 5,600 Mgal/d; rural domestic, 41 Mgal/d; livestock, 19 Mgal/d; rice irrigation, 890 Mgal/d; general irrigation, 140 Mgal/d; and aquaculture, 240 Mgal/d.

Forty-nine percent (800 Mgal/d) of all ground water withdrawn was from the Chicot aquifer system, and 22 percent (350 Mgal/d) was withdrawn from the Mississippi River alluvial aquifer. About 78 percent (6,800 Mgal/d) of all surface water withdrawn was from the Mississippi River and the Mississippi River Gulf Outlet.

INTRODUCTION

Louisiana has a total land and water area of 48,000 mi^2 and abundant water resources are throughout the State. Every day, large amounts of water are withdrawn from natural sources for public supply, industrial, power generation, rural domestic, livestock, irrigation, and aquaculture uses. Water-use data are essential to appraise the effects of present use and plan the future use of Louisiana's water resources. The U.S. Geological Survey, in cooperation with the Louisiana Department of Transportation and Development, has collected and published water withdrawal and use information on a 5-year basis since 1960.

Purpose and Scope

This report presents data from a 2000 inventory of water withdrawals in Louisiana. The report presents information on withdrawals from ground-water and surface-water sources for use in public supply, industry, power generation, rural domestic, livestock, irrigation, and aquaculture for each parish in Louisiana. Included in the report are tables of water use by category, parish, aquifer, and surface-water basin. This report also presents trends in Louisiana water withdrawals based on data from previous 5-year reports since 1960.

Data in this report, with the exception of irrigation data, are compiled from water withdrawals made during the 1999 calendar year. Withdrawals for irrigation are based on data from 1999 and 2000 and represent a composite of the two years. For purposes of this report, the amount and distribution of water used in 2000 is assumed to be the same as that for 1999. The data are limited by the accuracy of the information reported by the individual facilities or users. All water-use data presented in this report are on file at the U.S. Geological Survey office in Baton Rouge, Louisiana.

Presentation of Data

The 2000 water-use data in this report are aggregated by category of use, parish, water source, aquifer, and surface-water basin. The information is presented in several formats to offer a complete description of water use in Louisiana. The section entitled "Water Use by Category" describes the 2000 water withdrawals for public supply, industry, power generation, rural domestic, livestock, irrigation, and aquaculture.

Following this section are graphical and tabular data for each parish, major aquifer, and surface-water basin in Louisiana. Data for the 64 parishes in Louisiana (fig. 1) are presented by parish in alphabetical order. Water-use data also are presented for 13 major aquifers or aquifer systems and 10 surface-water basins in Louisiana. The aquifers and aquifer systems in Louisiana for which ground-water withdrawals by aquifer are reported are presented in figure 2. The aquifers in the report are listed in order from shallowest to deepest (fig. 2). The report also contains sections on total water withdrawals and trends in water withdrawals in Louisiana since 1960.

Water-use data are a combination of estimated and reported data; therefore, totals in the text are rounded to two significant figures. Some reported data have as many as six digits past the decimal point when converted from gallons per year to million gallons per day; however, for the tables and figures in this report, values are rounded to two decimal places. All calculations of percentages were made using numbers rounded to two decimal places. Tabulation totals in various sections of the report may differ slightly due to rounding. For example, as stated in the section "Public Supply," withdrawals totaled approximately 760 Mgal/d, but using the rounded total for each source (ground water-- 350 Mgal/d and surface water-- 400 Mgal/d) the sum is 750 Mgal/d.

Previous Reports

The previous 5-year reports that have been published are as follows: Snider and Forbes (1961), Bieber and Forbes (1966), Dial (1970), Cardwell and Walter (1979), Walter (1982), Lurry (1987), Lovelace (1991), and Lovelace and Johnson (1996). In addition, Lurry (1985), Stuart and Lurry (1988) discuss specific information about public water supplies in Louisiana.

Acknowledgments

This report was made possible through the assistance and cooperation of personnel at public-supply, industrial, and power-generation facilities throughout Louisiana. Special thanks are given to Zahir "Bo" Bolourchi, Chief, Water Resources Programs, Louisiana Department of Transportation and Development, who contributed substantially to the design and format of the report. Don C. Dial, Director, Capital Area Ground Water Conservation Commission, provided information on the five-parish area under the commission's jurisdiction. The Louisiana Cooperative Extension Service specialists and county agents provided livestock, irrigation, and aquaculture information. The U.S. Consolidated Farm Service Agency assisted with the collection of representative irrigation information from Louisiana farmers. The Sabine River Compact Administration provided information for the Sabine River-Toledo Bend Reservoir System. The Louisiana Rural Water Association provided lists of rural water-supply facilities. The Louisiana Public Service Commission provided lists of electric companies and water companies with information on name changes or changes in ownership. The Louisiana Department of Health and Hospitals provided extensive lists of public and bottled water suppliers. Additionally, special thanks is given to USGS employees, Letoria G. House and Marlene S. Naanes, for their assistance in collection and collation of the data.

Figure 1. Parishes in Louisiana.

System	Series	Stratigraphic Unit		Hydrogeologic Unit: Northern Louisiana: Aquifer or confining unit	Central and southwestern Louisiana: Aquifer system or confining unit	Central and southwestern Louisiana: Aquifer or confining unit: Lake Charles area	Central and southwestern Louisiana: Aquifer or confining unit: Rice growing area	Southeastern Louisiana: Aquifer system or confining unit[1]	Southeastern Louisiana: Aquifer or confining unit[2]: Baton Rouge area	Southeastern Louisiana: Aquifer or confining unit[2]: St. Tammany, Tangipahoa, and Washington Parishes	Southeastern Louisiana: Aquifer or confining unit[2]: New Orleans area and lower Mississippi River Parishes[3]
Quaternary	Pleistocene	Red River alluvial deposits Mississippi River alluvial deposits Northern Louisiana terrace deposits Unnamed Pleistocene deposits		Red River alluvial aquifer or surficial confining unit Mississippi River alluvial aquifer or surficial confining unit Upland terrace aquifer or surficial confining unit	Chicot aquifer system or surficial confining unit	"200-foot" sand "500-foot" sand "700-foot" sand	Upper sand unit Lower sand unit	Chicot equivalent aquifer system or surficial confining unit	Mississippi River alluvial aquifer or surficial confining unit Shallow sand "400-foot" sand "600-foot" sand	Upland terrace aquifer Upper Ponchatoula aquifer	Gramercy aquifer Norco aquifer Gonzales-New Orleans aquifer "1,200-foot" sand
Tertiary	Pliocene	Fleming Formation	Blounts Creek Member	Units absent	Evangeline aquifer or surficial confining unit			Evangeline equivalent aquifer system or surficial confining unit	"800-foot" sand "1,000-foot" sand "1,200-foot" sand "1,500-foot" sand "1,700-foot" sand	Lower Ponchatoula aquifer Big Branch aquifer Kentwood aquifer Abita aquifer Covington aquifer Slidell aquifer	
	?										
	Miocene	Fleming Formation	Castor Creek Member		Castor Creek confining unit			Unnamed confining unit	"2,000-foot" sand "2,400-foot" sand "2,800-foot" sand	Tchefuncte aquifer Hammond aquifer Amite aquifer Ramsay aquifer Franklinton aquifer	
			Williamson Creek Member Dough Hills Member Carnahan Bayou Member		Jasper aquifer system or surficial confining unit	Williamson Creek aquifer Dough Hills confining unit Carnahan Bayou aquifer		Jasper equivalent aquifer system or surficial confining unit			
			Lena Member		Lena confining unit			Unnamed confining unit			
	?	Catahoula Formation			Catahoula aquifer			Catahoula equivalent aquifer system or surficial confining unit			
	Oligocene	Vicksburg Group, undifferentiated		Vicksburg-Jackson confining unit	No freshwater occurs in deeper units						
	Eocene	Jackson Group, undifferentiated									
		Claiborne Group	Cockfield Formation	Cockfield aquifer or surficial confining unit							
			Cook Mountain Formation	Cook Mountain aquifer or confining unit							
			Sparta Sand	Sparta aquifer or surficial confining unit							
			Cane River Formation	Cane River aquifer or confining unit							
			Carrizo Sand	Carrizo-Wilcox aquifer or surficial confining unit							
	?										
	Paleocene	Wilcox Group, undifferentiated									
		Midway Group, Undifferentiated		Midway confining unit							

[1]The interval containing the four aquifer systems is called the Southern Hills aquifer system.
[2]Clay units separating aquifers in southeastern Louisiana are discontinuous, unnamed, and not listed herein.
[3]The interval containing the four aquifers is called the New Orleans aquifer system.

Modified from Lovelace and Lovelace, 1995.

Figure 2. Hydrogeologic units in Louisiana.

DATA COLLECTION

Information for public-supply, industrial, and power-generation facilities was primarily obtained directly from the facilities. A master list was created by combining lists from several sources. The main source for public and bottled water suppliers is the Louisiana Department of Health and Hospitals. Rural water supply information came from the Louisiana Rural Water Association. Industrial facilities were listed in the "Directory of Louisiana Manufacturers 99" (Carlsen, 1999), and the Louisiana Public Service Commission provided information on power-generation facilities.

Population and acreage data were compiled from various sources. Parish and State population estimates for 1999 were obtained from the U.S. Department of Commerce (U.S. Census Bureau, 2000). Population data used for livestock estimates were obtained from the Louisiana Cooperative Extension Service. For consistency and comparability with past water-use reports, the per capita use rates for livestock from previous reports were used to estimate withdrawals for livestock. Population data used for rural domestic use not served by public supply were obtained from a report by the U.S. Census Bureau (1993). A per capita rural domestic water-use estimate of 80 gallons per person per day (Lurry, 1987) was used to estimate total rural domestic use.

Application-rate data for irrigation, collected by the U. S. Consolidated Farm Service Agency directly from farmers during late spring 2000, are mostly representative of the 2000 growing season. Crop-acreage data originated from inventories made by the Louisiana Cooperative Extension Service for calendar year 1999. Acreage data for cotton was updated with data from the U. S. Department of Agriculture's 1998 Farm and Ranch Irrigation Survey (National Agricultural Statistics Service, 1999). Aquaculture acreage and application rates were obtained from the Louisiana Cooperative Extension Service and the Louisiana Department of Wildlife and Fisheries.

Water-use information may be divided into two groups--site-specific and aggregate. Site-specific information refers to the situation in which the location of the water-use facility is known and withdrawal data are recorded as originating from that location. Public-supply, industrial, and power generation facilities provide site-specific information. Estimates of withdrawals were made for some facilities when actual withdrawal information was unavailable. Water-use information for rural domestic, livestock, irrigation, and aquaculture withdrawals is considered aggregate. Estimates are made by parish as the location of specific users within each parish is unknown.

Louisiana well registration inventories provide data on the distribution of, for example, irrigation wells among aquifers within a parish. This information was used to distribute aggregated withdrawal data among the appropriate aquifers within a parish. For surface-water basins, the estimate of aggregate withdrawals within a parish was made based on percent areal distribution of the basins. Per capita use rates were used to estimate withdrawal values for the aggregated data when specific information was unavailable.

Information obtained was entered into a water-use data base at the U.S. Geological Survey. Withdrawal data are expressed in millions of gallons per day (Mgal/d). Seasonal withdrawals, such as for irrigation and sugar cane processing, were prorated for the entire year. All withdrawal information in this report was retrieved from the data base.

Water withdrawals in this report are characterized as "fresh" rather than "saline" indicating that the water has less than 250 milligrams per liter (mg/L) of chloride. A typical value of seawater chloride concentration is 19,000 mg/L. For the purposes of the report, water near the Gulf of Mexico that has more than 250 mg/L chloride is considered fresh.

WATER USE BY CATEGORY

Water use is water withdrawn or diverted from a ground- or surface-water source and used for public supply, industry, power generation, rural domestic, livestock, irrigation, and aquaculture purposes. The following definitions clarify water-use terms in this report:

Public-supply withdrawal refers to water withdrawn and delivered to a group of users by public and private water suppliers. Typically a public water supply is one that serves 25 people or 15 connections year round. The water is used for a variety of purposes such as domestic, commercial, industrial, and public water use. In addition, a portion of public-supply withdrawals are conveyed to a large industrial facility that does not have its own water supply.

Industrial withdrawal refers to water withdrawn for industrial purposes such as process and production, boiler feed, air conditioning, cooling, sanitation, washing, and steam generation.

Power-generation withdrawal refers to water withdrawn for thermoelectric power-generation purposes such as cooling, sanitation, washing, and steam generation. Use of water for hydroelectric power generation is considered an instream use and not a withdrawal. Therefore, hydroelectric power-generation use is not included in surface-water withdrawals in this report, but is reported as an instream use.

Once-through cooling refers to the one-time use of water for cooling and other industrial uses. Water used in this manner is usually returned to the source and little, if any, water is consumed.

Rural-domestic withdrawal refers to water withdrawn by a person or family for personal home use. These users are often in rural areas where public supplies are unavailable.

Livestock withdrawal refers to water withdrawn for use in the production of cattle, horses, sheep, swine, poultry, and other animals. The water can be used for livestock consumption, sanitation, and other on-farm needs.

Irrigation refers to any withdrawal of water for application to vegetation. This includes application to field crops such as rice, corn, cotton, fruit crops, nurseries, and special applications such as the watering of golf courses and sporting fields.

Aquaculture withdrawal refers to the withdrawal of water for fish, crawfish, and alligator farming. Instream fish farming is not included in this category.

Instream use refers to the use of surface water without removal from its natural environment. Common instream uses include hydroelectric power generation, fishing, and navigation. Instream use is not included in surface water totals of this report.

Standard Industrial Classification (SIC) is a standard used by Federal agencies for the classification of establishments by type of activity. In 1987 a SIC revision was promulgated by the U.S. Office of Management and Budget to facilitate comparisons of economic statistics by the various government agencies (Office of Management and Budget, 1987). This SIC version was used as the reference for industrial classification in this report.

Public Supply

Approximately 3.9 million people, 88 percent of Louisiana's total population of 4.4 million in 2000, (Center for Business and Economic Research, Louisiana Tech University, written commun., 1995; U.S. Census Bureau, 2000) used about 760 Mgal/d of water provided by public suppliers in 2000 (fig. 3). This water accounted for about 7.3 percent of the total water withdrawn in the State. Per capita use was 196 gal/d. Of the 760 Mgal/d, about 350 Mgal/d was from ground-water sources, and about 400 Mgal/d was from surface-water sources. Of these 3.9 million people, 59 percent were supplied with water from a ground-water source, and 41 percent were supplied with water from a surface-water source.

All of the major aquifers or aquifer systems in Louisiana were tapped as sources of public-supply water. In northern Louisiana, the chief source of ground water is the Sparta aquifer which produces 11 percent of the ground water used for public supply in the State. In southwestern Louisiana, the Chicot aquifer system is the major source of ground water (25 percent of State total for public supply), and in southeastern Louisiana the Evangeline equivalent and Jasper equivalent aquifer systems provide 20 and 18 percent, respectively of ground water used for public supply in the State.

The Mississippi River is the largest source of surface water for public supplies; 270 Mgal/d of Mississippi River water were supplied primarily to parishes in southeastern Louisiana where ground-water supplies are limited or unavailable. This value represents 68 percent of the total surface-water withdrawals for public supply in Louisiana. The next water body with significant production of surface water for public supply is Cross Lake which provides 11 percent of total withdrawals in the State. The remaining 21 percent of withdrawals is distributed among 21 water bodies. Orleans Parish, with the largest parish population of 460,913 people (U.S. Census Bureau, 2000), had the highest withdrawal, 160 Mgal/d, by public suppliers (fig. 4).

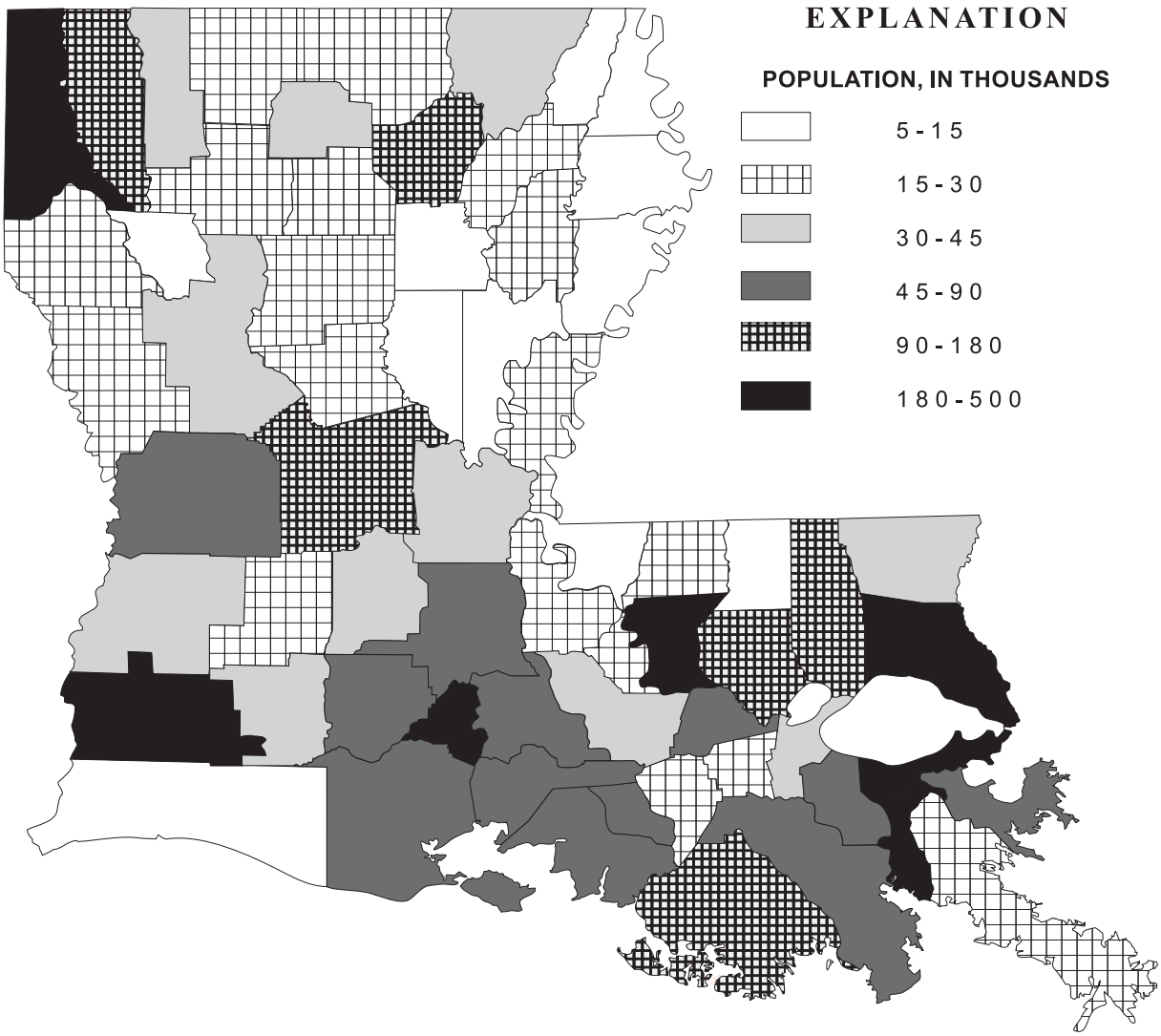


Figure 3. Louisiana population by parish, 1999. (Source: Compiled by the U.S. Geological Survey from the U.S. Census Bureau data, 2000.)

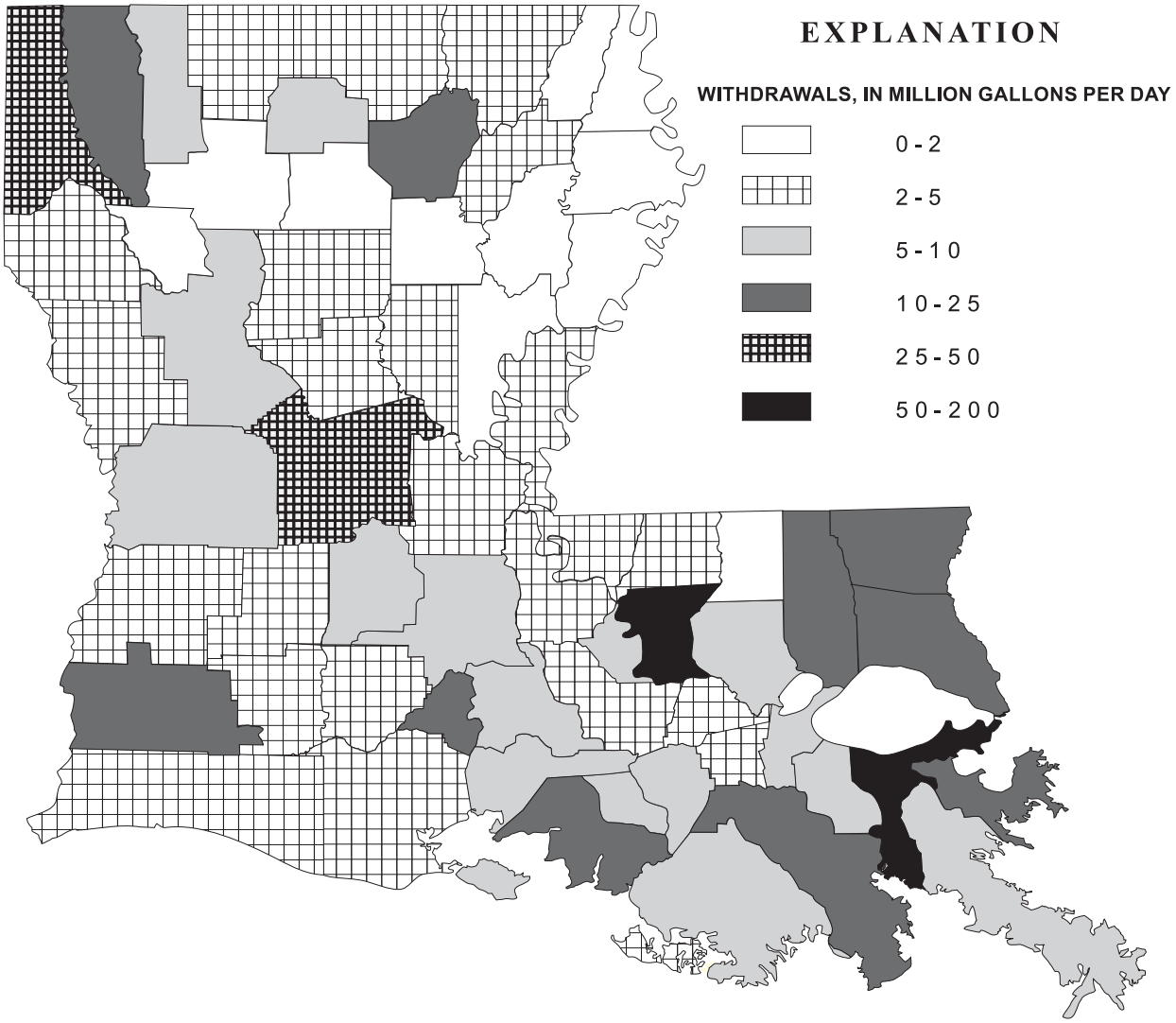


Figure 4. Public-supply water withdrawals in Louisiana by parish, 2000.

Industrial

Industry in Louisiana withdrew 2,700 Mgal/d of water in 2000, 280 Mgal/d from ground-water sources and 2,400 Mgal/d from surface-water sources. Industrial withdrawals in 2000 accounted for 26 percent of all withdrawals. Most of the surface water withdrawn by industry was used for once-through cooling and was returned to its source after use. Chemical manufacturers withdrew 1,900 Mgal/d or 70 percent of total industrial withdrawals. Table 1 lists withdrawals in 2000 by SIC code for the major industrial groups.

Table 1. Water withdrawals in Louisiana by major industrial group, 2000

[Withdrawals are in million gallons per day. Dashes indicate withdrawals are less than or equal to 0.005 Mgal/d. Source of Standard Industrial Classification: Office of Management and Budget, 1987]

Standard Industrial Classification		Ground-water withdrawals	Surface-water withdrawals
12	Coal and lignite mining	0.33	---
13	Oil and gas extraction	1.01	3.76
14	Nonfuels/nonmetals mining	---	.09
15	Building construction	.87	---
20	Food products	28.90	34.39
24	Lumber	2.74	.18
26	Paper products	85.92	109.46
28	Chemicals	114.34	1,769.08
29	Petroleum refining	40.77	449.61
30	Rubber and plastics	1.91	---
32	Glass, clay, and concrete	2.72	---
33	Primary metals	2.16	30.53
34	Metal products	.04	.20
37	Transportation equipment	2.24	.22
44	Water transportation	.11	.01

Aquifers in the southeastern part of the State (Jasper, Chicot, and Evangeline equivalent aquifer systems) provided approximately 39 percent of ground water withdrawn for industrial use; aquifers in the southwestern and central part of the State (Catahoula and Evangeline aquifers and Jasper and Chicot aquifer systems) provided 33 percent, and aquifers in northern Louisiana (Sparta, Carrizo-Wilcox, Upland Terrace, and Cockfield aquifers) provided 11 percent, with the remaining 18 percent of water withdrawn for industrial purposes provided by aquifers distributed statewide (Mississippi and Red river alluvial aquifers). The Mississippi River provided 84 percent of the surface water withdrawn by industry in Louisiana. The Calcasieu River provided 7 percent of the surface water withdrawn by industry in Louisiana and the remaining 9 percent was provided by 25 surface water bodies. Total industrial withdrawals in St. Charles and Iberville Parishes were the highest in the State, both 580 Mgal/d, and together accounted for 43 percent of all ground-water and surface-water industrial withdrawals (fig. 5).

Power Generation

Power-generation facilities withdrew approximately 5,600 Mgal/d, about 54 percent of all water withdrawn in 2000. Of this amount, only 28 Mgal/d came from ground-water sources. Aquifers in southeastern Louisiana produced 50 percent of the ground water used for power generation. The Chicot aquifer system in southwestern Louisiana is the source of 44 percent of the ground-water withdrawals for power generation. The remaining 6 percent of the ground water is from the other aquifers in the State.

Eighty-two percent (4,600 Mgal/d) of the surface water withdrawn for power-generation purposes was obtained from the Mississippi River and the Mississippi River Gulf Outlet in southeastern Louisiana, 2,100 Mgal/d of which was withdrawn in St. Charles Parish (fig. 6). Most surface water withdrawn for power-generation purposes was, as in industry, used for cooling purposes and was returned to its source after use. Of the total water withdrawn for power generation, 28 Mgal/d of ground water and 4,600 Mgal/d of surface water were withdrawn for use in fossil-fueled plants; 8.3 Mgal/d of surface water were withdrawn for use in hydroelectric plants; and 0.02 Mgal/d of ground water and 1,000 Mgal/d of surface water were withdrawn for use in nuclear plants.

In 2000, 68,000 Mgal/d of water passed through Louisiana's two hydroelectric power plants. The larger of the two hydroelectric power plants is located at the Old River Control Structure near Tarbert Landing, Mississippi, and uses water from the Mississippi River. In 2000, an average of 66,000 Mgal/d passed through the plant's turbines.

The other hydroelectric power plant in Louisiana uses water impounded in the Toledo Bend Reservoir on the Louisiana-Texas border and releases the water through the turbines near Burkeville, Texas. Because the plant is located on the Louisiana-Texas border, one-half of the water used is counted in Louisiana's water-use inventory. In 2000, an average of 3,400 Mgal/d of water passed through the plant's turbines. Of this amount, 1,700 Mgal/d was counted as power-generation instream use for Louisiana. Hydroelectric power-generation instream use was not included in surface-water withdrawals in this report because the water was not withdrawn.

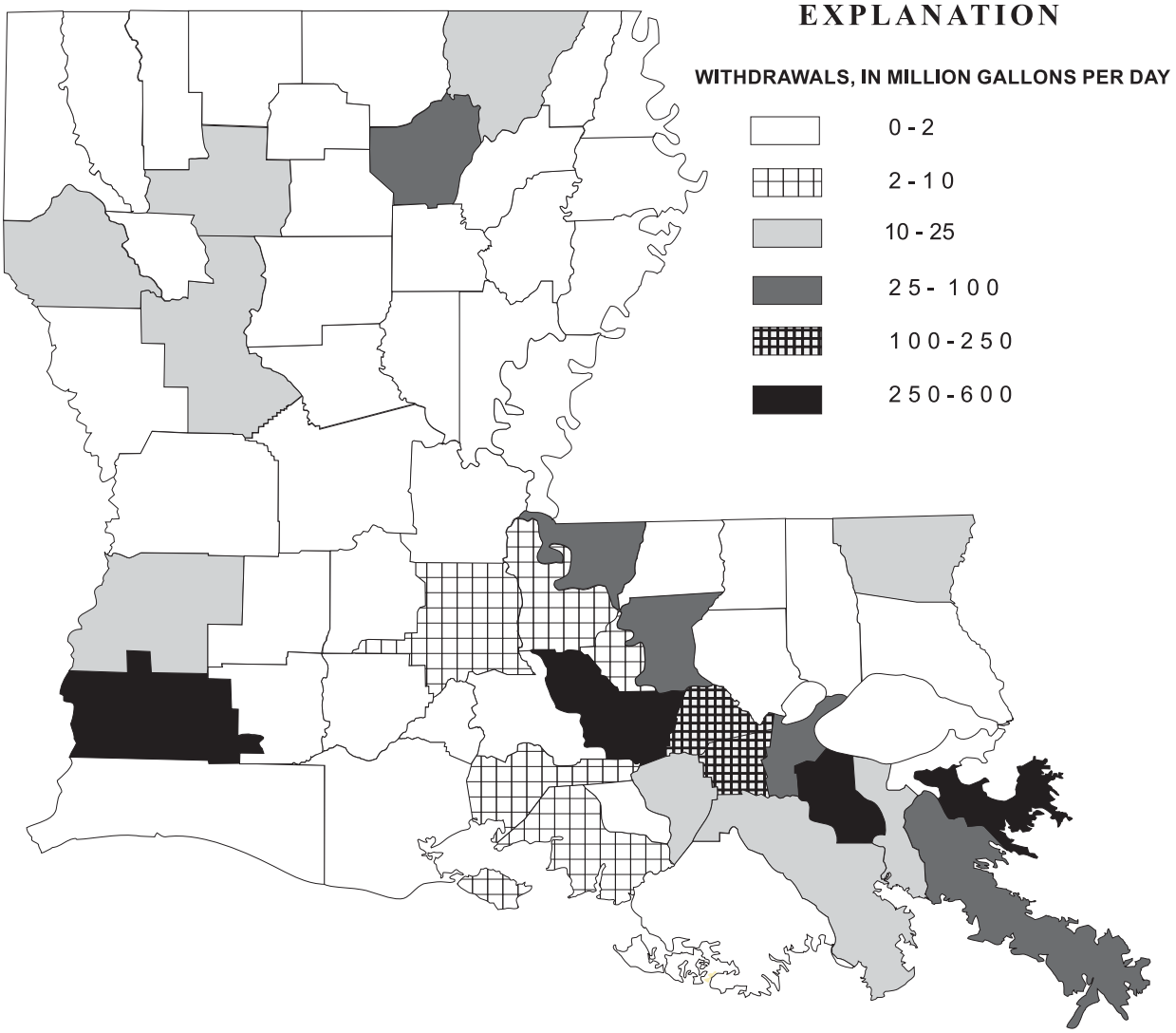


Figure 5. Industrial water withdrawals in Louisiana by parish, 2000.

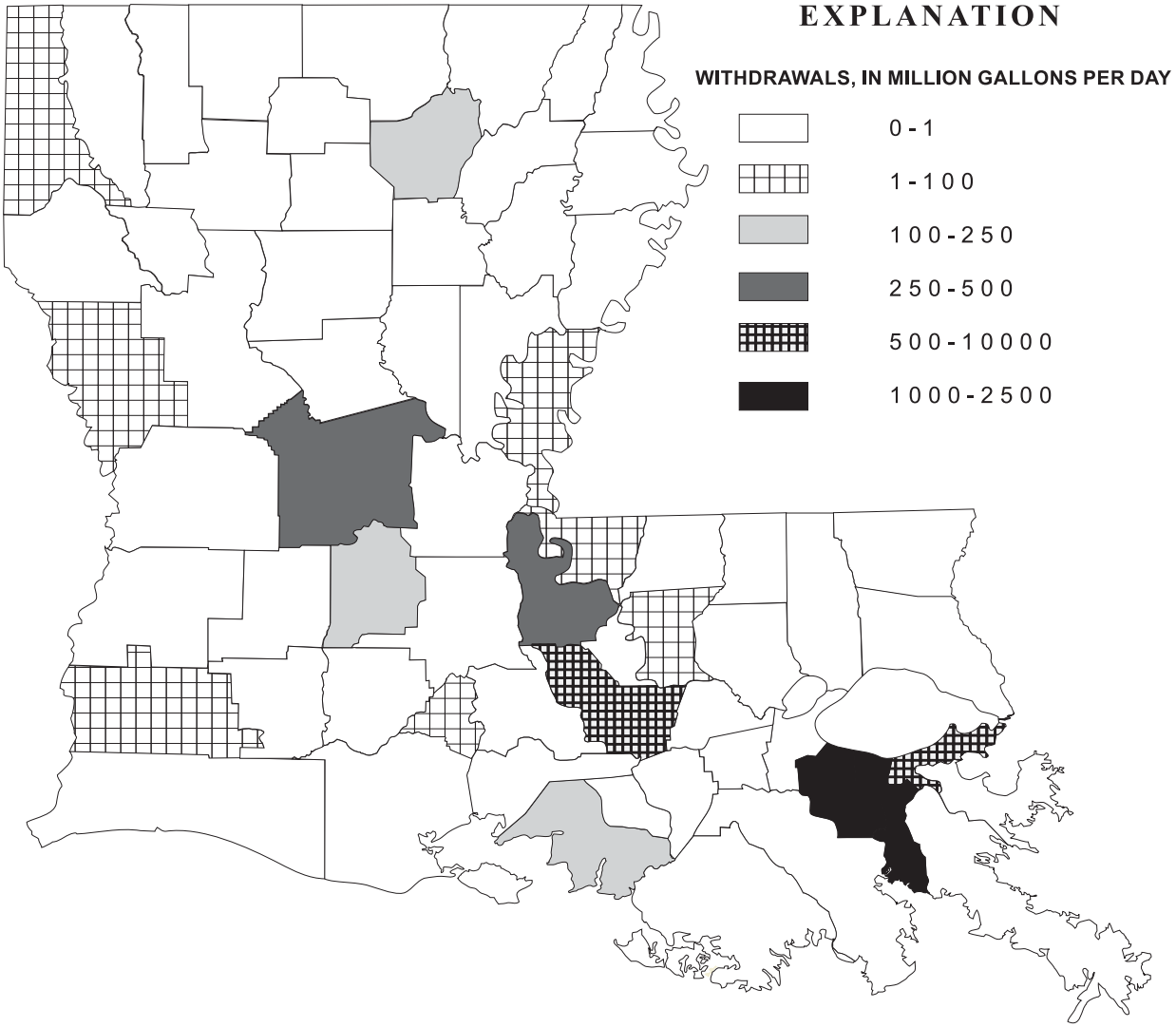


Figure 6. Power-generation water withdrawals in Louisiana by parish, 2000.

Rural Domestic

Approximately 12 percent of Louisiana's population, 515,155 people (Center for Business and Economic Research, Louisiana Tech University, written commun., 1995; U.S. Census Bureau, 2000), using privately owned domestic wells, withdrew an estimated 41 Mgal/d of ground water for domestic use in 2000. For the purpose of this report, an average of 80 gal/d per person was used to estimate withdrawals by the rural domestic portion of the population (Lurry, 1987). Little or no surface water is used for rural domestic purposes in Louisiana because suitable ground water generally is available that requires minimal treatment. Every major aquifer and aquifer system was used as a source for rural domestic water. Forty percent of the ground water withdrawn for rural domestic water use came from aquifers in southeast Louisiana. Thirty-three percent of the water withdrawn for rural domestic water use was produced from aquifers in southwest Louisiana, and northern aquifers contributed 17 percent of the ground water used for rural domestic water use. The remaining 10 percent of the withdrawals for rural domestic water use came from the remaining aquifers in the State. St. Tammany Parish had the highest withdrawal rate of 5.8 Mgal/d (fig. 7).

Livestock

In 2000, livestock consumed approximately 19 Mgal/d of water supplied by individual ranchers and farmers. Of this total, 6.3 Mgal/d was ground water and 13 Mgal/d was surface water. Surface water generally was supplied by small streams, canals, and private ponds. Ground water used for livestock came from most of the major aquifers and aquifer systems. The Sparta aquifer had 23 percent of the ground-water withdrawals for livestock (1.5 Mgal/d). The Chicot aquifer system and the Mississippi river alluvial aquifer follow at 18 and 17 percent (1.1 Mgal/d each). The remaining 42 percent of the withdrawals for livestock are distributed among other aquifers in amounts less than 0.5 Mgal/d. Union Parish had the highest livestock withdrawal rate of 3.6 Mgal/d (fig. 8). Livestock in Louisiana that required substantial amounts of water included cattle, horses, swine, sheep, and poultry. For the purpose of this report, estimates of livestock use rates were used to calculate water withdrawals for livestock. The rates used (in gal/d per head) are milk cows, 20; other cattle, 10; horses, 10; swine, 3; sheep, 2; and poultry, 0.04 (Lovelace and Johnson, 1996).

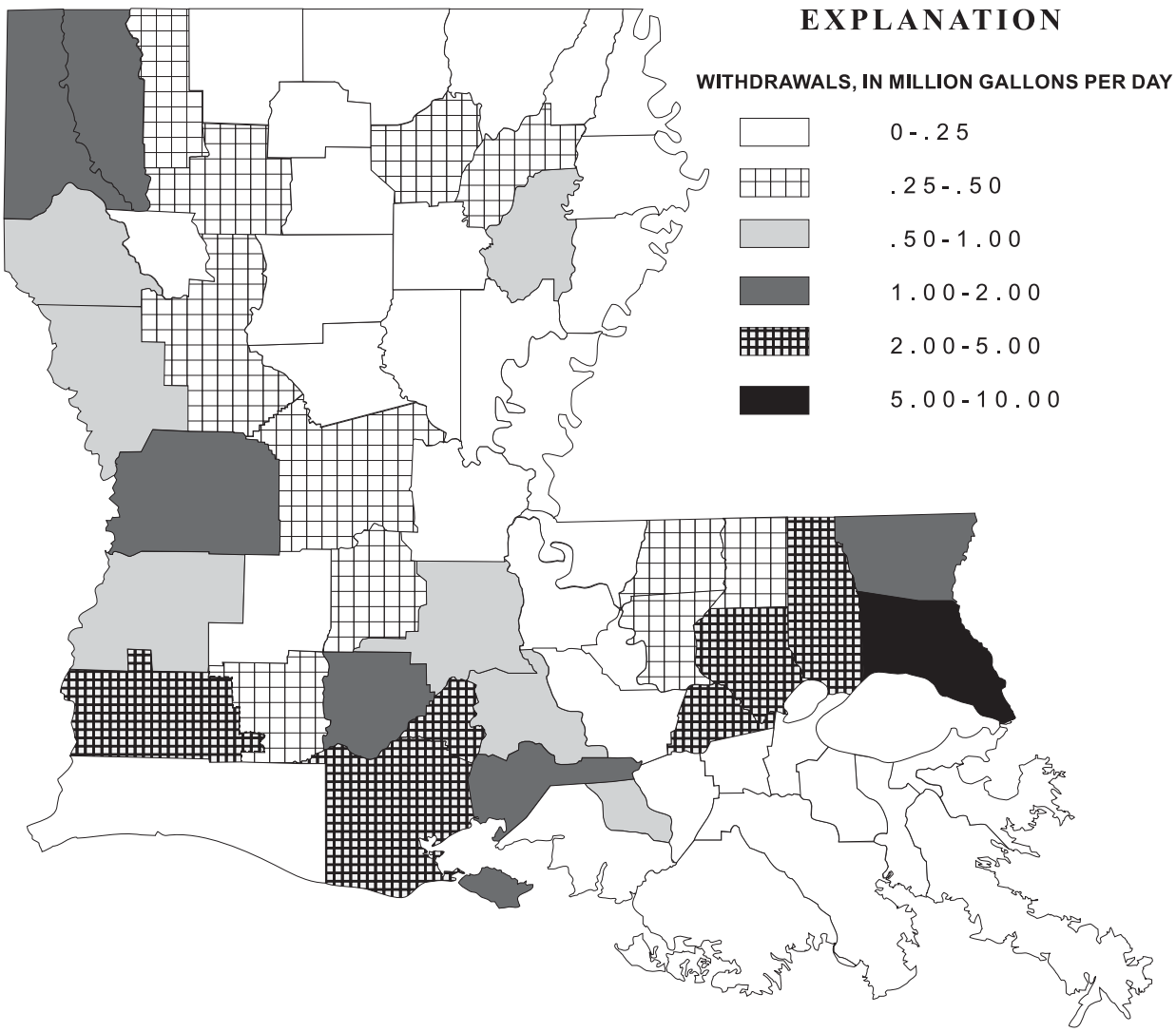


Figure 7. Rural-domestic water withdrawals in Louisiana by parish, 2000.

