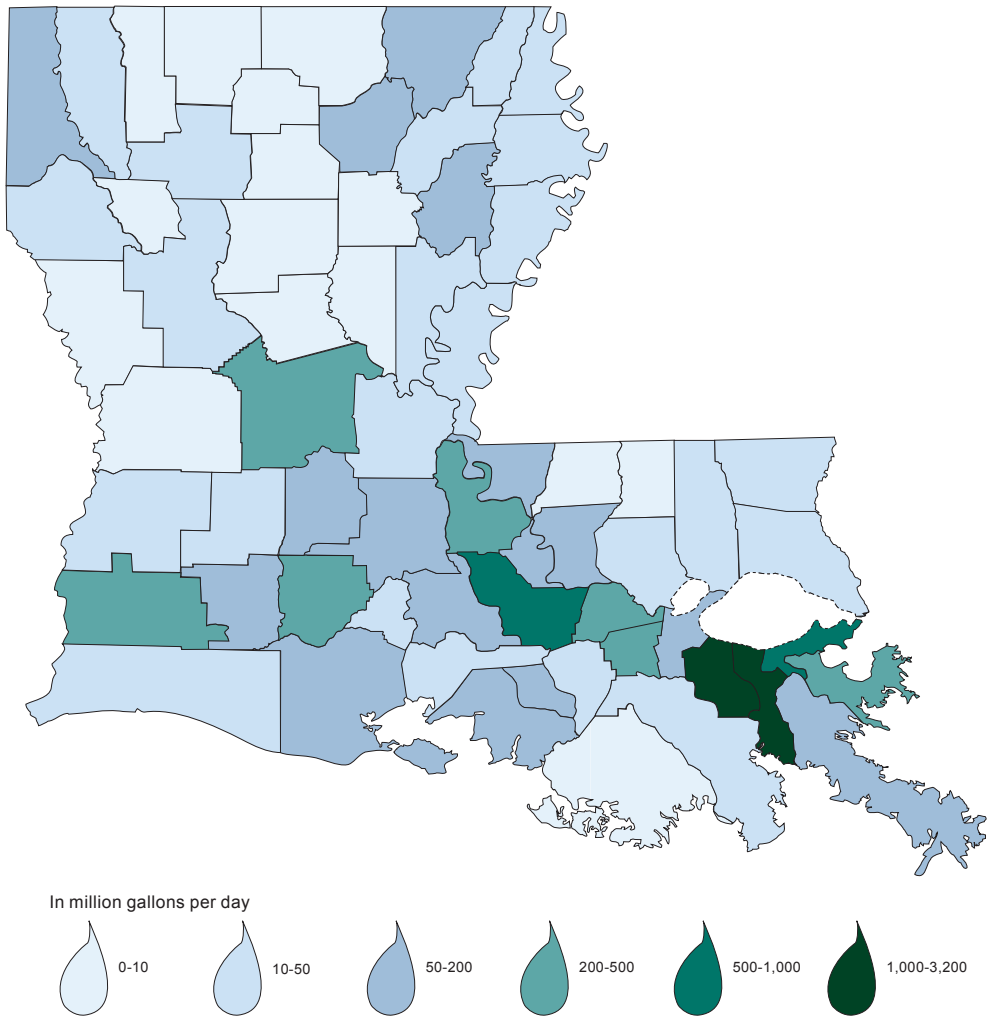
Water Use In Louisiana, 2005

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Water Resources Special Report No. 16



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
OFFICE OF PUBLIC WORKS, HURRICANE FLOOD PROTECTION
AND INTERMODAL TRANSPORTATION
PUBLIC WORKS AND WATER RESOURCES SECTION
in cooperation with the
U.S. GEOLOGICAL SURVEY

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STATE OF LOUISIANA

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WATER RESOURCES

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WATER USE IN LOUISIANA, 2005

By

B. Pierre Sargent

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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, 2005

By B. Pierre Sargent

ABSTRACT

In 2005, approximately 10,300 Mgal/d (million gallons per day) of water was withdrawn from ground-water and surface-water sources in Louisiana. Total ground-water withdrawals were about 1,600 Mgal/d, and total surface-water withdrawals were about 8,700 Mgal/d. From 2000 to 2005, ground-water withdrawals in Louisiana decreased by 3.7 percent, and surface-water withdrawals were unchanged. Total water withdrawals in Louisiana decreased by less than 1.0 percent from 2000 to 2005.

Water withdrawal totals in Mgal/d in 2005 for various categories of use were as follows: public supply—720, industry—3,100, power generation—5,200, rural domestic—44, livestock—8.0, rice irrigation—790, general irrigation—200, and aquaculture—270. From 2000 to 2005, changes in withdrawals, in percent, for the categories of use were as follows: public supply decreased by 5.1, industry increased by 16, power generation decreased by 7.7, rural domestic increased by 6.0, livestock decreased by 58, rice irrigation decreased by 11, general irrigation increased by 52, and aquaculture increased by 11.

Forty-two percent (about 660 Mgal/d) of all ground water withdrawn was from the Chicot aquifer system, and 26 percent (about 400 Mgal/d) was withdrawn from the Mississippi River alluvial aquifer. Since 2000, withdrawals from the Chicot aquifer system decreased by 17 percent, and withdrawals from the Mississippi River alluvial aquifer increased by 14 percent. About 76 percent (6,700 Mgal/d) of all surface water withdrawn was from the Mississippi River mainstem. This value represents a 7.6 percent increase in withdrawals from 2000 to 2005.

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 (USGS), in cooperation with the Louisiana Department of Transportation and Development, has collected and published water-withdrawal and water-use information on a 5-year basis since 1960.

Purpose and Scope

This report presents data from a 2005 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 2004 calendar year. Withdrawals for irrigation are based on data from 2004 and 2005 and represent a composite of the 2 years. For purposes of this report, the amount and distribution of water used in 2005 is assumed to be the same as that for 2004. 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 USGS office in Baton Rouge, Louisiana.

Presentation of Data

The 2005 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 2005 water withdrawals for public supply, industrial, power generation, rural domestic, livestock, irrigation, and aquaculture purposes.

Following this section are graphical and tabular data for each parish, major aquifer, and surface-water basin in Louisiana. Data for the 64 parishes (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. The aquifers and aquifer systems in Louisiana for which ground-water withdrawals by aquifer are reported are shown 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 after 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 of numbers in text and tables may result in different totals due to rounding. For example, in the section, "Total Water Use," the table of withdrawals for various uses lists general irrigation, which included 158.08 Mgal/d for ground water, 46.74 Mgal/d for surface water, and 204.83 Mgal/d for the combined total. In the section, "General Irrigation," these numbers, rounded to two significant figures, are 160 Mgal/d for ground water and 47 Mgal/d for surface water. The sum of these rounded numbers is 207 Mgal/d, which would be 210 Mgal/d when presented as two significant figures. However, because unrounded numbers are used for calculation of totals, the correct total 204.83 Mgal/d, which rounds to 200 Mgal/d as two significant figures, was used in the section, "General Irrigation."

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), Lovelace and Johnson (1996), and Sargent (2002). In addition, Lurry (1985), and Stuart and Lurry (1988) discuss specific information about public water supplies in Louisiana, and Lovelace (1994) discusses water requirements for crawfish farming at selected sites in south-central 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, Public Works and Water Resources Section, 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. Bill Branch, Professor, Department of Biological and Agricultural Engineering, Louisiana State University AgCenter, 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 Public Service Commission provided lists of power-generation companies and public water-supply facilities, including 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, Mary L. Anderson, D. Linda Collier, and Darlene M. Smothers, for their assistance in collection and collation of the data.

Figure 1. Parishes in Louisiana.

System	Series	Stratigraphic unit		Hydrogeologic unit						
				Northern Louisiana	Central and southwestern Louisiana		Southeastern Louisiana			
				Aquifer or confining unit	Aquifer system or confining unit	Aquifer or confining unit	Aquifer system or confining unit[1]	Aquifer or confining unit[2]		
						Lake Charles area / Rice growing area		Baton Rouge area	St. Tammany, Tangipahoa, and Washington Parishes	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 / Upper sand unit "500-foot" sand, "700-foot" sand / 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		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.

Louisiana Department of Transportation and Development--U.S. Geological Survey Water Resources Cooperative Program

Figure 2. Hydrogeologic units in Louisiana. (Modified from Lovelace and Lovelace, 1995.)

DATA COLLECTION

Information for public-supply, industrial, and power-generation facilities primarily was 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 was the Louisiana Department of Health and Hospitals. Rural water-supply information came from the Louisiana Rural Water Association. Industrial facilities were listed in the "2005 Directory of Louisiana Manufacturers" (Carlsen, 2005).

Population and acreage data were compiled from various sources. Parish and State population estimates for 2004 were from the U.S. Census Bureau (2005). Population data used for livestock estimates were from the Louisiana Cooperative Extension Service (2005). 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, 2005). 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.