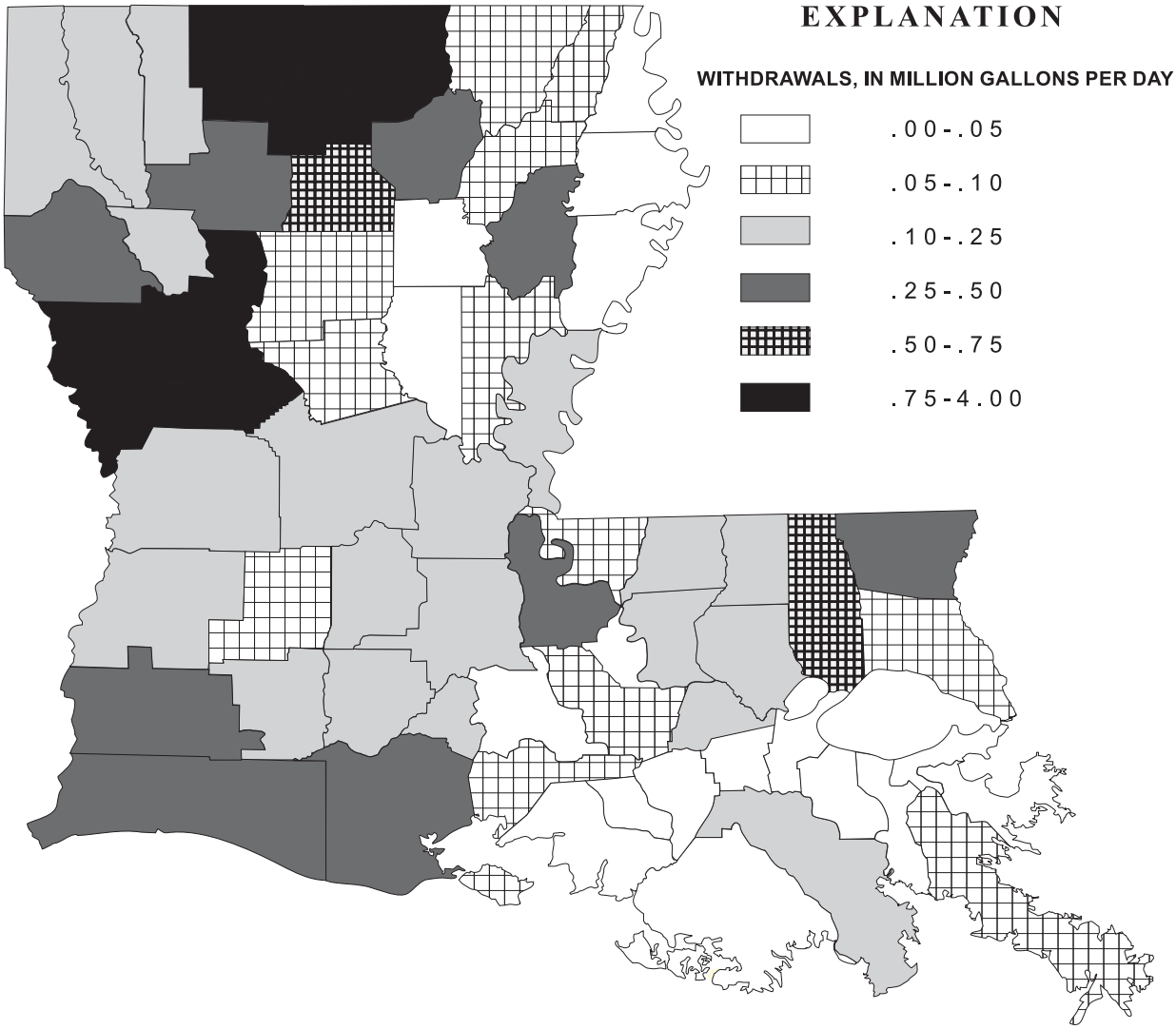


Figure 8. Livestock water withdrawals in Louisiana by parish, 2000.

Rice Irrigation

In 1999, approximately 620,000 acres of rice were harvested in 28 parishes, mainly in southwestern and northeastern Louisiana (Louisiana Cooperative Extension Service, 2000). It should be noted that in the 2000 growing season, rice acreage decreased (480,000 acres) substantially (Louisiana Cooperative Extension Service, 2001). All rice grown in Louisiana is assumed to be irrigated. The average application rate was about 1.61 acre-ft per acre per year. Rice farmers withdrew approximately 890 Mgal/d of water to irrigate their fields in 1999. Of the total, 680 Mgal/d was ground water and 210 Mgal/d was surface water.

The Chicot aquifer system in southwestern Louisiana supplied 79 percent of the ground water used for rice irrigation, which is the greatest percentage originating from one aquifer. In northeastern Louisiana, the Mississippi River alluvial aquifer provided 20 percent, and the remaining 1 percent is distributed among the other aquifers in the State. Surface water is withdrawn from many streams, lakes, bayous, and canals in the rice growing areas, with the greatest percentage of withdrawals for rice irrigation, 12 percent, occurring in Bayou Queue de Tortue. The highest total withdrawals for rice irrigation of 190 Mgal/d occur in Vermilion Parish, including 149 Mgal/d from ground-water and 41 Mgal/d from surface-water sources (fig. 9).

General Irrigation

In 1999, farmers irrigated approximately 317,000 acres of crops other than rice (Louisiana Cooperative Extension Service, 2000). Crops with substantial amounts of irrigated acreage included cotton, soybeans, corn, sorghum, sod, sweet potatoes, and strawberries. Based on the 2000 irrigation data, the average application rate for these crops was about 0.66 acre-ft per acre per year. Farmers withdrew approximately 135 Mgal/d for irrigation, of which 109 Mgal/d was ground water and 26 Mgal/d was surface water. Irrigation of these crops occurred primarily in northeastern Louisiana (fig. 10), and 90 percent of the ground water was withdrawn from the Mississippi River alluvial aquifer. The Chicot aquifer system provided 4 percent and the other aquifers in the State provided 6 percent of the ground water for general irrigation.

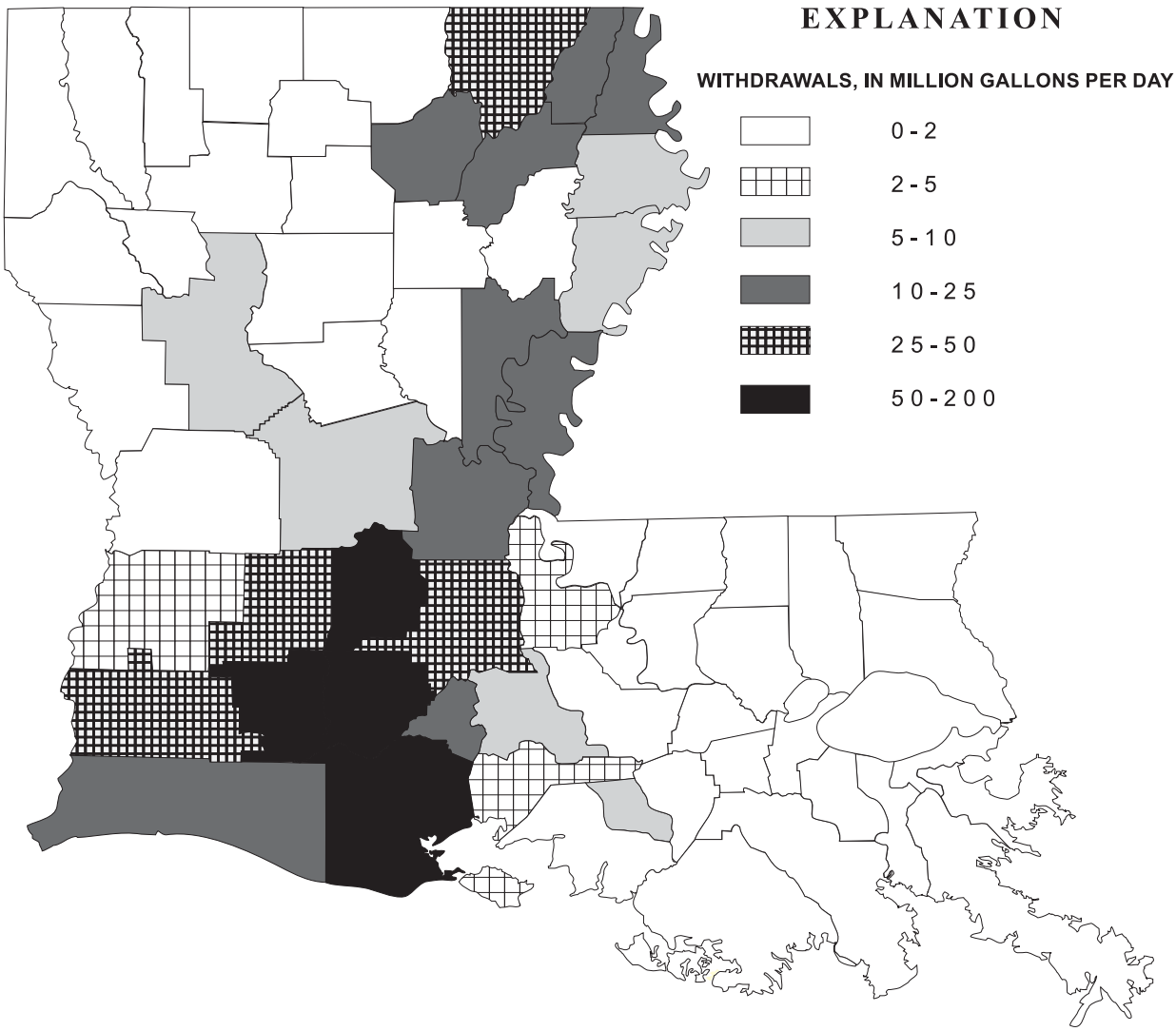


Figure 9. Rice-irrigation water withdrawals in Louisiana by parish, 2000.

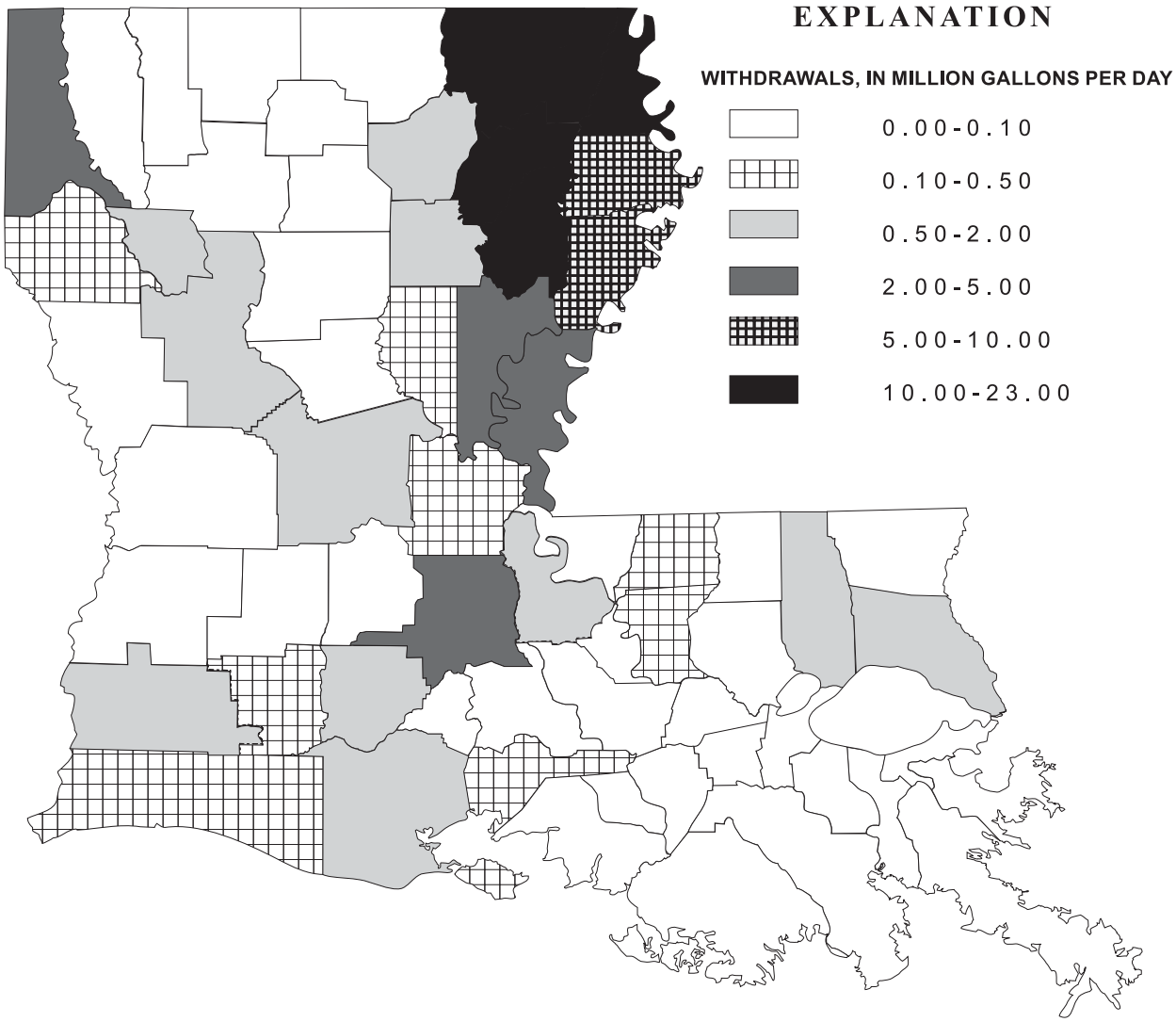


Figure 10. General-irrigation water withdrawals in Louisiana by parish, 2000.

Aquaculture

In 2000, approximately 240 Mgal/d of water was withdrawn for aquaculture in Louisiana. Of the total, 130 Mgal/d was ground water and 120 Mgal/d was surface water. Eighty-four percent of this water was used to maintain water levels on 109,000 acres of crawfish ponds, 14 percent on 14,000 acres of catfish ponds, and 1 percent at 51 alligator farms (Louisiana Cooperative Extension Service, 2000). The Chicot aquifer system supplied 53 percent, and the Mississippi River alluvial aquifer supplied 43 percent of ground water used. The Red River alluvial aquifer supplies one percent and the remaining three percent is distributed among the other aquifers in the State. Numerous streams were used as sources of surface water. Ground-water withdrawals for aquaculture were highest in Franklin Parish, 23 Mgal/d, and surface-water withdrawals were highest in St. Martin Parish, 40 Mgal/d (fig. 11).

WATER USE BY PARISH

The one-page summaries of water-use information by parish presented in this section of the report contain tables of withdrawals by source of water and category of use, lists of major public suppliers, lists of major industrial groups, and trends in withdrawal since 1960. Also listed are the population, population served by public supply, per capita withdrawals, total irrigated acreage, and the amount of hydroelectric instream use for the parish. The per capita withdrawal rate is the average daily total amount of water withdrawn in the parish divided by the total parish population. A map shows the location of the parish within the State.

In each of the summaries, a table lists average daily withdrawals for the eight major categories of use. The withdrawals are totaled by the source of water used--that is, surface or ground--and by category. Totals for the parish also are shown.

A bar chart on each summary shows water-use trends since 1960 for the parish. The data were compiled from previous 5-year water-use reports. The graphs are presented without interpretation.

A table of major industrial groups lists withdrawals for ground- and surface-water sources. For the purposes of this table, a withdrawal was included only if it was greater than or equal to 0.01 Mgal/d and was used by the manufacturing sector of industry, rather than the service or commercial sector. Therefore, the total of the withdrawals in this table may be less than the total for industry in the table of withdrawals by category of use. If it is significant, the difference between the total withdrawals for major industrial groups and total industrial withdrawals will be the total withdrawals for minor industrial groups.

A table of withdrawals by major public suppliers listed in alphabetical order also is presented. For the purposes of this table, public suppliers were included only if the withdrawal was greater than or equal to 0.01 Mgal/d. Therefore, totaled withdrawals from this table may be less than the totals for public supply in the table of withdrawals by category of use. Self-supplied institutions such as hospitals, prisons, and military installations, though included in the withdrawals for public supply, are considered minor public suppliers and are not listed in the table of major public suppliers. If it is significant, the difference between the total withdrawals for major public suppliers and the total public supply withdrawals will be the total withdrawals for minor public suppliers.

Water-use information for each of the 64 parishes in Louisiana is summarized in table 2. The table lists withdrawals and totals for each parish and each major category of use in Louisiana.

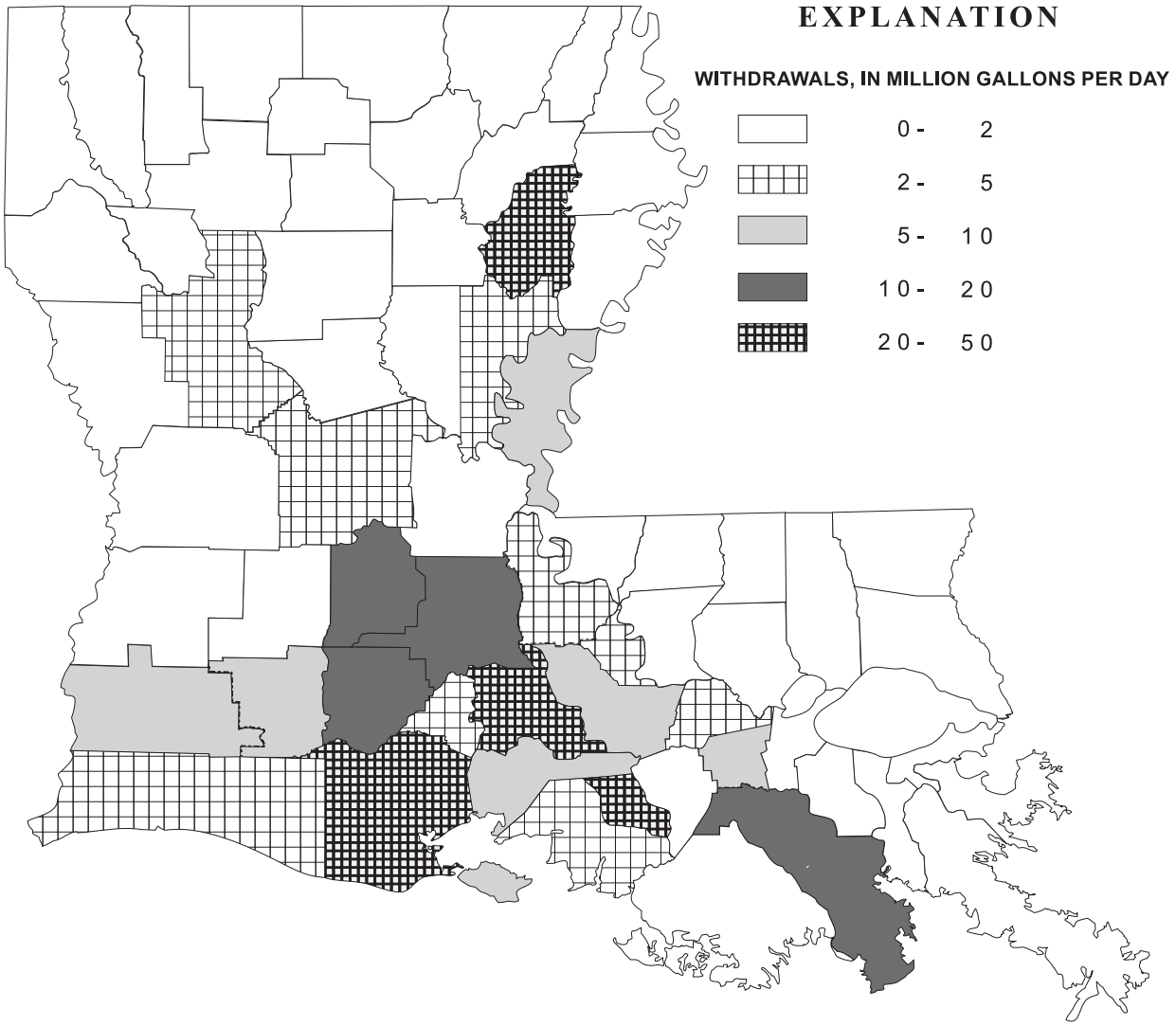
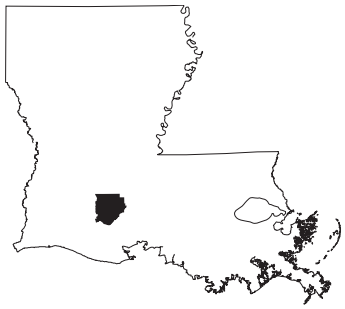


Figure 11. Aquaculture water withdrawals in Louisiana by parish, 2000.

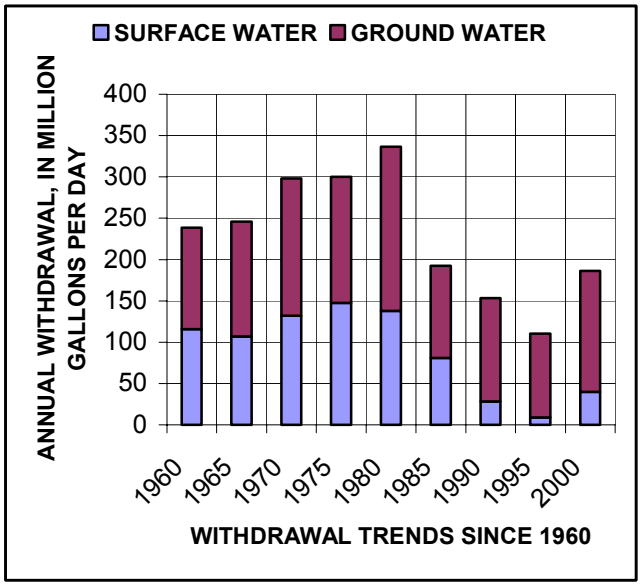
ACADIA

Population: 57,947
Population served by public supply: 41,896
Per capita withdrawals (gal/d): 3,217
Acres irrigated: 102,268
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	4.94	0.00	4.94
Industrial	.02	.00	.02
Power generation	.00	.00	.00
Rural domestic	1.28	.00	1.28
Livestock	.12	.01	.13
Rice irrigation	125.16	35.31	160.47
General irrigation	1.42	.00	1.42
Aquaculture	13.42	4.74	18.16
TOTALS	146.37	40.06	186.43



Withdrawals by Major Industrial Group (Mgal/d)

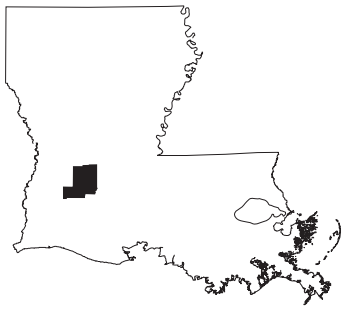
Standard Industrial Classification	GW	SW
13 Oil and gas extraction	0.02	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Church Point Water System	0.62	
Crowley Water System	1.74	
Egan Water Corp.	.10	
Estherwood Water System	.07	
Iota Water System	.22	
Mermentau Water System	.06	
Mire-Branch Water Corp.	.49	
Morse Water System	.15	
North of Crowley Water Corp.	.22	
Rayne Water System	1.09	
South Rayne Water Corp.	.16	

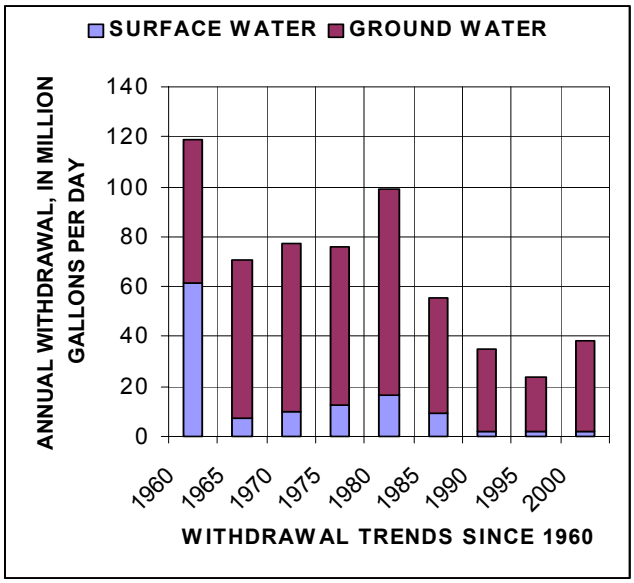
ALLEN

Population: 24,218
Population served by public supply: 21,215
Per capita withdrawals (gal/d): 1,594
Acres irrigated: 24,070
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	3.19	0.00	3.19
Industrial	.28	.00	.28
Power generation	.00	.00	.00
Rural domestic	.24	.00	.24
Livestock	.07	.02	.09
Rice irrigation	32.35	1.84	34.19
General irrigation	.03	.00	.03
Aquaculture	.54	.05	.59
TOTALS	36.70	1.91	38.60



Withdrawals by Major Industrial Group (Mgal/d)

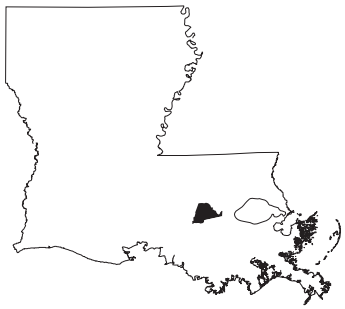
Standard Industrial Classification	GW	SW
26 Paper products	0.07	
28 Chemicals	.21	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Allen Water Dist. 1	0.09	
E. Allen Water Dist.	.36	
Elizabeth Water System	.07	
Fairview Water System	.04	
Kinder Water System	.36	
Oakdale Water System	.65	
Oberlin Water System	.16	
S.W. Allen Water Works Dist. 2	1.17	
South Oakdale Water System	.08	
West Allen Water Dist.	.21	

ASCENSION

Population: 74,049
Population served by public supply: 39,098
Per capita withdrawals (gal/d): 2,931
Acres irrigated: 1,960
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

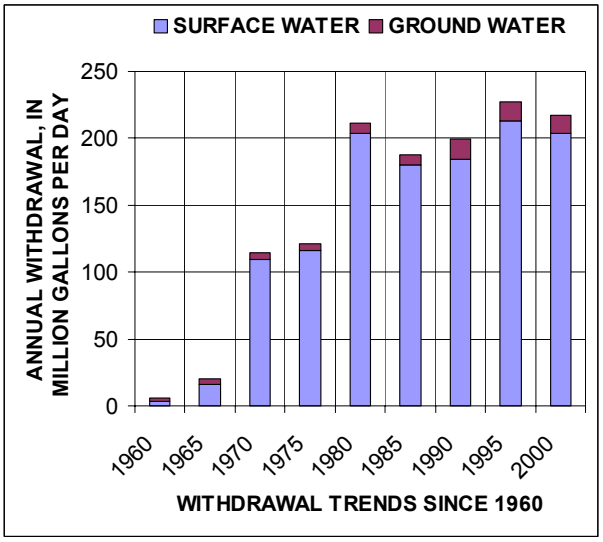
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.57	2.36	4.93
Industrial	7.57	199.46	207.03
Power generation	.00	.00	.00
Rural domestic	2.80	.00	2.80
Livestock	.09	.02	.11
Rice irrigation	.00	.00	.00
General irrigation	.06	.00	.06
Aquaculture	.07	2.04	2.11
TOTALS	13.16	203.88	217.03

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food Products	5.45	
28 Chemicals	1.95	199.46

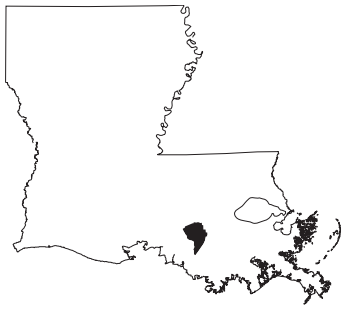
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Capitol Utilities Corp.	0.57	
Diversion Water Co.	.05	
Gonzales Water System	1.27	
Parish Water Co.	.57	
People's Water Service		2.36



ASSUMPTION

Population: 23,242
Population served by public supply: 22,870
Per capita withdrawals (gal/d): 1,277
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

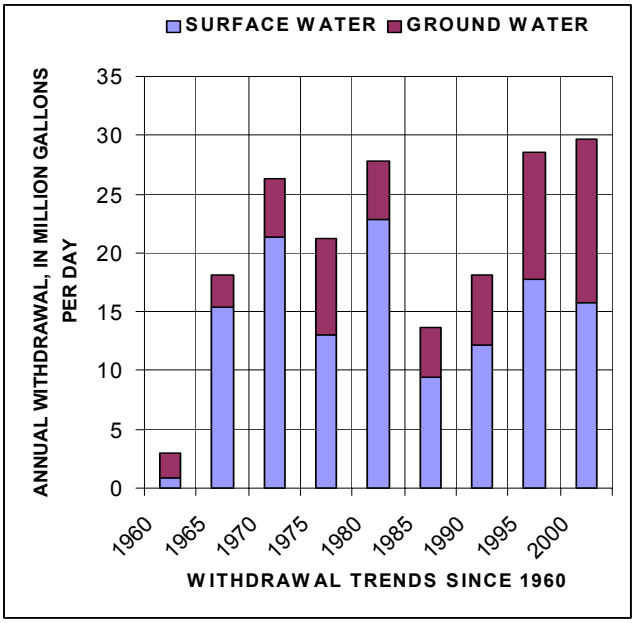
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	5.44	5.44
Industrial	13.84	9.56	23.40
Power generation	.00	.00	.00
Rural domestic	.03	.00	.03
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.80	.80
TOTALS	13.87	15.81	29.68

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products	0.16	9.56
28 Chemicals	13.63	

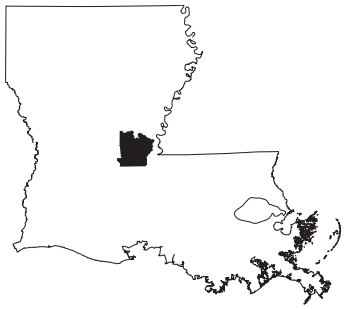
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Assumption W.W. Dist. 1		5.44



AVOYELLES

Population: 40,710
Population served by public supply: 38,471
Per capita withdrawals (gal/d): 556
Acres irrigated: 11,898
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

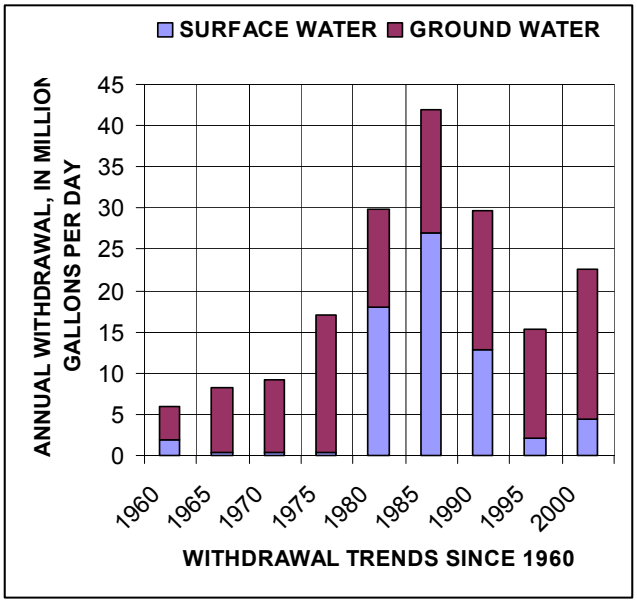
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	4.49	0.00	4.49
Industrial	.36	.00	.36
Power generation	.00	.00	.00
Rural domestic	.18	.00	.18
Livestock	.21	.00	.21
Rice irrigation	12.41	4.04	16.45
General irrigation	.25	.06	.31
Aquaculture	.40	.24	.64
TOTALS	18.30	4.35	22.65

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products	0.36	

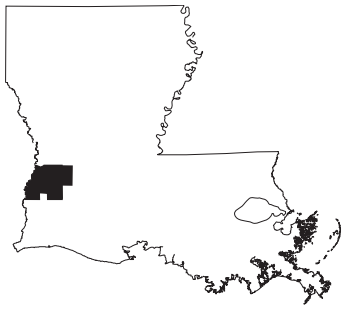
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Marksville Water System	.85	
Moreauville Water System	.15	
Morrow Water System	.18	
Plaucheville Water System	.24	
Simmesport Water System	.36	
Southwest Avoyelles W.W. Dist.	.10	
Ward 1 Water System - Effie	.30	



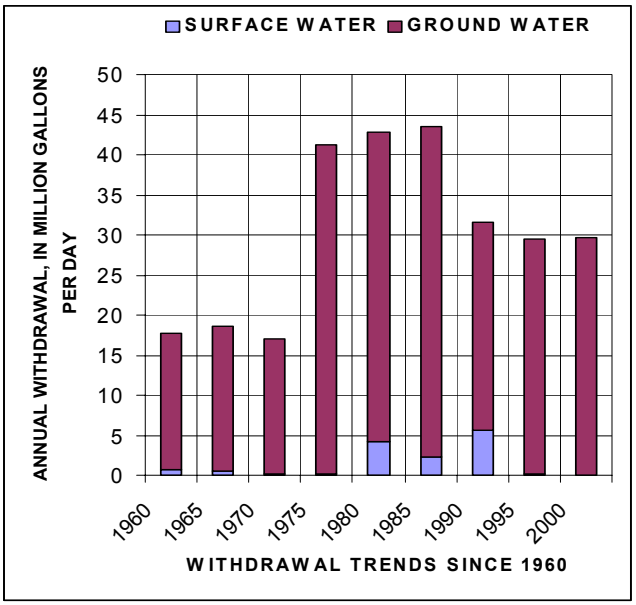
BEAUREGARD

Population: 32,265
Population served by public supply: 23,199
Per capita withdrawals (gal/d): 921
Acres irrigated: 2,800
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	4.15	0.00	4.15
Industrial	20.57	.00	20.57
Power generation	.00	.00	.00
Rural domestic	.73	.00	.73
Livestock	.09	.06	.15
Rice irrigation	4.06	.00	4.06
General irrigation	.00	.00	.00
Aquaculture	.07	.00	.07
TOTALS	29.67	.06	29.73



Withdrawals by Major Industrial Group (Mgal/d)

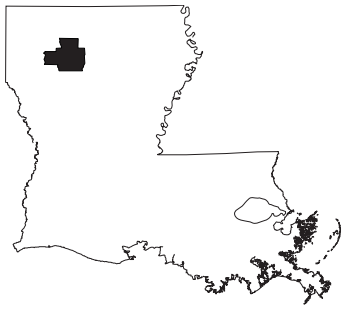
Standard Industrial Classification	GW	SW
26 Paper products	20.31	
28 Chemicals	.27	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Beauregard Dist. 2 Ward 5	0.42	
DeRidder Water System	2.32	
Green Acres Water & Sewer	.07	
Merryville Water System	.15	
S. Beauregard W.W. Dist. 3	1.16	
S. Merryville Water System	.03	

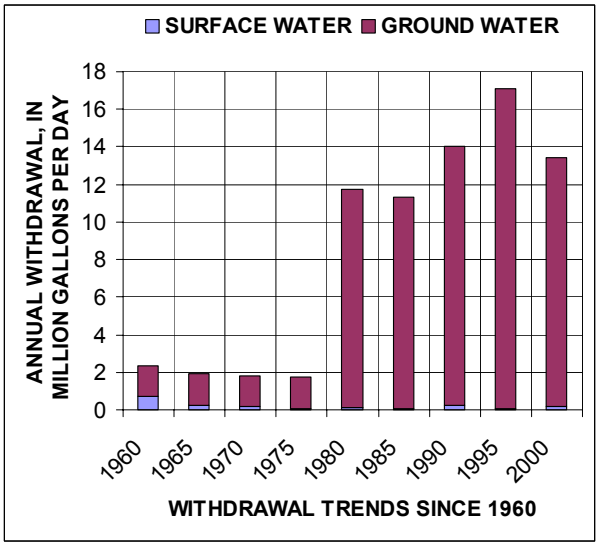
BIENVILLE

Population: 15,739
Population served by public supply: 11,190
Per capita withdrawals (gal/d): 852
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.72	0.00	1.72
Industrial	10.92	.06	10.98
Power generation	.00	.00	.00
Rural domestic	.36	.00	.36
Livestock	.21	.14	.35
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	13.21	.20	13.41



Withdrawals by Major Industrial Group (Mgal/d)

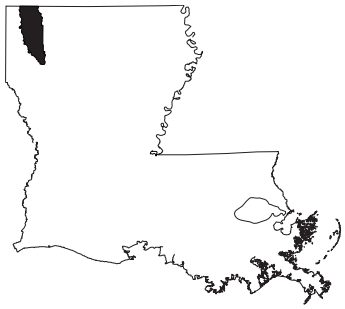
Standard Industrial Classification	GW	SW
15 Building construction	0.87	
24 Lumber		.06
26 Paper products	10.05	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Alabama Water System	0.09	
Alberta Water System	.10	
Arcadia Water System	.46	
Bryceland Water System	.03	
Castor Water System	.02	
Cypress Water System	.04	
Dotd Ada Rest Area	.03	
Friendship Water System	.07	
Gibsland Water System	.18	
Lucky Water System	.02	
Mill Creek Water System	.14	
Mt. Calm Water System	.02	
Mt. Lebanon Water System	.01	
Mt. Olive Water System	.08	
Old Saline Comm. Water System	.03	
Ringgold Water System	.21	
S.E. Bienville Water System	.02	
Saline Water System	.04	
Social Springs Water System	.08	
Taylor Water System	.04	

BOSSIER

Population: 93,37
Population served by public supply: 78,994
Per capita withdrawals (gal/d): 151
Acres irrigated: 530
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

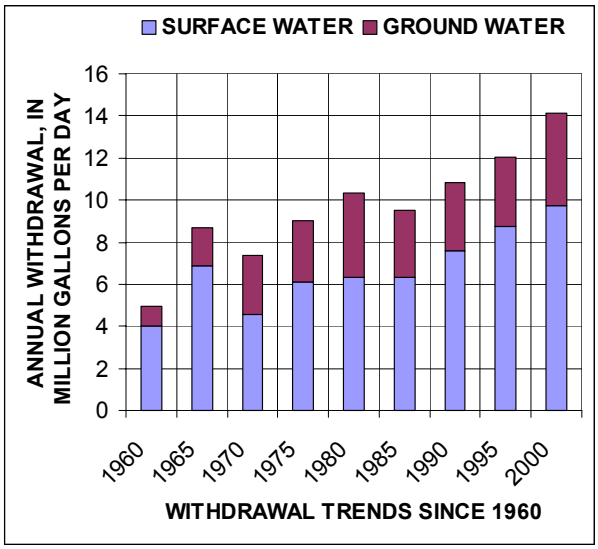
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.04	9.69	11.73
Industrial	.69	.01	.70
Power generation	.00	.00	.00
Rural domestic	1.15	.00	1.15
Livestock	.12	.03	.15
Rice irrigation	.19	.00	.19
General irrigation	.03	.00	.03
Aquaculture	.19	.00	.19
TOTALS	4.41	9.74	14.14

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
24 Lumber	0.23	
29 Petroleum refining	.46	.01

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bellevue Water System	0.05	
Bodcau Comm. Water System	.02	
Bossier City Water System		9.69
Central Bossier Water System	.07	
Haughton Water System	.18	
Oak Meadows Water Works	.03	
Plain Dealing Water System	.28	
Red Chute Utilities Co.	.28	
S. Bossier Water System	.26	
St. Mary's Water System	.05	
Village Water System	.60	

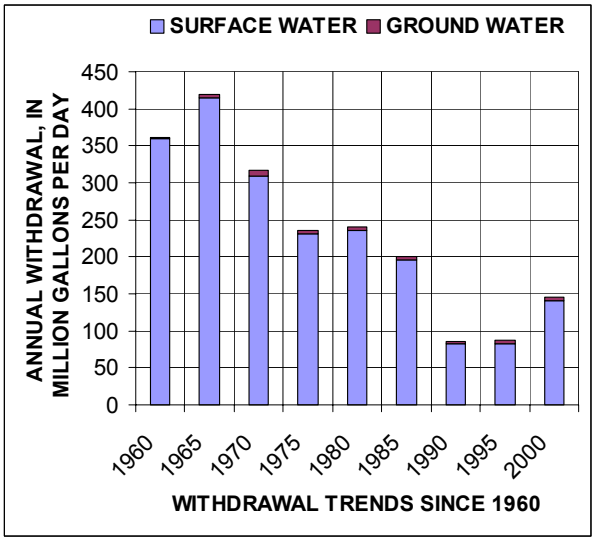


CADDO

Population: 241,502
Population served by public supply: 221,940
Per capita withdrawals (gal/d): 605
Acres irrigated: 4,791
Hydroelectric power instream use (Mgal/d): 0.00

Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.13	46.89	48.02
Industrial	.09	.29	.38
Power generation	.00	92.39	92.39
Rural domestic	1.57	.00	1.57
Livestock	.06	.14	.20
Rice irrigation	.00	.00	.00
General irrigation	2.58	.64	3.22
Aquaculture	.24	.00	.24
TOTALS	5.66	140.35	146.02



Withdrawals by Major Industrial Group (Mgal/d)

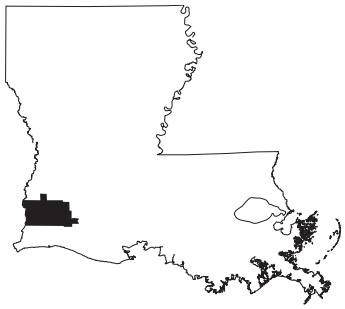
Standard Industrial Classification	GW	SW
29 Petroleum refining	0.09	0.29

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bel-Di-Gil Water System	0.07	
Blanchard Water System		0.70
Deep Woods Utilities	.06	
Eagle Water Co.	.19	
East Cove Util. Water System		.03
East Mooringsport Water System		.04
Four Folks Water System	.04	
Greenwood Water System		.39
Hosston Mira Water System	.08	
Ida Water System	.03	
Keithville Water Works (Dist. 7)	.26	
Meadowwood Estates Utilities	.01	
Mooringsport Water System		.12
North Caddo Utilities Inc.	.03	
Oil City Water System (Dist. 1)		.26
Pine Hills Water Works	.22	
Rodessa Water System	.02	
Shreveport Water System		44.96
Vivian Water System		.40
Wildwood South Water System	.03	

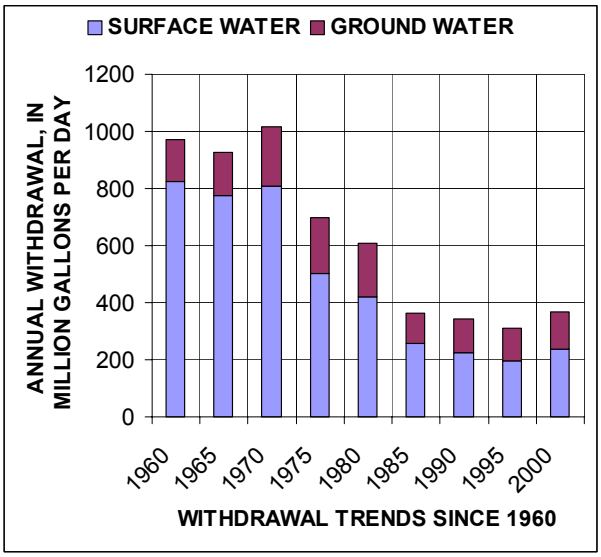
CALCASIEU

Population: 180,607
Population served by public supply: 153,877
Per capita withdrawals (gal/d): 2,030
Acres irrigated: 24,500
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	24.44	0.41	24.85
Industrial	60.28	210.85	271.13
Power generation	10.28	17.09	27.37
Rural domestic	2.14	.00	2.14
Livestock	.16	.24	.40
Rice irrigation	25.54	5.62	31.16
General irrigation	.81	.00	.81
Aquaculture	5.99	2.69	8.68
TOTALS	129.65	236.91	366.56



Withdrawals by Major Industrial Group (Mgal/d)

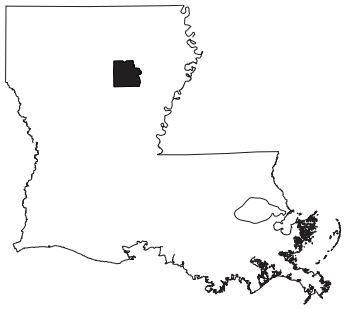
Standard Industrial Classification	GW	SW
24 Lumber	0.60	
28 Chemicals	35.77	147.11
29 Petroleum refining	20.89	63.67
30 Rubber and Plastics	1.10	
33 Primary metals	1.88	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bell City Water System	0.01	
Brigas Subdivision	.03	
C & L Utilities	.33	
Calcasieu W.W. Dist. 4	.38	
Calcasieu W.W. Dist. 5	.36	
Calcasieu W.W. Dist. 7	.37	
Calcasieu W.W. Dist. 8	.63	
Calcasieu W.W. Dist. 9	.89	
DeQuincy Water System	.75	
Hayes Water System	.07	
Houston River W.W. Dist. 11		0.41
Iowa Water System	.26	
Lake Charles Water Co.	11.69	
Lake Street Water Co.	.03	
Ponderosa Water Co.	.02	
Quail Ridge Community W.S.	.05	
Starks Water and Gas	.04	
Sulphur Water System	3.85	
Util. Services of Lake Charles	.03	
Vinton Water System	.92	
W.W. Dist. 1 of Ward 1	2.09	
W.W. Dist. 2 of Ward 4	.20	
Westlake Water System	1.20	

CALDWELL

Population: 10,469
Population served by public supply: 9,684
Per capita withdrawals (gal/d): 228
Acres irrigated: 4,100
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

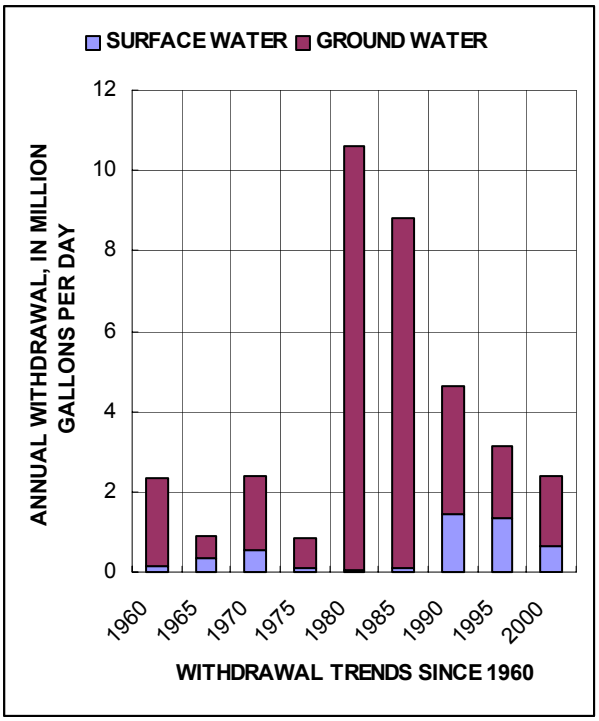
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.67	0.00	1.67
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.06	.00	.06
Livestock	.02	.02	.04
Rice irrigation	.00	.00	.00
General irrigation	.00	.61	.61
Aquaculture	.00	.00	.00
TOTALS	1.76	.63	2.39

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

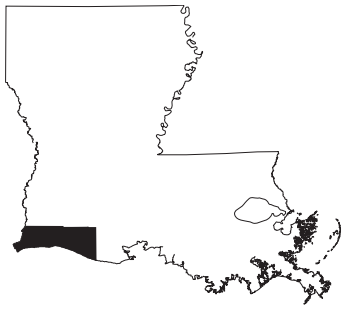
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Clarks Water System	0.11	
Columbia Heights Water Dist.	.27	
Columbia Water System	.08	
Cottonplant Water System	.05	
E. Columbia Water Dist.	.70	
Grayson Water System	.18	
Hebert Water System	.13	
Kelly Water System	.06	
Vixen Water System	.04	
Wards 4 & 5 Water System	.05	



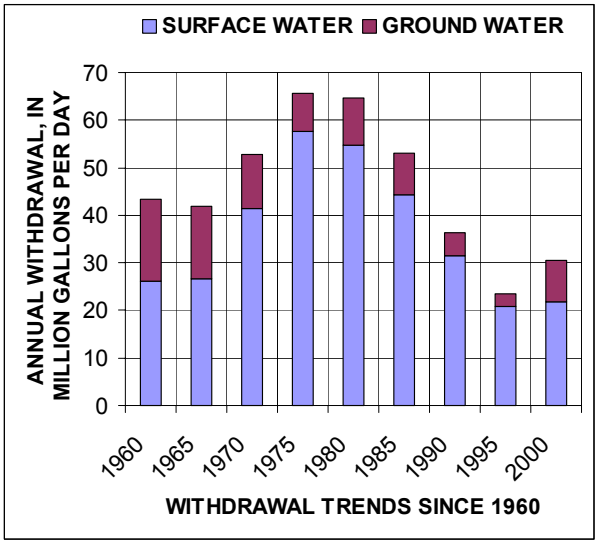
CAMERON

Population: 8,969
Population served by public supply: 7,839
Per capita withdrawals (gal/d): 3,397
Acres irrigated: 15,580
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.21	0.00	2.21
Industrial	.17	1.35	1.52
Power generation	.00	.00	.00
Rural domestic	.09	.00	.09
Livestock	.09	.28	.37
Rice irrigation	5.44	18.54	23.98
General irrigation	.04	.17	.21
Aquaculture	.64	1.43	2.07
TOTALS	8.69	21.77	30.47



Withdrawals by Major Industrial Group (Mgal/d)

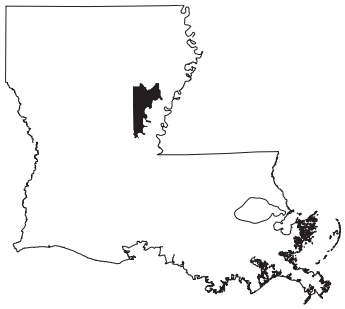
Standard Industrial Classification	GW	SW
13 Oil and gas extraction		0.03
20 Food products	0.02	1.32

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Cameron W. W. Dist. 1	0.86	
Cameron W. W. Dist. 2	.52	
Cameron W. W. Dist. 7	.06	
Cameron W. W. Dist. 9	.24	
Cameron W. W. Dist. 11	.31	
Holly Beach Water Works	.22	

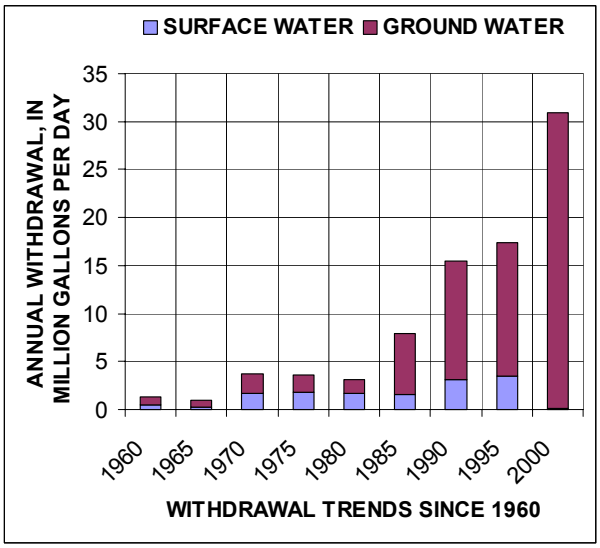
CATAHOULA

Population: 10,905
Population served by public supply: 9,564
Per capita withdrawals (gal/d): 2,841
Acres irrigated: 27,537
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.18	0.00	1.18
Industrial	.00	.01	.01
Power generation	.00	.00	.00
Rural domestic	.11	.00	.11
Livestock	.00	.05	.05
Rice irrigation	21.90	.00	21.90
General irrigation	3.86	.11	3.97
Aquaculture	3.77	.00	3.77
TOTALS	30.81	.17	30.98



Withdrawals by Major Industrial Group (Mgal/d)

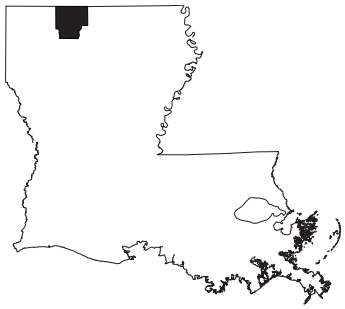
Standard Industrial Classification	GW	SW
14 Nonfuels/nonmetals mining		0.01

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Black River Water System	0.20	
Enterprise W.W. Dist. 1	.03	
Harrisonburg Water System	.07	
Jonesville Water System	.27	
Larto Mayna Water System	.05	
Leland Water System	.05	
Maitland W.W. District	.05	
Manifest-Rhinehart Water Sys.	.09	
Sandy Lake Water System	.22	
Sicily Island Water System	.06	
S. Bayou Macon Water System	.07	
Whitehall Water System	.03	

CLAIBORNE

Population: 16,826
Population served by public supply: 14,706
Per capita withdrawals (gal/d): 229
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

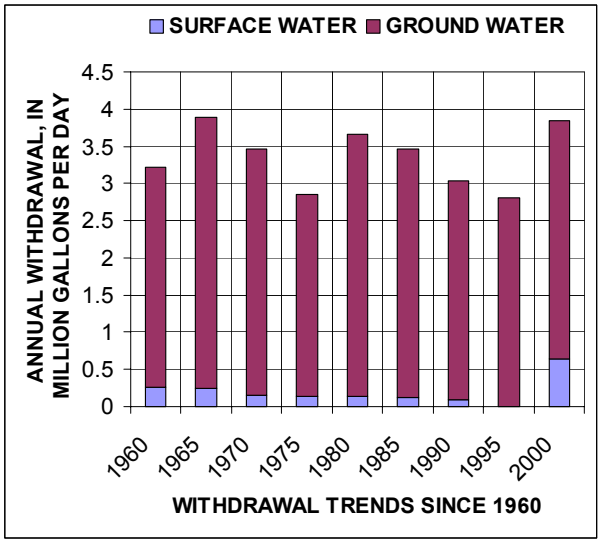
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.40	0.00	2.40
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.17	.00	.17
Livestock	.64	.64	1.28
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	3.22	.64	3.85

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

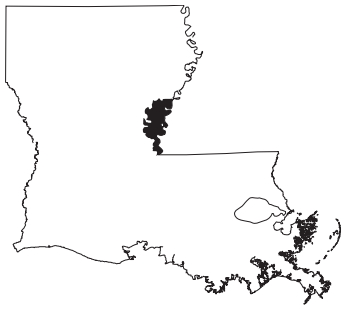
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Athens Water System	0.05	
Central Claiborne Water System	.14	
Claiborne Ward 9 Water System	.03	
Haynesville Water System	.52	
Homer Water System	.80	
Junction City Water System	.05	
Leatherman Creek Water System	.03	
Lisbon Water System	.04	
Middle Fork Water System	.02	
Norton Shop Water System	.02	
Pine Hill Water System	.05	
South Claiborne Water System	.12	
Summerfield Water System	.10	



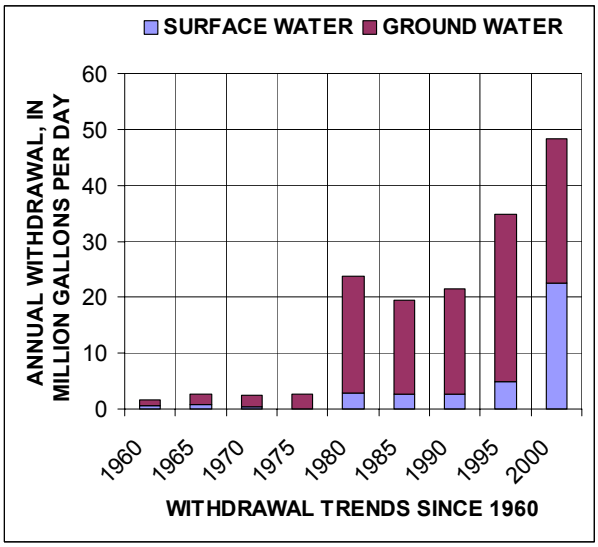
CONCORDIA

Population: 20,572
Population served by public supply: 19,770
Per capita withdrawals (gal/d): 2,349
Acres irrigated: 34,661
Hydroelectric power instream use (Mgal/d): 74,000



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.07	1.50	3.57
Industrial	.00	.00	.00
Power generation	.00	8.26	8.26
Rural domestic	.06	.00	.06
Livestock	.09	.02	.11
Rice irrigation	12.33	12.33	24.66
General irrigation	4.37	.49	4.86
Aquaculture	6.78	.04	6.82
TOTALS	25.71	22.62	48.33



Withdrawals by Major Industrial Group (Mgal/d)

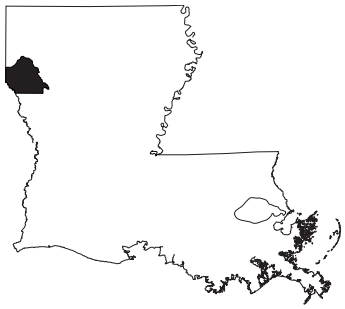
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Clayton Water System	0.07	
Concordia W.W. Dist. 1	.91	
Ferriday Water System		1.50
Lake St. John Water Dist.	.10	
Monterey Rural Water System	.26	
Ridgecrest Water System	.02	
Vidalia Water System	.71	

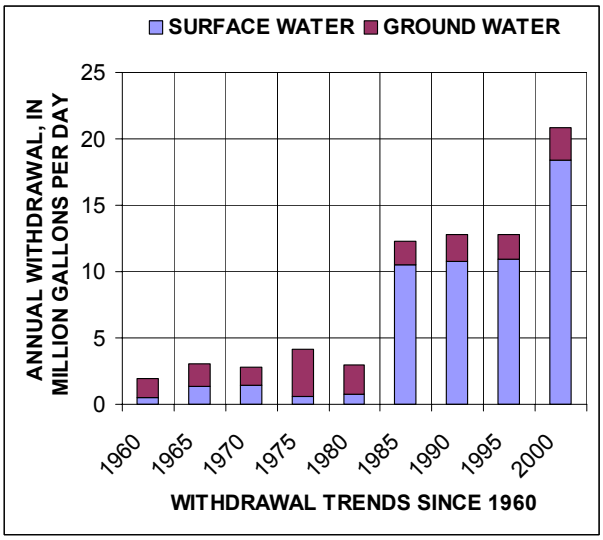
DE SOTO

Population: 25,146
Population served by public supply: 17,753
Per capita withdrawals (gal/d): 829
Acres irrigated: 800
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.28	1.63	2.91
Industrial	.34	16.63	16.97
Power generation	.00	.00	.00
Rural domestic	.59	.00	.59
Livestock	.20	.07	.27
Rice irrigation	.00	.00	.00
General irrigation	.01	.11	.12
Aquaculture	.00	.00	.00
TOTALS	2.42	18.43	20.85



Withdrawals by Major Industrial Group (Mgal/d)

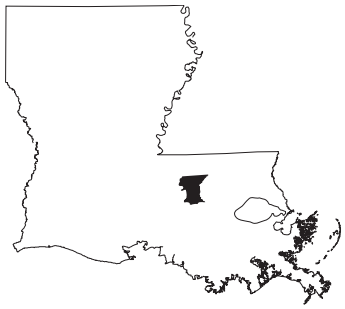
Standard Industrial Classification	GW	SW
12 Coal and lignite mining	0.33	
26 Paper products		16.63

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bayou Pierre Water System	0.11	
East De Soto Water System	.10	
Grand Cane Water System	.05	
Keatchie Water System	.21	
Logansport Water System		0.69
Mansfield Water System	.25	.95
North De Soto Water System	.23	
Rambin-Wallace Water System	.11	
Ricks Well Water Service	.01	
South De Soto Water System	.03	
South Mansfield Water System	.15	
Stanley Water System	.02	

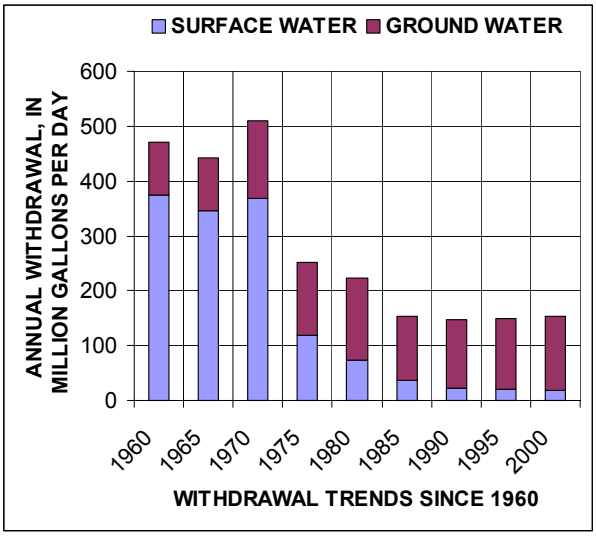
EAST BATON ROUGE

Population: 393,294
Population served by public supply: 390,148
Per capita withdrawals (gal/d): 392
Acres irrigated: 700
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	64.14	0.00	64.14
Industrial	63.37	18.49	81.86
Power generation	7.44	.00	7.44
Rural domestic	.25	.00	.25
Livestock	.13	.01	.14
Rice irrigation	.00	.00	.00
General irrigation	.26	.00	.26
Aquaculture	.07	.00	.07
TOTALS	135.66	18.50	154.16



Withdrawals by Major Industrial Group (Mgal/d)

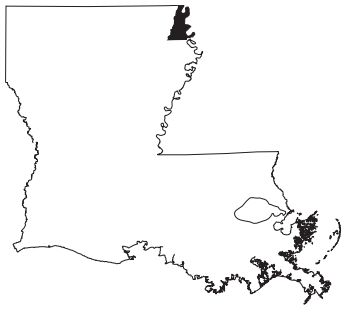
Standard Industrial Classification	GW	SW
20 Food products	0.33	
26 Paper products	25.60	
28 Chemicals	22.54	
29 Petroleum refining	13.83	18.49
30 Rubber and plastics	.74	
32 Glass, clay, and concrete	.01	
33 Primary metals	.28	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Baker Utilities	2.00	
Baton Rouge Water Company	49.06	
Bellingrath Water Company, Inc.	.26	
Parish Water Company	9.91	
Red Oaks Water Company	.64	
Slaughter Water System	.03	
Zachary Water System	1.90	

EAST CARROLL

Population: 8,719
Population served by public supply: 8,510
Per capita withdrawals (gal/d): 4,808
Acres irrigated: 71,543
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

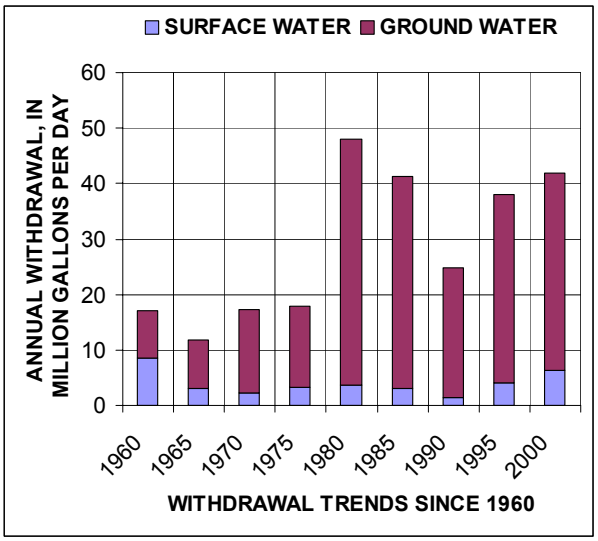
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.43	0.00	1.43
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.02	.00	.02
Livestock	.00	.01	.01
Rice irrigation	14.92	1.66	16.58
General irrigation	18.35	4.59	22.94
Aquaculture	.94	.00	.94
TOTALS	35.66	6.26	41.92

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

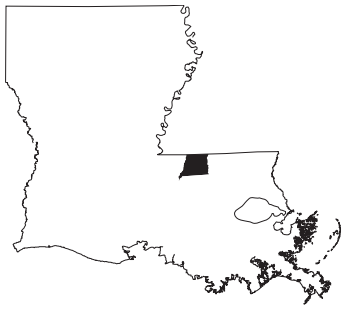
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
East Carroll Water System	0.20	
Lake Providence Water System	1.23	



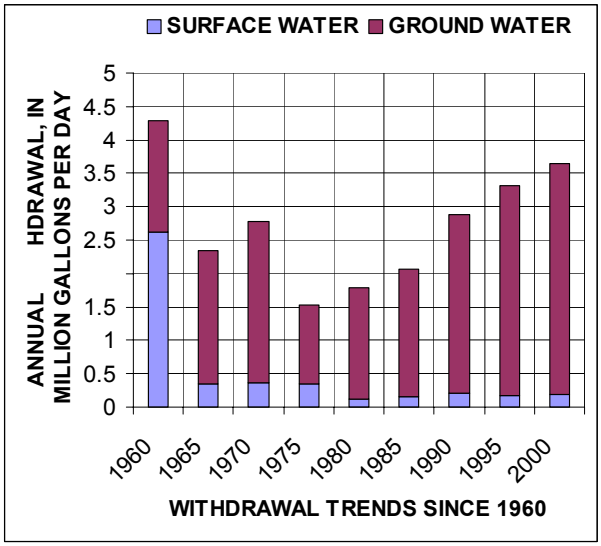
EAST FELICIANA

Population: 21,119
Population served by public supply: 17,803
Per capita withdrawals (gal/d): 173
Acres irrigated: 500
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.97	0.00	2.97
Industrial	.03	.00	.03
Power generation	.00	.00	.00
Rural domestic	.27	.00	.27
Livestock	.02	.19	.21
Rice irrigation	.00	.00	.00
General irrigation	.17	.00	.17
Aquaculture	.00	.00	.00
TOTALS	3.46	.19	3.65



Withdrawals by Major Industrial Group (Mgal/d)

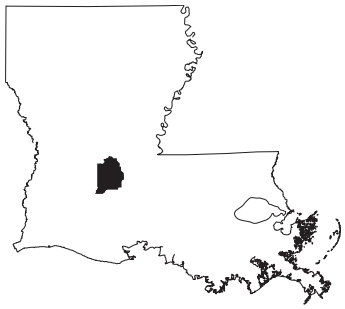
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Clinton Water System	0.34	
East Feliciana Rural Water Sys.	1.31	
East Feliciana Water District 1	.06	
East Feliciana Water District 7	.13	
East Louisiana State Hospital	.22	
Jackson Water System	.25	
Norwood Water System	.04	
Plantation Utility Company	.11	
Slaughter Water System	.13	

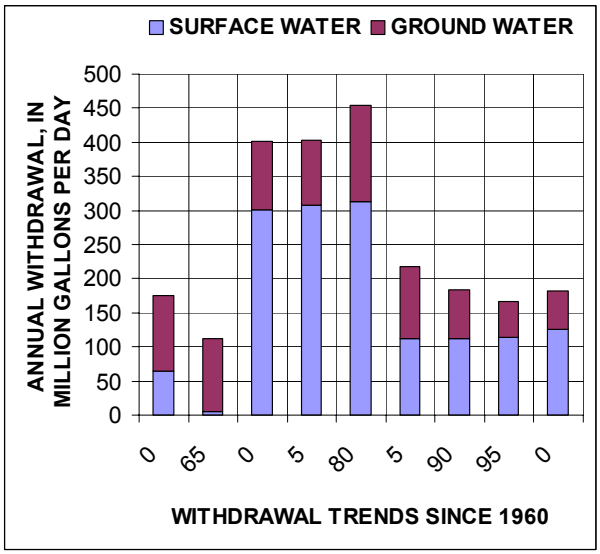
EVANGELINE

Population: 34,329
Population served by public supply: 30,072
Per capita withdrawals (gal/d): 5,307
Acres irrigated: 54,100
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	5.72	0.00	5.72
Industrial	1.30	.00	1.30
Power generation	.00	114.13	114.13
Rural domestic	.34	.00	.34
Livestock	.12	.04	.16
Rice irrigation	40.07	10.19	50.26
General irrigation	.00	.00	.00
Aquaculture	8.34	1.93	10.27
TOTALS	55.89	126.29	182.19



Withdrawals by Major Industrial Group (Mgal/d)

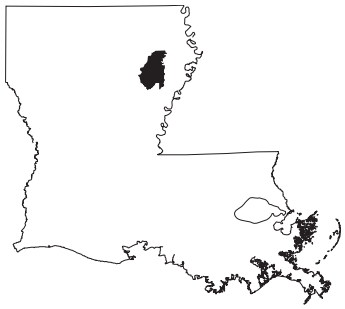
Standard Industrial Classification	GW	SW
28 Chemicals	1.26	
34 Metal products	.01	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Basile Water System	0.30	
Bayou Des Cannes Water Sys.	.57	
Chataignier Water System	.09	
East Side Water System	.25	
Evangeline Parish - Ward 4	.03	
Evangeline Water Dist. 1	.16	
Mamou Road Water Dist	.16	
Mamou Water System	.99	
Point Blue Water System	.14	
Reddell-Vidrine Water Dist.	.21	
Savoy-Swords Water System	.43	
Te Mamou Water Dist.	.23	
Turkey Creek Water System	.43	
Ville Platte Water System	1.73	

FRANKLIN

Population: 21,993
Population served by public supply: 13,460
Per capita withdrawals (gal/d): 2,271
Acres irrigated: 38,724
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

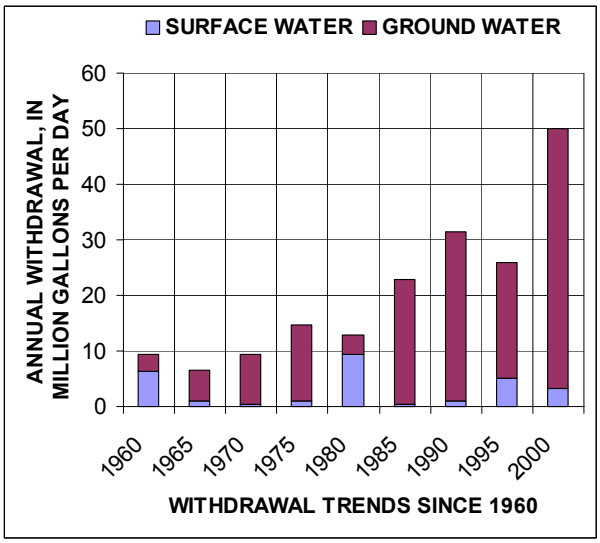
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.83	0.00	1.83
Industrial	.76	.00	.76
Power generation	.00	.00	.00
Rural domestic	.68	.00	.68
Livestock	.25	.00	.25
Rice irrigation	.50	1.16	1.66
General irrigation	19.65	2.18	21.83
Aquaculture	22.94	.00	22.94
TOTALS	46.61	3.35	49.95

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products	0.76	

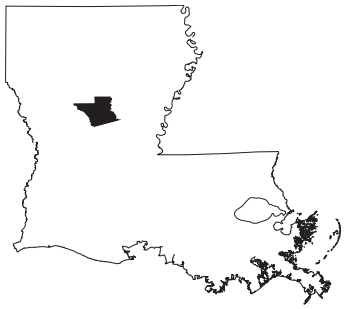
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Gilbert Water System	0.07	
West Winnsboro Water System	.33	
Winnsboro Water System	1.24	
Wisner Water System	.18	



GRANT

Population: 19,211
Population served by public supply: 16,406
Per capita withdrawals (gal/d): 313
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

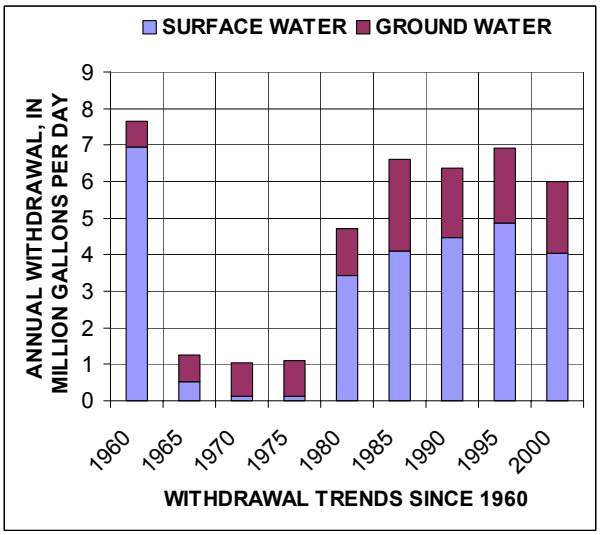
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.51	2.54	4.05
Industrial	.21	1.44	1.65
Power generation	.00	.00	.00
Rural domestic	.22	.00	.22
Livestock	.03	.04	.07
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	1.98	4.03	6.01

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
24 Lumber	0.07	
28 Chemicals	.14	1.44

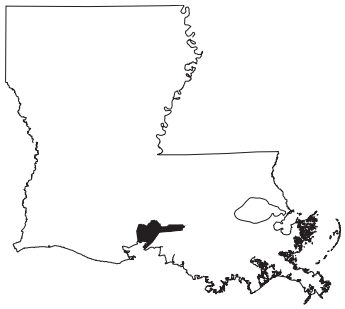
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Central Water System	0.21	
Colfax Water System	.46	
Dry Prong Water System	.04	
Georgetown Water System		0.01
Grant Parish Zone 2 Water Sys.	.11	
Jordan Hill/Red Hill Waterworks	.11	
Montgomery Water System	.01	
Pollock Area Water System	.15	
Pollock Water System	.06	
Rapides Water District 3		2.53
South Grant Water Corp.	.19	
Southeast Grant Water System	.03	
West Grant Water Assoc.	.13	



IBERIA

Population: 73,425
Population served by public supply: 59,034
Per capita withdrawals (gal/d): 406
Acres irrigated: 1,812
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

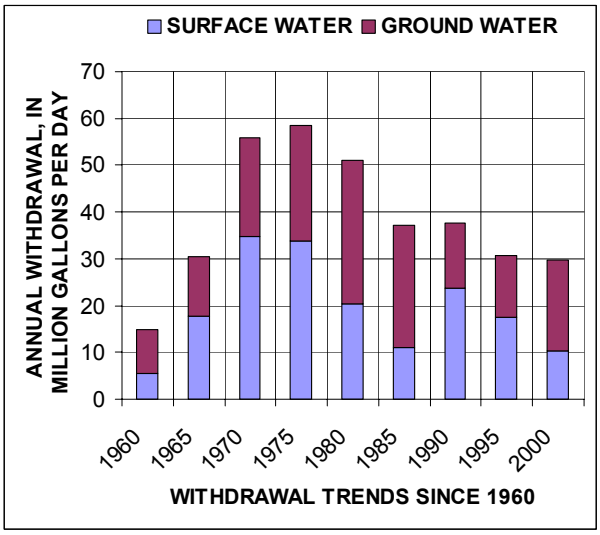
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	9.23	0.00	9.23
Industrial	1.24	7.76	9.00
Power generation	.00	.00	.00
Rural domestic	1.15	.00	1.15
Livestock	.06	.01	.07
Rice irrigation	1.81	.45	2.26
General irrigation	.22	.00	.22
Aquaculture	5.71	2.14	7.85
TOTALS	19.42	10.37	29.79

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
13 Oil and gas extraction		2.75
20 Food products	0.50	
28 Chemicals	.74	5.01

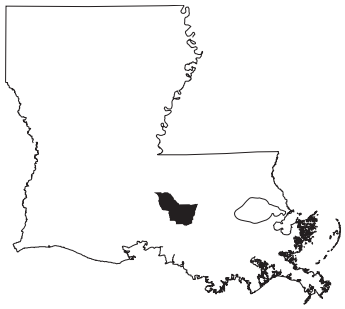
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bayou Teche Water Works	0.65	
Coteau Water System	.39	
Jeanerette Water System	1.31	
New Iberia Water System	6.52	
Loreauville Water System	.11	
Lydia Water System	.18	
Patoutville Water System	.05	



IBERVILLE

Population: 31,357
Population served by public supply: 29,538
Per capita withdrawals (gal/d): 36,957
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

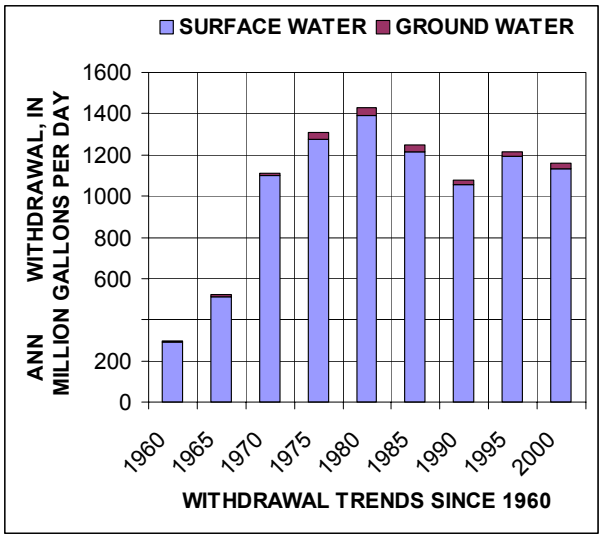
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.12	1.04	3.16
Industrial	23.43	553.58	577.01
Power generation	1.65	569.94	571.59
Rural domestic	.15	.00	.15
Livestock	.05	.02	.07
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.05	6.83	6.88
TOTALS	27.45	1,131.40	1,158.85

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
13 Oil and gas extraction		0.05
20 Food products	7.40	
28 Chemicals	16.02	553.54
29 Petroleum refining	.01	

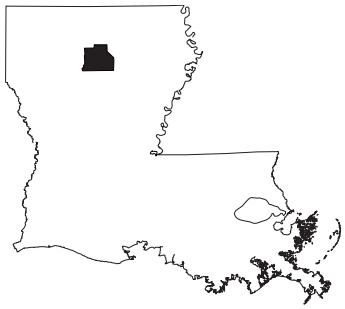
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Iberville W.W. Dist. 3		1.04
Iberville W.W. Dist. 4	.44	
Maringouin Water System	1.18	
Rosedale Water System	.08	
White Castle Water System	.23	



JACKSON

Population: 15,449
Population served by public supply: 13,611
Per capita withdrawals (gal/d): 172
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

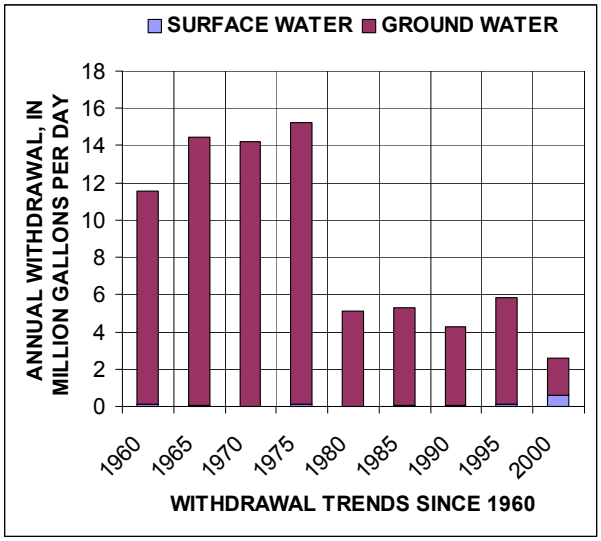
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.83	0.00	1.83
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.15	.00	.15
Livestock	.05	.62	.67
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	2.02	.62	2.65

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

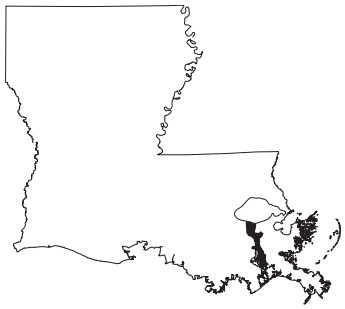
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bear Creek Water System	0.04	
Chatham Water System	.09	
E. Hodge Water System	.03	
Ebeneezer Water System	.03	
Eros Comm. Water System	.05	
Eros Water System	.02	



JEFFERSON

Population: 447,790
Population served by public supply: 447,342
Per capita withdrawals (gal/d): 2,562
Acres irrigated: 100
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	85.21	85.21
Industrial	2.88	7.28	10.16
Power generation	.37	1,051.31	1,051.68
Rural domestic	.04	.00	.04
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.04	.00	.04
Aquaculture	.00	.00	.00
TOTALS	3.33	1,143.80	1,147.13

Withdrawals by Major Industrial Group (Mgal/d)

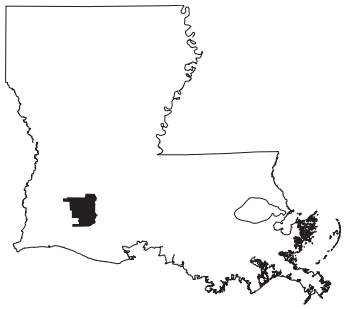
Standard Industrial Classification	GW	SW
26 Paper products	0.64	
28 Chemicals		7.07
37 Transportation equipment	2.23	0.21

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Gretna Water Works		4.70
West Jefferson Water Works		28.67
Westwego Water System		1.73

JEFFERSON DAVIS

Population: 31,423
Population served by public supply: 26,615
Per capita withdrawals (gal/d): 5,408
Acres irrigated: 91,000
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	3.79	0.00	3.79
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.38	.00	.38
Livestock	.15	.00	.15
Rice irrigation	132.24	23.85	156.09
General irrigation	.27	.18	.45
Aquaculture	7.04	2.06	9.10
TOTALS	143.87	26.08	169.96

Withdrawals by Major Industrial Group (Mgal/d)

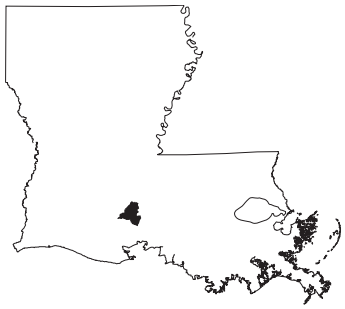
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW

LAFAYETTE

Population: 187,403
Population served by public supply: 151,609
Per capita withdrawals (gal/d): 222
Acres irrigated: 7,550
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

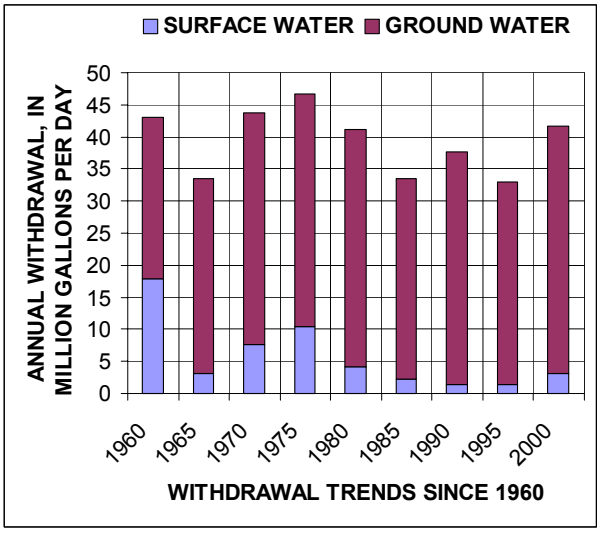
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	21.35	0.00	21.35
Industrial	.53	.00	.53
Power generation	2.28	.00	2.28
Rural domestic	2.86	.00	2.86
Livestock	.11	.00	.11
Rice irrigation	8.76	2.19	10.95
General irrigation	.00	.00	.00
Aquaculture	2.68	.89	3.57
TOTALS	38.57	3.08	41.66

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products	0.53	

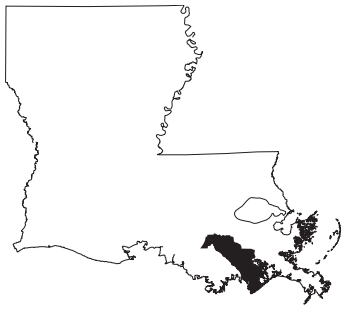
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW



LAFOURCHE

Population: 89,463
Population served by public supply: 89,195
Per capita withdrawals (gal/d): 526
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