Water application-rate data for irrigation, collected by the U.S. Consolidated Farm Service Agency directly from farmers during late spring 2005, mostly are representative of the 2005 growing season. Crop-acreage data originated from inventories compiled by the Louisiana Cooperative Extension Service (2005) for calendar year 2004. Acreage data for cotton were updated with data from the U.S. Department of Agriculture's 2003 Farm and Ranch Irrigation Survey (National Agricultural Statistics Service, 2004). Aquaculture acreage and application rates were from the Louisiana Cooperative Extension Service (2005).

Water-use information was compiled and divided into two groups--site-specific and aggregate. The information for public supply, industrial, and power generation facilities was collected on a site-specific basis, that is, the location of the facility was known and recorded with the withdrawal data. The information for rural domestic, livestock, irrigation, and aquaculture withdrawals was estimated on a parish-wide basis, without the exact location of each user known. This type of information is referred to as aggregated withdrawals. Per-capita-use rates were used to estimate withdrawals for livestock and aquaculture.

Louisiana well registration inventories provided by the Louisiana Department of Transportation and Development include data on the distribution of irrigation wells screened in different aquifers within a parish. This information was used to distribute aggregated withdrawal data among the appropriate aquifers. For surface-water basins, the estimate of aggregated withdrawal data within a parish was based on percent areal distribution of the basins.

All the water-use information was entered into a data base at the USGS office in Baton Rouge, Louisiana. 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 USGS data base.

Most, but not all of the uses of water described in this report require freshwater. For the purposes of this report, freshwater is defined as water having less than 250 mg/L (milligrams per liter) of chloride, and most of the water withdrawals described in this report were assumed to be fresh (U.S. Environmental Protection Agency, 2004). However, in some areas of Louisiana, especially near the Gulf of Mexico, historical data on file at the USGS indicate that chloride concentrations in water being withdrawn could exceed 250 mg/L. Collection and presentation of information on chloride concentrations in water withdrawn was beyond the scope of this study.

WATER USE BY CATEGORY

Water use is water withdrawn or diverted from a ground-water 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 on a year-round basis. The water is used for a variety of purposes such as domestic, commercial, industrial, and public water use. In some instances, a portion of public-supply withdrawals are conveyed to a large industrial facility that does not have its own water supply, and thus the water would be assigned to the public-supply category, when in actuality, it is used for industrial purposes.

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 purposes such as 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 4.0 million people, 88 percent of Louisiana's total population of 4.5 million in 2005 (U.S. Census Bureau, 2005), used about 720 Mgal/d of water provided by public suppliers (fig. 3). This water accounted for about 7.0 percent of the total water withdrawn in the State. Per capita use was 180 gal/d. Of the 720 Mgal/d, about 350 Mgal/d was from ground-water sources, and about 370 Mgal/d was from surface-water sources. Of these approximately 4.0 million people, about 50 percent were provided with water from a ground-water source, and about 50 percent were provided with water from a surface-water source.

All the major aquifers or aquifer systems in Louisiana were utilized as sources of public-supply water. In northern Louisiana, the chief source of ground water was the Sparta aquifer, which provided 10 percent of the ground water used for public supply in the State. In southwestern Louisiana, the Chicot aquifer system was the major source of ground water, providing 26 percent of the State total for public supply. In southeastern Louisiana, the Evangeline equivalent and Jasper equivalent aquifer systems provided 17 percent and 21 percent, respectively, of ground water used for public supply in the State.

The Mississippi River was the greatest source of surface water for public supply. In 2005, about 240 Mgal/d of Mississippi River water was provided primarily to parishes in southeastern Louisiana where ground-water supplies were limited or unavailable. This amount represents 65 percent of the total surface-water withdrawals for public supply in Louisiana. The next large water body which provided significant amounts of surface water for public supply is Cross Lake, which provided 13 percent of total withdrawals in the State. Twenty-one other surface-water bodies provided the remaining 22 percent of withdrawals. In 2004, 462,269 people lived in Orleans Parish, which was the greatest parish population in the State (U.S. Census Bureau, 2005). Orleans Parish also had the greatest withdrawal, about 130 Mgal/d, by public suppliers (fig. 4).

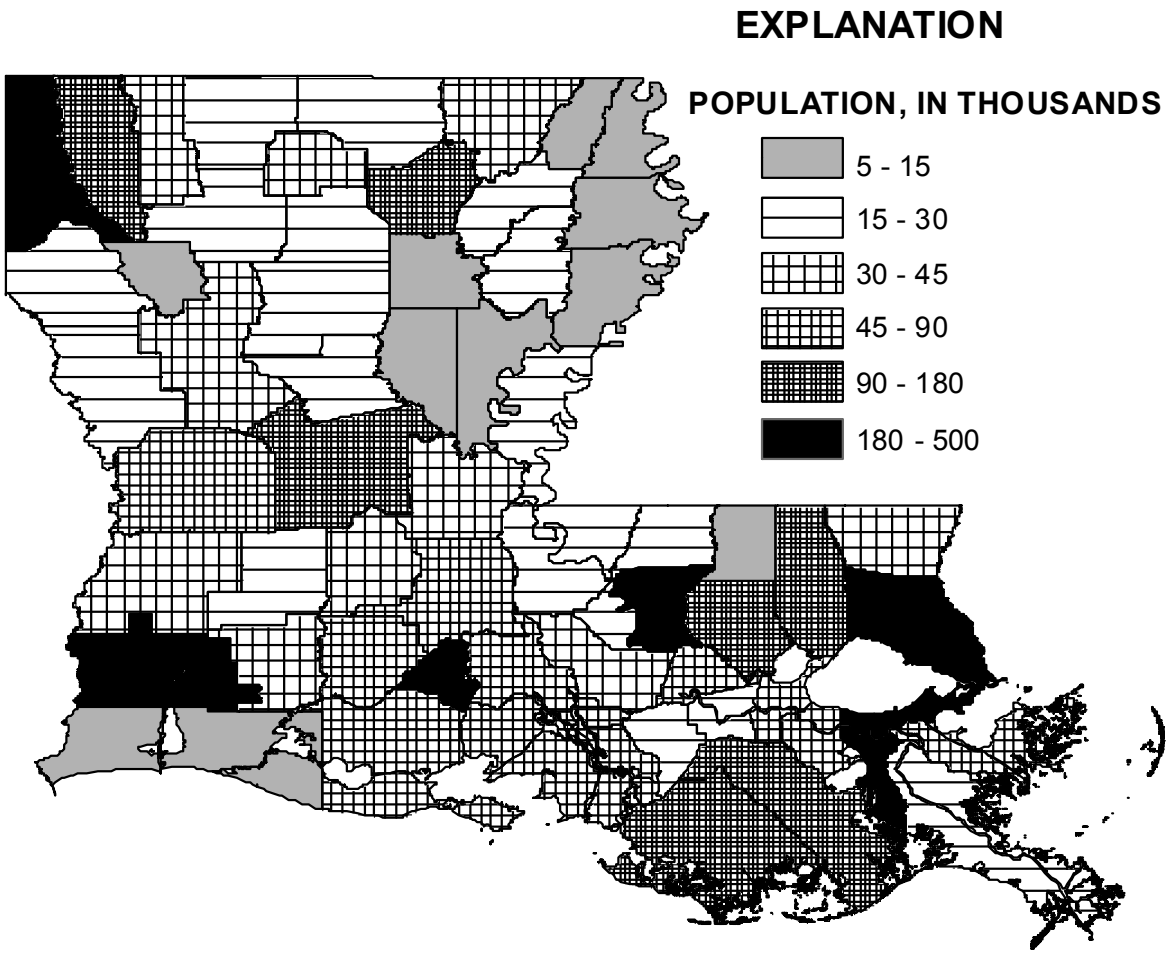


Figure 3. Louisiana population by parish, 2004. (Source: U.S. Census Bureau, 2005.)