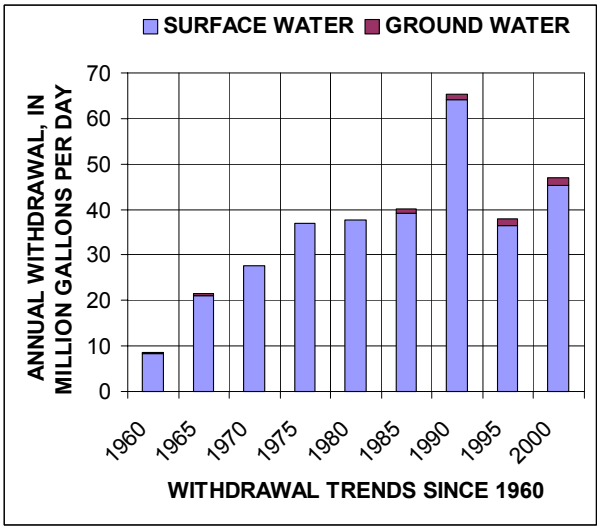
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	23.33	23.33
Industrial	1.39	9.07	10.46
Power generation	.00	.00	.00
Rural domestic	.02	.00	.02
Livestock	.12	.12	.24
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.11	12.88	12.99
TOTALS	1.64	45.40	47.04

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products		7.09
26 Paper products		1.97
28 Chemicals	1.39	

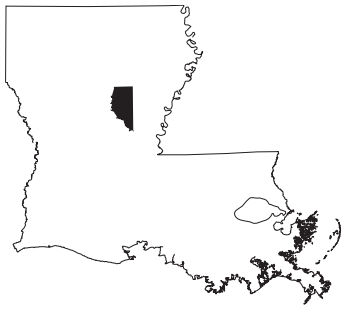
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Lafourche Parish W.W. Dist. 1		9.75
Lockport Water System		.26
Terrebonne W.W. District 1		10.62



LA SALLE

Population: 13,705
Population served by public supply: 13,047
Per capita withdrawals (gal/d): 236
Acres irrigated: 600
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

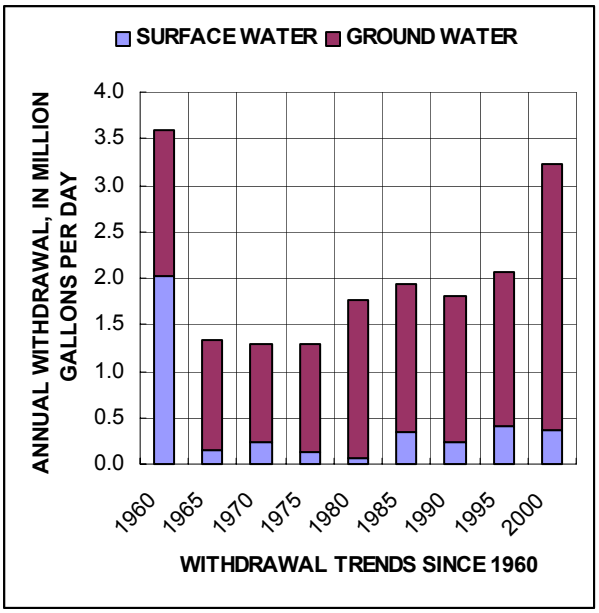
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.80	0.00	2.80
Industrial	.03	.12	.15
Power generation	.00	.00	.00
Rural domestic	.05	.00	.05
Livestock	.01	.03	.04
Rice irrigation	.00	.00	.00
General irrigation	.00	.22	.22
Aquaculture	.00	.00	.00
TOTALS	2.89	.37	3.26

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
24 Lumber	0.03	0.12

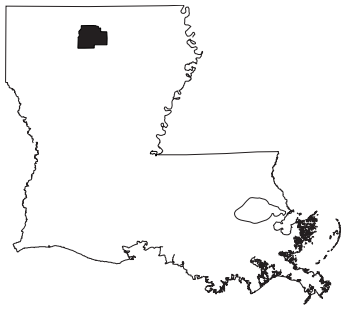
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Belah-Fellowship Water System	0.14	
East Jena Water System	.08	
Goodpine Water System	.30	
Jena Water System	.56	
La Salle W.W. Dist. 1	.25	
Nebo Water System	.05	
Olla Water System	.36	
Rogers Community Water System	.03	
Summerville-Rosefield Water	.95	
Tullos Water System	.09	



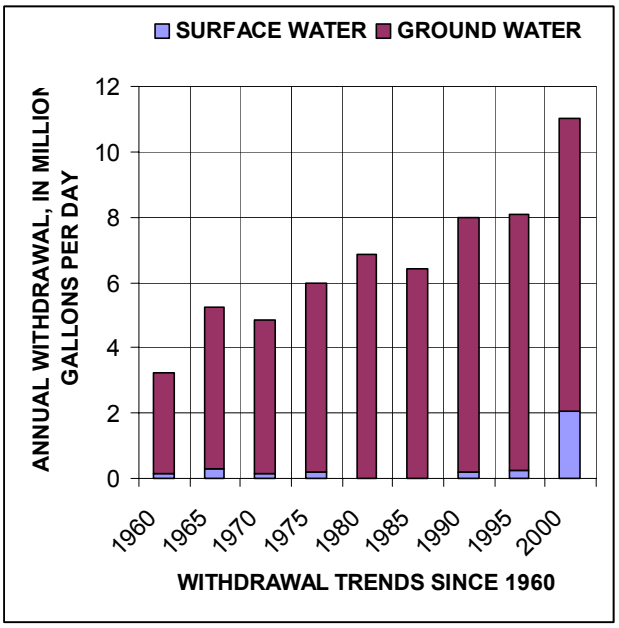
LINCOLN

Population: 41,129
Population served by public supply: 39,073
Per capita withdrawals (gal/d): 268
Acres irrigated: 600
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	8.37	0.00	8.37
Industrial	.16	.00	.16
Power generation	.00	.00	.00
Rural domestic	.16	.00	.16
Livestock	.23	2.05	2.28
Rice irrigation	.00	.00	.00
General irrigation	.01	.00	.01
Aquaculture	.04	.00	.04
TOTALS	8.97	2.05	11.01



Withdrawals by Major Industrial Group (Mgal/d)

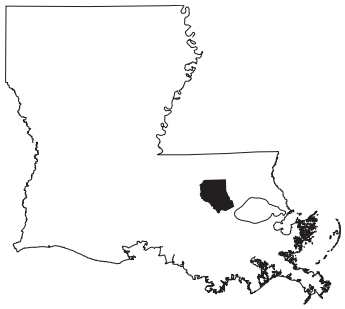
Standard Industrial Classification	GW	SW
24 Lumber	0.04	
32 Glass, clay, and concrete	.11	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Choudrant Water System	0.08	
Culbertson Water System	.30	
Dubach Water System	.21	
Fellowship Water System	.06	
Grambling Water System	.56	
Greater Ward One W.W.	.57	
Hico Water System	.19	
Hilly-Greenwood Water System	.09	
Lincoln W.W. Dist. 1	.05	
Lincoln W.W. Dist. 3	.32	
Mineral Springs Water System	.08	
Mt. Olive Water Dist.	.05	
Mt. Zion Water System	.12	
Ruston Utilities System	4.69	
Simsboro Water System	.21	

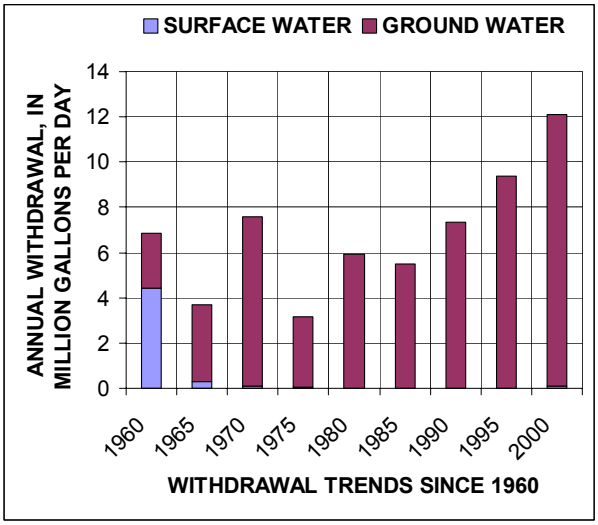
LIVINGSTON

Population: 91,182
Population served by public supply: 64,283
Per capita withdrawals (gal/d): 132
Acres irrigated: 350
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	9.29	0.00	9.29
Industrial	.13	.00	.13
Power generation	.00	.00	.00
Rural domestic	2.15	.00	2.15
Livestock	.14	.10	.24
Rice irrigation	.00	.00	.00
General irrigation	.05	.00	.05
Aquaculture	.20	.00	.20
TOTALS	11.98	.10	12.07



Withdrawals by Major Industrial Group (Mgal/d)

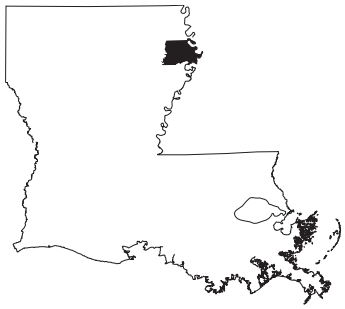
Standard Industrial Classification	GW	SW
24 Lumber	0.13	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Albany Water System	0.32	
Capitol Utilities Corp.	.40	
Colyell Community Water Assoc.	.20	
Denham Springs Water System	3.60	
Division Water Co.	.04	
Fourth Ward Water Works	.02	
French Settlement Water Co.	.20	
Community Water Service	.02	
Springfield Water System	.14	
Head of Island Water System	.17	
Killian Water System	.02	
Livingston Water System	.36	
Port Vincent Water System	.05	

MADISON

Population: 12,987
Population served by public supply: 12,727
Per capita withdrawals (gal/d): 1,378
Acres irrigated: 60,115
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

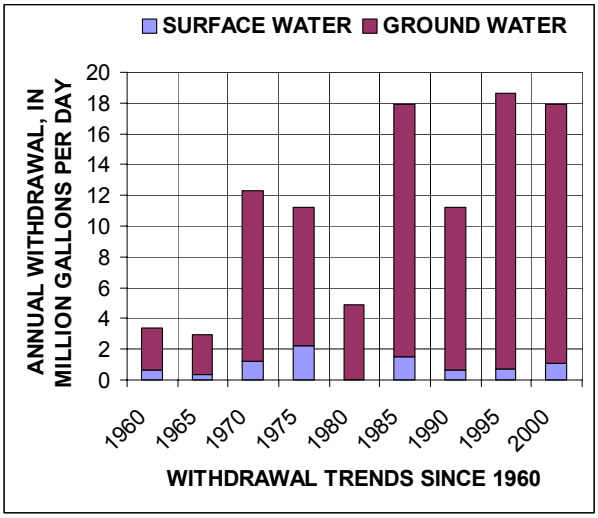
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.90	0.00	1.90
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.02	.00	.02
Livestock	.01	.01	.02
Rice irrigation	5.37	.10	5.47
General irrigation	8.93	.99	9.92
Aquaculture	.55	.01	.56
TOTALS	16.79	1.11	17.90

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

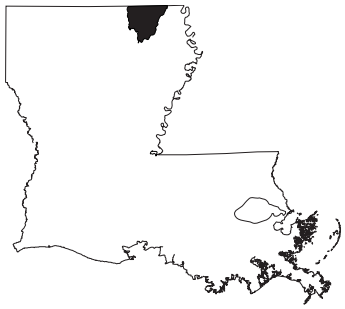
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Delta Water System	0.02	
People's Water Service	1.32	
Walnut Bayou Water Assoc.	.56	



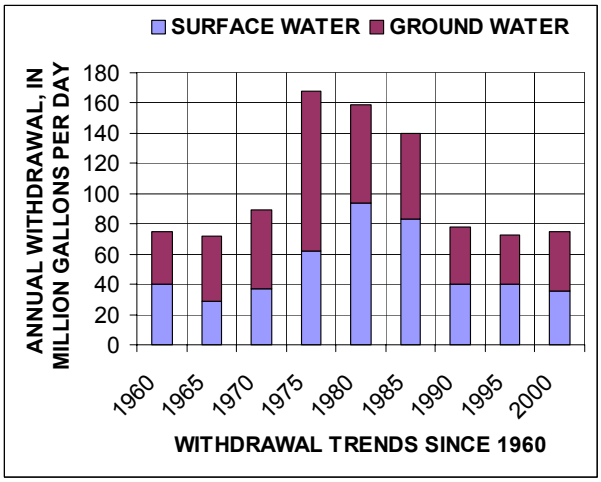
MOREHOUSE

Population: 31,242
Population served by public supply: 28,930
Per capita withdrawals (gal/d): 2,392
Acres irrigated: 78,587
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	3.52	0.00	3.52
Industrial	4.00	20.99	24.99
Power generation	.00	.00	.00
Rural domestic	.18	.00	.18
Livestock	.05	.01	.06
Rice irrigation	15.72	13.04	28.76
General irrigation	15.10	1.68	16.78
Aquaculture	.46	.00	.46
TOTALS	39.04	35.72	74.76



Withdrawals by Major Industrial Group (Mgal/d)

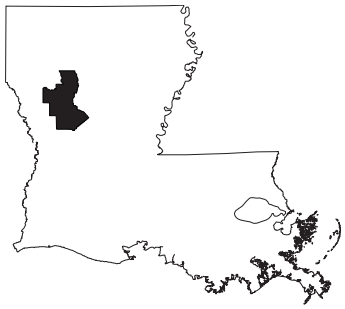
Standard Industrial Classification	GW	SW
26 Paper products	3.96	20.99
28 Chemicals	0.05	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bayou Bonne Idee Water System	0.09	
Beekman Water System	.08	
Bonita Water System	.04	
Collinston Water System	.04	
Gallion Subdivision	.12	
Jones-McGinty Water System	.13	
Mer Rouge Water System	.17	
Morehouse Central Water System	.07	
Morehouse W.W. Dist. 1	.13	
Morehouse W.W. Dist. 2	.29	
Oak Ridge Water System	.03	
Peoples Water Service Co.	2.29	
South Bonne Idee Water System	.02	
Ward 3 Water Works	.01	

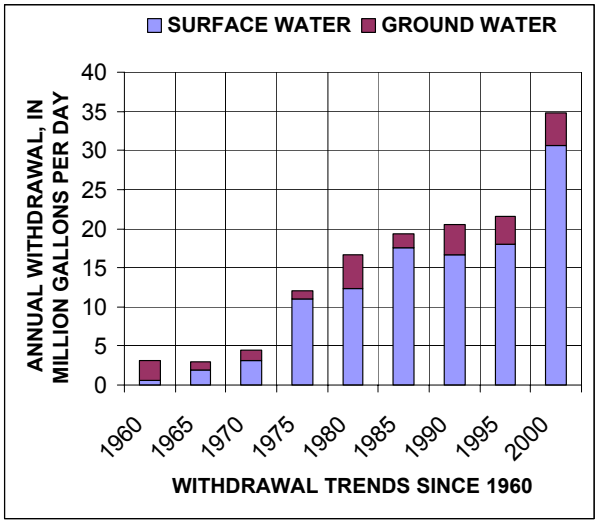
NATCHITOCHES

Population: 37,198
Population served by public supply: 31,135
Per capita withdrawals (gal/d): 935
Acres irrigated: 15,340
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.93	5.15	6.08
Industrial	.00	12.69	12.69
Power generation	.00	.00	.00
Rural domestic	.49	.00	.49
Livestock	.28	1.13	1.41
Rice irrigation	1.26	7.15	8.41
General irrigation	.37	1.46	1.83
Aquaculture	.83	3.04	3.87
TOTALS	4.15	30.62	34.78



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
26 Paper products		12.69

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Campti Water System	0.18	
Chee Chee Bay Water System	.02	
Chestnut-Readhimer W.S.	.03	
Clarence Water System	.09	
Creston Water System	.06	
Goldonna Water System	.05	
Hagewood Water System	.04	
Natchitoches Utility System		5.12
Natchitoches W.W. Dist. 2	.24	
Powhatan Water System	.05	
Provencal Water System	.08	
Robeline-Marthaville Water	.09	
Sandy Point 480 Water System		.03

ORLEANS

Population: 460,913
Population served by public supply: 458,148
Per capita withdrawals (gal/d): 1,612
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00

Withdrawals, in million gallons per day (Mgal/d)

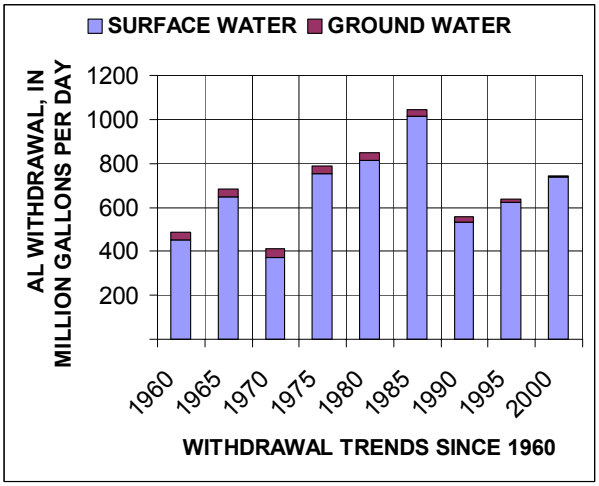
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	155.16	155.16
Industrial	1.99	.01	2.00
Power generation	3.33	582.31	585.64
Rural domestic	.22	.00	.22
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.02	.00	.02
Aquaculture	.00	.00	.00
TOTALS	5.56	737.48	743.03

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

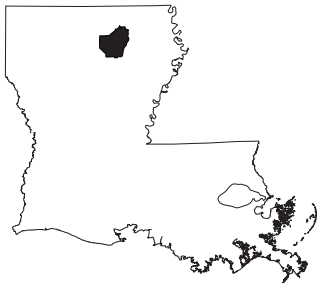
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
New Orleans Sewage & Water		155.16



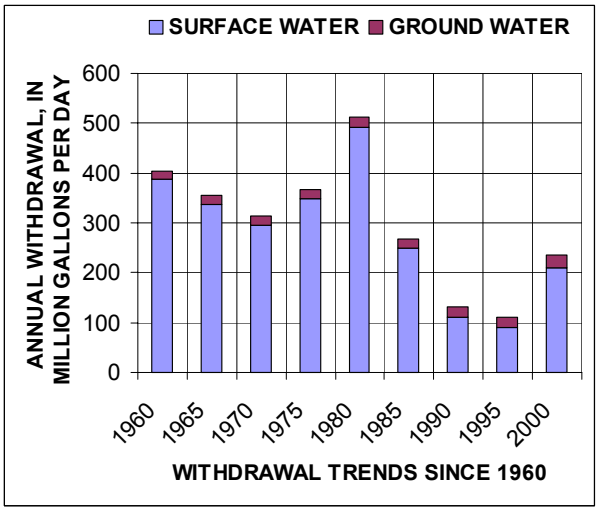
OUACHITA

Population: 146,672
Population served by public supply: 141,392
Per capita withdrawals (gal/d): 1,608
Acres irrigated: 11,350
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	10.65	12.19	22.84
Industrial	11.77	22.08	33.85
Power generation	.00	165.66	165.66
Rural domestic	.42	.00	.42
Livestock	.00	.26	.26
Rice irrigation	2.31	9.23	11.54
General irrigation	.12	.93	1.05
Aquaculture	.04	.15	.19
TOTALS	25.30	210.49	235.80



Withdrawals by Major Industrial Group (Mgal/d)

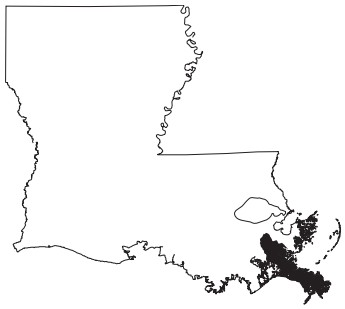
Standard Industrial Classification	GW	SW
13 Oil and gas extraction	0.02	
14 Nonfuels/nonmetals mining		0.08
26 Paper products	11.69	15.50
28 Chemicals	.06	6.50

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Better W.W.	0.23	
Cadeville Water Dist.	.27	
Calhoun Water System	.07	
Charmingdale Subdivision	.04	
Cheniere-Drew Water System	1.18	
D'Arbonne Hills Subdivision	.39	
Frost Town Water System	.09	
Greater Ouachita Water Co.	3.50	
Greenacres Water System	.02	
Hickory Bend Water System	.03	
Hillside Park Subdivision	.09	
Indian Village Water System	.10	
L & R Utilities	.16	
McClendon Water System	.01	
Monroe Water System		12.19
Pine Bayou Subdivision Water Sys.	.09	
Pine Bayou-Tanglewood Water	.19	
Prairie Road Water System	.23	
Sikes Water System	.01	
Southwest Ouachita Water Dist.	.48	
Tidwell Enterprises	.21	
West Monroe Water System	3.10	
Western Utilities, Inc.	.08	

PLAQUEMINES

Population: 26,094
Population served by public supply: 25,494
Per capita withdrawals (gal/d): 3,967
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

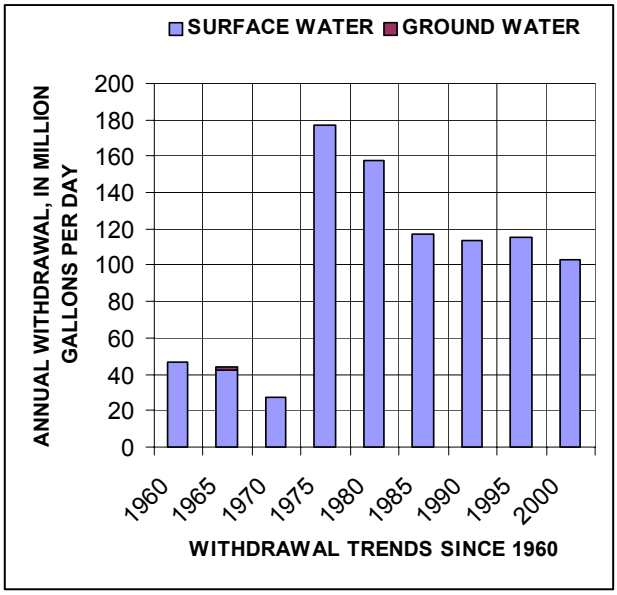
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	7.78	7.78
Industrial	.00	95.19	95.19
Power generation	.00	.00	.00
Rural domestic	.05	.00	.05
Livestock	.00	.06	.06
Rice irrigation	.00	.00	.00
General irrigation	.10	.00	.10
Aquaculture	.00	.45	.45
TOTALS	.15	103.47	103.62

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
28 Chemicals		6.74
29 Petroleum refining		87.54
33 Primary metals		.91

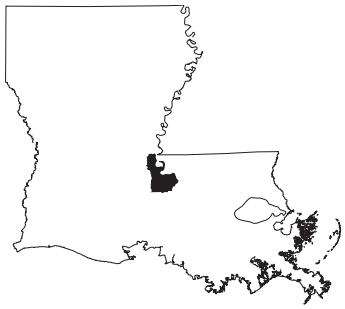
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Plaquemines Parish W.W.		7.78



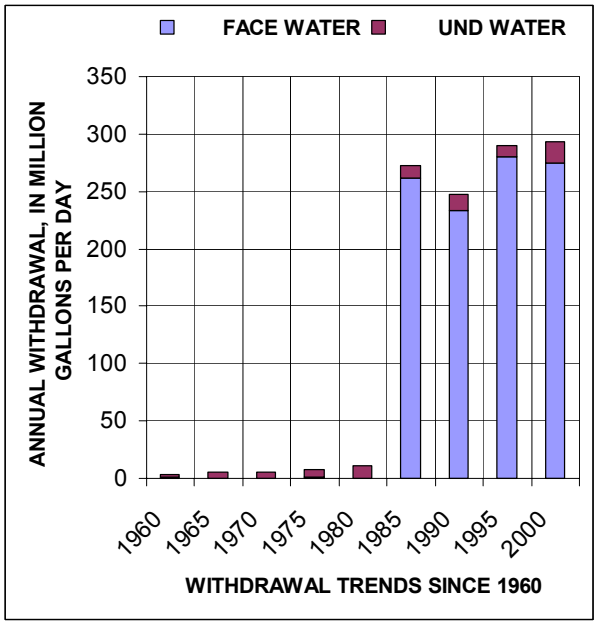
POINTE COUPEE

Population: 23,440
Population served by public supply: 20,510
Per capita withdrawals (gal/d): 12,526
Acres irrigated: 5,270
Hydroelectric power instream use (Mgal/d):



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	3.56	0.00	3.56
Industrial	7.35	.00	7.35
Power generation	2.94	274.37	277.31
Rural domestic	.23	.00	.23
Livestock	.20	.07	.27
Rice irrigation	2.01	.00	2.01
General irrigation	.66	.00	.66
Aquaculture	2.21	.00	2.21
TOTALS	19.16	274.44	293.61



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products	4.74	
24 Lumber	.14	
32 Glass, clay, and concrete	2.47	

Withdrawals by Major Public Supplier (Mgal/d)

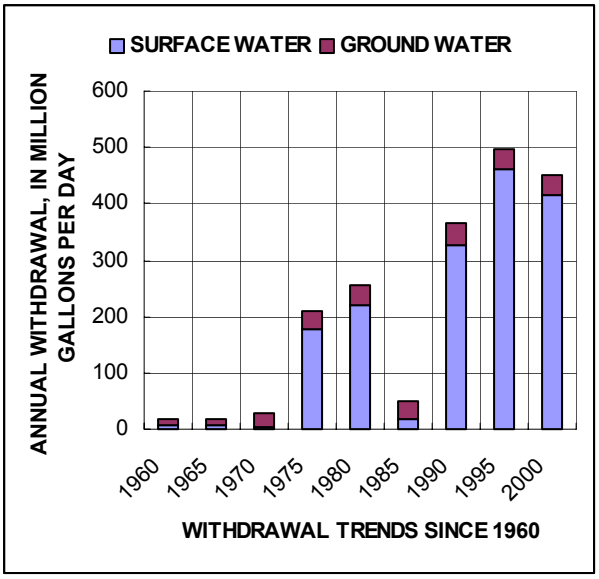
Public Supplier	GW	SW
Brownview Water Supply Co.	0.04	
False River Water Company	.35	
Fordoche Water System	.13	
Innis Water Works	.18	
Livonia Water System	.21	
M. & S. Water Supply	.10	
Maringouin Village Water System	.29	
Morganza Water System	.06	
New Roads Water System	1.15	
Old River Water Dist. 1	.05	
Pointe Coupee Area Water	.03	
Pointe Coupee W.W. Corp.	.22	
Pointe Coupee Water Dist. 1	.23	
Pointe Coupee Water Dist. 2	.42	
Torbert-Frisco Water System	.06	
Waterloo Water System	.01	

RAPIDES

Population: 126,775
Population served by public supply: 120,563
Per capita withdrawals (gal/d): 3,564
Acres irrigated: 7,602
Hydroelectric power instream use (Mgal/d): 0.00

Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	29.27	0.00	29.27
Industrial	.02	.00	.02
Power generation	.12	407.48	407.60
Rural domestic	.50	.00	.50
Livestock	.04	.18	.22
Rice irrigation	3.57	5.78	9.35
General irrigation	.40	.40	.80
Aquaculture	2.68	1.34	4.02
TOTALS	36.60	415.18	451.78



Withdrawals by Major Industrial Group (Mgal/d)

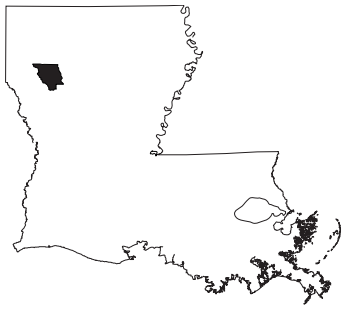
Standard Industrial Classification	GW	SW
26 Paper products	0.02	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Alexander Water System	21.10	
Avoyelles Psh Ward 1 W. S.	.17	
Boyce Water System	.16	
Buckeye Water District 50	.82	
Bunkie Water System	.67	
Cheneyville Water System	.15	
Elmer-Melder-Cal Water System	.14	
Forest Hill Water System	.34	
Gardner Comm Water System	.31	
Glenmora Water System	.18	
Hammock Water System	.03	
Hineston Water System	.08	
Kolin-Ruby-Wise Water Dist.	.35	
Lecompte Water System	.23	
Lena Water System	.19	
McNary Water System	.06	
Pineville Water System	2.81	
Pollock Area Water System	.08	
Rapides Island Water Assoc.	.44	
Rapides Water Works Dist. 3	.66	
Sieper Area Water System	.10	
Woodworth Water System	.13	

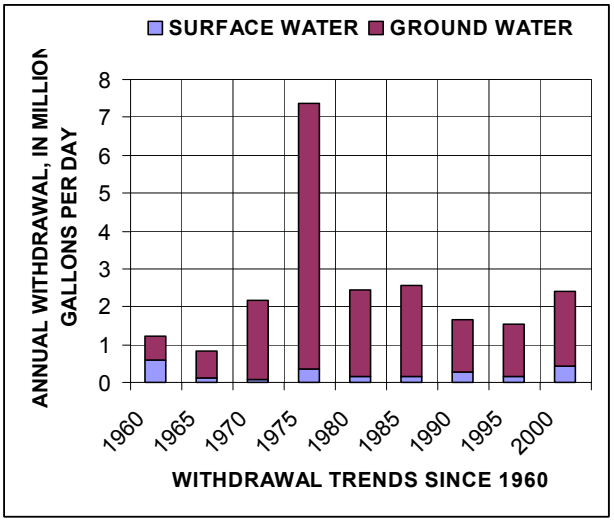
RED RIVER

Population: 9,489
Population served by public supply: 6,766
Per capita withdrawals (gal/d): 252
Acres irrigated: 1,913
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.65	0.00	.65
Industrial	.01	.00	.01
Power generation	.00	.00	.00
Rural domestic	.22	.00	.22
Livestock	.08	.12	.20
Rice irrigation	.37	.04	.41
General irrigation	.59	.15	.74
Aquaculture	.04	.13	.17
TOTALS	1.96	.44	2.39



Withdrawals by Major Industrial Group (Mgal/d)

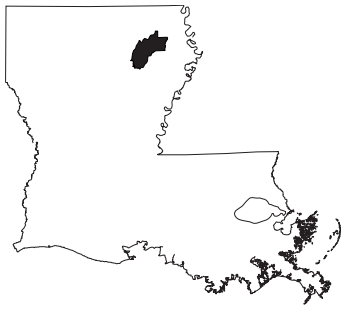
Standard Industrial Classification	GW	SW
26 Paper products	0.01	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Coushatta Water System	0.31	
East Cross Water System	.03	
Edgefield Water System	.02	
Halfway-Carroll Water System	.05	
Hall Summit Water System	.07	
Hickory Grove Water System	.04	
Martin Water System	.10	
Social Springs Water System	.05	

RICHLAND

Population: 21,082
Population served by public supply: 15,053
Per capita withdrawals (gal/d): 1,948
Acres irrigated: 42,395
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

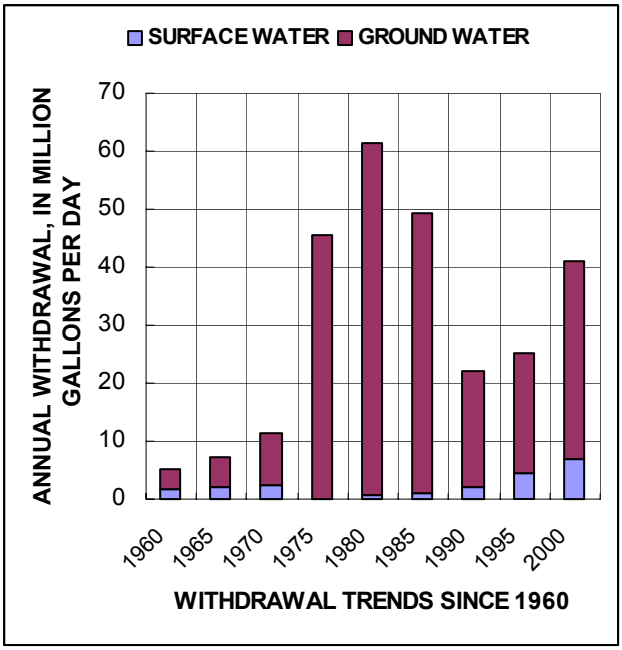
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.93	0.00	2.93
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.48	.00	.48
Livestock	.04	.04	.08
Rice irrigation	22.11	.00	22.11
General irrigation	6.79	6.79	13.58
Aquaculture	1.87	.00	1.87
TOTALS	34.23	6.84	41.07

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

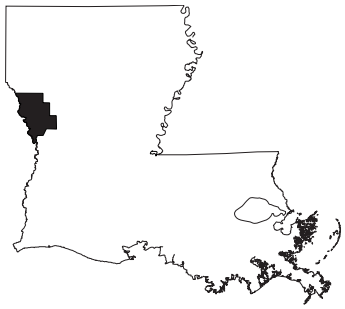
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Archibald Water System	0.16	
Delhi Water System	.82	
Liddieville Water System	.07	
Mangham Water System	.18	
N. Franklin Water Works	.74	
Rayville Water System	.53	
River Road W.W. Inc.	.21	
Start Water System	.16	



SABINE

Population: 23,812
Population served by public supply: 11,406
Per capita withdrawals (gal/d): 269
Acres irrigated: 90
Hydroelectric power instream use (Mgal/d): 1,700



Withdrawals, in million gallons per day (Mgal/d)

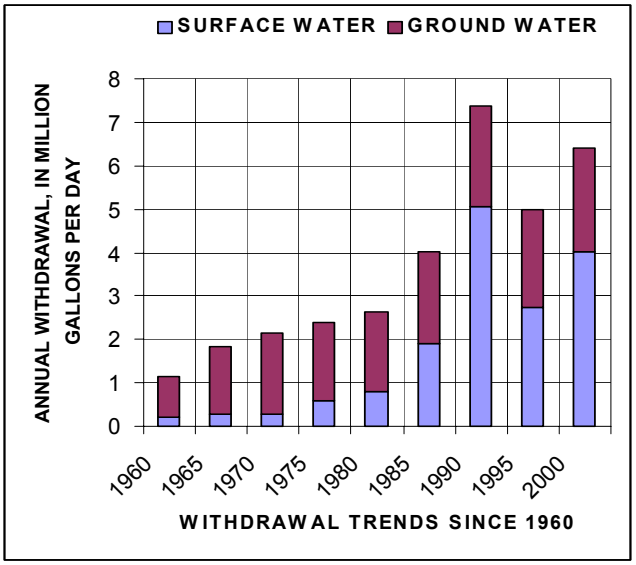
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.90	1.49	2.39
Industrial	.32	.00	.32
Power generation	.00	1.11	1.11
Rural domestic	.99	.00	.99
Livestock	.16	1.41	1.57
Rice irrigation	.00	.00	.00
General irrigation	.01	.01	.02
Aquaculture	.00	.00	.00
TOTALS	2.38	4.02	6.40

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
24 Lumber	0.32	

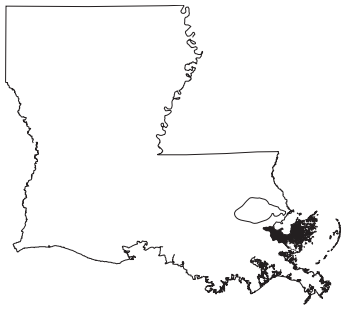
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Belmont Water System	0.34	
Converse Water System	.03	
Ebarb Water System		0.26
Fisher Water System	.03	
Florien Water System		.08
Many Water System	.10	.87
Noble Water System	.03	
Pendleton Water Assoc.		.10
Pirates Cove Water Works		.02
Pleasant Hill Water System	.11	
South Toledo Bend Waterworks		.17
Union Springs Water System	.04	
Zwolle Water System	.19	



ST. BERNARD

Population: 65,406
Population served by public supply: 65,275
Per capita withdrawals (gal/d): 4,304
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

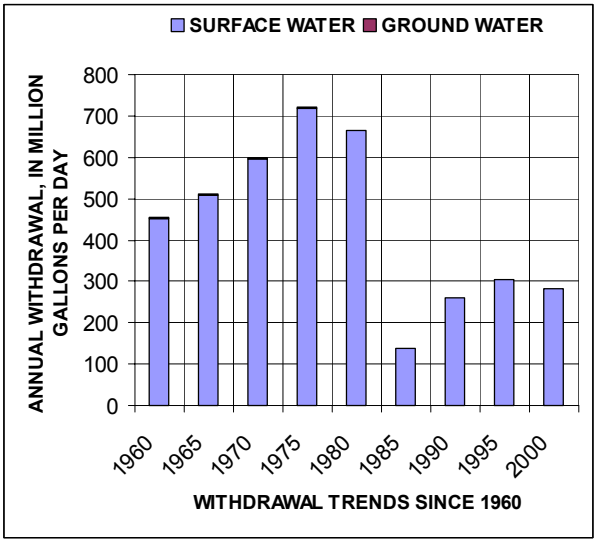
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	10.29	10.29
Industrial	.00	271.17	271.17
Power generation	.00	.00	.00
Rural domestic	.01	.00	.01
Livestock	.01	.00	.01
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	.02	281.46	281.48

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products		15.07
29 Petroleum refining		256.11

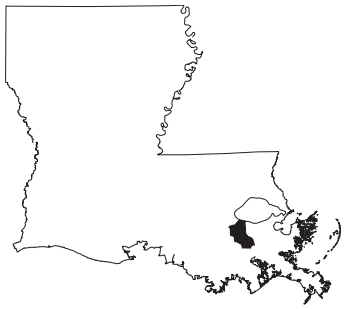
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
St. Bernard Dept. of Public Works		10.29



ST. CHARLES

Population: 48,640
Population served by public supply: 48,397
Per capita withdrawals (gal/d): 55,535
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

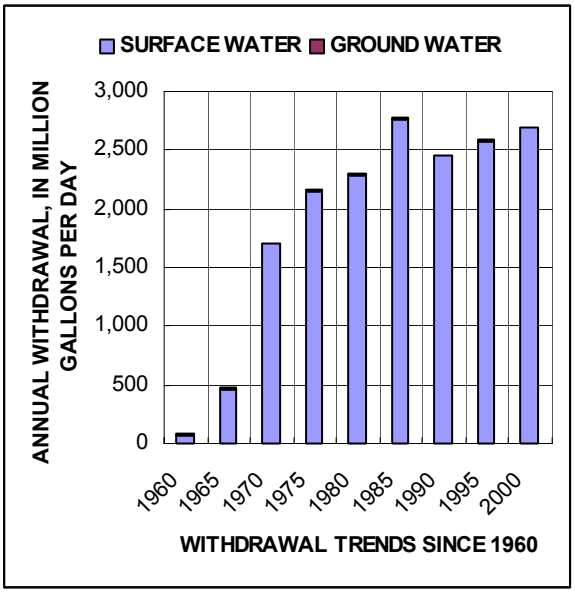
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	9.58	9.58
Industrial	1.84	582.51	584.35
Power generation	.00	2,107.23	2,107.23
Rural domestic	.02	.00	.02
Livestock	.00	.03	.03
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	1.86	2,699.35	2,701.21

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
28 Chemicals	1.84	574.81
29 Petroleum refining		7.70

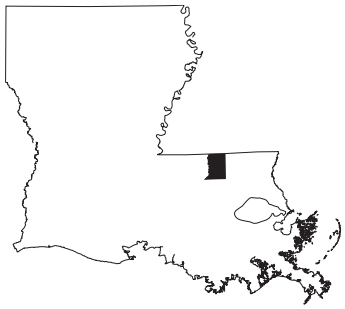
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
St. Charles Dept. of W.W. – Dist. 1		4.83
St. Charles Dept. of W.W. – Dist. 2		4.75



ST. HELENA

Population: 9,607
Population served by public supply: 3,651
Per capita withdrawals (gal/d): 120
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

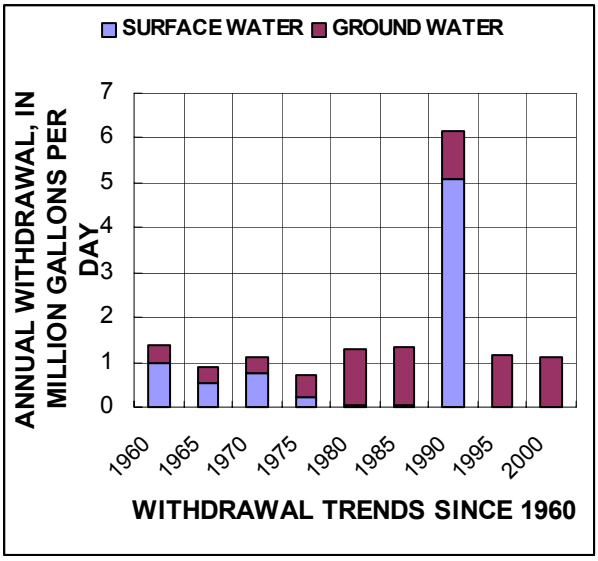
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.49	0.00	0.49
Industrial	.03	.00	.03
Power generation	.00	.00	.00
Rural domestic	.48	.00	.48
Livestock	.13	.01	.14
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	1.12	.01	1.14

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products	0.01	
28 Chemicals	.02	

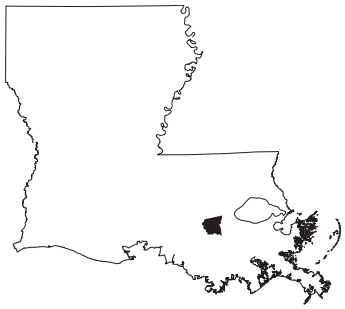
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Crossroad Waterworks	0.05	
Darlington W.W. Assoc.	.02	
Dennis Mills W.W. Assoc.	.07	
Greensburg Water System	.13	
Montpelier Water System	.03	
Pine Grove W.W. Assoc.	.01	
St. Helena W.W. Dist. 2	.17	