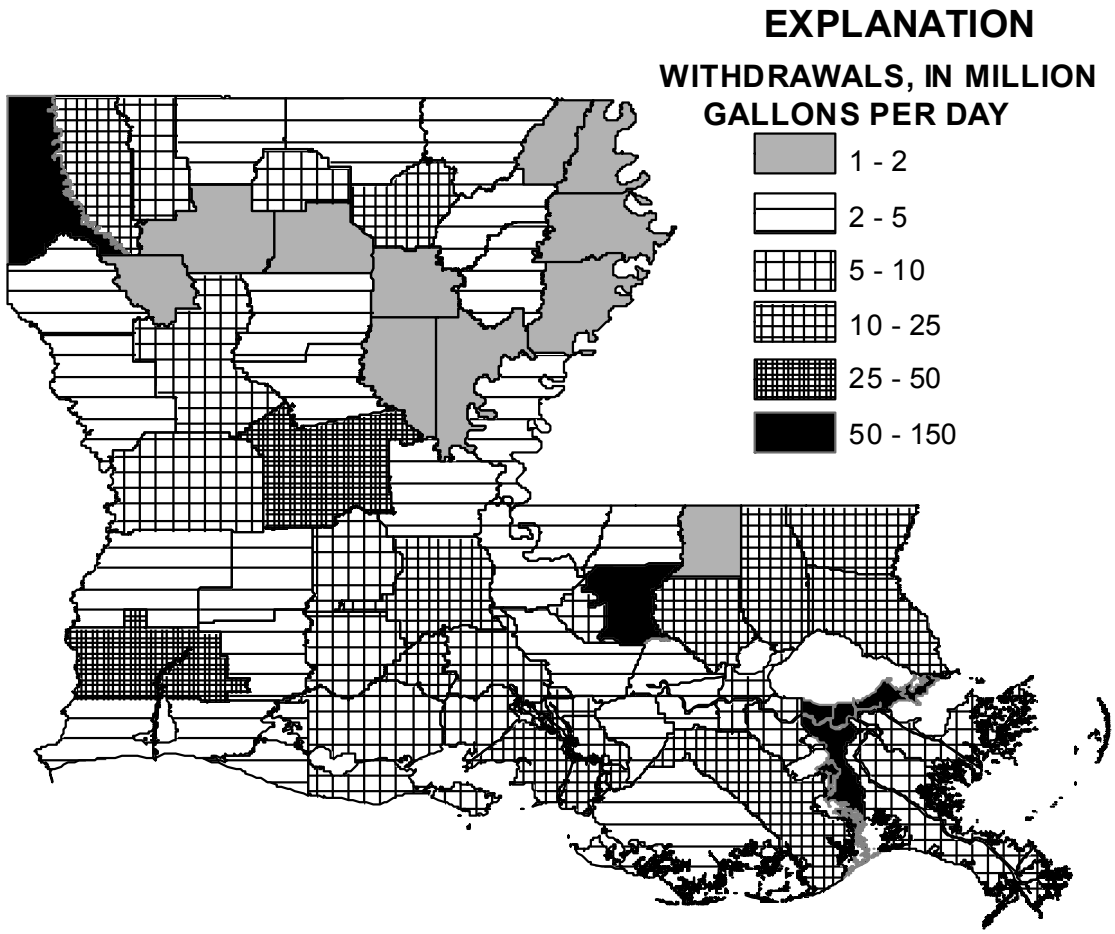


Figure 4. Public-supply water withdrawals in Louisiana by parish, 2005.

Industrial

Industry in Louisiana withdrew approximately 3,100 Mgal/d of water in 2005, 270 Mgal/d from ground-water sources and 2,800 Mgal/d from surface-water sources. Industrial withdrawals in 2005 accounted for 30 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 2,300 Mgal/d or 75 percent of total industrial withdrawals. Table 1 lists withdrawals in 2005 by Standard Industrial Classification code for the major industrial groups. Withdrawals that were less than or equal to 0.01 Mgal/d are not shown on the table.

Table 1. Water withdrawals in Louisiana by major industrial group, 2005.
[Withdrawals are in million gallons per day.
Source of Standard Industrial Classification: Office of Management and Budget, 1987]

Standard Industrial Classification		Withdrawals	
		Ground water	Surface water
12	Coal and lignite mining	1.24	
13	Oil and gas extraction	.09	2.58
14	Nonfuels/nonmetals mining	.70	.05
15	Building construction	.42	
20	Food products	19.49	25.88
24	Lumber	1.00	
26	Paper products	101.85	109.08
28	Chemicals	101.35	2,218.84
29	Petroleum refining	29.84	486.02
30	Rubber and plastics	1.55	
32	Glass, clay, and concrete	1.74	
33	Primary metals	2.20	1.00
34	Metal products	.75	
37	Transportation equipment	1.58	
44	Water transportation	.19	

Aquifers in the southeastern part of the State (Chicot, Evangeline, and Jasper equivalent aquifer systems) provided approximately 46 percent of ground water withdrawn for industrial use; aquifers in the central and southwestern part of the State (Evangeline and Catahoula aquifers and Chicot and Jasper aquifer systems) provided 29 percent, and aquifers in northern Louisiana (upland terrace, Cockfield, Sparta, and Carrizo-Wilcox aquifers) provided 12 percent, with the remaining 13 percent of water withdrawn for industrial purposes provided by aquifers distributed statewide (Red and Mississippi River alluvial aquifers). The Mississippi River provided 87 percent of the surface water withdrawn by industry in Louisiana. The Calcasieu River provided 5 percent of the surface water withdrawn by industry in Louisiana, and the remaining 8 percent was provided by 22 surface-water bodies. Total industrial withdrawals in St. Charles and Iberville Parishes were the greatest in the State, 980 and 540 Mgal/d, respectively, and together accounted for 49 percent of all ground-water and surface-water industrial withdrawals (fig. 5).

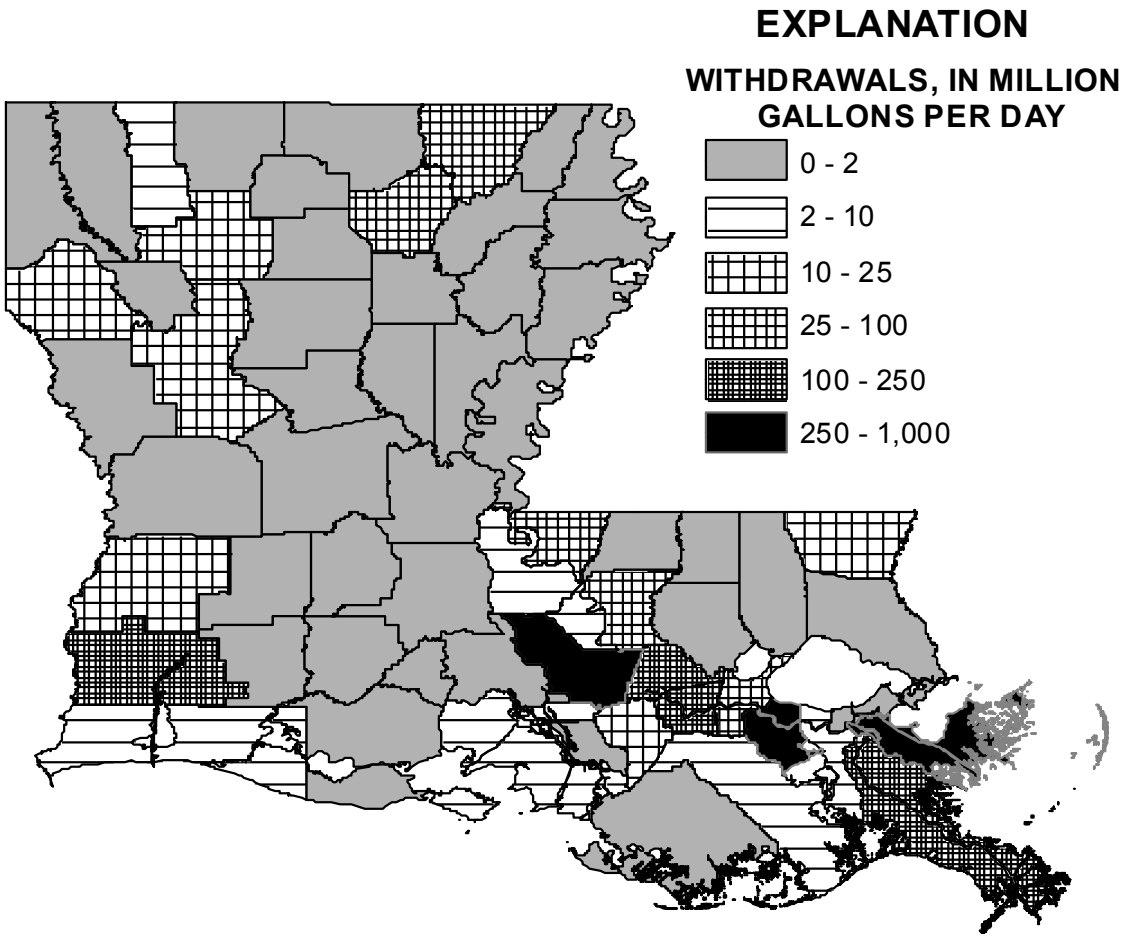


Figure 5. Industrial water withdrawals in Louisiana by parish, 2005.

Power Generation

Power-generation facilities withdrew approximately 5,200 Mgal/d, about 50 percent of all water withdrawn in 2005. Of this amount, only 19 Mgal/d originated from ground-water sources. Aquifers in southeastern Louisiana provided 80 percent of the ground water used for power generation. The Chicot aquifer system in southwestern Louisiana was the source of 17 percent of the ground-water withdrawals for power generation. The remaining 3 percent of the ground water was from the other aquifers in the State.

Eighty-four percent (4,400 Mgal/d) of the surface water withdrawn for power-generation purposes was from the Mississippi River and the Mississippi River Gulf Outlet in southeastern Louisiana; 2,100 Mgal/d of this water 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, 17 Mgal/d of ground water and 4,000 Mgal/d of surface water were withdrawn for use in fossil-fueled plants; 8.3 Mgal/d of surface water was withdrawn for use in hydroelectric plants; and 0.02 Mgal/d of ground water and 1,100 Mgal/d of surface water were withdrawn for use in nuclear plants.

In 2005, 68,000 Mgal/d of water passed through Louisiana's two hydroelectric power plants. The larger of the two hydroelectric power plants, located at the Old River Control Structure near Tarbert Landing, Mississippi, uses water from the Mississippi River. In 2005, an average of 67,000 Mgal/d passed through the plant's turbines.