ST. JAMES

Population: 21,197
Population served by public supply: 21,027
Per capita withdrawals (gal/d): 11,158
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

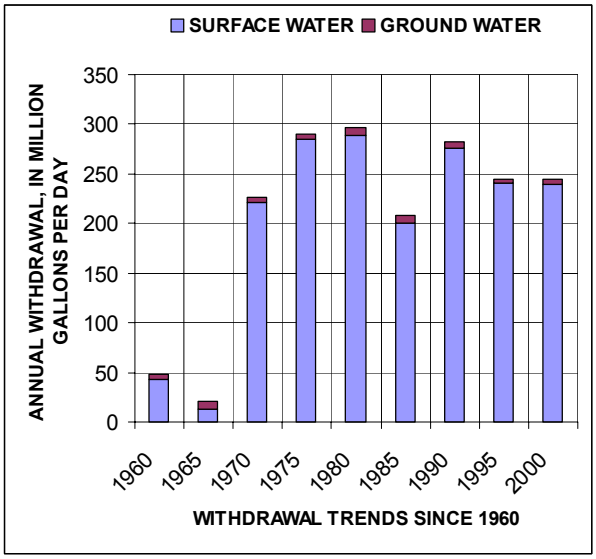
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	2.88	2.88
Industrial	5.06	227.33	232.39
Power generation	.00	.00	.00
Rural domestic	.01	.00	.01
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	9.71	9.71
TOTALS	5.07	239.92	244.99

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products	2.71	1.21
28 Chemicals	2.18	219.59
29 Petroleum refining	.16	6.52

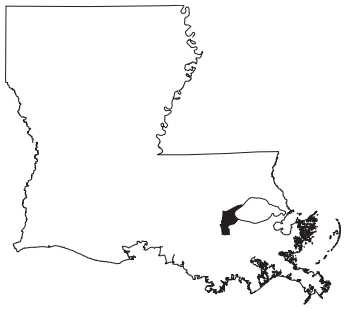
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Gramercy Water System		0.54
Lutcher Water System		.59
St. James Parish Utilities		1.75



ST. JOHN THE BAPTIST

Population: 42,494
Population served by public supply: 41,517
Per capita withdrawals (gal/d): 2,205
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

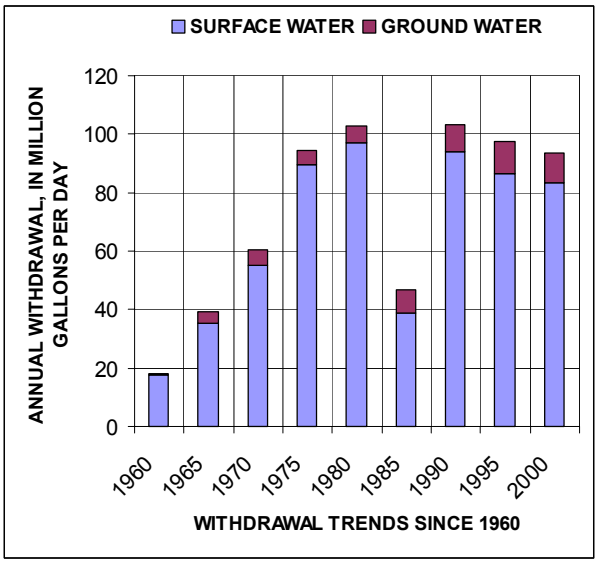
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	4.53	2.70	7.23
Industrial	5.71	80.68	86.39
Power generation	.00	.00	.00
Rural domestic	.08	.00	.08
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	10.32	83.38	93.70

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
28 Chemicals	5.71	45.32
29 Petroleum refining		5.73
33 Primary metals		29.62

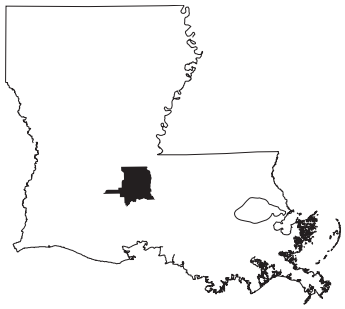
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
St. John the Baptist Parish Utilities	4.53	2.70



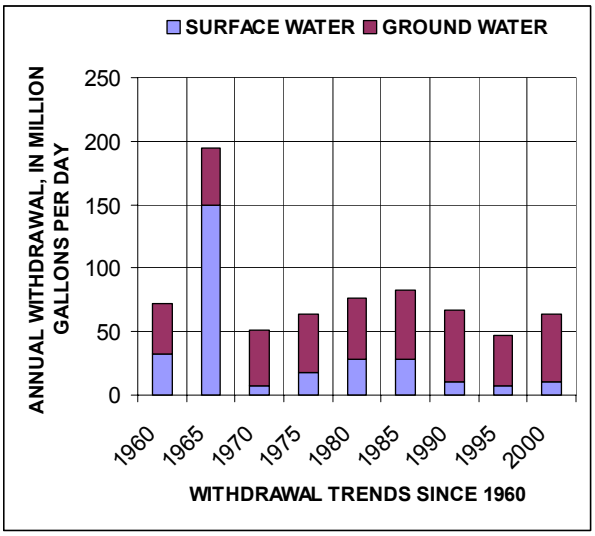
ST. LANDRY

Population: 84,243
Population served by public supply: 75,229
Per capita withdrawals (gal/d): 754
Acres irrigated: 27,625
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	9.94	0.00	9.94
Industrial	5.06	.00	5.06
Power generation	.00	.00	.00
Rural domestic	.72	.00	.72
Livestock	.14	.04	.18
Rice irrigation	20.17	5.85	26.02
General irrigation	1.70	.42	2.12
Aquaculture	15.06	4.39	19.45
TOTALS	52.79	10.70	63.49



Withdrawals by Major Industrial Group (Mgal/d)

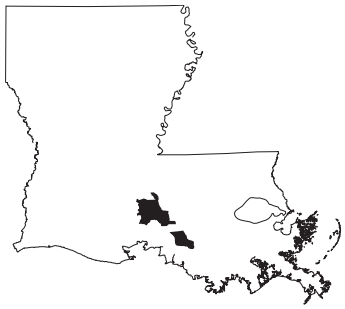
Standard Industrial Classification	GW	SW
13 Oil and gas extraction	0.90	
24 Lumber	.27	
29 Petroleum refining	3.89	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Arnaudville Water System	0.28	
Cankton Water System	.12	
Grand Coteau Water System	.14	
Grand Prairie Water System	.06	
Greenbriar-Prairie Basse W.S.	.08	
K.S. Water System Inc.	.03	
Krotz Springs Water System	.23	
Eunice Water System	1.84	
Lawtell W.W. Dist. 1	.23	
Leonville Water System	.59	
Lewisburg-Bellevue Water System	.44	
Melville Water System	.18	
Midway Water Works	.01	
Opelousas Water System	4.06	
Palmetto Water System	.12	
Plaisance Water System	.52	
Port Barre Water System	.28	
Prairie Ronde Water System	.31	
Prairie Ronde-Garland/Whiteville	.06	
Sunset Water System	.20	
Washington Water System	.13	

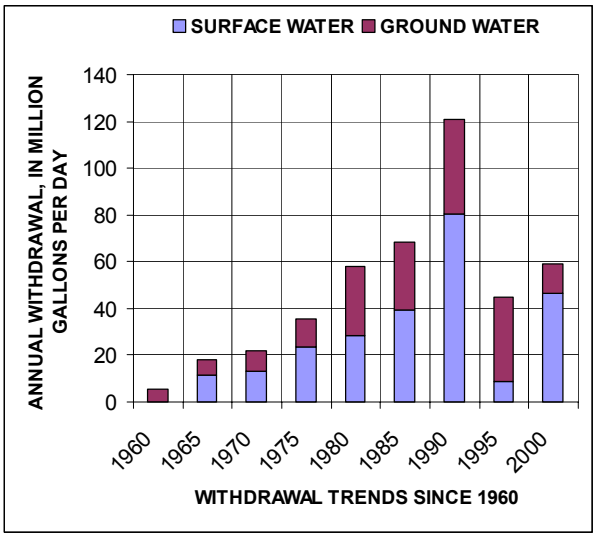
ST. MARTIN

Population: 47,645
Population served by public supply: 37,782
Per capita withdrawals (gal/d): 1,244
Acres irrigated: 4,784
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	6.26	0.00	6.26
Industrial	.35	.00	.35
Power generation	.00	.00	.00
Rural domestic	.79	.00	.79
Livestock	.04	.01	.05
Rice irrigation	.69	6.25	6.94
General irrigation	.00	.00	.00
Aquaculture	4.69	40.17	44.86
TOTALS	12.82	46.43	59.25



Withdrawals by Major Industrial Group (Mgal/d)

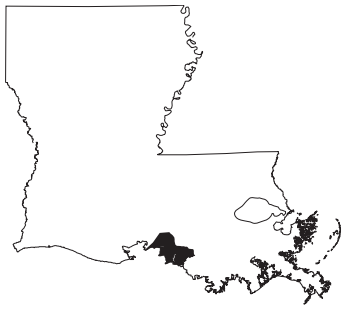
Standard Industrial Classification	GW	SW
28 Chemicals	0.35	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Breaux Bridge Water System	0.99	
Catahoula Water System	.15	
Cecilia Water System	.59	
Henderson-Nina Water System	.49	
Parks Water System	.65	
St. Martin Parish W. & W.	1.82	
St. Martinville Water System	1.28	
United Water System	.27	

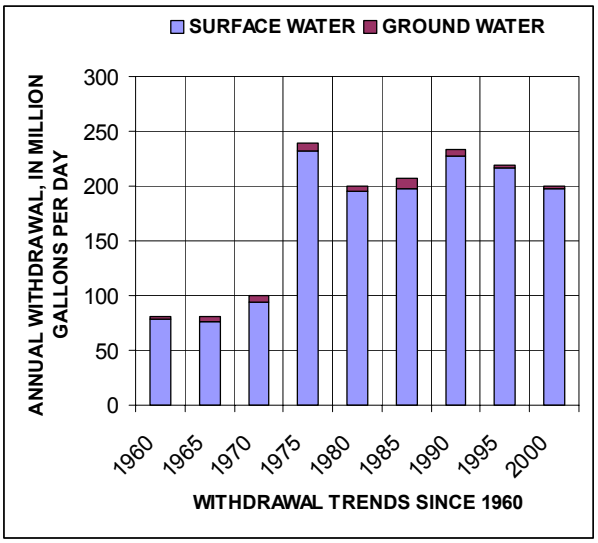
ST. MARY

Population: 56,795
Population served by public supply: 54,807
Per capita withdrawals (gal/d): 3,523
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.23	10.34	10.57
Industrial	1.85	7.05	16.92
Power generation	.00	175.89	175.89
Rural domestic	.16	.00	.16
Livestock	.00	.03	.03
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.71	3.81	4.52
TOTALS	2.96	197.12	200.08



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
13 Oil and gas extraction		0.85
20 Food products	0.08	.15
28 Chemicals	1.77	2.50
29 Petroleum refining		3.55
37 Transportation equipment		.01

Withdrawals by Major Public Supplier (Mgal/d)

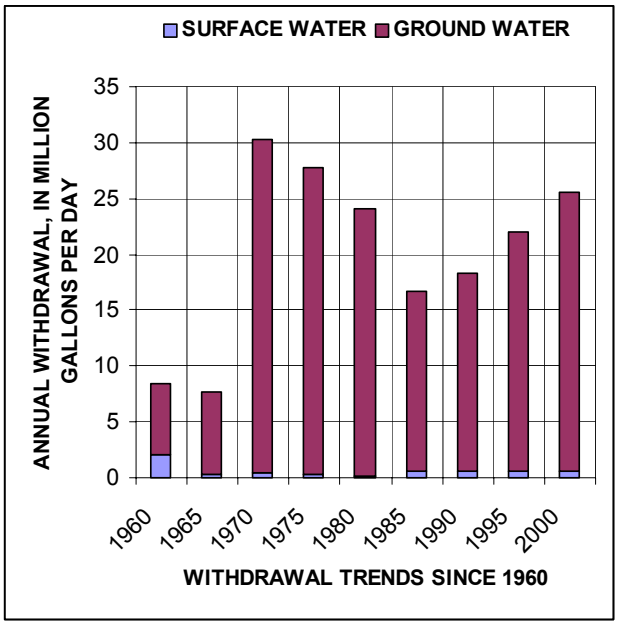
Public Supplier	GW	SW
Amelia Water and Sewer Comm.		0.91
Baldwin Water System	0.10	
Franklin Water System		1.31
Glencoe Comm. Water System	.02	
Morgan City Water System		4.22
Patterson Water System		.51
St. Mary Parish Water Dist. 2		1.23
St. Mary Parish Water Dist. 5		.80
St. Mary Parish Water Dist. 6		1.35
St. Mary Water Dist. 7	.12	

ST. TAMMANY

Population: 192,945
Population served by public supply: 120,205
Per capita withdrawals (gal/d): 133
Acres irrigated: 1,400
Hydroelectric power instream use (Mgal/d): 0.00

Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	18.13	0.00	18.13
Industrial	.31	.00	.31
Power generation	.00	.00	.00
Rural domestic	5.82	.00	5.82
Livestock	.05	.03	.08
Rice irrigation	.00	.00	.00
General irrigation	.56	.62	1.18
Aquaculture	.02	.00	.02
TOTALS	24.89	.66	25.55



Withdrawals by Major Industrial Group (Mgal/d)

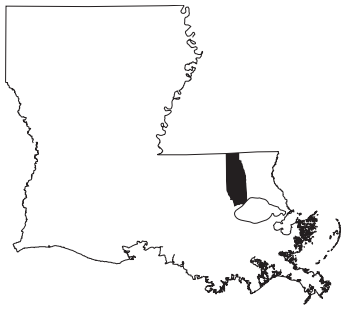
Standard Industrial Classification	GW	SW
20 Food products	0.03	
28 Chemicals	.20	
30 Rubber and plastics	.07	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Abita Springs Water System	0.20	
Alton Water System	.02	
Bayou Liberty Water Co.	1.01	
Beau Chene Subdivision	.45	
Ben Thomas Rd Water Dist.	.04	
Bleu Lake Water Co. Inc.	.02	
Covington Dept. of Public Works	2.13	
Cross Gates Utilities Co.	.55	
Eden Isles Water Supply	1.07	
Folsom Water System	.11	
Greenleaves Utility Corp.	.53	
Kings Forest Utility Co.	.18	
LA Water Service & Utilities	2.27	
Lee Road Water Co.	.47	
Madisonville Water System	.13	
Mandeville Water & Sewerage Div.	1.84	
Northshore Utility Co.	.04	
Parks Waterworks	.16	
Pearl River Water System	.20	
Resolve Water System	.44	
Royal Gardens Home Assoc.	.03	
Slidell Water System	3.53	
St. Tammany Water Dist. 2	.43	
St. Tammany Water Dist. 3	.30	
Southeastern LA Water & Sewer	.66	
Sun Water System	.05	
Tchefuncte Club Estates	.37	
Whisperwood Estates Subdivision	.44	

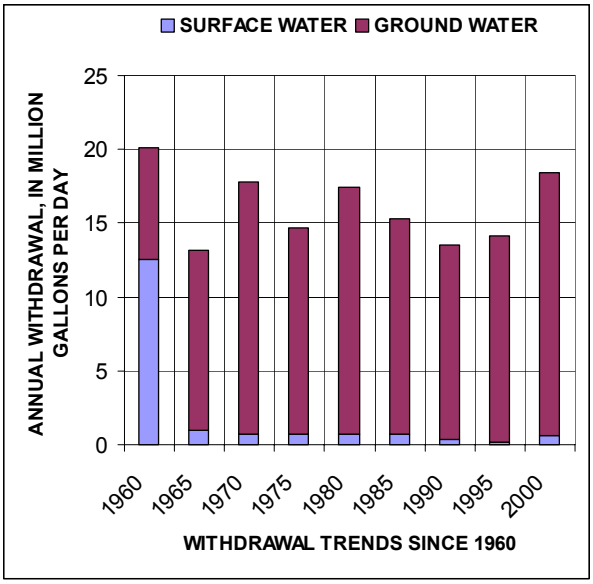
TANGIPAHOA

Population: 98,285
Population served by public supply: 60,052
Per capita withdrawals (gal/d): 189
Acres irrigated: 600
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	12.94	0.00	12.94
Industrial	.97	.00	.97
Power generation	.00	.00	.00
Rural domestic	3.06	.00	3.06
Livestock	.34	.34	.68
Rice irrigation	.00	.00	.00
General irrigation	.27	.27	.54
Aquaculture	.27	.00	.27
TOTALS	17.84	.61	18.45



Withdrawals by Major Industrial Group (Mgal/d)

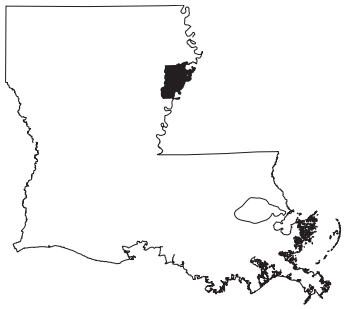
Standard Industrial Classification	GW	SW
20 Food products	0.83	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Amite Water System	2.43	
Bon Aire Estates Util. Co.	0.06	
Hammond Hgts. Water Co.	.18	
Hammond Water System	4.31	
Independence Water System	.21	
Kentwood Water System	.28	
Pine Hill Forest Subdivision	.02	
Ponchatoula Water System	.69	
Roseland Water System	.50	
Tangipahoa W.W.	.04	
Tangipahoa Water District 2	3.55	
Tickfaw Water System	.07	
Westview Water Works	.06	

TENSAS

Population: 6,539
Population served by public supply: 6,238
Per capita withdrawals (gal/d): 2,617
Acres irrigated: 36,086
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

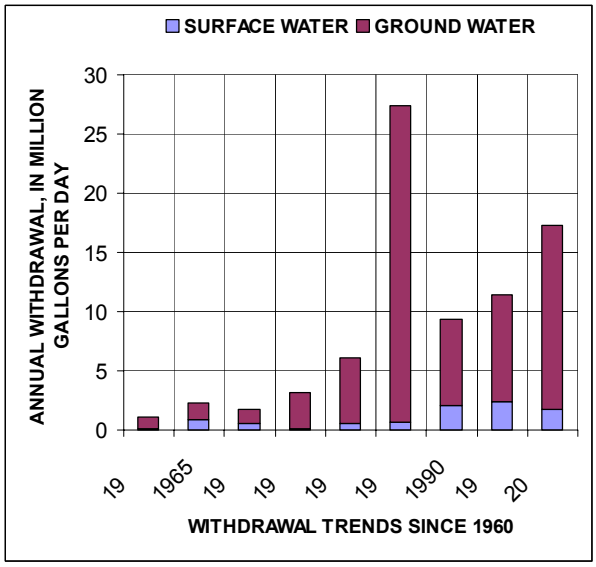
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.26	0.60	0.86
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.02	.00	.02
Livestock	.00	.01	.01
Rice irrigation	6.21	.00	6.21
General irrigation	8.89	.99	9.88
Aquaculture	.13	.00	.13
TOTALS	15.51	1.59	17.11

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

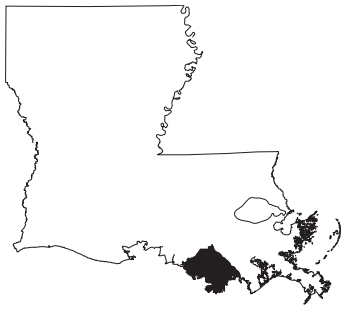
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Lake Bruin Water System		0.04
Newellton Water System		.26
St. Joseph Water System	0.18	
Tensas Water Distribution Assoc.		.30
Waterproof Water System	.08	



TERREBONNE

Population: 105,128
Population served by public supply: 105,023
Per capita withdrawals (gal/d): 67
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

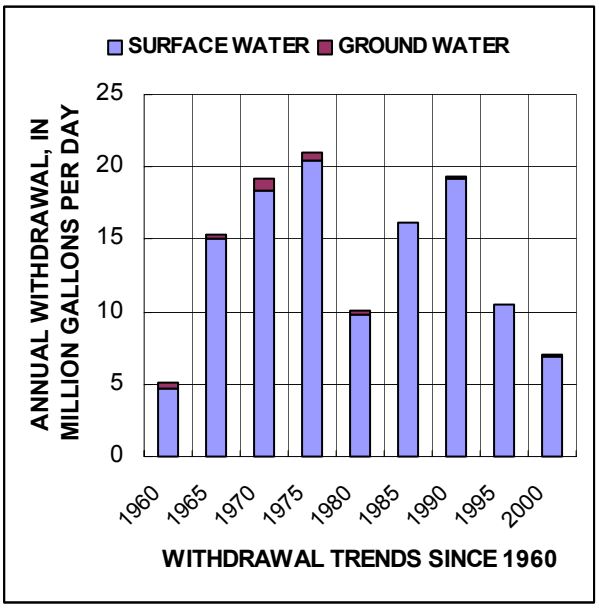
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	0.00	5.62	5.62
Industrial	.11	.08	.19
Power generation	.00	.00	.00
Rural domestic	.01	.00	.01
Livestock	.01	.04	.05
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	1.16	1.16
TOTALS	.14	6.90	7.03

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
13 Oil and gas extraction		0.08
20 Food products	0.11	

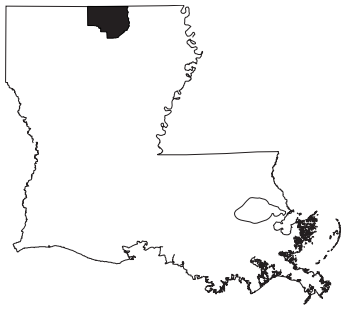
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Terrebonne W.W. District 1		5.62



UNION

Population: 22,165
Population served by public supply: 19,816
Per capita withdrawals (gal/d): 401
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

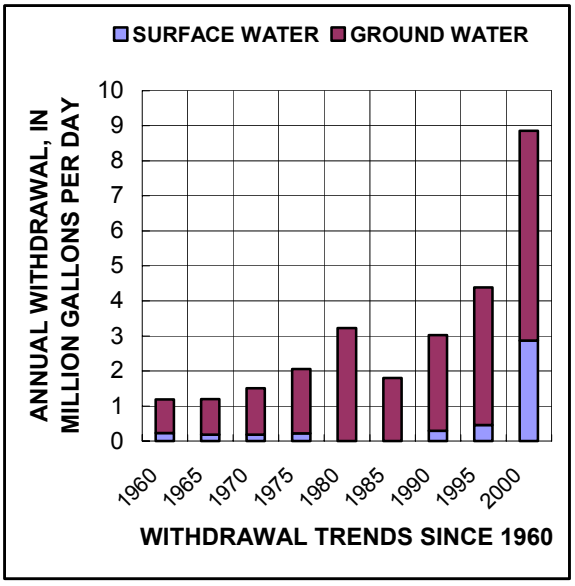
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	4.93	0.00	4.93
Industrial	.09	.00	.09
Power generation	.00	.00	.00
Rural domestic	.19	.00	.19
Livestock	.72	2.87	3.59
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.09	.00	.09
TOTALS	6.02	2.87	8.89

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
24 Lumber	0.09	

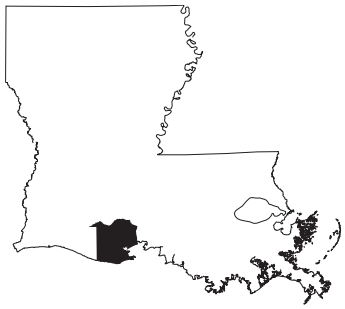
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bernice Water System	0.29	
Concord Water System	.03	
Corney Water Sysrem	.03	
D'arbonne Water System	.49	
Downsville Water System	.02	
Farmerville Water System	2.58	
Holmesville Water System	.21	
Linville-Haile Water System	.15	
Lintroe Water System	.05	
Marion Water System	.11	
Point-Wilhite Water System	.13	
Randolph Water System	.02	
Rocky Branch W.W. Dist.	.11	
Salem Water System	.04	
Sardis Water System	.08	
Tri-Water System	.20	
Union W.W. Dist. 1	.18	
Wards Chapel Water System	.12	
West Sterlington Water System	.08	



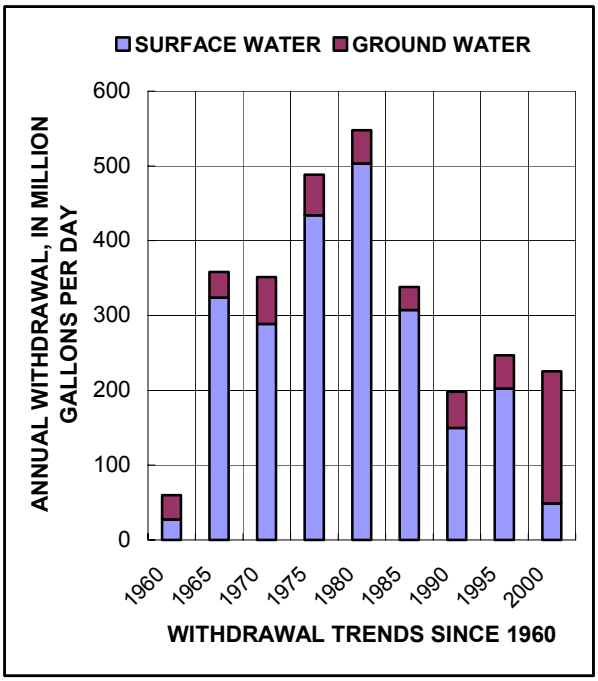
VERMILION

Population: 52,258
Population served by public supply: 25,554
Per capita withdrawals (gal/d): 4,316
Acres irrigated: 101,072
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	4.92	0.00	4.92
Industrial	1.93	.00	1.93
Power generation	.00	.00	.00
Rural domestic	2.14	.00	2.14
Livestock	.08	.31	.39
Rice irrigation	149.02	40.85	189.87
General irrigation	.58	.00	.58
Aquaculture	18.21	7.62	25.83
TOTALS	176.87	48.77	225.64



Withdrawals by Major Industrial Group (Mgal/d)

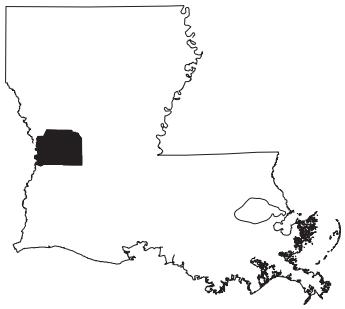
Standard Industrial Classification	GW	SW
13 Oil and gas extraction	0.06	
20 Food products	.88	
29 Petroleum refining	.96	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Abbeville Water System	2.06	
Delcambre Water System	.88	
Erath Water System	.37	
Gueydan Water System	.28	
Kaplan Water System	.60	
Magnolia Plantation Water Sys.	.26	
Maurice Water System	.10	
Southeast Waterworks District 1	.03	
Southeast Waterworks District 2	.24	
Waterworks District 1	.05	

VERNON

Population: 51,567
Population served by public supply: 34,034
Per capita withdrawals (gal/d): 155
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

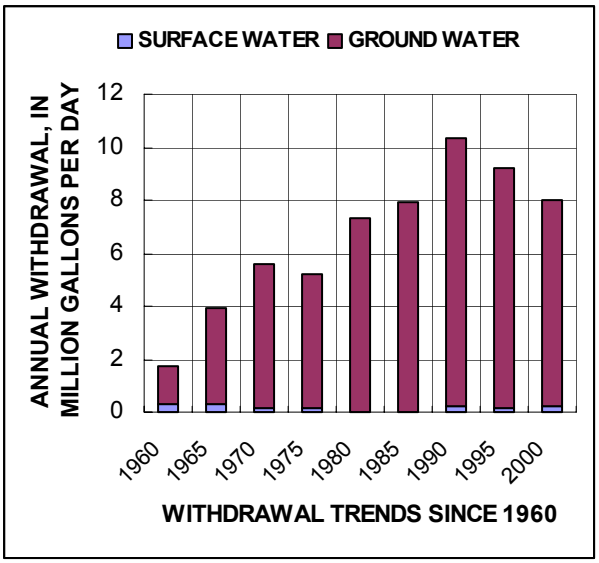
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	6.32	0.00	6.32
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	1.40	.00	1.40
Livestock	.02	.20	.22
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.05	.00	.05
TOTALS	7.80	.20	8.00

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

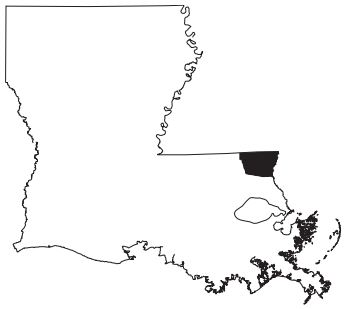
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Anacoco Water System	0.10	
E. Central Vernon Water System	.35	
Hornnbeck Water System	.05	
Leesville Water System	1.28	
Pitkin Water System	.06	
Rosepine Water System	.14	
Waterworks Dist. 1	.11	
Simpson Water System	.08	
Vernon Parish Ward 4 Water Dist.	.76	



WASHINGTON

Population: 43,162
Population served by public supply: 27,235
Per capita withdrawals (gal/d): 917
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

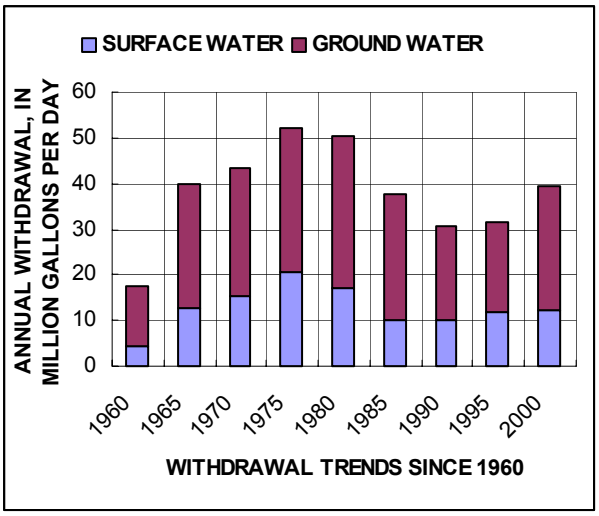
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	14.07	0.00	14.07
Industrial	11.99	11.93	23.92
Power generation	.00	.00	.00
Rural domestic	1.27	.00	1.27
Livestock	.08	.19	.27
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.04	.00	.04
TOTALS	27.44	12.13	39.57

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
20 Food products	0.05	
26 Paper products	11.93	11.93

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Angie Water System	0.02	
Bogalousa Water System	12.13	
Bogue Lusa W.W. Dist.	.35	
Franklinton Water System	.81	
Rural Franklinton Water System	.34	
Varnado W.W. District	.41	

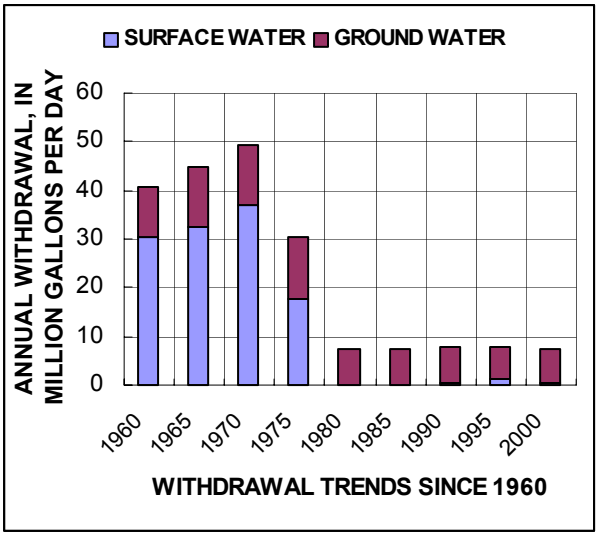


WEBSTER

Population: 42,797
Population served by public supply: 38,004
Per capita withdrawals (gal/d): 174
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00

Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	6.23	0.00	6.23
Industrial	.42	.20	.62
Power generation	.00	.00	.00
Rural domestic	.38	.00	.38
Livestock	.01	.20	.21
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.05	.00	.05
TOTALS	7.09	.40	7.49



Withdrawals by Major Industrial Group (Mgal/d)

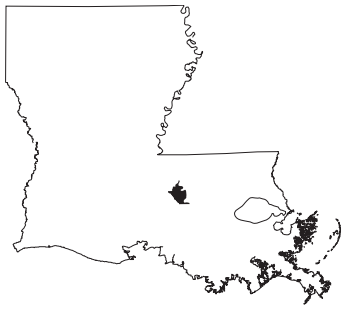
Standard Industrial Classification	GW	SW
26 Paper products	0.06	
29 Petroleum refining	.34	
34 Metal products	.03	0.20

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bistineau Water System	0.09	
Blocker Water Works Corp.	.09	
Central Water System	.11	
Cotton Valley Water System	.06	
Cullen Water Corp.	.15	
Dixie Overland Water Works	.10	
Dorcheat Acres Water System	.04	
Doyline Water System	.07	
Dubberly Water System	.08	
Germantown Water System	.05	
Gilark Water System	.05	
Gilgal Water System	.08	
Heflin Water System	.05	
Horse Shoe Road Water System	.02	
Jenkins Comm. Water System	.11	
Leton Water System	.06	
McIntyre Water System	.03	
Midway Water Works	.03	
Minden Water System	1.96	
Palmetto Beach Water System	.02	
Pleasant Valley Water System	.08	
Salt Works Water System	.04	
Sarepta Water System	.12	
Shongaloo Water System	.15	
Sibley Water System	.32	
Springhill Water System	1.76	
State Line Water System	.05	
Thomasville Water System	.02	
Union Grove Water System	.03	
Village Water System	.34	

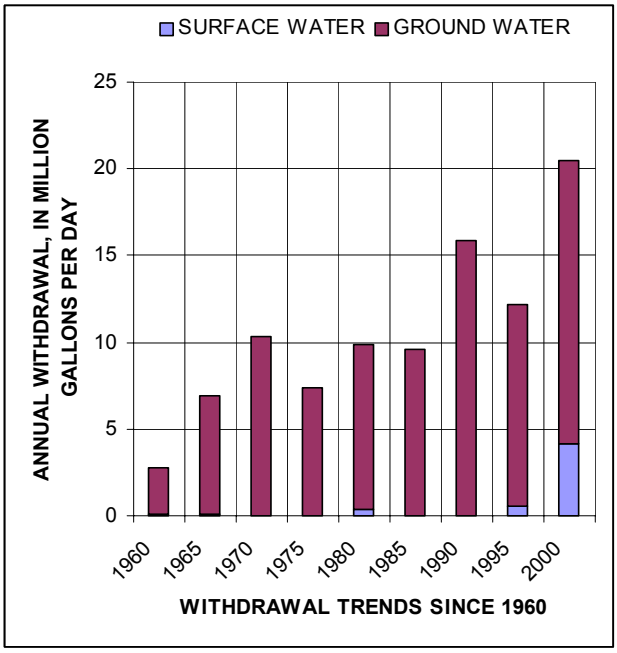
WEST BATON ROUGE

Population: 20,421
Population served by public supply: 19,972
Per capita withdrawals (gal/d): 1,003
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	6.07	0.00	6.07
Industrial	10.19	.00	10.19
Power generation	.00	.00	.00
Rural domestic	.04	.00	.04
Livestock	.02	.01	.03
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	4.14	4.14
TOTALS	16.32	4.15	20.48



Withdrawals by Major Industrial Group (Mgal/d)

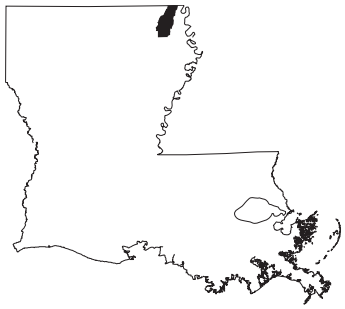
Standard Industrial Classification	GW	SW
20 Food products	3.44	
28 Chemicals	6.54	
29 Petroleum refining	.14	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Plaquemine City Light & Water	1.48	
Port Allen Water System	0.62	
W. Baton Rouge Gas & Water Sys.	1.86	
W. Baton Rouge Water Dist. 1	.21	
W. Baton Rouge Water Dist. 2	.95	
W. Baton Rouge Water Dist. 4	.76	
Westport Properties	.19	

WEST CARROLL

Population: 12,175
Population served by public supply: 11,225
Per capita withdrawals (gal/d): 2,603
Acres irrigated: 22,914
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

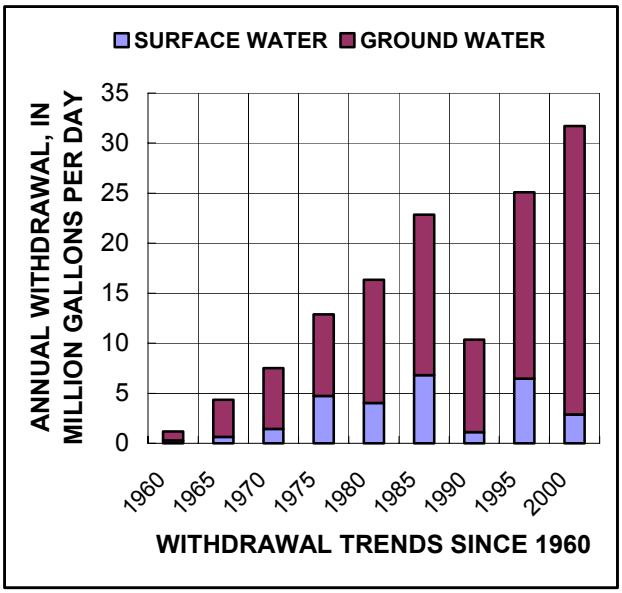
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	1.46	0.00	1.46
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.08	.00	.08
Livestock	.08	.01	.09
Rice irrigation	15.57	.85	16.42
General irrigation	11.48	2.03	13.51
Aquaculture	.14	.01	.15
TOTALS	28.80	2.89	31.69

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

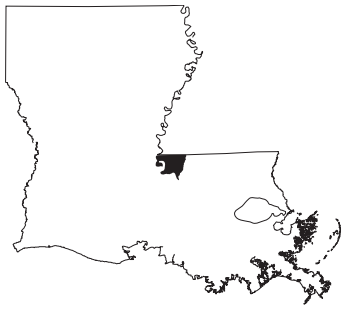
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Epps Water System	0.08	
Fiske Union Water System	.24	
Forest Water System	.11	
Goodwill Water System	.10	
Monticello Water System	.08	
NE West Carroll Water System	.37	
Oak Grove Water System	.27	
Pioneer-Darnell Water System	.21	



WEST FELICIANA

Population: 13,833
Population served by public supply: 13,363
Per capita withdrawals (gal/d): 3,648
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

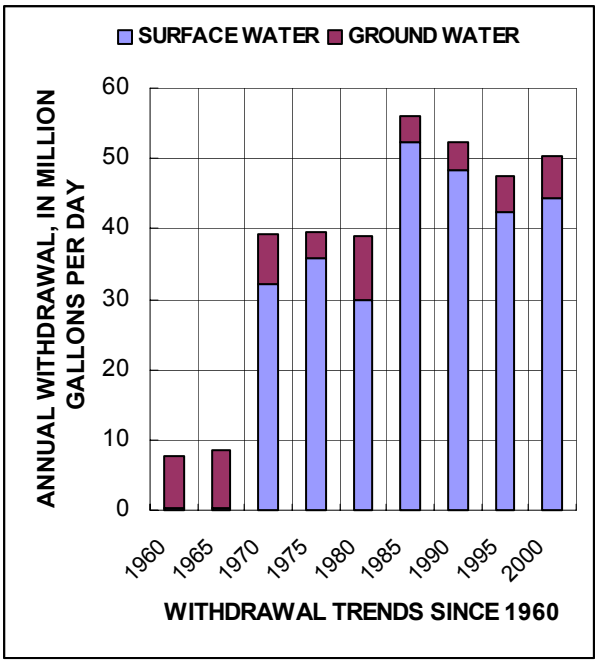
	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	4.52	0.03	4.55
Industrial	1.59	29.73	31.32
Power generation	.02	14.47	14.49
Rural domestic	.04	.00	.04
Livestock	.00	.06	.06
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTALS	6.17	44.29	50.46

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
26 Paper products	1.59	29.73

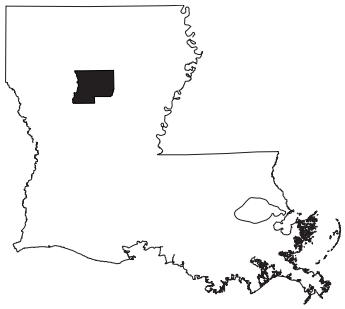
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
St. Francisville Water System	0.75	
The Bluffs on Thompson Creek		0.03
West Feliciana Water District 2	.73	
West Feliciana Water District 13	1.26	



WINN

Population: 17,498
Population served by public supply: 14,541
Per capita withdrawals (gal/d): 218
Acres irrigated: 0.00
Hydroelectric power instream use (Mgal/d): 0.00



Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTALS
Public supply	2.24	0.00	2.24
Industrial	1.13	.00	1.13
Power generation	.00	.00	.00
Rural domestic	.24	.00	.24
Livestock	.02	.07	.09
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.11	.11
TOTALS	3.63	.18	3.81

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
24 Lumber	0.80	
28 Chemicals	.33	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Atlanta Water System	0.05	
Backwood Village Water System	.05	
Calvin Water System	.03	
Dodson Water System	.08	
Hudson-Gaars Mill Water System	.04	
Hwy. 84 West Water System	.05	
Joyce Water System	.04	
Pleasant Hill-Crossroads W.S.	.03	
Sikes Water System	.01	
St. Maurice Water System	.05	
Tannehill Water System	.20	
West Winn Water System	.08	
Wheeling Water System	.03	
Winnfield Water System	1.51	