The other hydroelectric power plant in Louisiana used water impounded in the Toledo Bend Reservoir on the Louisiana-Texas border and released the water through the turbines near Burkeville, Texas. Because the plant is located on the Louisiana-Texas border, one-half of the water used was counted in Louisiana's water-use inventory. In 2005, an average of 2,400 Mgal/d of water passed through the plant's turbines. Of this amount, 1,200 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.

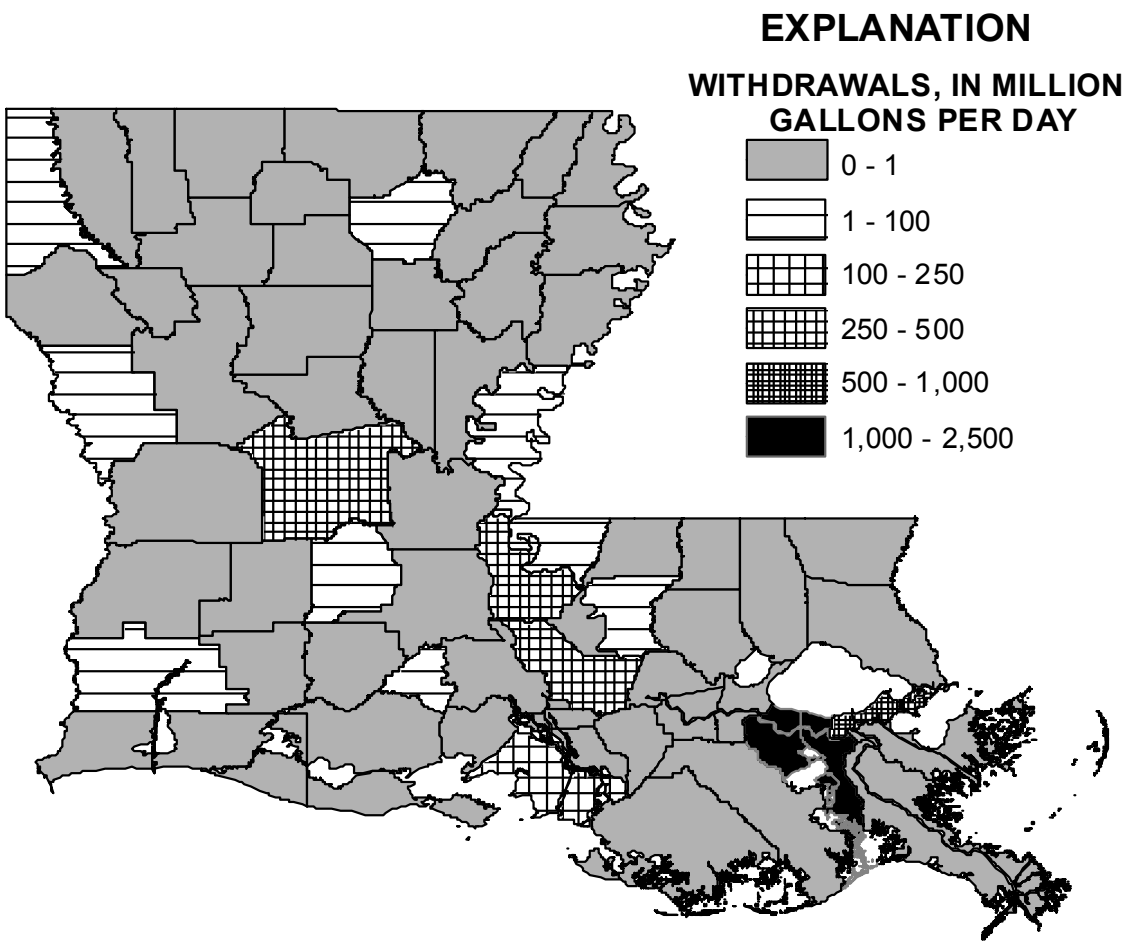


Figure 6. Power-generation water withdrawals in Louisiana by parish, 2005.

Rural Domestic

Approximately 12 percent (544,381) of Louisiana's population (U.S. Census Bureau, 2005), who use privately owned domestic wells, withdrew an estimated 44 Mgal/d of ground water in 2005. 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 that requires minimal treatment generally is available. Every major aquifer and aquifer system was used as a source for rural-domestic water. Forty-two percent of the ground water withdrawn for rural-domestic use came from aquifers in southeastern Louisiana. Thirty-two percent of the water withdrawn for rural-domestic use was produced from aquifers in southwestern Louisiana, and northern aquifers contributed 18 percent of the ground water used for rural-domestic use in Louisiana. The remaining 8 percent of the withdrawals for rural-domestic use originated from the remaining aquifers in the State. St. Tammany Parish had the greatest withdrawals, 6.4 Mgal/d (fig. 7).

Livestock

In 2005, individual ranchers and farmers used approximately 8.0 Mgal/d of water for livestock operations. Of this total, 4.2 Mgal/d was ground water, and 3.8 Mgal/d was surface water. In Louisiana, livestock that requires 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) were as follows: milk cows, 20; other cattle, 10; horses, 10; swine, 3; sheep, 2; and poultry, 0.04 (Lovelace and Johnson, 1996, p. 11).

Surface-water sources for livestock withdrawals generally included small streams, canals, and private ponds. Ground-water sources included most of the major aquifers and aquifer systems. The Chicot aquifer system provided 28 percent (1.2 Mgal/d), the Mississippi River alluvial aquifer provided 23 percent (1.0 Mgal/d), and the Chicot equivalent aquifer system provided 11 percent (0.5 Mgal/d) of ground-water withdrawals for livestock. The remaining 38 percent of withdrawals was distributed among other aquifers in amounts less than 0.5 Mgal/d. Tangipahoa and Calcasieu Parishes both had the greatest livestock withdrawals, 0.5 Mgal/d (fig. 8).

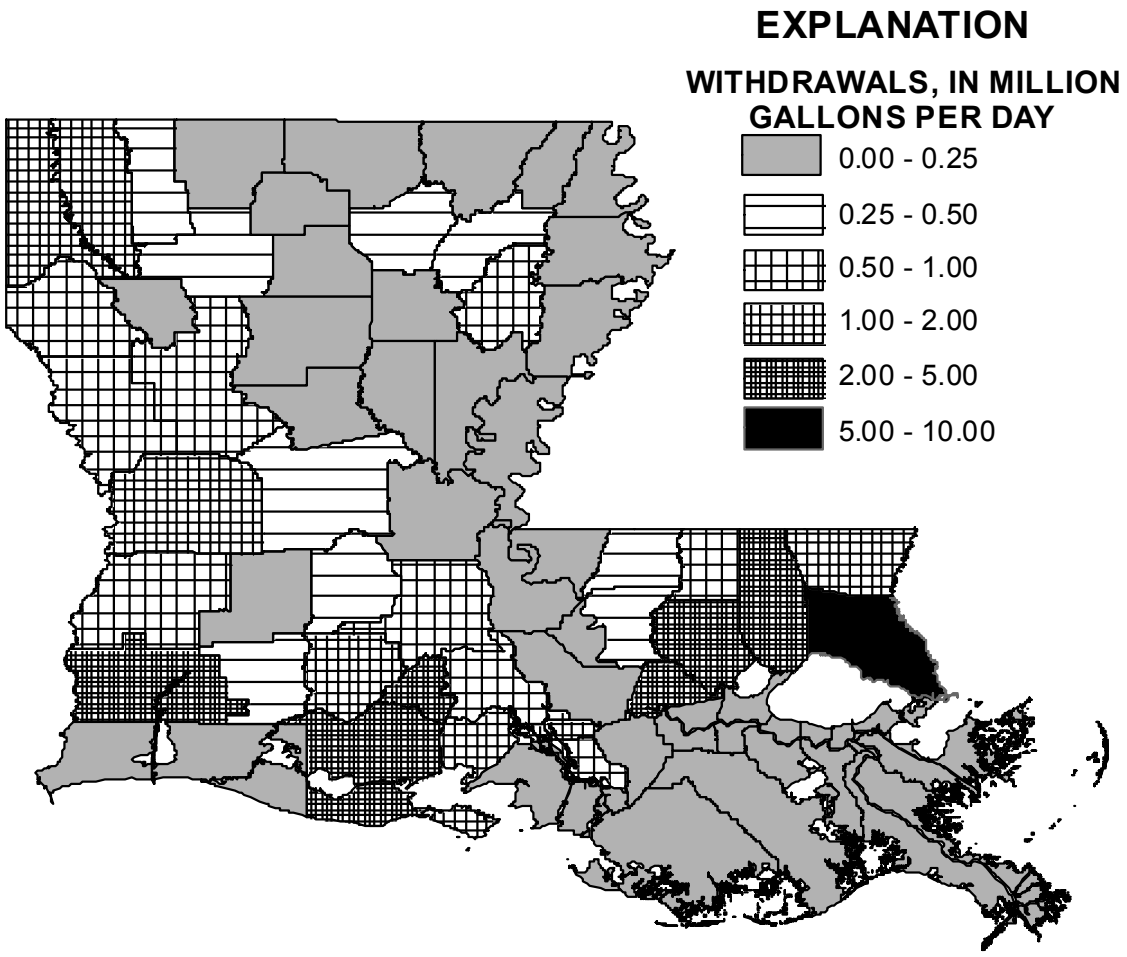


Figure 7. Rural-domestic water withdrawals in Louisiana by parish, 2005.