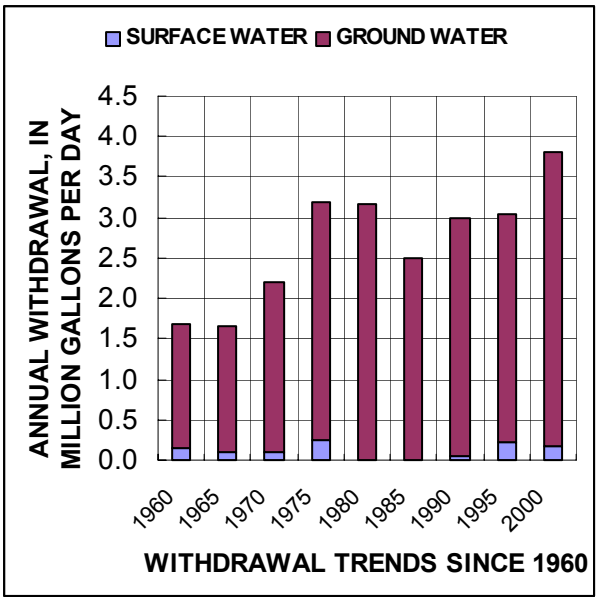


Table 2. Water withdrawals in Louisiana by parish, source, and principal use, 2000

Parish	Public Supply		Industrial		Power Generation		Rural Domestic	Livestock	
	GW	SW	GW	SW	GW	SW	GW	GW	SW
Acadia	4.94		0.02				1.28	0.12	0.01
Allen	3.19		.28				.24	.07	.02
Ascension	2.57	2.36	7.57	199.46			2.80	.09	.02
Assumption		5.44	13.84	9.56			.03		
Avoyelles	4.49		.36				.18	.21	
Beauregard	4.15		20.57				.73	.09	.06
Bienville	1.72		10.92	.06			.36	.21	.14
Bossier	2.04	9.69	.69	.01			1.15	.12	.03
Caddo	1.13	46.89	.09	.29		92.39	1.57	.06	.14
Calcasieu	24.44	0.41	60.28	210.85	10.28	17.09	2.14	.16	.24
Caldwell	1.67						.06	.02	.02
Cameron	2.21		.17	1.35			.09	.09	.28
Catahoula	1.18			.01			.11		.05
Claiborne	2.40						.17	.64	.64
Concordia	2.07	1.50				8.26	.06	.09	.02
DeSoto	1.28	1.63	.34	16.63			.59	.20	.07
East Baton Rouge	64.14		63.37	18.49	7.44		.25	.13	.01
East Carroll	1.43						.02		.01
East Feliciana	2.97		.03				.27	.02	.19
Evangeline	5.72		1.30			114.13	.34	.12	.04
Franklin	1.83		.76				.68	.25	
Grant	1.51	2.54	.21	1.44			.22	.03	.04
Iberia	9.23		1.24	7.76			1.15	.06	.01
Iberville	2.12	1.04	23.43	553.58	1.65	569.94	.15	.05	.02
Jackson	1.83						.15	.05	.62
Jefferson		85.21	2.88	7.28	.37	1,051.31	.04		
Jefferson Davis	3.79						.38	.15	
Lafayette	21.35		.53		2.28		2.86	.11	
Lafourche		23.33	1.39	9.07			.02	.12	.12
La Salle	2.80		.03	.12			.05	.01	.03
Lincoln	8.37		.16				.16	.23	2.05
Livingston	9.29		.13				2.15	.14	.10
Madison	1.90						.02	.01	.01
Morehouse	3.52		4.00	20.99			.18	.05	.01
Natchitoches	.93	5.15		12.69			.49	.28	1.13
Orleans		155.16	1.99	.01	3.33	582.31	.22		
Ouachita	10.65	12.19	11.77	22.08		165.66	.42		.26
Plaquemines		7.78		95.19			.05		.06
Pointe Coupee	3.56		7.35		2.94	274.37	.23	.20	.07
Rapides	29.27		.02		.12	407.48	.50	.04	.18
Red River	.65		.01				.22	.08	.12
Richland	2.93						.48	.04	.04
Sabine	.90	1.49	.32			1.11	.99	.16	1.41
St. Bernard		10.29		271.17			.01	.01	
St. Charles		9.58	1.84	582.51		2,107.23	.02		.03
St. Helena	.49		.03				.48	.13	.01
St. James		2.88	5.06	227.33			.01		
St. John the Baptist	4.53	2.70	5.71	80.68			.08		
St. Landry	9.94		5.06				.72	.14	.04
St. Martin	6.26		.35				.79	.04	.01
St. Mary	.23	10.34	1.85	7.05		175.89	.16		.03
St. Tammany	18.13		.31				5.82	.05	.03
Tangipahoa	12.94		.97				3.06	.34	.34
Tensas	.26	.60					.02		.01
Terrebonne		5.62	.11	.08			.01	.01	.04
Union	4.93		.09				.19	.72	2.87
Vermilion	4.92		1.93				2.14	.08	.31
Vernon	6.32						1.40	.02	.20
Washington	14.07		11.99	11.93			1.27	.08	.19
Webster	6.23		.42	.20			.38	.01	.20
West Baton Rouge	6.07		10.19				.04	.02	.01
West Carroll	1.46						.08	.08	.01
West Feliciana	4.52	.03	1.59	29.73	.02	14.47	.04		.06
Winn	2.24		1.13				.24	.02	.07
Subtotals	353.73	403.84	284.68	2,397.60	28.43	5,581.63	41.21	6.27	12.75
Totals		**757.57**		**2,682.28**		**5,610.07**			**19.02**

Table 2. Water withdrawals in Louisiana by parish, source, and principal use, 2000--Continued
[In million gallons per day; gw, groundwater; sw, surface water. Summation of numbers in columns may differ slightly from totals due to rounding]

Irrigation				Aquaculture		Total Use			Parish
Rice		General							
GW	SW	GW	SW	GW	SW	GW	SW	Total	
125.16	35.31	1.42		13.42	4.74	146.37	40.06	186.43	**Acadia**
32.35	1.84	.03		.54	.05	36.70	1.91	38.60	**Allen**
		.06		.07	2.04	13.16	203.88	217.03	**Ascension**
					.80	13.87	15.81	29.68	**Assumption**
12.41	4.04	.25	0.06	.40	.24	18.30	4.35	22.65	**Avoyelles**
4.06				.07		29.67	0.06	29.73	**Beauregard**
						13.21	.20	13.41	**Bienville**
.19		.03		.19		4.41	9.74	14.14	**Bossier**
		2.58	.64	.24		5.66	140.35	146.02	**Caddo**
25.54	5.62	.81		5.99	2.69	129.65	236.91	366.56	**Calcasieu**
			.61			1.76	.63	2.39	**Caldwell**
5.44	18.54	.04	.17	.64	1.43	8.69	21.77	30.47	**Cameron**
21.90		3.86	.11	3.77		30.81	.17	30.98	**Catahoula**
						3.22	.64	3.85	**Claiborne**
12.33	12.33	4.37	.49	6.78	.04	25.71	22.62	48.33	**Concordia**
		.01	.11			2.42	18.43	20.85	**DeSoto**
		.26		.07		135.66	18.50	154.16	**East Baton Rouge**
14.92	1.66	18.35	4.59	.94		35.66	6.26	41.92	**East Carroll**
		.17				3.46	.19	3.65	**East Feliciana**
40.07	10.19			8.34	1.93	55.89	126.29	182.19	**Evangeline**
.50	1.16	19.65	2.18	22.94		46.61	3.35	49.95	**Franklin**
						1.98	4.03	6.01	**Grant**
1.81	.45	.22		5.71	2.14	19.42	10.37	29.79	**Iberia**
				.05	6.83	27.45	1,131.40	1,158.85	**Iberville**
						2.02	.62	2.65	**Jackson**
		.04				3.33	1,143.80	1,147.13	**Jefferson**
132.24	23.85	.27	.18	7.04	2.06	143.87	26.08	169.96	**Jefferson Davis**
8.76	2.19			2.68	.89	38.57	3.08	41.66	**Lafayette**
				.11	12.88	1.64	45.40	47.04	**Lafourche**
			.22			2.89	.37	3.26	**La Salle**
		.01		.04		8.97	2.05	11.01	**Lincoln**
		.05		.20		11.98	.10	12.07	**Livingston**
5.37	.10	8.93	.99	.55	.01	16.79	1.11	17.90	**Madison**
15.72	13.04	15.10	1.68	.46		39.04	35.72	74.76	**Morehouse**
1.26	7.15	.37	1.46	.83	3.04	4.15	30.62	34.78	**Natchitoches**
		.02				5.56	737.48	743.03	**Orleans**
2.31	9.23	.12	.93	.04	.15	25.30	210.49	235.80	**Ouachita**
		.10			.45	.15	103.47	103.62	**Plaquemines**
2.01		.66		2.21		19.16	274.44	293.61	**Pointe Coupee**
3.57	5.78	.40	.40	2.68	1.34	36.60	415.18	451.78	**Rapides**
.37	.04	.59	.15	.04	.13	1.96	.44	2.39	**Red River**
22.11		6.79	6.79	1.87		34.23	6.84	41.07	**Richland**
		.01	.01			2.38	4.02	6.40	**Sabine**
						.02	281.46	281.48	**St. Bernard**
						1.86	2,699.35	2,701.21	**St. Charles**
						1.12	.01	1.14	**St. Helena**
					9.71	5.07	239.92	244.99	**St. James**
						10.32	83.38	93.70	**St. John the Baptist**
20.17	5.85	1.70	.42	15.06	4.39	52.79	10.70	63.49	**St. Landry**
.69	6.25			4.69	40.17	12.82	46.43	59.25	**St. Martin**
				.71	3.81	2.96	197.12	200.08	**St. Mary**
		.56	.62	.02		24.89	.66	25.55	**St. Tammany**
		.27	.27	.27		17.84	.61	18.45	**Tangipahoa**
6.21		8.89	.99	.13		15.51	1.59	17.11	**Tensas**
					1.16	.14	6.90	7.03	**Terrebonne**
				.09		6.02	2.87	8.89	**Union**
149.02	40.85	.58		18.21	7.62	176.87	48.77	225.64	**Vermilion**
				.05		7.80	.20	8.00	**Vernon**
				.04		27.44	12.13	39.57	**Washington**
				.05		7.09	.40	7.49	**Webster**
					4.14	16.32	4.15	20.48	**West Baton Rouge**
15.57	.85	11.48	2.03	.14	.01	28.80	2.89	31.69	**West Carroll**
						6.17	44.29	50.46	**West Feliciana**
					.11	3.63	.18	3.81	**Winn**
682.07	206.30	109.06	26.12	128.38	115.00	1,633.83	8,743.25	10,377.08	
	888.37		**135.18**		**243.38**				

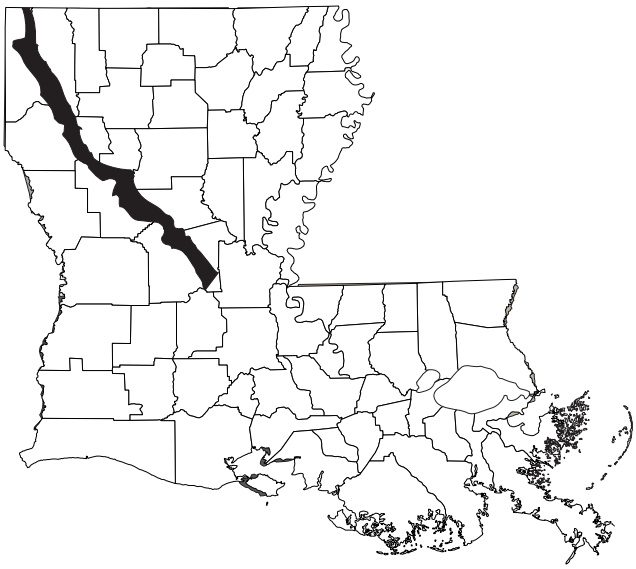
WATER USE BY AQUIFER

Total ground-water withdrawals were 1,600 Mgal/d, of which 99.7 percent was withdrawn from major aquifers or aquifer systems: Red River alluvial aquifer, Mississippi River alluvial aquifer, Upland Terrace aquifer (northern Louisiana), Chicot aquifer system, Chicot equivalent aquifer system (southeast Louisiana), Evangeline aquifer, Evangeline equivalent aquifer system (southeast Louisiana), Jasper aquifer system, Jasper equivalent aquifer system (southeast Louisiana), Catahoula aquifer, Cockfield aquifer, Sparta aquifer, and the Carrizo-Wilcox aquifer. The largest withdrawals were from the Chicot aquifer (800 Mgal/d).

This section lists information on ground-water withdrawals for the 13 aquifer or aquifer systems listed above. The one-page summary for each aquifer includes a table of withdrawals by category of use and a list of withdrawals by parish for the aquifer. As was previously mentioned, due to rounding, the sum of the withdrawals by parish will not necessarily equal the total withdrawals by category of use. A location map depicts the areal extent of freshwater in the aquifer within the State. Table 3 summarizes water withdrawals by parish and aquifer or aquifer system.

RED RIVER

ALLUVIAL AQUIFER

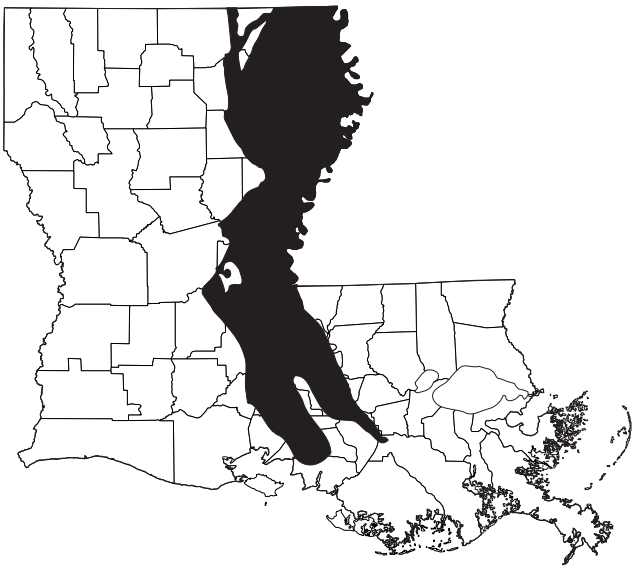


Withdrawals by Parish

Parish	Mgal/d
Avoyelles	0.91
Bossier	.40
Caddo	1.29
Catahoula	.36
De Soto	.03
Grant	.02
Natchitoches	2.11
Rapides	1.65
Red River	.75
Winn	.01

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	0.16
Industry	.00
Power generation	.00
Rural domestic	.17
Livestock	.45
Rice irrigation	3.17
General irrigation	1.94
Aquaculture	1.62
TOTAL	7.52

MISSISSIPPI RIVER ALLUVIAL AQUIFER

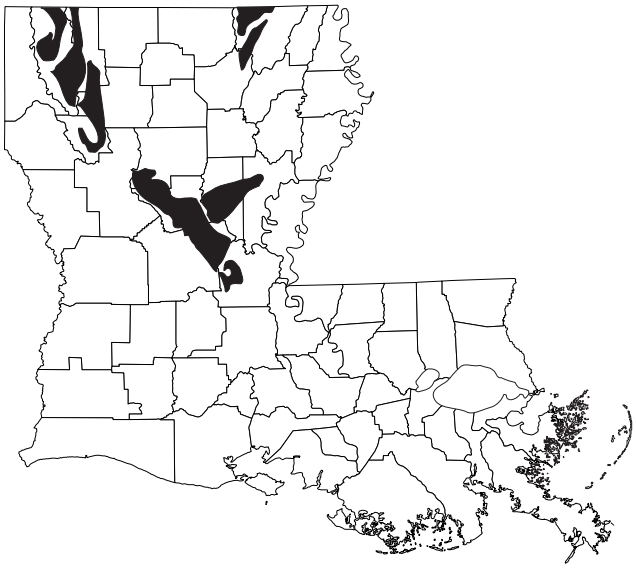


Withdrawals, in million gallons per day (Mgal/d)	
Public supply	8.47
Industry	48.84
Power generation	1.65
Rural domestic	3.19
Livestock	1.06
Rice irrigation	136.46
General irrigation	98.23
Aquaculture	55.67
TOTAL	353.57

Withdrawals by Parish

Parish	Mgal/d
Ascension	5.58
Assumption	9.27
Avoyelles	12.53
Beauregard	.10
Caldwell	.04
Catahoula	29.24
Concordia	23.45
East Baton Rouge	.09
East Carroll	34.22
Franklin	46.61
Iberia	3.29
Iberville	20.84
Lafayette	.29
Lafourche	1.64
Madison	16.79
Morehouse	30.29
Ouachita	1.80
Pointe Coupee	7.92
Rapides	.07
Richland	33.03
St. Landry	15.82
St. Martin	6.67
St. Mary	.75
Tensas	15.51
Terrebonne	.13
Union	.05
West Baton Rouge	10.21
West Carroll	27.33

UPLAND TERRACE AQUIFER (NORTHERN LOUISIANA)



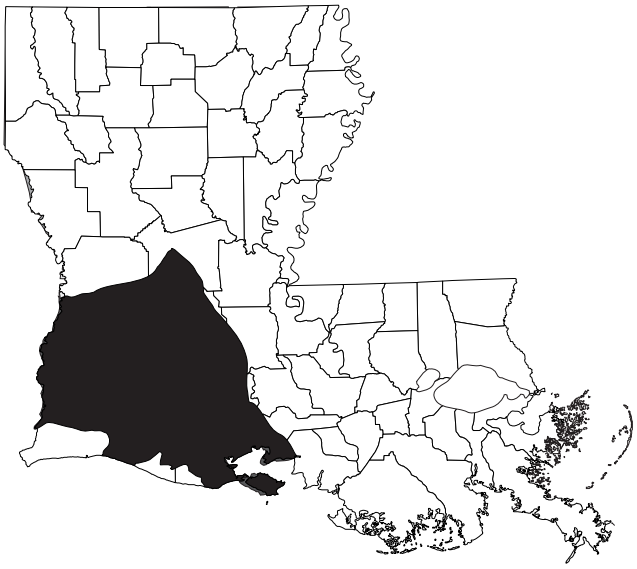
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	14.10
Industry	2.27
Power generation	.00
Rural domestic	.66
Livestock	.05
Rice irrigation	2.04
General irrigation	1.12
Aquaculture	.72
TOTAL	20.96

Withdrawals by Parish

Parish	Mgal/d
Avoyelles	0.48
Bienville	.03
Bossier	.91
Caddo	.40
De Soto	.12
Grant	.59
La Salle	1.38
Morehouse	5.66
Natchitoches	.13
Ouachita	.10
Rapides	10.10
Red River	.19
Sabine	.01
Union	.01
Vernon	.24
Webster	.35
West Carroll	.22
Winn	.04

CHICOT

AQUIFER SYSTEM



Withdrawals by Parish

Parish	Mgal/d
Acadia	146.37
Allen	33.45
Beauregard	12.64
Bossier	.06
Calcasieu	128.53
Cameron	8.69
Evangeline	51.53
Iberia	16.14
Jefferson Davis	143.87
Lafayette	38.28
Rapides	.80
St. Landry	31.84
St. Martin	6.15
St. Mary	2.21
Vermillion	176.87
Vernon	.43

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	88.95
Industry	73.67
Power generation	12.57
Rural domestic	12.25
Livestock	1.11
Rice irrigation	537.26
General irrigation	4.51
Aquaculture	67.56
TOTAL	797.86

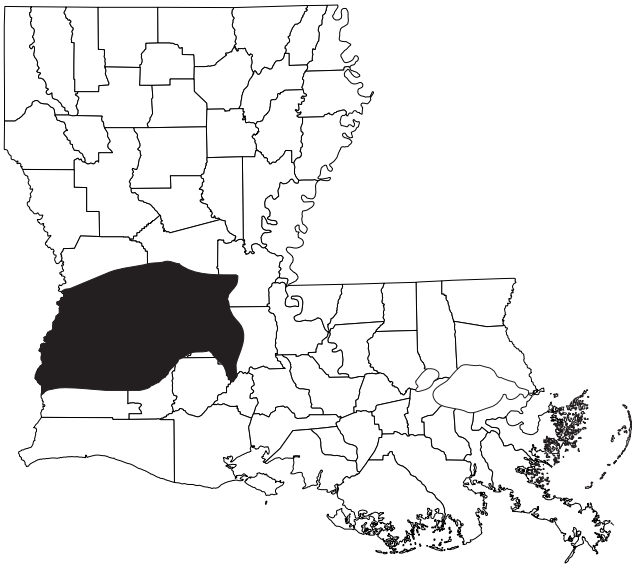
CHICOT EQUIVALENT AQUIFER SYSTEM (SOUTHEAST LOUISIANA)

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	10.53
Industry	45.35
Power generation	3.70
Rural domestic	15.02
Livestock	.49
Rice irrigation	.00
General irrigation	1.25
Aquaculture	.43
TOTAL	76.76

Withdrawals by Parish

Parish	Mgal/d
Ascension	7.58
Assumption	4.60
East Baton Rouge	15.57
East Feliciana	.27
Iberville	5.35
Jefferson	3.33
Livingston	3.01
Orleans	5.55
Plaquemines	.14
Pointe Coupee	1.63
St. Charles	1.86
St. Helena	.71
St. James	5.07
St. John the Baptist	5.79
St. Tammany	5.85
Tangipahoa	5.27
Washington	5.16
West Baton Rouge	.01
West Feliciana	.01

EVANGELINE AQUIFER

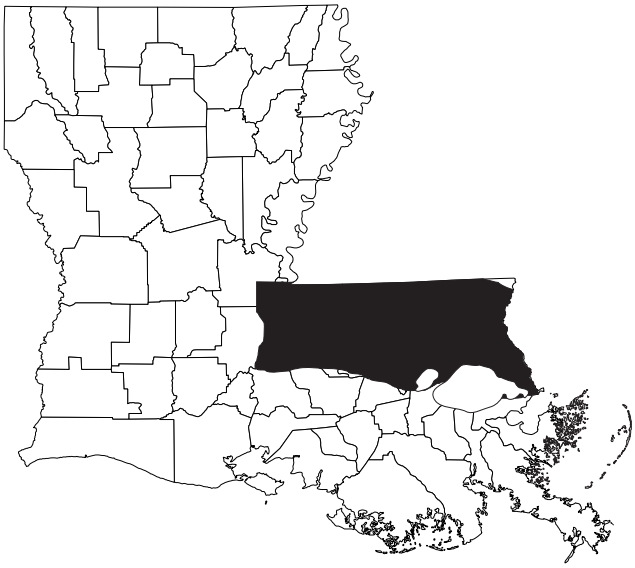


Withdrawals by Parish

Parish	Mgal/d
Allen	3.25
Avoyelles	2.02
Beauregard	2.97
Calcasieu	1.12
Evangeline	4.37
Rapides	3.51
St. Landry	5.12
Vernon	.12

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	14.98
Industry	5.79
Power generation	.02
Rural domestic	.26
Livestock	.08
Rice irrigation	1.07
General irrigation	.07
Aquaculture	.22
TOTAL	22.49

EVANGELINE EQUIVALENT AQUIFER SYSTEM (SOUTHEAST LOUISIANA)



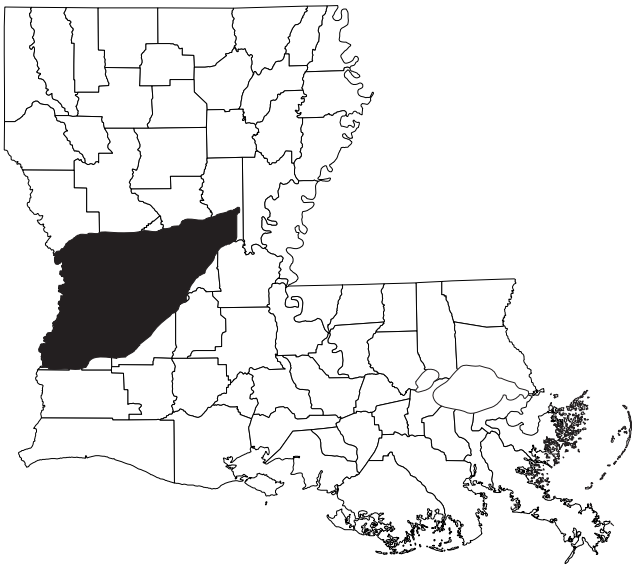
Withdrawals by Parish

Parish	Mgal/d
East Baton Rouge	42.51
East Feliciana	1.16
Livingston	3.03
Pointe Coupee	3.76
St. John the Baptist	4.53
St. Tammany	16.48
Tangipahoa	1.26
Washington	3.25
West Baton Rouge	6.10
West Feliciana	3.56

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	70.51
Industry	9.89
Power generation	3.13
Rural domestic	1.42
Livestock	.36
Rice irrigation	.05
General irrigation	.26
Aquaculture	.01
TOTAL	85.64

JASPER

AQUIFER SYSTEM

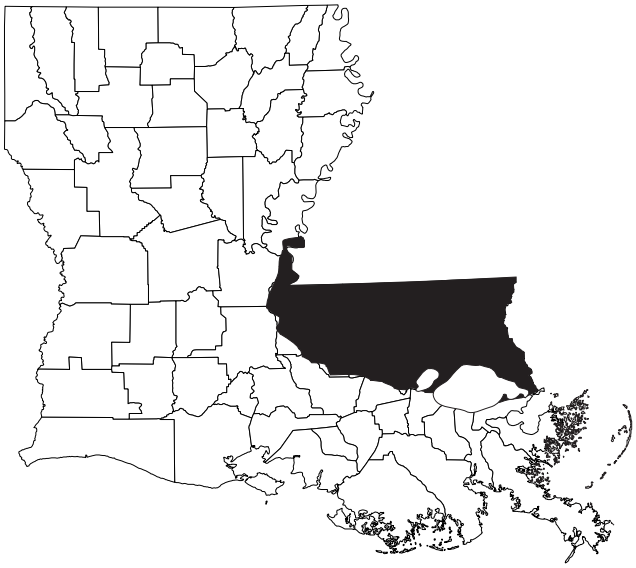


Withdrawals by Parish

Parish	Mgal/d
Avoyelles	0.37
Beauregard	13.88
Concordia	1.89
Grant	.31
La Salle	.01
Rapides	18.92
Sabine	.01
Vernon	6.67

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	26.16
Industry	13.89
Power generation	.10
Rural domestic	.94
Livestock	.05
Rice irrigation	.22
General irrigation	.08
Aquaculture	.64
TOTAL	42.07

JASPER EQUIVALENT AQUIFER SYSTEM (SOUTHEAST LOUISIANA)

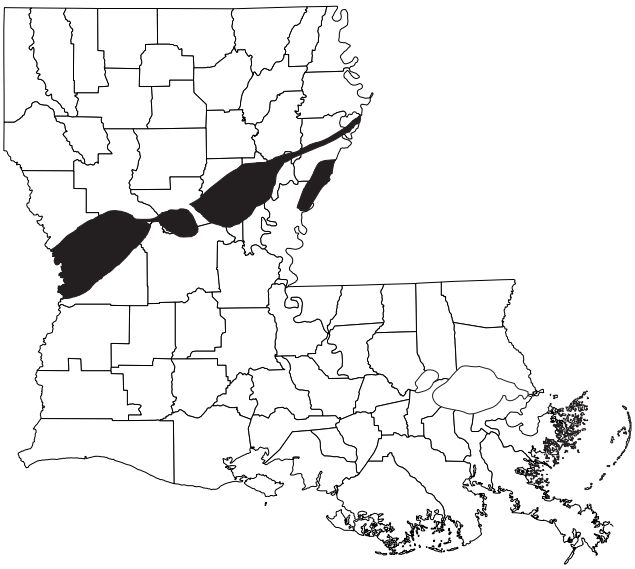


Withdrawals by Parish

Parish	Mgal/d
East Baton Rouge	77.48
East Feliciana	2.04
Iberville	1.26
Livingston	5.93
Pointe Coupee	5.86
St. Helena	.41
St. Tammany	2.56
Tangipahoa	11.31
Washington	19.03
West Feliciana	2.59

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	63.47
Industry	57.08
Power generation	7.26
Rural domestic	.23
Livestock	.19
Rice irrigation	.00
General irrigation	.02
Aquaculture	.22
TOTAL	128.48

CATAHOULA AQUIFER

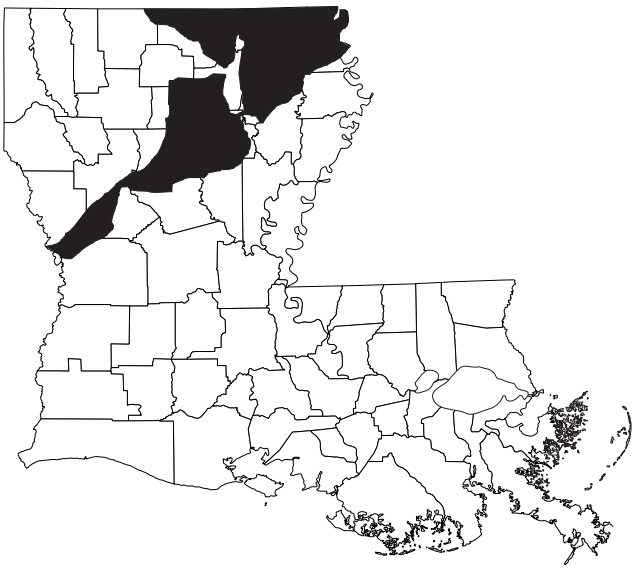


Withdrawals by Parish

Parish	Mgal/d
Catahoula	1.20
Concordia	.36
Grant	.38
La Salle	.08
Natchitoches	.02
Rapides	.42
Sabine	.05
Vernon	.15

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	2.33
Industry	.00
Power generation	.00
Rural domestic	.19
Livestock	.01
Rice irrigation	.14
General irrigation	.00
Aquaculture	.00
TOTAL	2.68

COCKFIELD AQUIFER

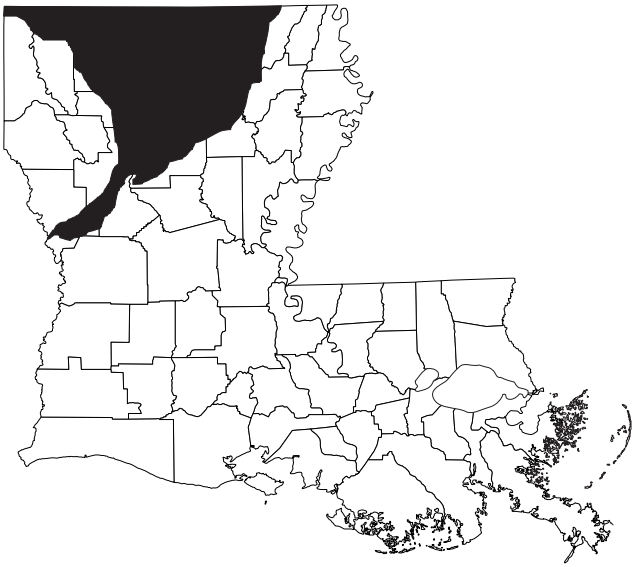


Withdrawals by Parish

Parish	Mgal/d
Caldwell	1.67
Claiborne	.12
East Carroll	1.44
Grant	.20
Jackson	.09
La Salle	.46
Lincoln	.09
Morehouse	.32
Natchitoches	.03
Ouachita	.20
Richland	1.20
Sabine	.10
Union	.20
Vernon	.02
West Carroll	1.10
Winn	.15

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	6.20
Industry	.00
Power generation	.00
Rural domestic	.46
Livestock	.26
Rice irrigation	.27
General irrigation	.10
Aquaculture	.10
TOTAL	7.38

SPARTA AQUIFER

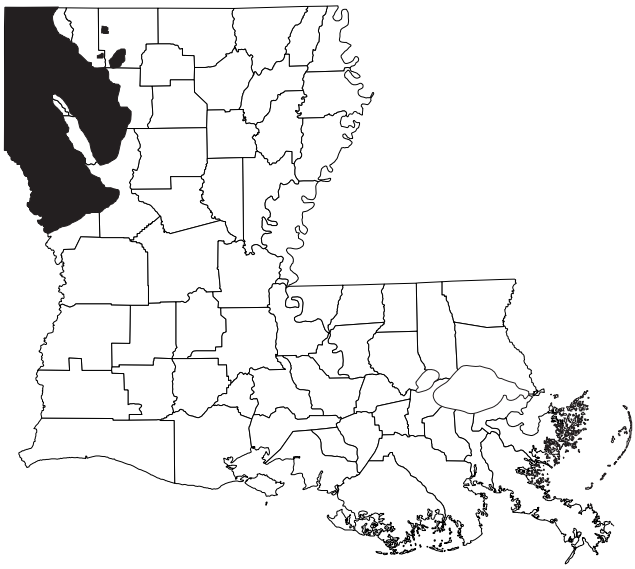


Withdrawals by Parish

Parish	Mgal/d
Bienville	12.33
Bossier	.40
Caddo	.03
Caldwell	.05
Claiborne	2.97
Jackson	1.93
La Salle	.03
Lincoln	8.86
Morehouse	2.77
Natchitoches	.36
Ouachita	23.20
Sabine	.52
Union	5.67
Webster	5.79
Winn	3.38

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	37.70
Industry	27.06
Power generation	0.00
Rural domestic	1.43
Livestock	1.45
Rice irrigation	.49
General irrigation	.08
Aquaculture	.07
TOTAL	68.28

CARRIZO-WILCOX AQUIFER



Withdrawals by Parish

Parish	Mgal/d
Bienville	0.80
Bossier	2.64
Caddo	3.90
De Soto	2.20
Natchitoches	1.42
Red River	.99
Sabine	1.67
Webster	.93

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	6.78
Industry	.70
Power generation	.00
Rural domestic	4.40
Livestock	.47
Rice irrigation	.67
General irrigation	1.35
Aquaculture	.20
TOTAL	14.56

Table 3. Ground-water withdrawals in Louisiana by parish and aquifer, 2000

Parish	RED RIVER ALLUVIAL AQUIFER	MISSISSIPPI RIVER ALLUVIAL AQUIFER	UPLAND TERRACE AQUIFER (NORTHERN LOUISIANA)	CHICOT AQUIFER SYSTEM	CHICOT EQUIVALENT AQUIFER SYSTEM (SOUTHEAST LOUISIANA)	EVANGELINE AQUIFER	EVANGELINE EQUIVALENT AQUIFER SYSTEM (SOUTHEAST LOUISIANA)
Acadia				146.37			
Allen				33.45		3.25	
Ascension		5.58			7.58		
Assumption		9.27			4.60		
Avoyelles	0.91	12.53	0.48			2.02	
Beauregard		.10		12.64		2.97	
Bienville			.03				
Bossier	.40		.91	.06			
Caddo	1.29		.40				
Calcasieu				128.53		1.12	
Caldwell		.04					
Cameron				8.69			
Catahoula	.36	29.24					
Claiborne							
Concordia		23.45					
DeSoto	.03		.12				
East Baton Rouge		.09			15.57		42.51
East Carroll		34.22					
East Feliciana					.27		1.16
Evangeline				51.53		4.37	
Franklin		46.61					
Grant	.02		.59				
Iberia		3.29		16.14			
Iberville		20.84			5.35		
Jackson							
Jefferson					3.33		
Jefferson Davis				143.87			
Lafayette		.29		38.28			
Lafourche		1.64					
La Salle			1.38				
Lincoln							
Livingston					3.01		3.03
Madison		16.79					
Morehouse		30.29	5.66				
Natchitoches	2.11		.13				
Orleans					5.55		
Ouachita		1.80	.10				
Plaquemines					.14		
Pointe Coupee		7.92			1.63		3.76
Rapides	1.65	.07	10.10	.80		3.51	
Red River	.75		.19				
Richland		33.03					
Sabine			.01				
St. Bernard							
St. Charles					1.86		
St. Helena					.71		
St. James					5.07		
St. John the Baptist					5.79		4.53
St. Landry		15.82		31.84		5.12	
St. Martin		6.67		6.15			
St. Mary		.75		2.21			
St. Tammany					5.85		16.48
Tangipahoa					5.27		1.26
Tensas		15.51					
Terrebonne		.13					
Union		.05	.01				
Vermilion				176.87			
Vernon			.24	.43		.12	
Washington					5.16		3.25
Webster			.35				
West Baton Rouge		10.21			.01		6.10
West Carroll		27.33	.22				
West Feliciana					.01		3.56
Winn	.01		.04				
Totals	**7.52**	**353.57**	**20.96**	**797.86**	**76.76**	**22.49**	**85.64**

Table 3. Ground-water withdrawals in Louisiana by parish and aquifer, 2000--Continued
[In million gallons per day; Summation of numbers in columns may differ slightly from totals due to rounding]

JASPER AQUIFER SYSTEM	JASPER EQUIVALENT AQUIFER SYSTEM (SOUTHEAST LOUISIANA)	CATAHOULA AQUIFER	COCKFIELD AQUIFER	SPARTA AQUIFER	CARRIZO-WILCOX AQUIFER	OTHER	PARISH
							Acadia
							Allen
							Ascension
							Assumption
0.37						1.86	**Avoyelles**
13.88						.08	**Beauregard**
				12.33	0.80	.05	**Bienville**
				.40	2.64	.01	**Bossier**
				.03	3.90	.04	**Caddo**
							Calcasieu
			1.67	.05			**Caldwell**
							Cameron
		1.20					**Catahoula**
			.12	2.97		.12	**Claiborne**
1.89		.36					**Concordia**
					2.20	.07	**DeSoto**
	77.48						**East Baton Rouge**
			1.44				**East Carroll**
	2.04						**East Feliciana**
							Evangeline
							Franklin
.31		.38	.20			.48	**Grant**
							Iberia
	1.26						**Iberville**
			.09	1.93			**Jackson**
							Jefferson
							Jefferson Davis
							Lafayette
							Lafourche
.01		.08	.46	.03		.92	**La Salle**
			.09	8.86		.02	**Lincoln**
	5.93						**Livingston**
							Madison
			.32	2.77		.01	**Morehouse**
		.02	.03	.36	1.42	.08	**Natchitoches**
							Orleans
			.20	23.20		.01	**Ouachita**
						.01	**Plaquemines**
	5.86						**Pointe Coupee**
18.92		.42				1.12	**Rapides**
					.99	.03	**Red River**
			1.20				**Richland**
.01		.05	.10	.52	1.67	.01	**Sabine**
						.01	**St. Bernard**
							St. Charles
	.41						**St. Helena**
	11.31						**St. James**
							St. John the Baptist
							St. Landry
							St. Martin
							St. Mary
	2.79						**St. Tammany**
	11.41						**Tangipahoa**
							Tensas
							Terrebonne
			.20	5.67		.08	**Union**
							Vermilion
6.67		.15	.02			.17	**Vernon**
	19.03						**Washington**
				5.79	.93	.02	**Webster**
							West Baton Rouge
			1.10			.15	**West Carroll**
	2.59						**West Feliciana**
			.15	3.38		.05	**Winn**
42.07	**128.48**	**2.68**	**7.38**	**68.28**	**14.56**	**5.42**	**Totals**

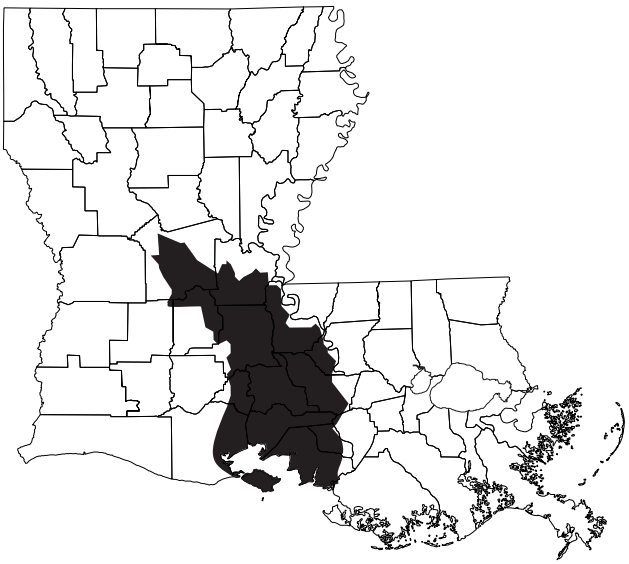
WATER USE BY SURFACE-WATER BASIN

Total surface-water withdrawals were 8,700 Mgal/d, of which 8,600 Mgal/d or 97.9 percent was withdrawn from major surface-water basins. They include the following: Atchafalaya-Teche-Vermilion, Calcasieu-Mermentau River, and Lake Pontchartrain-Lake Maurepas surface-water basins; Mississippi River mainstream; and Mississippi River Delta, Ouachita River, Pearl River, Red River, Sabine River, and Tensas River surface-water basins. The largest withdrawls were from the Mississippi River mainstem (6,179.53 Mgal/d).

This section lists information on surface-water withdrawals for the above 10 major drainage basins in Louisiana. Each one-page summary for a surface-water basin includes withdrawals by category of use, by parish, and withdrawals from major water bodies in the basin.

Below the name of the basin is a location map showing the areal extent of the basin within Louisiana (modified from Garrison and Covay, 1994). The three tables list withdrawals by category of use and the total withdrawal from surface sources within the basin, withdrawals by parish for the basin, and withdrawals by major water body within the basin. The withdrawals in this last table are from larger water bodies only and may be incomplete because withdrawals made for irrigation and agriculture were estimated from limited data. A large part of surface-water withdrawals for irrigation and aquaculture was input into the data base as miscellaneous streams due to the type of the information available for these categories. Therefore, some water bodies that may have had substantial withdrawals may not have been included in this table. Also, the total withdrawals in this table may be less than the total withdrawals in the basin as indicated in the table of withdrawals by category.