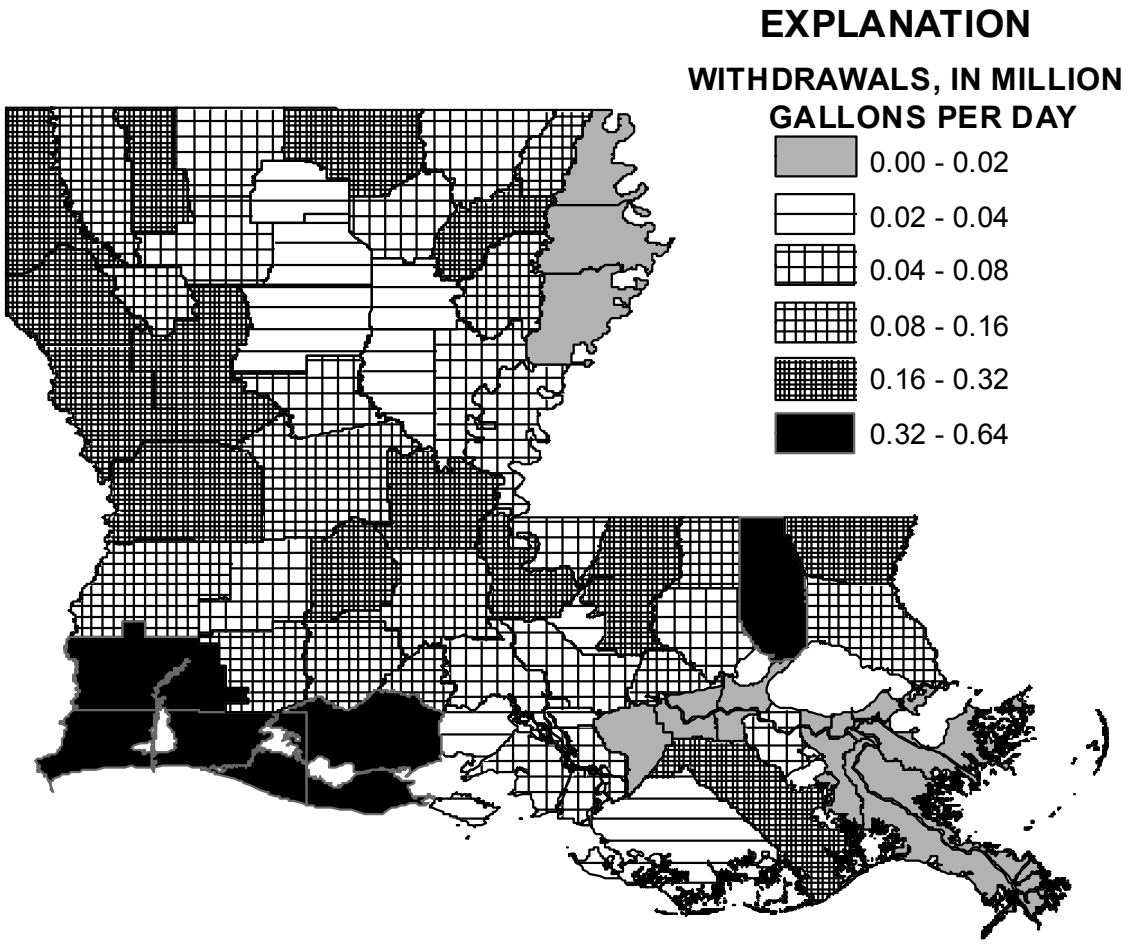


Figure 8. Livestock water withdrawals in Louisiana by parish, 2005.

Rice Irrigation

In 2004, approximately 533,000 acres of rice were harvested in 28 parishes, mainly in southwestern and northeastern Louisiana (Louisiana Cooperative Extension Service, 2005). It should be noted that in the 2005 growing season, rice acreage decreased to 524,000 acres (Louisiana Cooperative Extension Service, 2006). All rice grown in Louisiana is assumed to be irrigated. The average application rate was about 1.66 acre-ft per acre per year. Rice farmers withdrew approximately 790 Mgal/d of water to irrigate their fields in 2004. Of the total, about 530 Mgal/d was ground water and about 260 Mgal/d was surface water.

The Chicot aquifer system in southwestern Louisiana provided 72 percent of the ground water used for rice irrigation, which was the greatest percentage of withdrawals of all the aquifers in the State. In northeastern Louisiana, the Mississippi River alluvial aquifer provided 27 percent, and the other aquifers in the State provided the remaining 1 percent. For rice irrigation use, surface water was withdrawn from streams, lakes, bayous, and canals, with the greatest percentage of withdrawals, 17 percent, provided by Bayou Queue de Tortue. The greatest total withdrawals for rice irrigation was about 170 Mgal/d in Acadia Parish and included about 130 Mgal/d from ground-water sources and about 36 Mgal/d from surface-water sources (fig. 9).

General Irrigation

In 2004, farmers irrigated approximately 415,000 acres of crops other than rice (Louisiana Cooperative Extension Service, 2005). Crops with substantial amounts of irrigated acreage included cotton, corn, soybeans, sugar cane, sorghum, and berries. Based on the 2005 irrigation data, the average application rate for these crops was about 0.56 acre-ft per acre per year. Farmers withdrew approximately 200 Mgal/d for irrigation, of which about 160 Mgal/d was ground water and about 47 Mgal/d was surface water. Irrigation of these crops occurred primarily in northeastern Louisiana (fig. 10), and 93 percent of the ground water was withdrawn from the Mississippi River alluvial aquifer. The Chicot aquifer system provided 1.8 percent, and the other aquifers in the State provided 5.2 percent of the ground water for general irrigation.

Aquaculture

In 2005, approximately 270 Mgal/d of water was withdrawn for aquaculture in Louisiana. Of the total, about 200 Mgal/d was ground water and about 70 Mgal/d was surface water. Ninety-two percent of this water was used to maintain water levels on 118,000 acres of crawfish ponds, 7 percent on 8,000 acres of catfish ponds, and 1 percent at alligator and other farms (Louisiana Cooperative Extension Service, 2005). The Chicot aquifer system provided 56 percent, and the Mississippi River alluvial aquifer provided 33 percent of ground water used. The Chicot equivalent aquifer system provided 9.0 percent, and the other aquifers in the State provided the remaining 2.0 percent. Numerous streams were used as sources of surface water. The greatest total withdrawal, 39 Mgal/d, was in Acadia Parish (fig. 11). Ground-water withdrawals for aquaculture were also greatest in Acadia Parish, 30 Mgal/d, and surface-water withdrawals were greatest in St. Martin Parish, 33 Mgal/d.

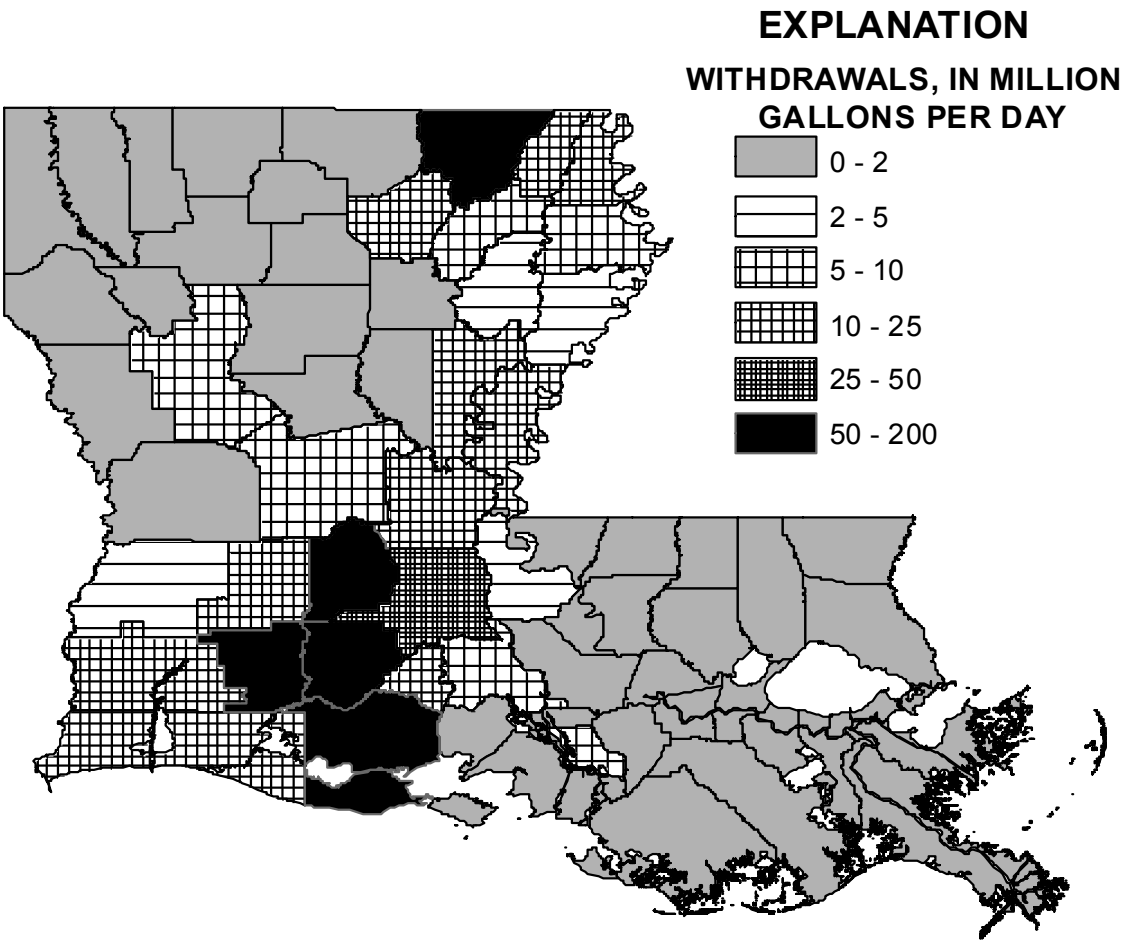


Figure 9. Rice-irrigation water withdrawals in Louisiana by parish, 2005.

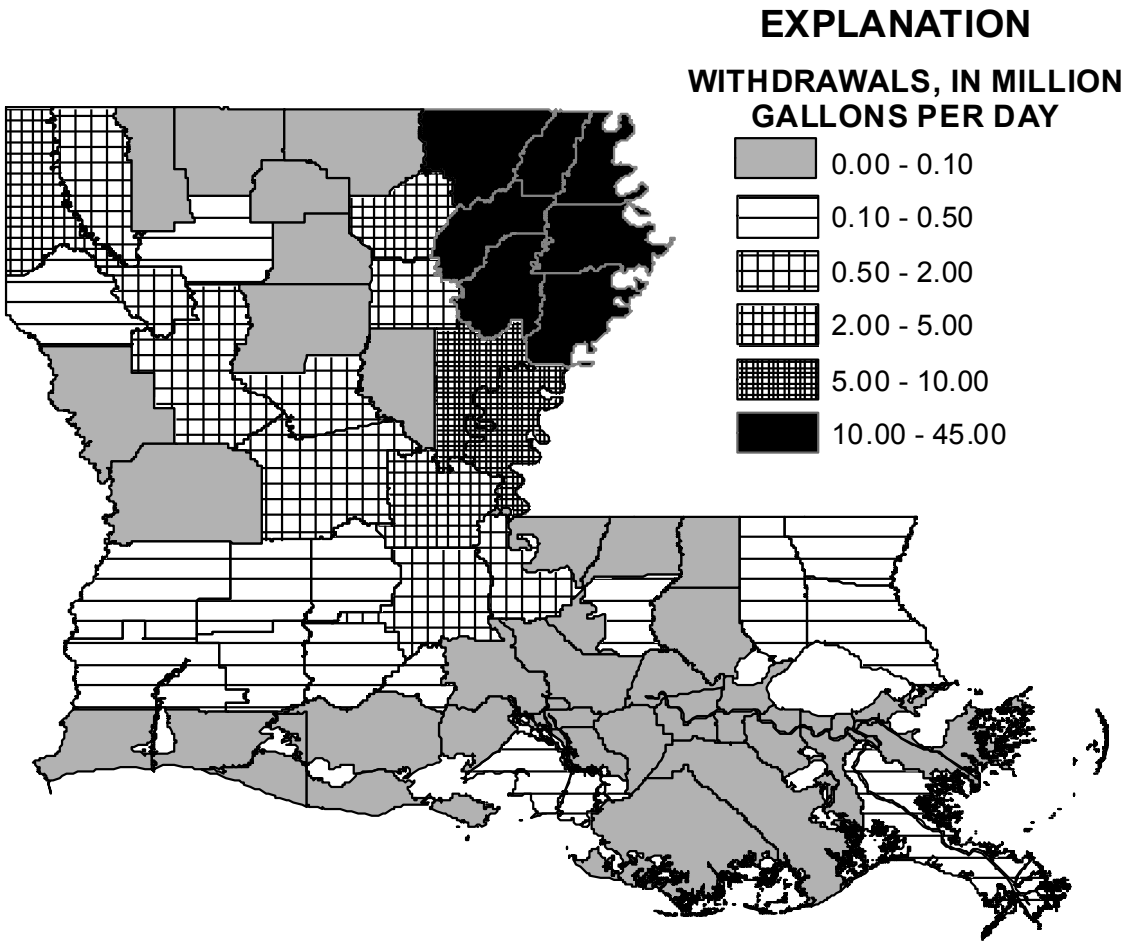


Figure 10. General-irrigation water withdrawals in Louisiana by parish, 2005.

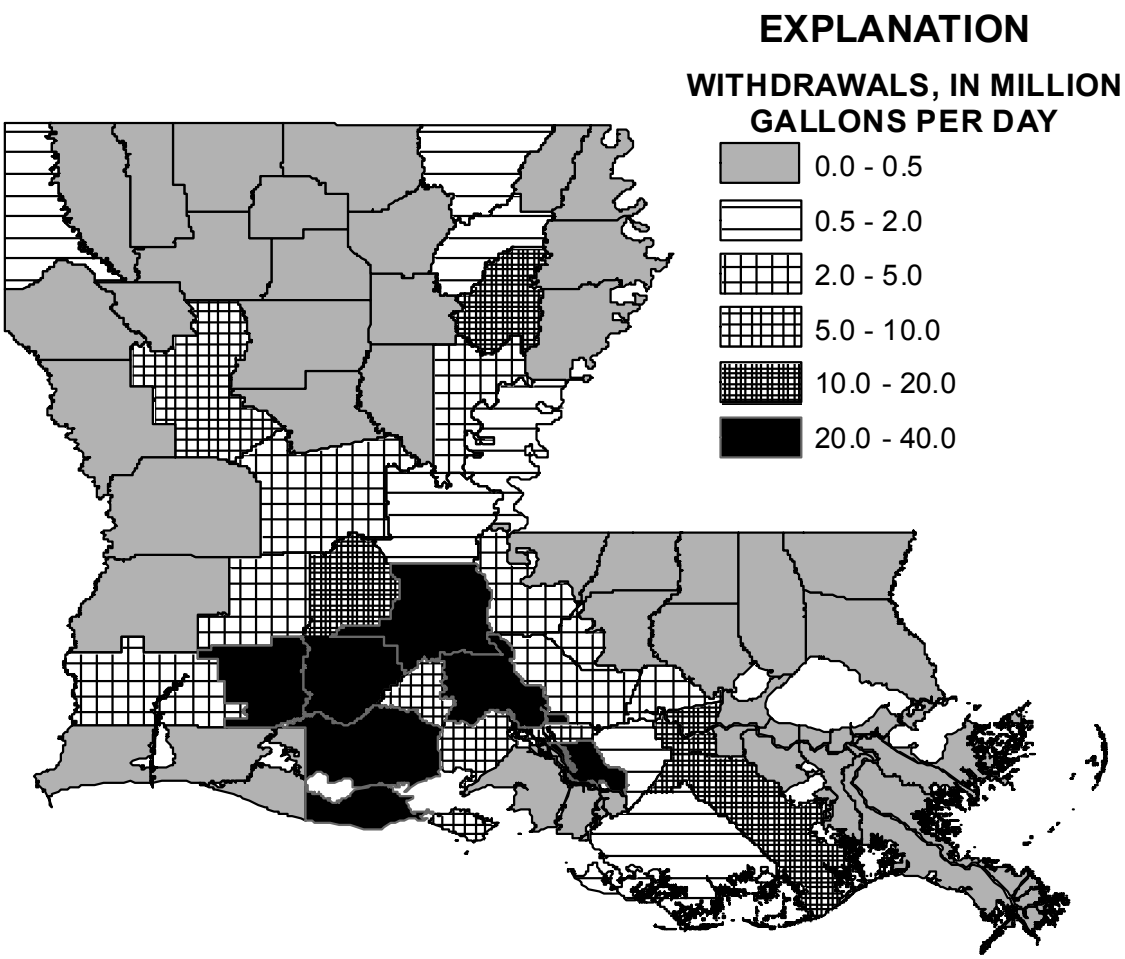


Figure 11. Aquaculture water withdrawals in Louisiana by parish, 2005.

WATER USE BY PARISH

The one-page summaries of water-use information by parish presented in this section of the report include tables of withdrawals by source of water (ground or surface) and the eight categories of use (public supply, industry, power generation, rural domestic, livestock, rice irrigation, general irrigation, and aquaculture). Totals are shown by source and water-use category, and in addition, a total of all water use for the parish is shown. The one-page parish summary also lists the major public suppliers and the major industrial groups. At the top of the parish page the population, population served by public supply, per capita withdrawals, total irrigated acreage, and the amount of hydroelectric instream use for the parish are shown. 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.