ATCHAFALAYA-TECHE-VERMILION SURFACE-WATER BASIN



Withdrawals by Parish

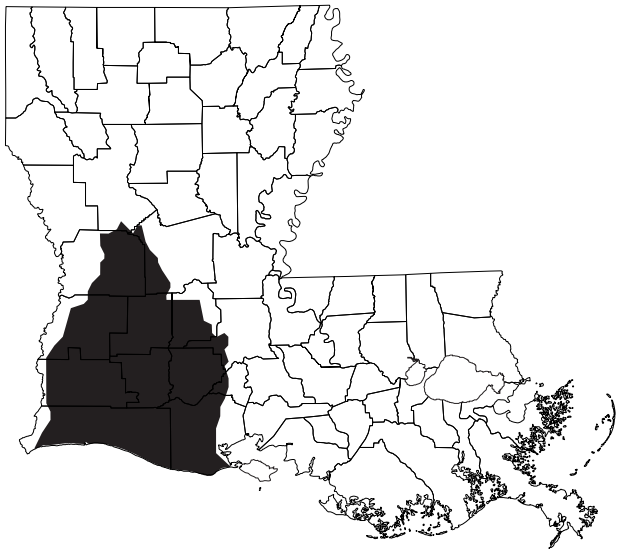
Parish	Mgal/d
Avoyelles	4.35
Evangeline	116.21
Iberia	10.37
Iberville	7.92
Lafayette	2.07
Pointe Coupee	.07
Rapides	7.70
St. Landry	7.22
St. Martin	46.43
St. Mary	196.20
Vermilion	15.99
West Baton Rouge	4.15

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	10.46
Industry	14.85
Power generation	290.02
Rural domestic	.00
Livestock	.37
Rice irrigation	37.41
General irrigation	.89
Aquaculture	64.69
TOTAL	418.68

Withdrawals by Major Water Body

Water Body	Mgal/d
Atchafalaya River	4.74
Bayou Boeuf	7.53
Bayou Cocodrie	116.21
Bayou du Lac	1.03
Bayou Portage	11.61
Bayou Robert	1.15
Bayou Teche	19.38
Big Wax Bayou	3.55
Charenton Canal	175.89
Chatlin Lake Canal	2.30
Grand Lake	1.35
Intracoastal Waterway	14.23
Lower Grand River	1.04
Vermilion River	17.01

CALCASIEU-MERMENTAU RIVER SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Acadia	40.06
Allen	1.91
Beauregard	.06
Calcasieu	236.91
Cameron	21.77
Evangeline	10.08
Jefferson Davis	26.08
Lafayette	1.02
St. Landry	3.48
Vermilion	32.78

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	0.41
Industry	212.20
Power generation	17.09
Rural domestic	.00
Livestock	.97
Rice irrigation	123.34
General irrigation	.35
Aquaculture	19.79
TOTAL	374.15

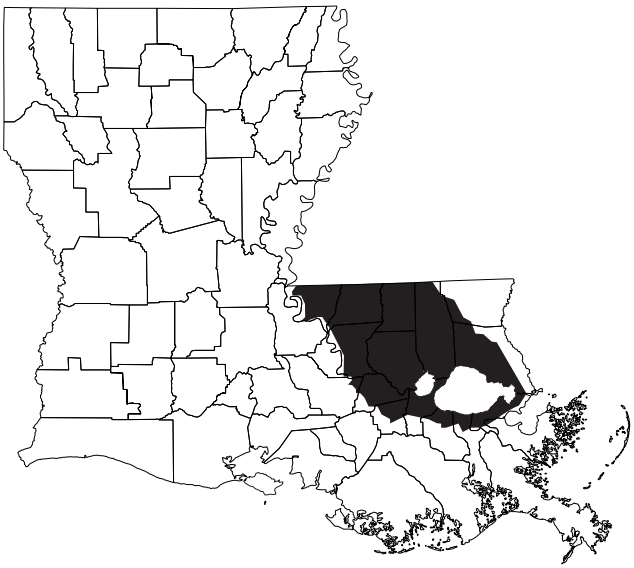
Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou Chene	7.13
Bayou Choupique	1.13
Bayou Des Cannes	1.39
Bayou Lacassine	6.43
Bayou Marron	1.41
Bayou Nezpique	2.20
Bayou Plaquemine	8.89
Bayou Queue de Tortue	27.98
Calcasieu River	179.54
Intracoastal Waterway	2.33
Lyons Point Gully	5.09
Millers Lake	1.30
Mermentau River	17.80
Sabine River Diversion Canal	53.65

LAKE PONTCHARTRAIN-

LAKE MAUREPAS

SURFACE-WATER BASIN



Withdrawals by Parish

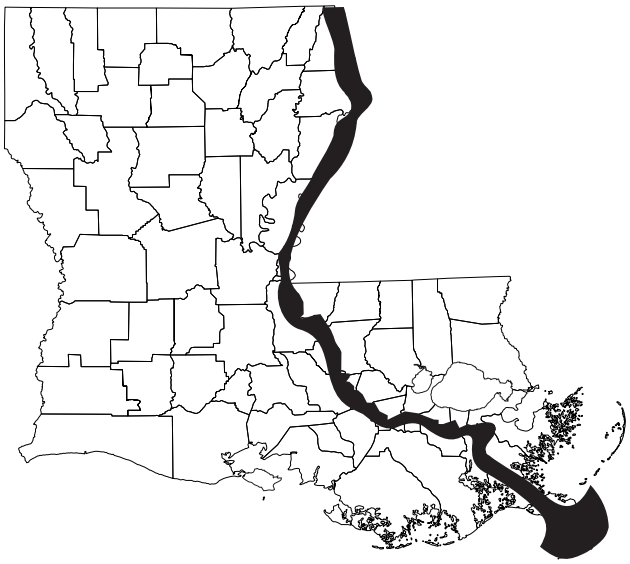
Parish	Mgal/d
Ascension	17.41
East Feliciana	.19
Livingston	.10
St. Helena	.01
St. James	161.74
St. Tammany	.66
Tangipahoa	.61
West Feliciana	.09

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	.03
Industry	177.10
Power generation	.00
Rural domestic	.00
Livestock	.77
Rice irrigation	.00
General irrigation	.89
Aquaculture	2.04
TOTAL	180.83

Withdrawals by Major Water Body

Water Body	Mgal/d
Mississippi River	177.10

MISSISSIPPI RIVER MAINSTEM



Withdrawals by Parish

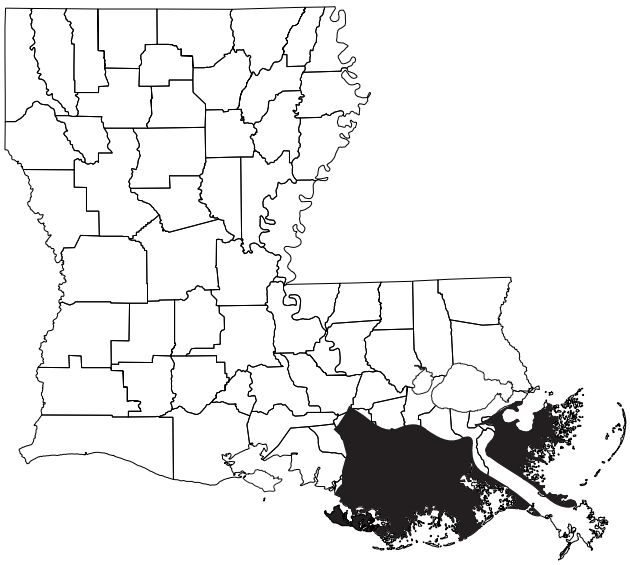
Parish	Mgal/d
Ascension	184.10
Concordia	8.26
East Baton Rouge	18.49
Iberville	1,123.48
Jefferson	1,143.58
Orleans	155.16
Plaquemines	102.97
Pointe Coupee	274.37
St. Bernard	281.46
St. Charles	2,691.62
St. James	68.47
St. John the Baptist	83.37
West Feliciana	44.20

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	273.59
Industry	1,880.36
Power generation	4,025.57
Rural domestic	.00
Livestock	.00
Rice irrigation	.00
General irrigation	.00
Aquaculture	.00
TOTAL	6,179.53

Withdrawals by Major Water Body

Water Body	Mgal/d
Mississippi River	6,120.80
Tante Phine Pass	58.74

MISSISSIPPI RIVER DELTA SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Ascension	2.36
Assumption	15.81
Jefferson	.22
Lafourche	45.40
Orleans	582.32
Plaquemines	.51
St. Charles	7.73
St. James	9.71
St. Mary	.92
Terrebonne	6.90

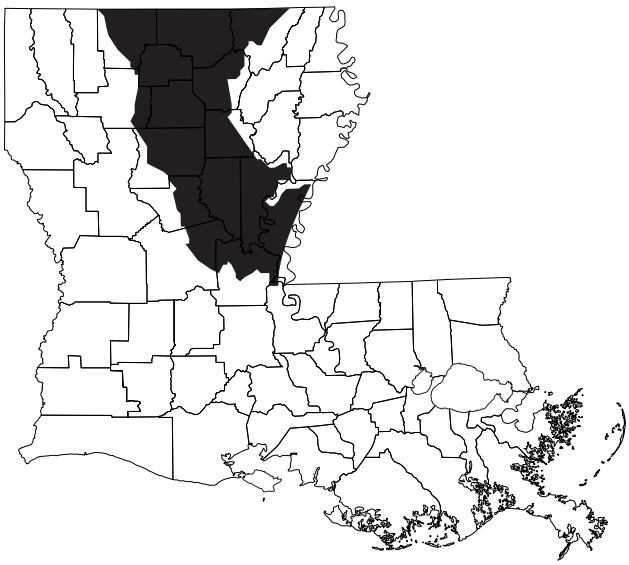
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	37.67
Industry	26.63
Power generation	582.31
Rural domestic	.00
Livestock	.26
Rice irrigation	.00
General irrigation	.00
Aquaculture	25.00
TOTAL	671.87

Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou Black	1.64
Bayou Lafourche	51.34
Humble Canal	5.69
Inner Harbor Navigation Canal	34.38
Intracostal Waterway	8.23
Lake Verret	3.20
Mississippi River	2.01
Mississippi River Gulf Outlet	547.93

OUACHITA RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Bienville	0.06
Caldwell	.02
Catahoula	.17
Claiborne	.64
Concordia	14.37
Grant	4.03
Jackson	.62
La Salle	.37
Lincoln	2.05
Morehouse	27.80
Ouachita	191.35
Union	2.87
Winn	.18

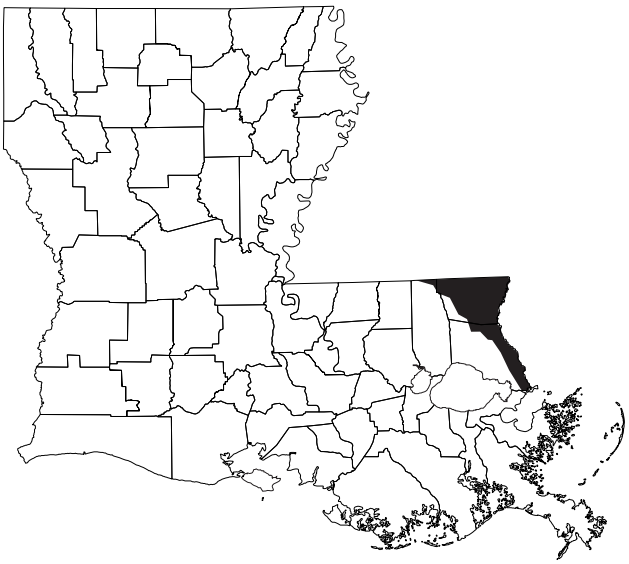
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	4.04
Industry	44.62
Power generation	165.66
Rural domestic	.00
Livestock	6.67
Rice irrigation	22.08
General irrigation	1.16
Aquaculture	.29
TOTAL	244.52

Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou Batholomew	20.99
Bayou Cocodrie	9.29
Big Creek	2.53
Cross Bayou	3.31
Little River	1.44
Marango Bend	1.50
Ouachita River	197.64

PEARL RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Washington	12.13

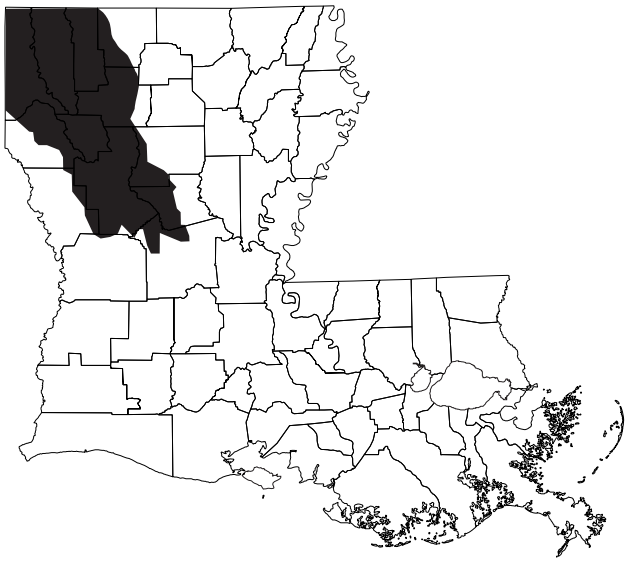
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	0.00
Industry	11.93
Power generation	.00
Rural domestic	.00
Livestock	.19
Rice irrigation	.00
General irrigation	.00
Aquaculture	.00
TOTAL	12.13

Withdrawals by Major Water Body

Water Body	Mgal/d
Bogue Lusa Creek	11.93

RED RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Bienville	0.14
Bossier	9.74
Caddo	140.35
De Soto	.11
Natchitoches	30.62
Rapides	407.48
Red River	.44
Webster	.40

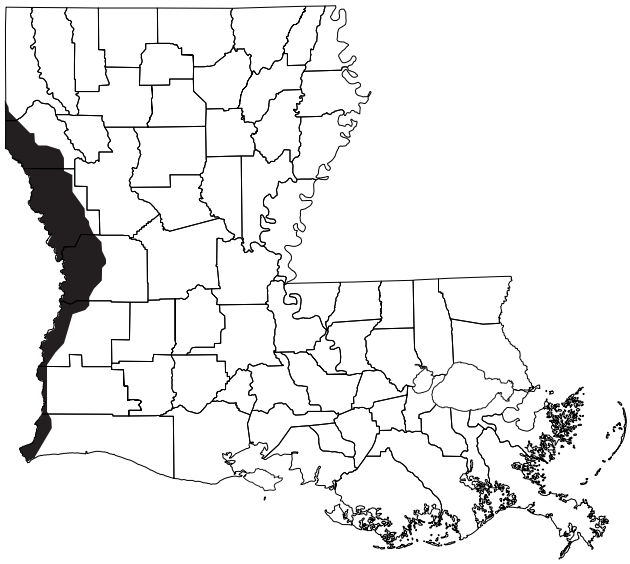
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	61.73
Industry	13.19
Power generation	499.87
Rural domestic	.00
Livestock	1.76
Rice irrigation	7.19
General irrigation	2.36
Aquaculture	3.17
TOTAL	589.27

Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou Pierre	3.78
Black Lake	1.23
Caddo Lake	94.54
Cross Lake	44.96
Lake Rodemacher	407.48
Little River	3.36
Red River	21.18
Sibley Lake	5.12

SABINE RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
De Soto	18.33
Sabine	4.02
Vernon	.20

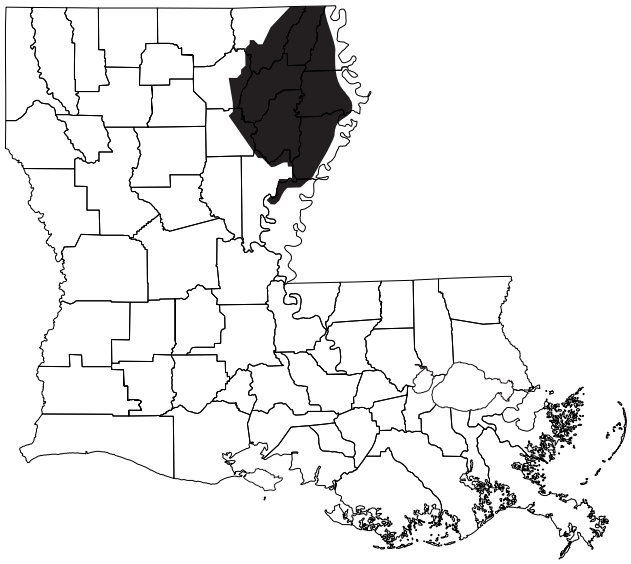
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	3.12
Industry	16.63
Power generation	1.11
Rural domestic	.00
Livestock	1.67
Rice irrigation	.00
General irrigation	.01
Aquaculture	.00
TOTAL	22.55

Withdrawals by Major Water Body

Water Body	Mgal/d
Toledo Bend Reservior	20.86

TENSAS RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Caldwell	0.61
East Carroll	6.26
Franklin	3.35
Madison	1.11
Morehouse	7.93
Ouachita	19.15
Richland	6.84
Tensas	1.59
West Carroll	2.89

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	12.79
Industry	.08
Power generation	.00
Rural domestic	.00
Livestock	.10
Rice irrigation	16.29
General irrigation	20.45
Aquaculture	.01
TOTAL	49.71

Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou de Siard	12.19
Bayou Lafourche	3.28
Bayou Macon	8.35
Big Creek	1.67
Big Cypress Creek	5.23
Boeuf River	5.05
Joes Bayou	1.14
Lake Bruin	1.09

EXPORTED WATER

A special survey of major water users was conducted during 2000 to determine the amount of water being exported from Louisiana. For this survey, major users were defined as individual, public-supply, industrial, power-generation, or commercial facilities that withdraw an average of at least 1 Mgal/d of water. Major water users withdraw approximately 84 percent of all water withdrawn in Louisiana. Of the major users surveyed, nearly all ground water withdrawn is utilized within the State. The less than 0.3 percent reported as exported was used for oil and gas drilling and production in the Gulf of Mexico. With respect to surface-water withdrawals, again nearly all of the water was utilized within the State; less than 0.1 percent was reported as exported, for use in oil and gas drilling and production.

TOTAL WATER USE

Total withdrawals from surface-water and ground-water sources in 2000 (fig. 12) were approximately 10,400 Mgal/d. Of this total, 1,600 Mgal/d were from ground-water sources and 8,700 Mgal/d were from surface-water sources (table 2). Withdrawals for power generation accounted for about 54 percent of the total, industry about 26 percent, irrigation about 9.9 percent, public supply about 7.3 percent, aquaculture about 2.3 percent, and rural domestic and livestock together accounted for the other 0.6 percent (figs. 13-15). The distribution of surface- and ground-water withdrawals by parish are shown on figures 16 and 17.

Forty-nine percent (800 Mgal/d) of all ground water was withdrawn from the Chicot aquifer system, and 22 percent (350 Mgal/d) was withdrawn from the Mississippi River alluvial aquifer (table 3). About 78 percent (6,800 Mgal/d) of all surface water was withdrawn from the Mississippi River.

St. Charles Parish had the highest surface-water withdrawals and the highest total withdrawals in the State, almost 2,700 Mgal/d. Vermilion Parish had ground-water withdrawals of 180 Mgal/d, the highest in the State.

LOUISIANA

Population: 4,372,035
Population served by public supply: 3,856,880
Per capita withdrawals (gal/d): 2,374
Acres irrigated: 920,823
Hydroelectric power instream use (Mgal/d): 67,870.67

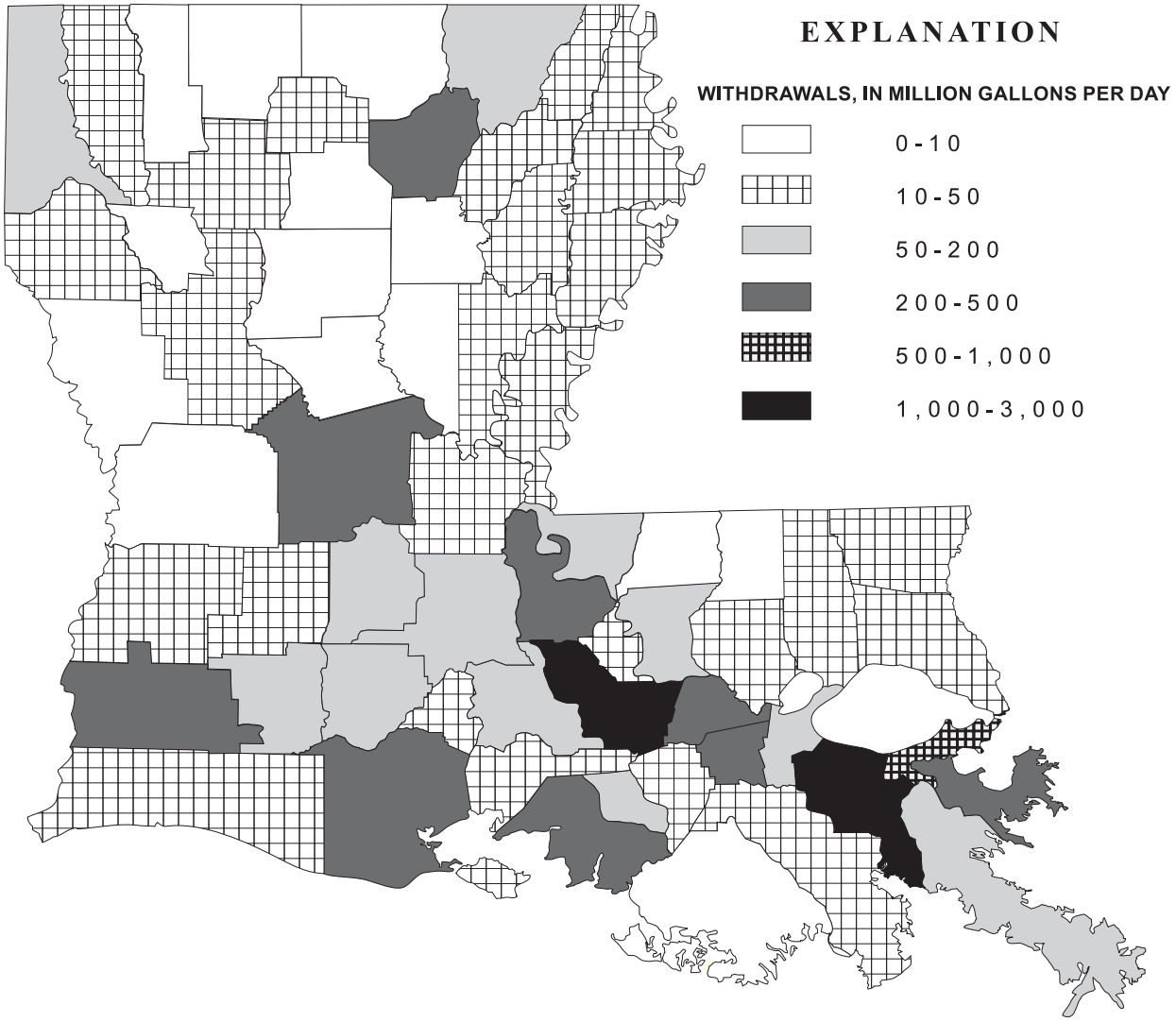


Figure 12. Summary of total water withdrawals, 2000.

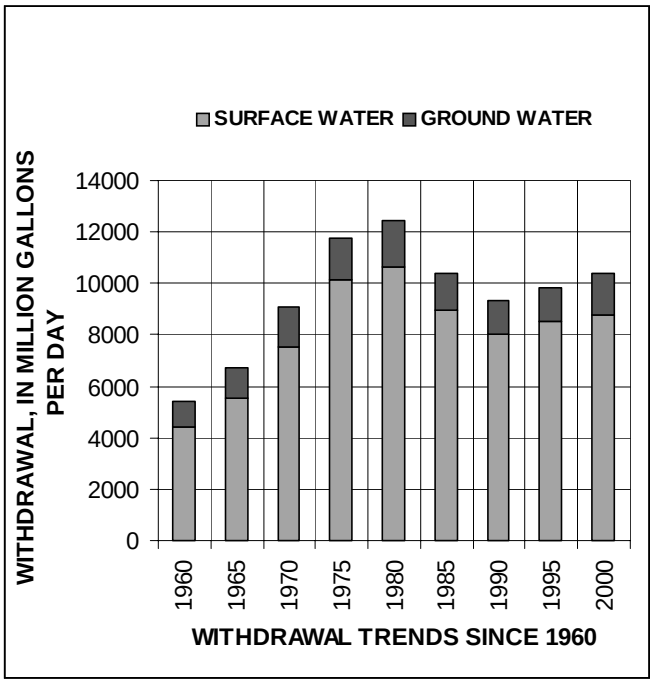
Figure 12. Summary of total water withdrawals, 2000--Continued.

Withdrawals, in million gallons per day (Mgal/d)

	GROUND WATER (GW)	SURFACE WATER (SW)	TOTAL
Public supply	353.73	403.84	757.57
Industry	284.68	2,397.60	2,682.28
Power generation	28.43	5,581.63	5,610.07
Rural domestic	41.21	.00	41.21
Livestock	6.27	12.75	19.02
Rice irrigation	682.07	206.30	888.37
General irrigation	109.06	26.12	135.18
Aquaculture	128.38	115.00	243.38
TOTAL	1,633.83	8,743.25	10,377.08

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
13 Oil and gas extraction	1.01	3.76
15 Building construction	.87	.00
20 Food products	28.90	34.39
24 Lumber	2.74	.18
26 Paper products	85.92	109.46
28 Chemicals	114.34	1,769.08
29 Petroleum refining	40.77	449.61
30 Rubber and plastics	1.91	.00
32 Glass, clay, and concrete	2.72	.00
33 Primary metals	2.16	30.53
34 Metal products	.04	.20
37 Transportation equipment	2.24	.22
44 Water transportation	.11	.01



Withdrawals by Top 25 Public Suppliers (Mgal/d)

Public Supplier	GW	SW
Alexandria Water System	21.10	
Assumption W. W. District 1		5.44
Baton Rouge Water Company	49.06	
Bogalusa Water System	12.13	
Bossier City Water System		9.69
East Jefferson Water Works		50.11
Gretna Waterworks		4.70
Hammond Water System	4.31	
Lafayette Water System	18.65	
Lafourche Parish W. W. Dist. 1		9.75
Lake Charles Water Co.	11.69	
Monroe Water System		12.19
Morgan City Water System		4.22
Natchitoches Utility System		5.12
New Iberia Water System	6.52	
New Orleans Sewage & Water		155.16
Parish Water Company	10.36	
Ruston Utilities System	4.69	
Shreveport Water System		44.96
St. Bernard Dept. of Public Works		10.29
St. Charles W. W. Dist. 1		4.83
St. Charles W. W. Dist. 2		4.76
St. John the Baptist Parish Utilities	4.53	2.70
Terrebonne W. W. District 1		16.24
West Jefferson Water Works		28.67

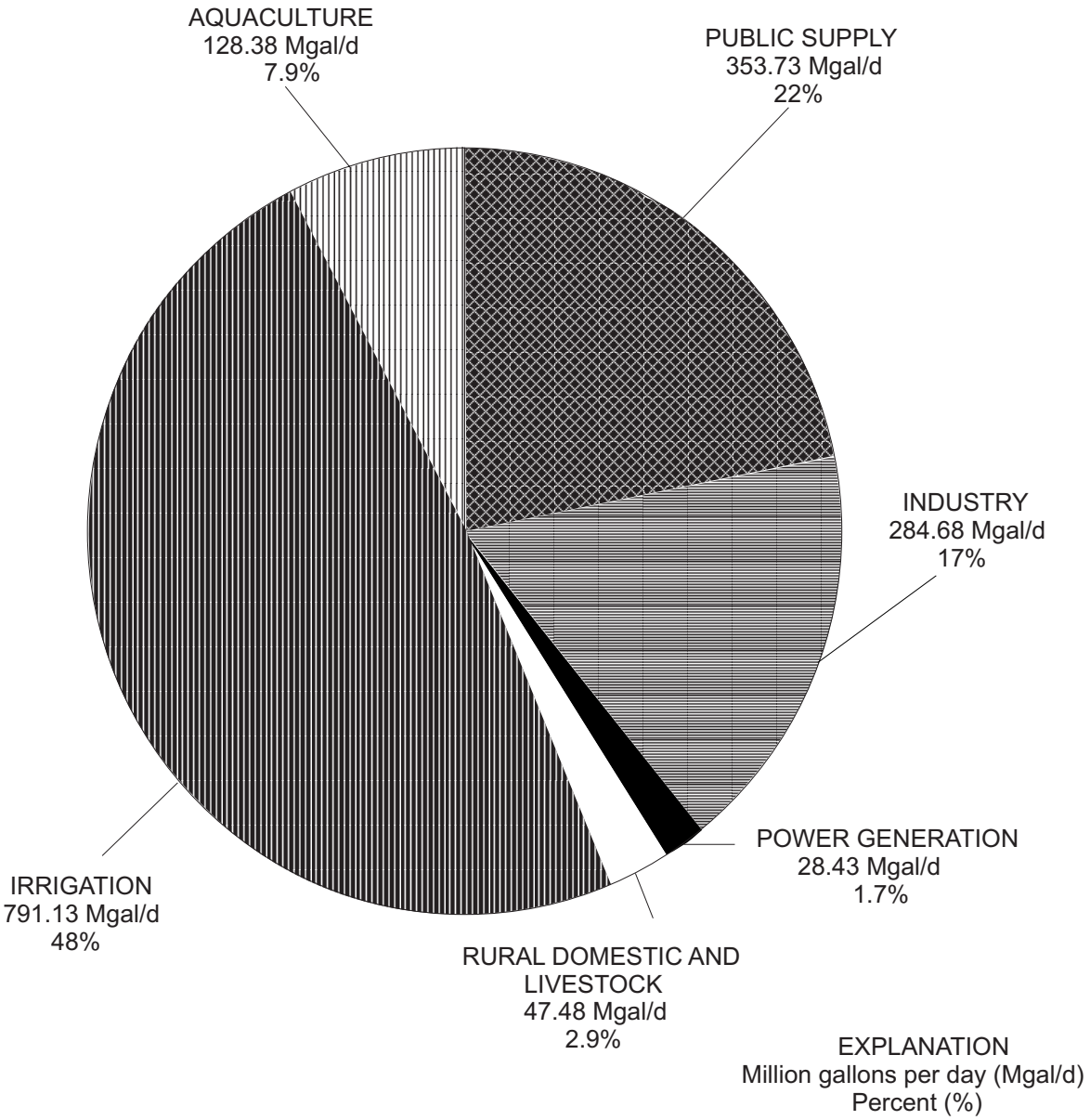


Figure 13. Ground-water withdrawals in Louisiana, 2000.

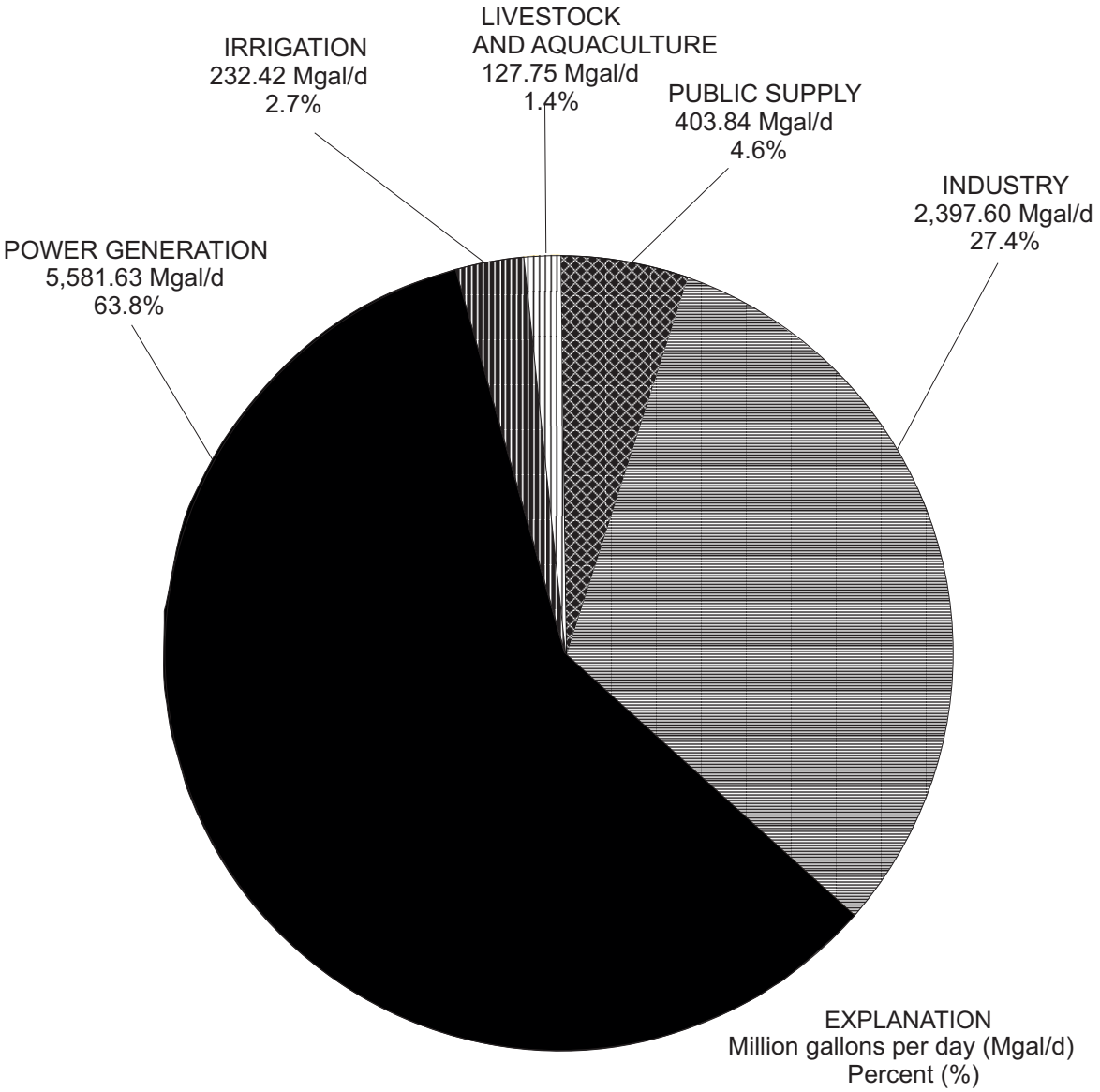


Figure 14. Surface-water withdrawals in Louisiana, 2000.

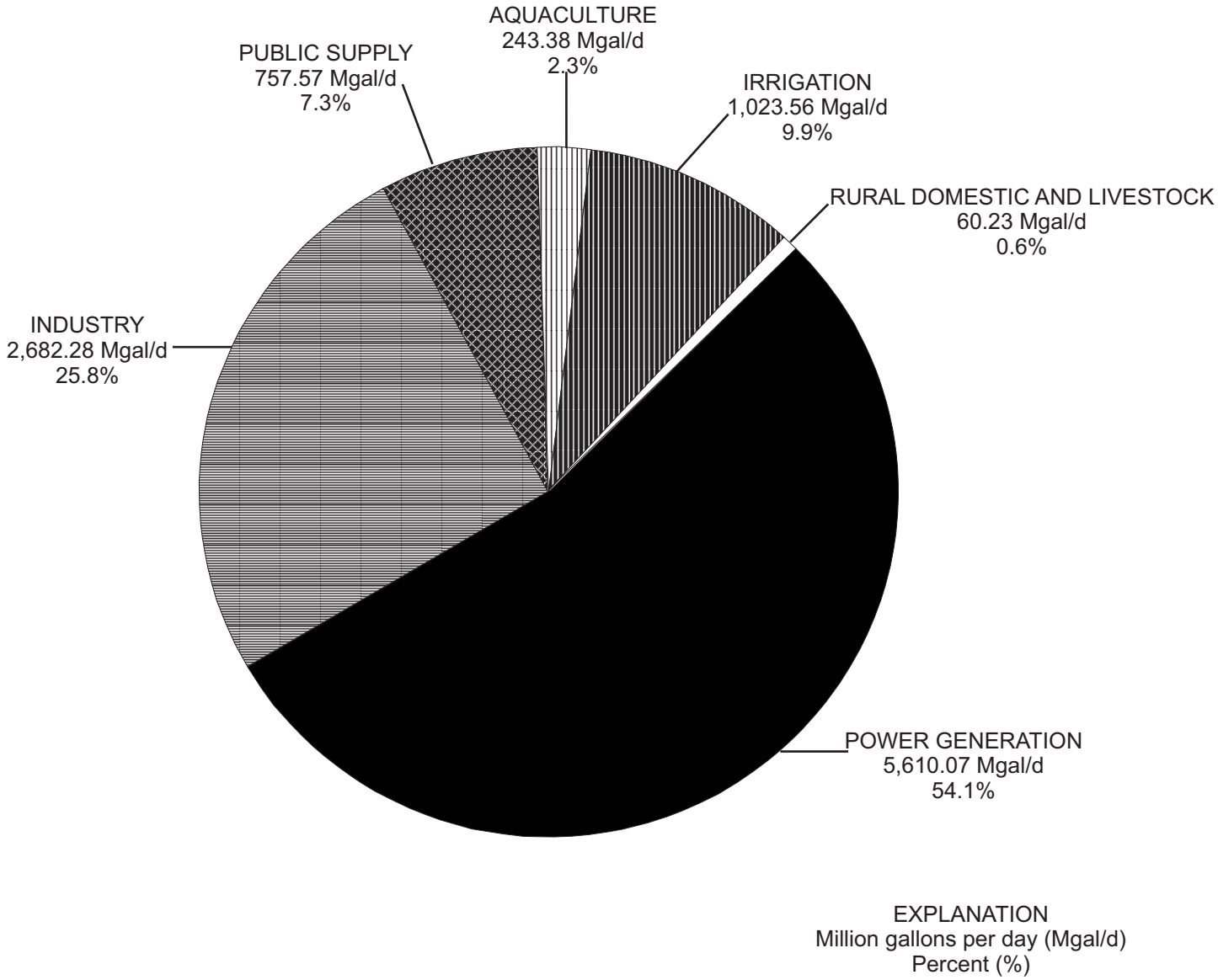


Figure 15. Total water withdrawals in Louisiana, 2000.

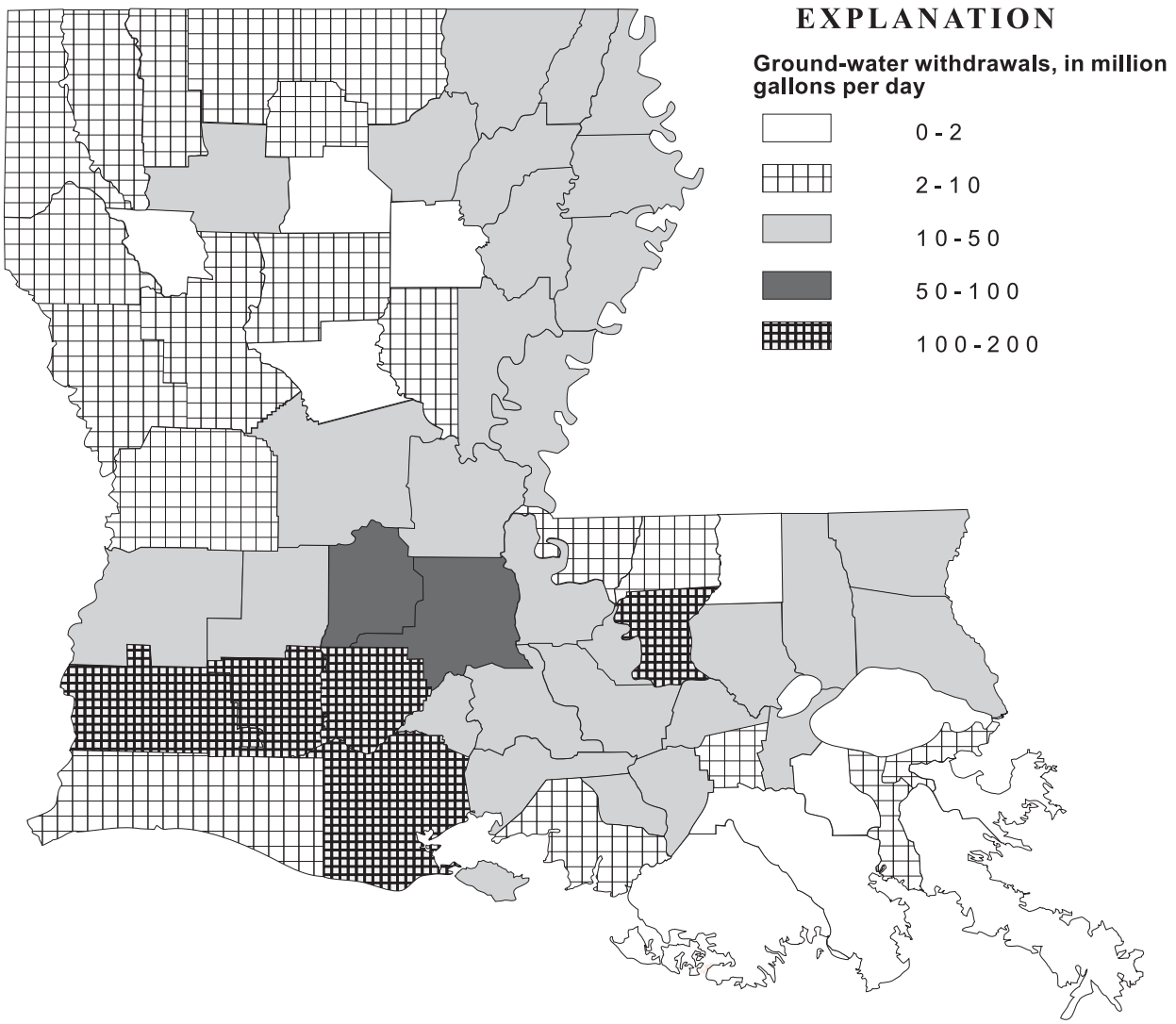


Figure 16. Ground-water withdrawals in Louisiana by parish, 2000.

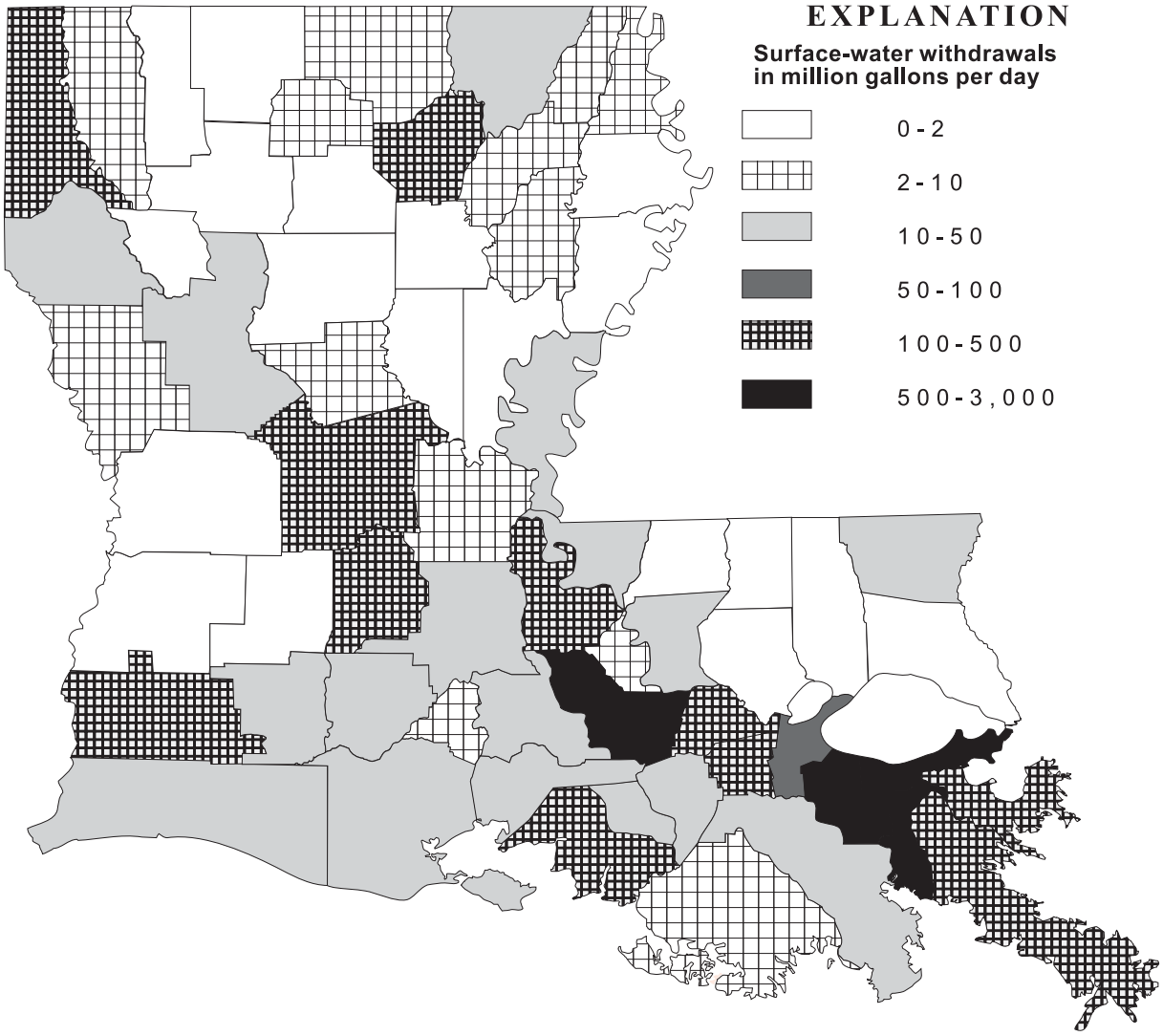


Figure 17. Surface-water withdrawals in Louisiana by parish, 2000.

WATER USE TRENDS

Total public-supply withdrawals increased by approximately 17 percent from 1995 to 2000, though the State's population increased only by 1.3 percent from 1995 to 1999 (figs. 18 and 19). Ground water withdrawals for public supply increased by 17 percent, and similarily, public supply use of surface water increased by about 18 percent from 1995 to 2000. Since 1960, public-supply withdrawals have increased by 180 percent, and the State's population has increased by 34 percent. (See U.S. Census Bureau, 1961; U.S. Census Bureau, 2000).

Public-supply withdrawals increased in 53 of Louisiana's 64 parishes between 1995 and 2000. Orleans Parish had the largest increase, 30 Mgal/d; Vernon Parish had the largest decrease, 1.2 Mgal/d. The median change in water use was an increase of 0.6 Mgal/d; that is, half the parishes had an increase greater than 0.6 Mgal/d and the other half had an increase or decrease less than this value. By providing a median value, the nature of the overall spread of the increase or decrease in withdrawals is evident.

Industrial ground-water use decreased by 7 percent and surface-water use increased by 5 percent, for an overall increase of 4 percent in withdrawals by industry since 1995 (fig. 20). Total industrial withdrawals have decreased by 34 percent since 1960.

Thirty-four of the 64 parishes (53 percent) had a decrease in industrial water use from 1995 to 2000. St. Mary Parish had the largest decrease, 51 Mgal/d. The median change in industrial water use was a 0.04 Mgal/d decrease. Of the 30 parishes that had an increase in withdrawals, St. Charles Parish had the largest increase, 120 Mgal/d.

Ground-water withdrawals for power generation decreased by 9 percent from 1995 to 2000. However, surface-water withdrawals increased by 2 percent, resulting in a overall increase of 2 percent for power-generation withdrawals from 1995 to 2000 (fig. 21). Since 1965, withdrawals for power generation have increased by 150 percent.

Eleven of the 16 parishes (69 percent) that had water withdrawals for power generation showed an increase in withdrawals from 1995 to 2000. The parish with the largest increase in power generation water withdrawals was Ouachita Parish, 110 Mgal/d. The median change in power generation withdrawals was a 3.7-Mgal/d increase. Iberville Parish had the largest decrease, 120 Mgal/d.

Rural-domestic withdrawals increased by 5 percent from 1995 to 2000 (fig. 22). Overall, rural-domestic withdrawals increased by 1 percent in comparison to the 1960 value. In intervening years the values increased and decreased from one period to the next.

Twenty of the 64 parishes (31 percent) had a decrease in rural-domestic water use from 1995 to 2000. Vernon Parish had the largest decrease, 0.15 Mgal/d, and St. Tammany Parish had the largest increase, 0.79 Mgal/d. Three of the fastest growing parishes (St. Tammany, Ascension, and Livingston Parishes) had increases greater than 15 percent. The median change in rural-domestic water use was a 0.001-Mgal/d increase.

Ground water used for livestock increased by 170 percent and surface water used for this purpose increased by 46 percent from 1995 to 2000. Total withdrawals for livestock increased by 110 percent from 1995 to 2000. Increases in poultry production during the five year period are largely responsible for the increases in water use. Withdrawals for livestock have decreased by 27 percent since 1960 (fig. 23).

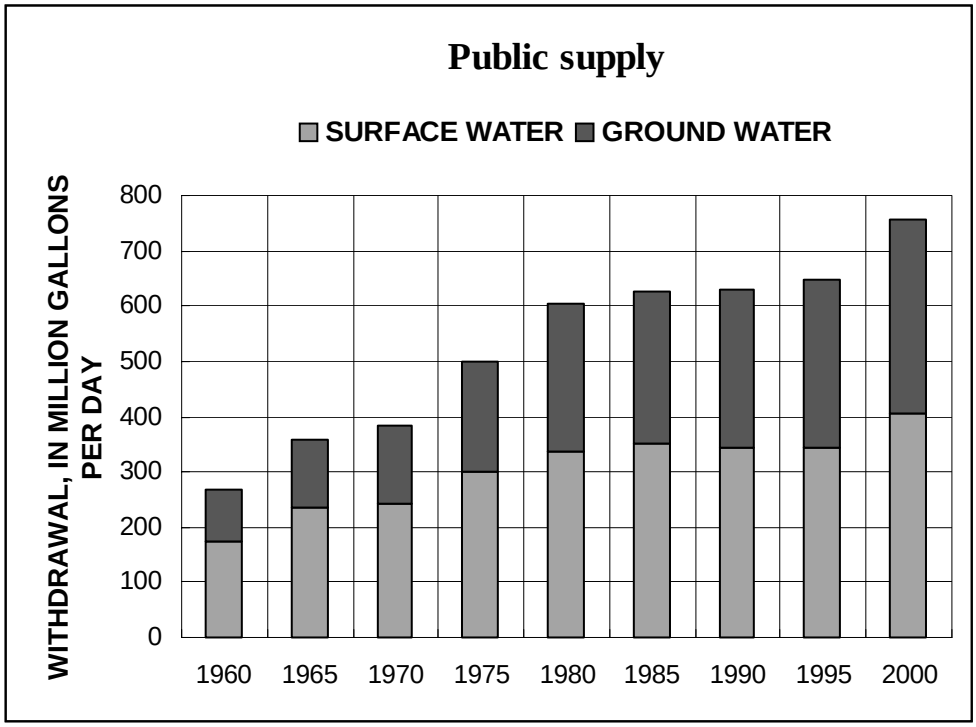


Figure 18. Public-supply water withdrawals in Louisiana, 1960-2000.

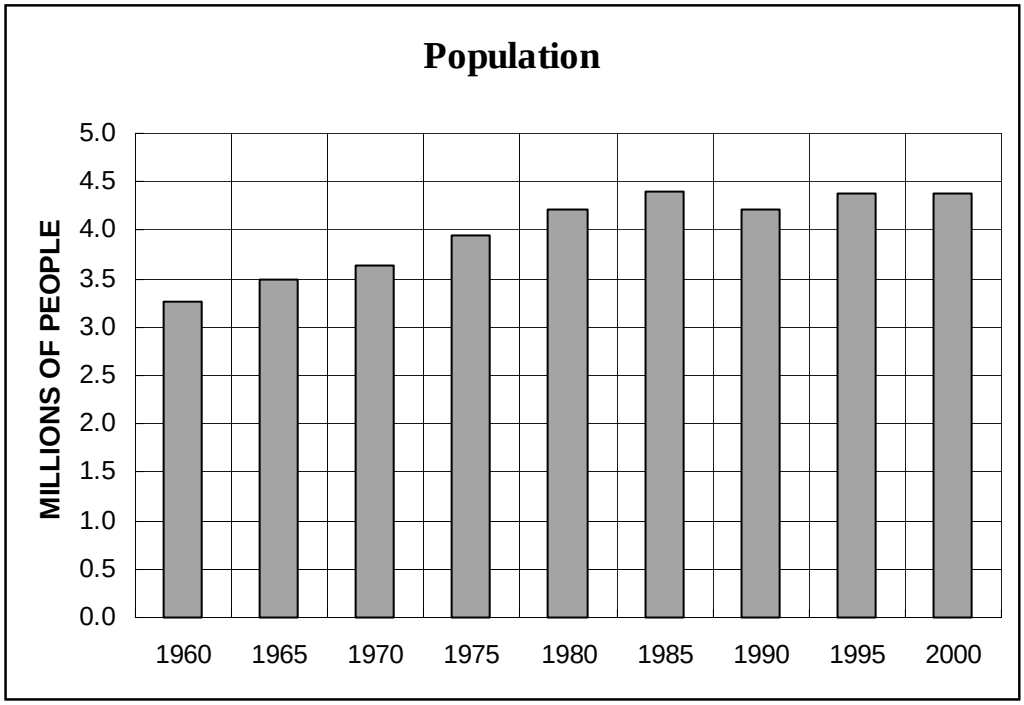


Figure 19. Total population in Louisiana, 1960-2000.

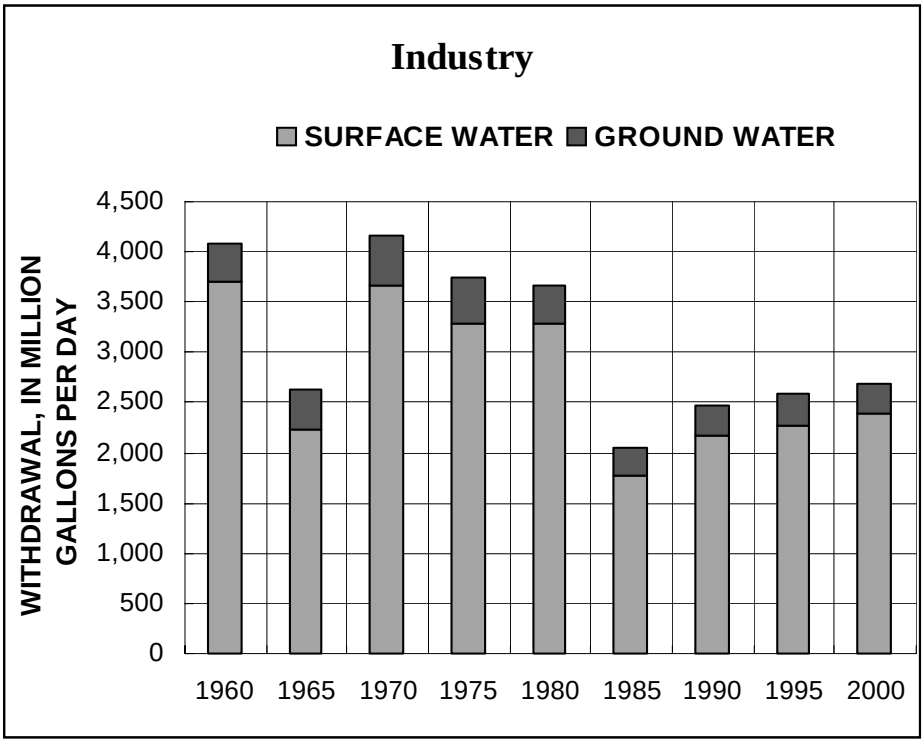


Figure 20. Industrial water withdrawals in Louisiana, 1960-2000.

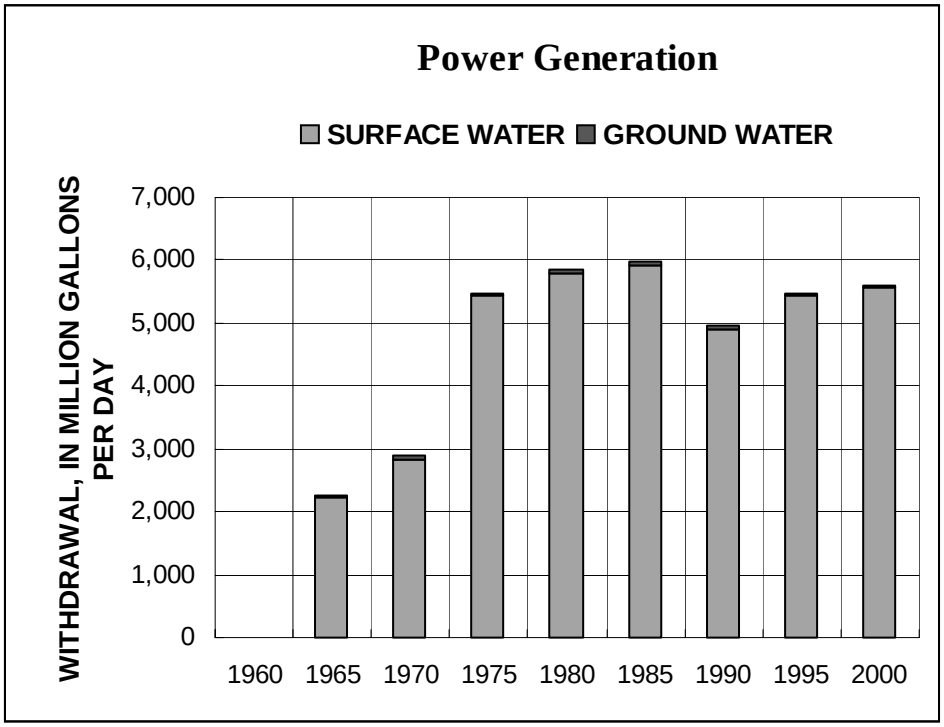


Figure 21. Power-generation water withdrawals in Louisiana, 1965-2000.

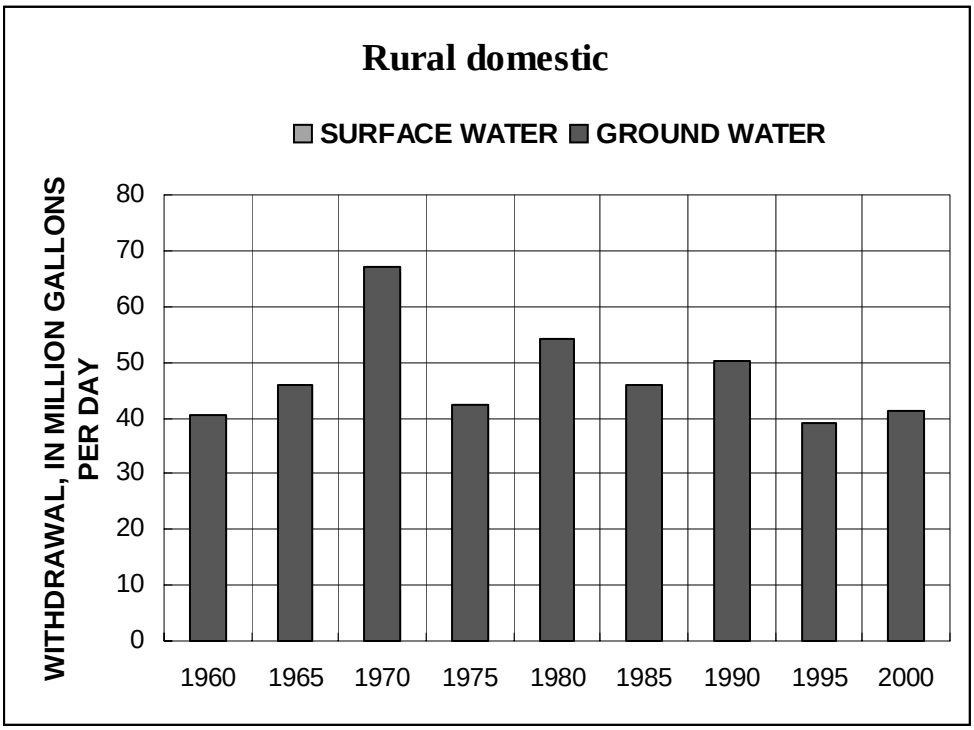


Figure 22. Rural-domestic water withdrawals in Louisiana, 1960-2000.

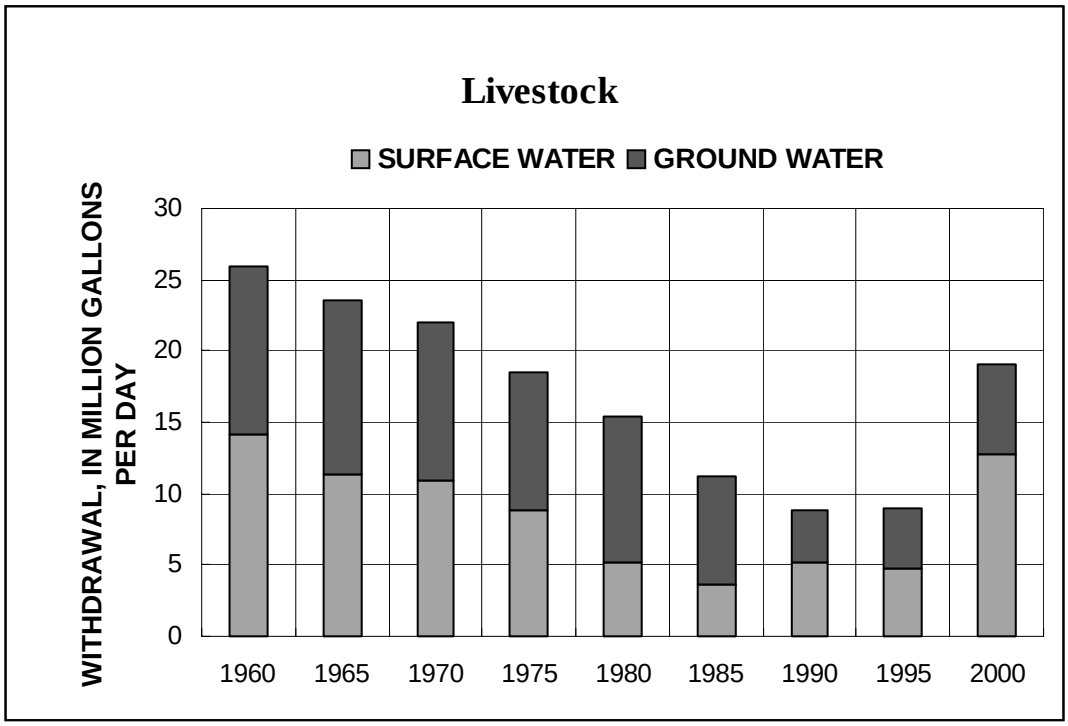


Figure 23. Livestock water withdrawals in Louisiana, 1960-2000.

Thirty-six of 63 parishes (57 percent) had an increase in livestock water use from 1995 to 2000. Union Parish had the largest increase, 0.57 Mgal/d, which is attributed to an increase in poultry production in the northern parishes. Other northern parishes, Lincoln and Claiborne Parishes, had increases in livestock water use, 2.0 and 1.3 Mgal/d, respectively. The median change in livestock water use was a 0.002-Mgal/d increase. Rapides Parish had the largest decrease, 0.1 Mgal/d.

Ground-water withdrawals for rice irrigation increased by 61 percent and surface-water withdrawals for rice irrigation decreased by 28 percent from 1995 to 2000 (fig. 24). Total withdrawals for rice irrigation increased by 26 percent and the rice harvest increased by 2.6 percent (Louisiana Cooperative Extension Service, 1995). This difference can be attributed to changes in the average yearly application rate from 1995 to 2000. Total withdrawals for rice irrigation decreased by 8.1 percent from 1960 to 2000.

Twenty-four of the 30 parishes in Louisiana (80 percent) that withdrew water for rice irrigation had an increase in water use from 1995 to 2000. Acadia Parish had the largest increase, 67 Mgal/d. The median change in rice irrigation water use was a 3.2-Mgal/d increase. East Carroll Parish had the largest decrease, 8.3 Mgal/d.

Total withdrawals for general irrigation showed an increase of 120 percent from 1995 to 2000. During the same period ground-water withdrawals for general irrigation increased by 108 percent, and surface-water withdrawals for this purpose increased by 190 percent. General irrigation withdrawals have increased by 390 percent since 1960 (fig. 25).

Thirty-two of the 41 parishes in Louisiana (78 percent) that have general irrigation withdrawals had a increase in water use from 1995 to 2000. Catahoula Parish had the largest decrease, 0.46 Mgal/d and Franklin Parish had the largest increase, 20 Mgal/d. The median change in general irrigation water use was a 0.24-Mgal/d increase.

Ground-water withdrawals for aquaculture increased by 24 percent and surface-water withdrawals for aquaculture decreased by 12 percent from 1995 to 2000. Total withdrawals for aquaculture increased by 3.9 percent from 1995 to 2000. Total withdrawals for aquaculture have increased by 60 percent since aquaculture withdrawals were first reported in the 1980 water-use report (fig. 26).

Thirty-one of the 56 parishes in Louisiana (55 percent) that have aquaculture withdrawals have had a increase in water use from 1995 to 2000. St. Martin Parish had the largest increase, 12 Mgal/d. The median change in aquaculture water use was a 0.04-Mgal/d increase. Vermilion Parish had the largest decrease, 30 Mgal/d.

Total ground-water withdrawals for all water-use categories increased by 29 percent from 1995 to 2000. Total surface-water withdrawals increased by 3 percent. Total withdrawals increased by 6 percent (figs. 27-29).

Withdrawals of both ground and surface water increased steadily from 1960 to 1980. Total ground-water withdrawals increased by 71 percent from 1960 to 1980 but by only 7.4 percent from 1980 to 2000. Total surface-water withdrawals increased by 140 percent from 1960 to 1980 but has only an 18-percent variation from 1980 to 2000. Total water withdrawals in Louisiana increased by 130 percent, from 5,400 Mgal/d to 12,000 Mgal/d from 1960 to 1980. However, from 1980 to 2000, total withdrawals decreased by 16 percent, 10,000 Mgal/d. Overall, since 1960, ground-water withdrawals have increased by 59 percent; surface-water withdrawals have increased by 99 percent; and total withdrawals have increased by 92 percent

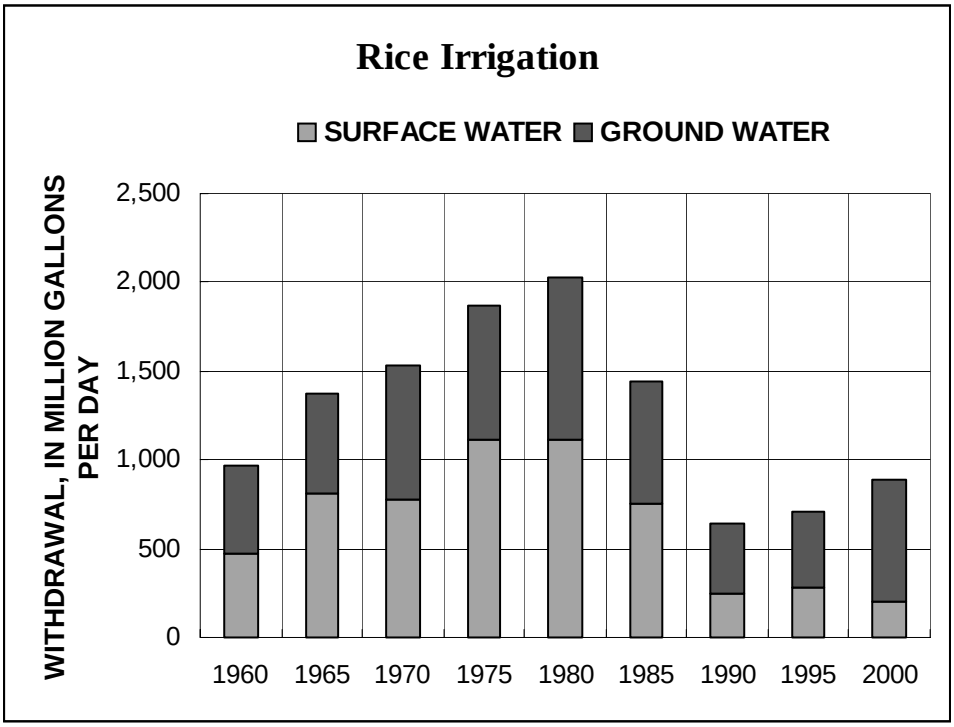


Figure 24. Rice-irrigation water withdrawals in Louisiana, 1960-2000.

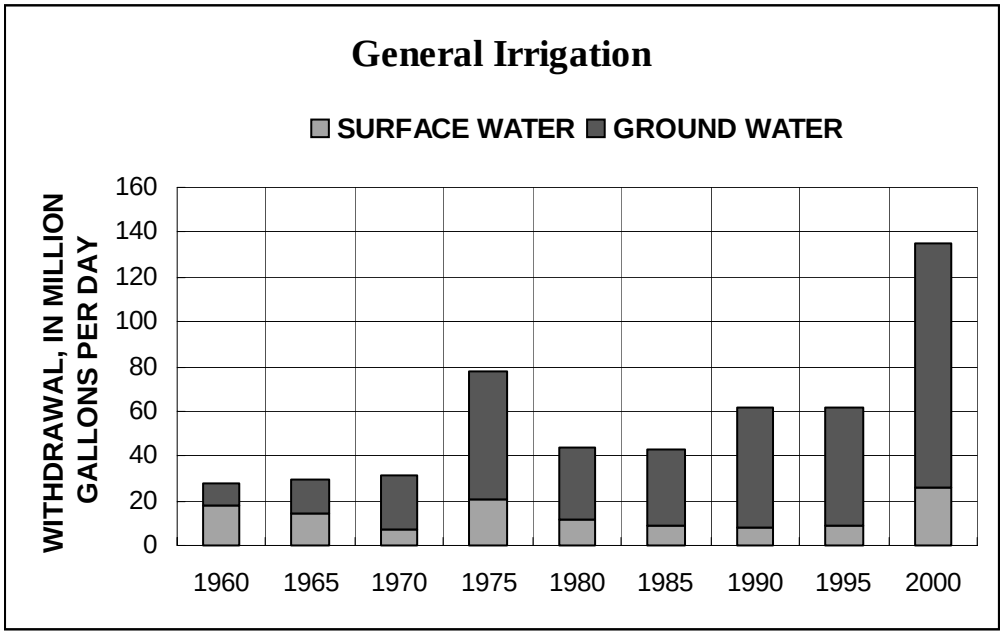


Figure 25. General-irrigation water withdrawals in Louisiana, 1960-2000.

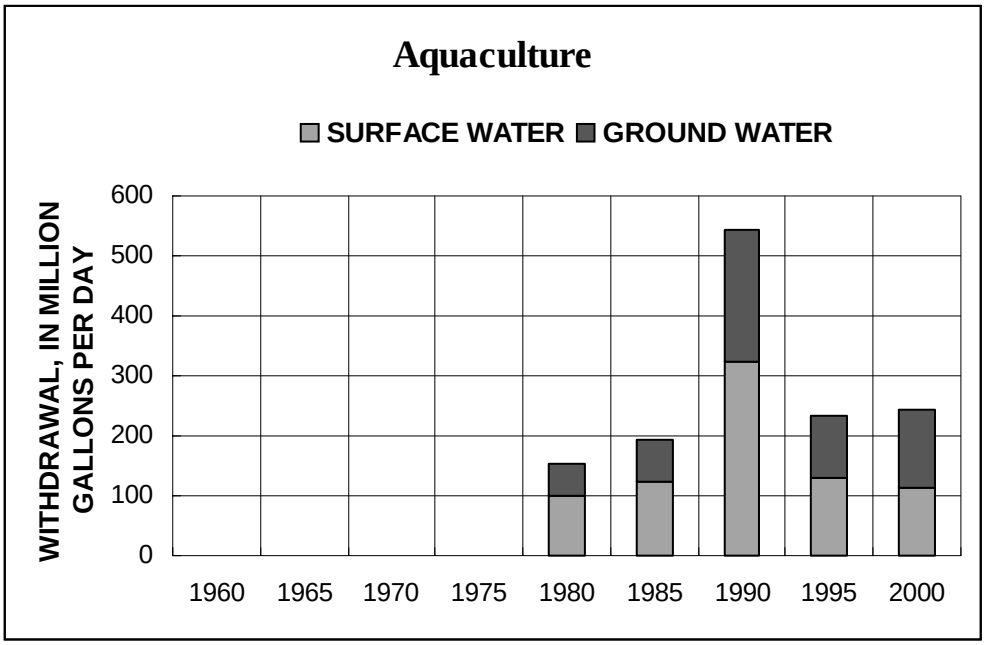


Figure 26. Aquaculture water withdrawals in Louisiana, 1980-2000.

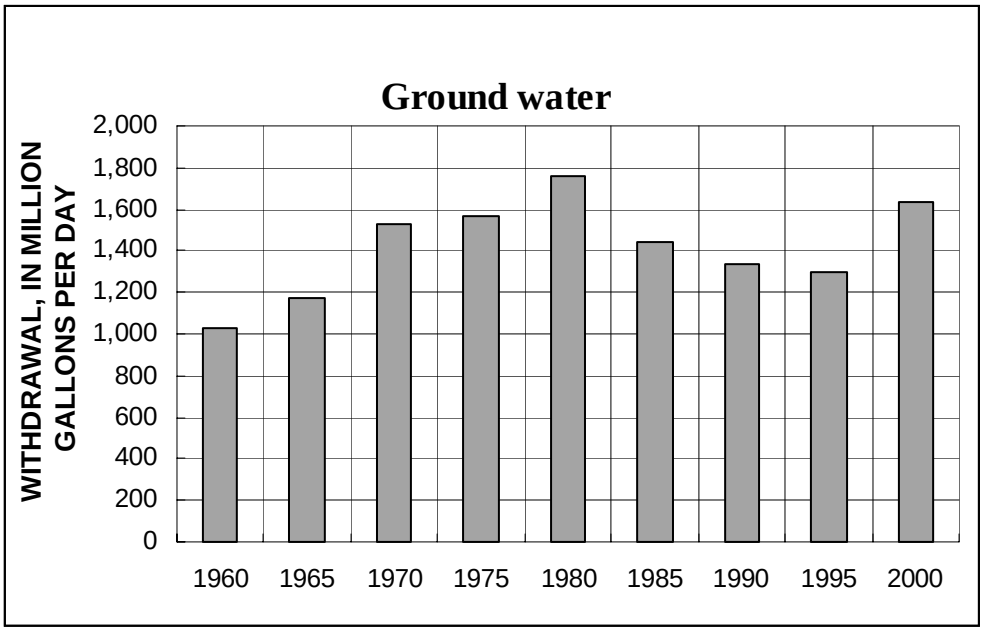


Figure 27. Ground-water withdrawals in Louisiana, 1960-2000.

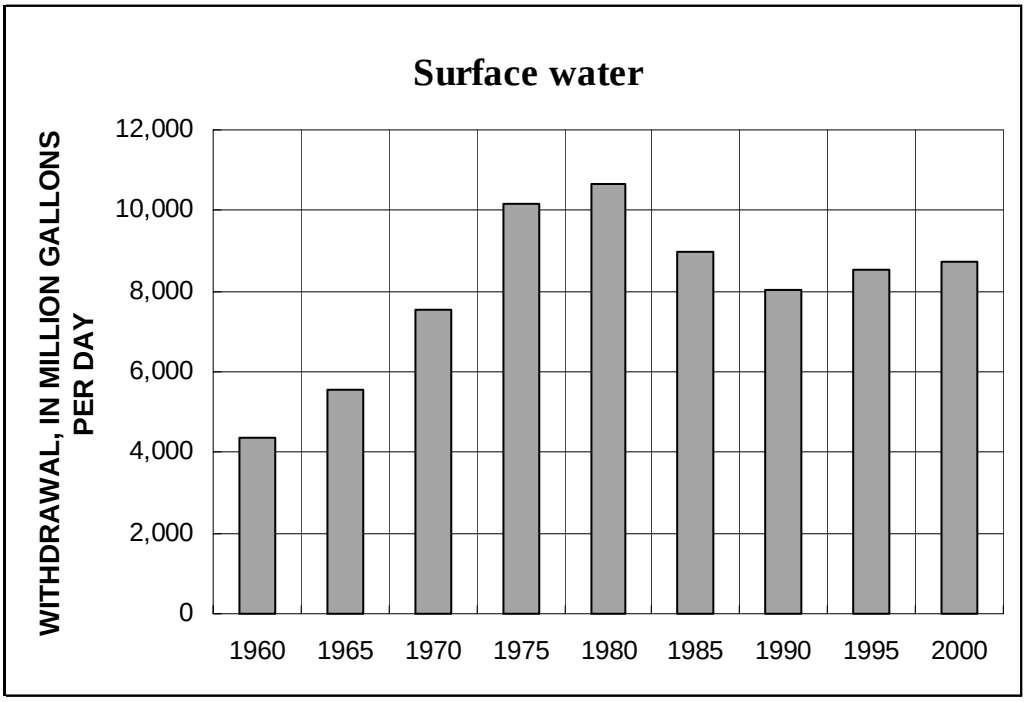


Figure 28. Surface-water withdrawals in Louisiana, 1960-2000.

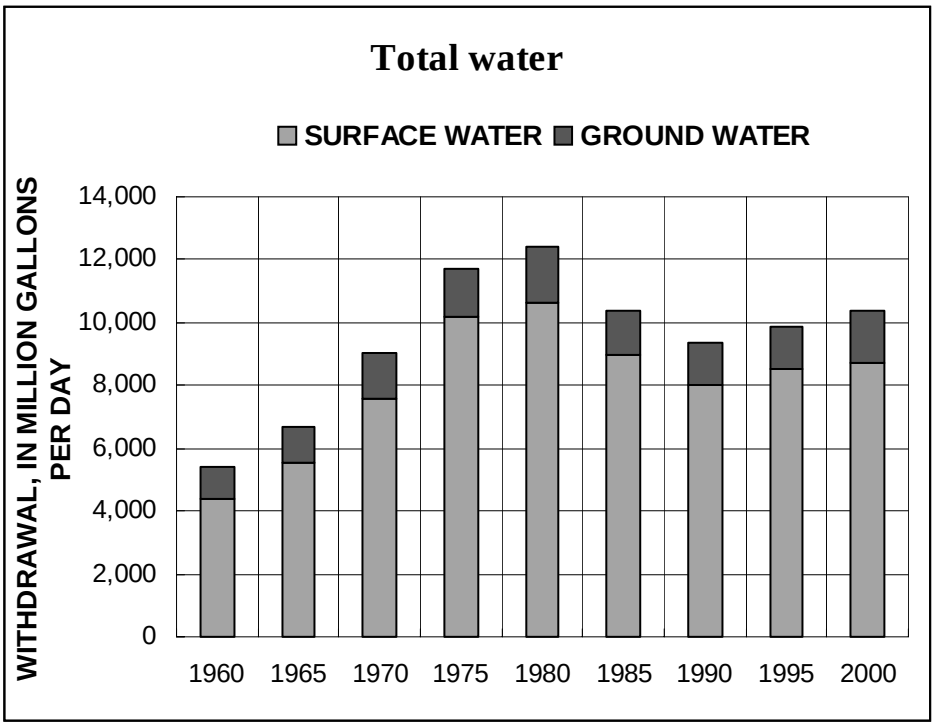


Figure 29. Total water withdrawals in Louisiana, 1960-2000.

SUMMARY

In 2000, public suppliers in Louisiana withdrew 760 Mgal/d of water, 350 Mgal/d from ground-water sources and 400 Mgal/d from surface-water sources, to supply approximately 3.9 million Louisiana residents. Ground-water use for public supply increased by 17 percent and surface-water use increased by 18 percent for an overall increase of approximately 17 percent from 1995 to 2000.

Industry in Louisiana withdrew 2,700 Mgal/d of water, 280 Mgal/d from ground-water sources and 2,400 Mgal/d from surface-water sources. Industrial withdrawals in 2000 accounted for 26 percent of all withdrawals. Industrial ground-water use decreased by 7 percent and surface-water use increased by 5 percent for an overall increase of 4 percent in withdrawals since 1995.

Power-generation facilities withdrew approximately 5,600 Mgal/d, which accounted for more than 54 percent of all water withdrawn in 2000. Of this amount, only 28 Mgal/d came from ground-water sources. Eighty-two percent (4,600 Mgal/d) of the surface water withdrawn for power-generation purposes was obtained from the Mississippi River and the Mississippi River Gulf Outlet in southeastern Louisiana. Ground-water withdrawals for power generation decreased by 9 percent from 1995 to 2000. However, surface-water withdrawals increased by 2 percent, resulting in an overall increase of 2 percent for power-generation withdrawals from 1995 to 2000.

In 2000, an average of 68,000 Mgal/d of Mississippi River water passed through the turbines of the hydroelectric power plant at the Old River Control Structure near Tarbert Landing, Mississippi. For the hydroelectric power plant at the Toledo Bend Reservoir near Burkeville, Texas, an average of 3,400 Mgal/d of water passed through its turbines, 1,700 Mgal/d of which was counted as power-generation instream use for Louisiana in 2000. Hydroelectric power-generation instream use was not included in surface-water withdrawals (in this report) because the water was not withdrawn.

Approximately 12 percent of Louisiana's population, 515,155 people, using privately owned domestic wells, withdrew an estimated 41 Mgal/d of ground water for domestic use in 2000. Rural-domestic withdrawals increased by 5 percent from 1995 to 2000. The small increase is contrary to the continued expansion of public suppliers into rural areas and the resultant shift from the use of private domestic wells to public supplies.

Livestock consumed approximately 19 Mgal/d of water in 2000. Of this total, 6.3 Mgal/d was ground water and 13 Mgal/d was surface water. Ground water used for livestock increased by 170 percent and surface water used for this purpose increased by 46 percent from 1995 to 2000, with a total increase of 110 percent.

Rice farmers withdrew approximately 890 Mgal/d of water to irrigate their fields in 2000. Of this total, 680 Mgal/d was ground water and 210 Mgal/d was surface water. The Chicot aquifer system in southwestern Louisiana supplied 79 percent of the ground water used for rice irrigation. Ground-water withdrawal for rice irrigation increased by 61 percent and surface-water withdrawal decreased by 28 percent from 1995 to 2000. Total withdrawal for rice irrigation increased 26 percent though the rice harvest increased by 2.6 percent.

Farmers also withdrew approximately 109 Mgal/d of ground water and 26 Mgal/d of surface water for crops other than rice in 2000 (based on 1999-2000 data). Ground-water withdrawals for these crops increased by 108 percent and surface-water withdrawals increased by 190 percent from 1995 to 2000. Total withdrawals for general irrigation increased by 120 percent from 1995 to 2000.

Water withdrawn for aquaculture in Louisiana was approximately 240 Mgal/d in 2000. Of this total, 130 Mgal/d was ground water and 120 Mgal/d was surface water. Since 1995, ground-water withdrawals increased by 24 percent, and surface-water withdrawals decreased by 12 percent. Total withdrawals for aquaculture increased by 3.9 percent.

Total withdrawals in 2000 were approximately 10,400 Mgal/d. Total ground-water withdrawals were 1,600 Mgal/d, and total surface-water withdrawals were 8,700 Mgal/d. Forty-nine percent of all ground water withdrawn was from the Chicot aquifer system, and 22 percent was withdrawn from the Mississippi River alluvial aquifer. About 78 percent of all surface water withdrawn was from the Mississippi River and the Mississippi River Gulf Outlet.

Total ground- and surface-water withdrawals increased 6 percent from 1995 to 2000. Total ground-water withdrawals in Louisiana increased 29 percent, and total surface-water withdrawals increased 3 percent during that period.

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