Each summary page contains a bar chart that shows water-use trends since 1960 for the parish. The data were compiled from previous 5-year water-use reports. The bar charts are presented without interpretation.

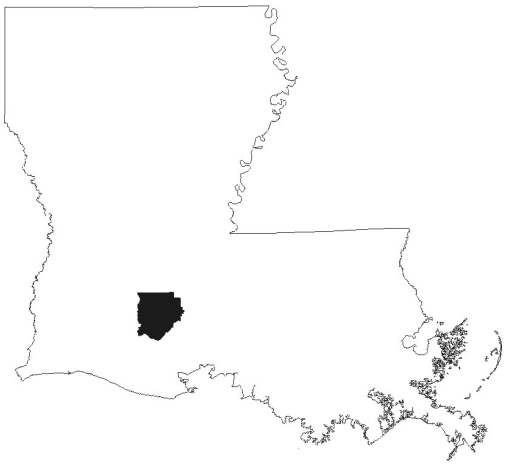
The table of withdrawals by major public suppliers lists facilities in alphabetical order. For the purposes of this table, public suppliers were included only if the withdrawal was greater than or equal to 0.01 Mgal/d. Therefore, totaled withdrawals from this table may be less than the totals for public 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 as minor public suppliers and are not listed in the table of major public suppliers. If there are many small public suppliers, the difference between the total withdrawals for major public suppliers and the total public-supply withdrawals would be the total withdrawals from the small public suppliers.

The table of major industrial groups lists withdrawals for ground-water and surface-water sources. For the purposes of this table, a withdrawal was included only if the amount 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 there are many small industries, the difference between the total withdrawals for major industrial groups and total industrial withdrawals would be due to withdrawals from small industries.

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.

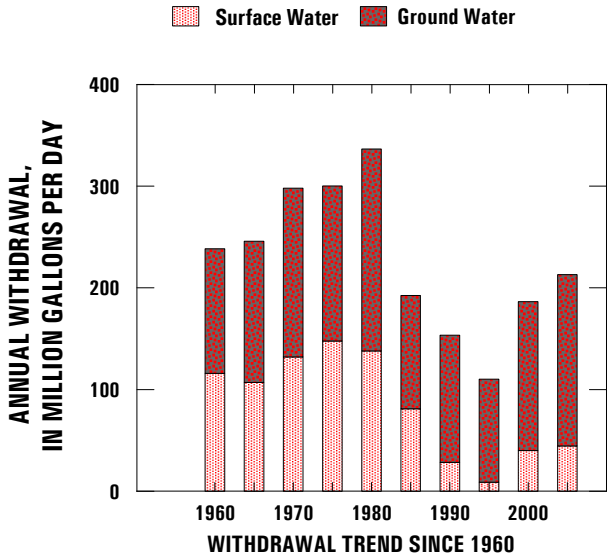
ACADIA

Population: 59,168
Population served by public supply: 42,778
Per capita withdrawals (gal/d): 3,601
Acres irrigated: 83,513
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	6.04	0.00	6.04
Industrial	.01	.00	.01
Power generation	.00	.00	.00
Rural domestic	1.31	.00	1.31
Livestock	.12	.01	.13
Rice irrigation	130.47	36.05	166.52
General irrigation	.14	.14	.28
Aquaculture	30.37	8.38	38.75
TOTAL	168.47	44.58	213.04



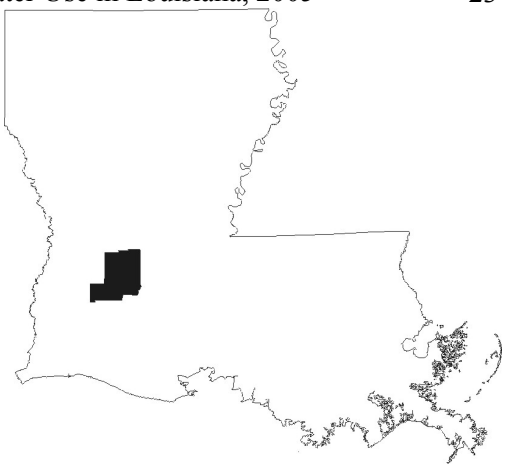
Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
13	Oil and gas extraction	0.01	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Church Point Water System	0.53	
Crowley Water System	2.27	
Egan Water Corp.	.13	
Estherwood Water System	.07	
Iota Water System	.32	
Mermentau Water System	.05	
Mire-Branch Water Corp.	.55	
Morse Water System	.15	
North of Crowley Water Corp.	.22	
Rayne Water Supply	1.00	
South Rayne Water Corp.	.16	

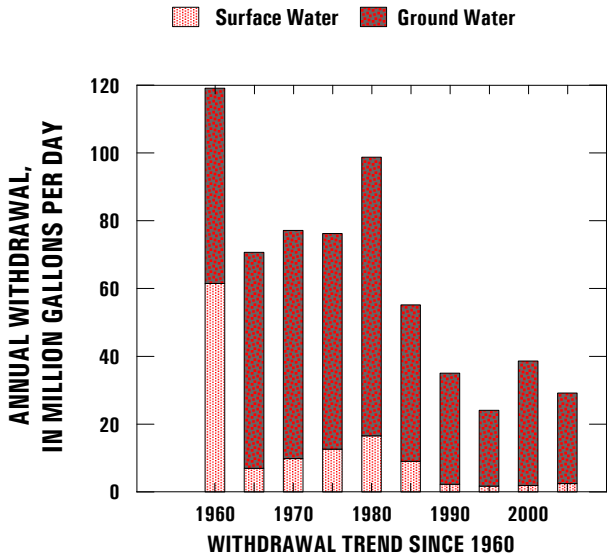
ALLEN



Population: 25,407
Population served by public supply: 22,257
Per capita withdrawals (gal/d): 1,150
Acres irrigated: 18,539
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	3.71	0.00	3.71
Industrial	.07	.00	.07
Power generation	.00	.00	.00
Rural domestic	.25	.00	.25
Livestock	.06	.02	.08
Rice irrigation	19.51	2.23	21.74
General irrigation	.20	.00	.20
Aquaculture	2.95	.21	3.15
TOTAL	26.75	2.45	29.20



Withdrawals by Major Industrial Group (Mgal/d)

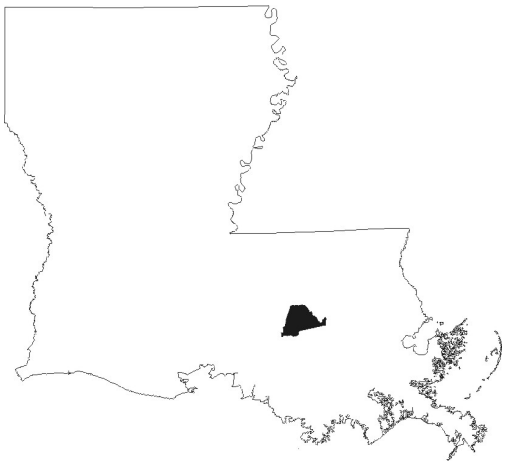
Standard Industrial Classification		GW	SW
26	Paper products	0.07	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Allen Water Dist. 1	0.13	
East Allen Water Dist.	.35	
Elizabeth Water System	.06	
Fairview Water System	.10	
Kinder Water System	.36	
Oakdale Water System	.99	
Oberlin Water System	.16	
S. W. Allen Water Works Dist. 2	1.22	
South Oakdale Water System	.10	
West Allen Water Dist.	.26	

ASCENSION

Population: 87,164
Population served by public supply: 46,023
Per capita withdrawals (gal/d): 2,317
Acres irrigated: 200
Hydroelectric power instream use (Mgal/d): 0



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

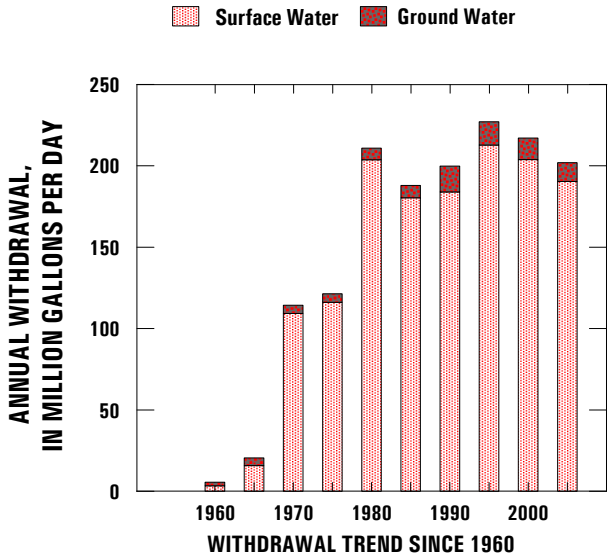
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.64	1.53	4.17
Industrial	3.04	188.77	191.82
Power generation	.00	.00	.00
Rural domestic	3.29	.00	3.29
Livestock	.11	.03	.14
Rice irrigation	.00	.00	.00
General irrigation	.04	.00	.04
Aquaculture	2.52	.00	2.52
TOTAL	11.65	190.33	201.98

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	0.02	
24	Lumber	.01	
28	Chemicals	2.94	188.77
29	Petroleum refining	.04	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Diversion Water Co.	0.08	
Gonzales Water System	1.36	
Parish Water Company	1.04	
People's Water Service		1.53



ASSUMPTION

Population: 23,234
Population served by public supply: 22,862
Per capita withdrawals (gal/d): 850
Acres irrigated: 600
Hydroelectric power instream use (Mgal/d): 0

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

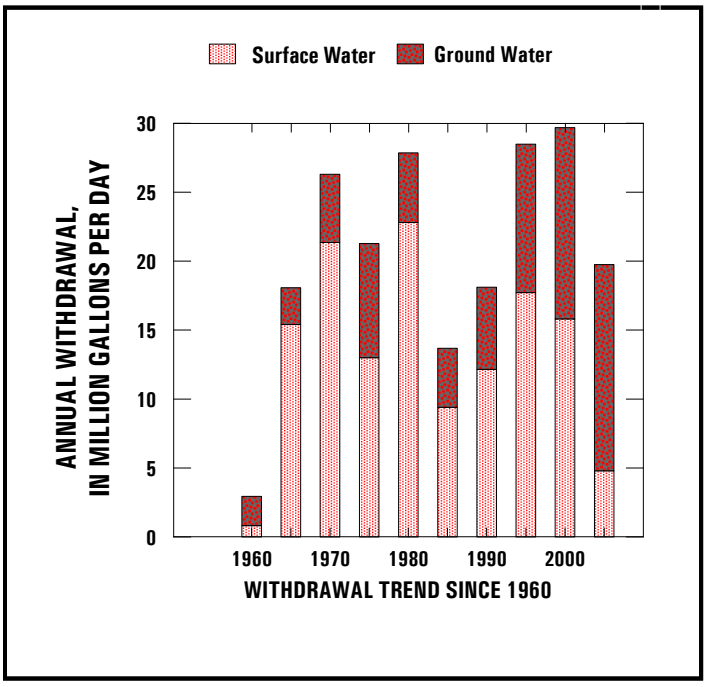
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	3.26	3.26
Industrial	14.14	1.52	15.67
Power generation	.00	.00	.00
Rural domestic	.18	.00	.18
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.63	.00	.63
TOTAL	14.96	4.79	19.75

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products		1.52
28	Chemicals	14.11	

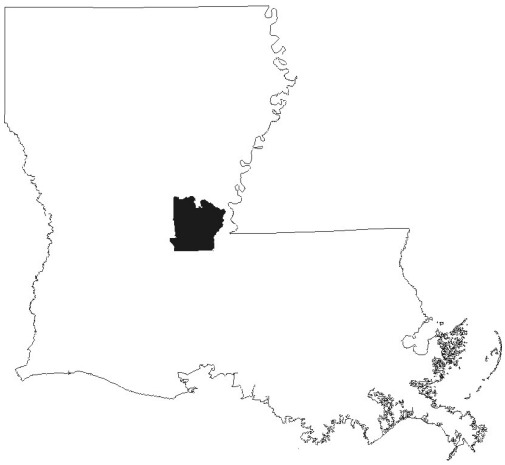
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Assumption W. W. Dist. 1		3.26



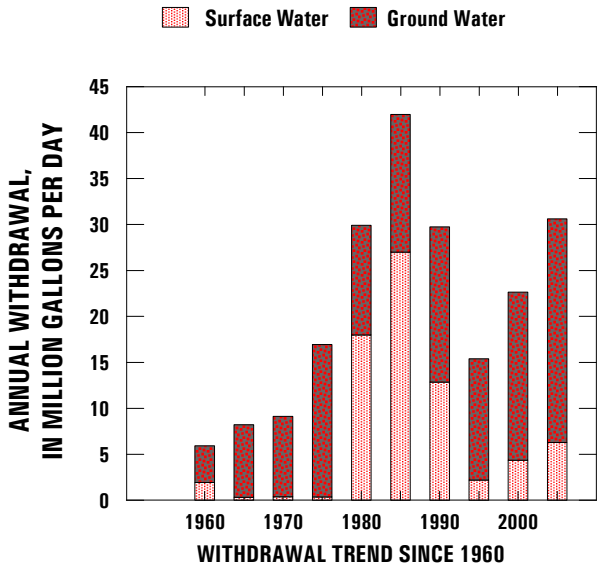
AVOYELLES

Population: 41,981
Population served by public supply: 39,672
Per capita withdrawals (gal/d): 728
Acres irrigated: 21,206
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	4.60	0.00	4.60
Industrial	.02	.00	.02
Power generation	.00	.00	.00
Rural domestic	.22	.00	.22
Livestock	.21	.00	.21
Rice irrigation	16.45	5.48	21.93
General irrigation	2.22	.55	2.77
Aquaculture	.61	.21	.82
TOTAL	24.33	6.24	30.57



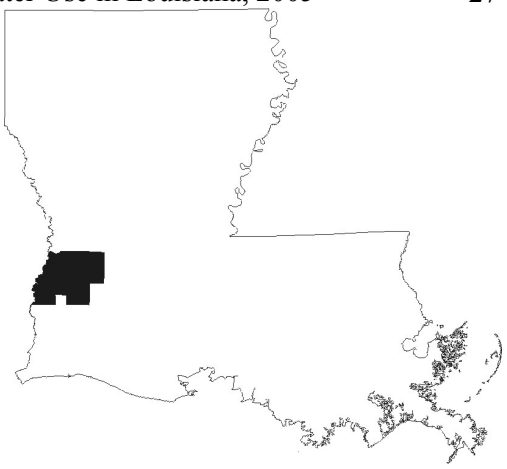
Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
24 Lumber	0.02	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Avoyelles Ward 3 W.W. Dist	0.15	
Brouillette Water System	.22	
Cottonport Water System	1.00	
Evergreen Water System	.13	
Fifth Ward Water System	.33	
Hessmer Water System	.62	
Mansura Water System	.31	
Marksville Water System	.82	
Moreauville Water System	.16	
Morrow Water System Inc.	.19	
Plaucheville Water System	.18	
Simmesport Water System	.08	
Southwest Avoyelles W. W.	.09	
Ward 1 Water System - Effie	.35	

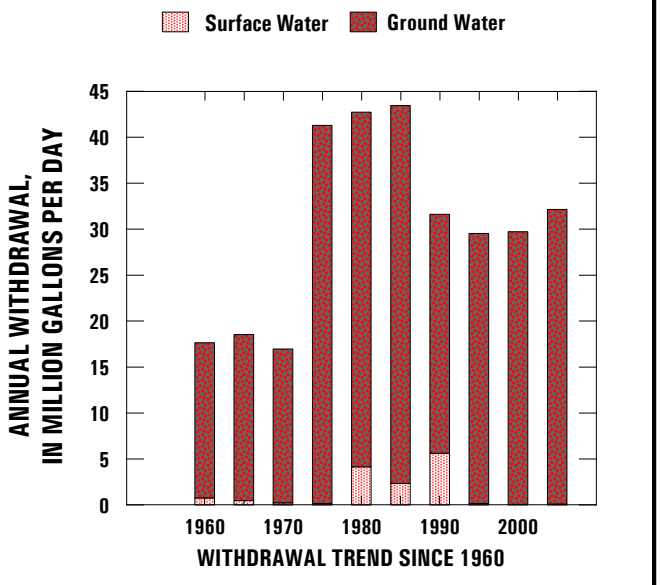
BEAUREGARD



Population: 34,094
Population served by public supply: 24,514
Per capita withdrawals (gal/d): 896
Acres irrigated: 2,687
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	3.73	0.00	3.73
Industrial	22.01	.00	22.01
Power generation	.00	.00	.00
Rural domestic	.77	.00	.77
Livestock	.08	.06	.14
Rice irrigation	3.23	.00	3.23
General irrigation	.40	.04	.45
Aquaculture	.23	.00	.23
TOTAL	30.45	0.10	30.55



Withdrawals by Major Industrial Group (Mgal/d)

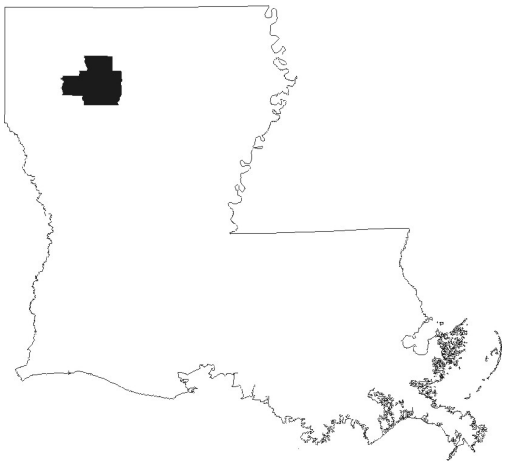
Standard Industrial Classification		GW	SW
26	Paper products	21.56	
28	Chemicals	.45	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Beauregard Dist. 2 Ward 5	0.49	
DeRidder Water System	1.59	
Green Acres Water & Sewer	.07	
Merryville Water System	.32	
S. Beauregard W. W. Dist. 3	1.23	
S. Merryville Water System	.03	

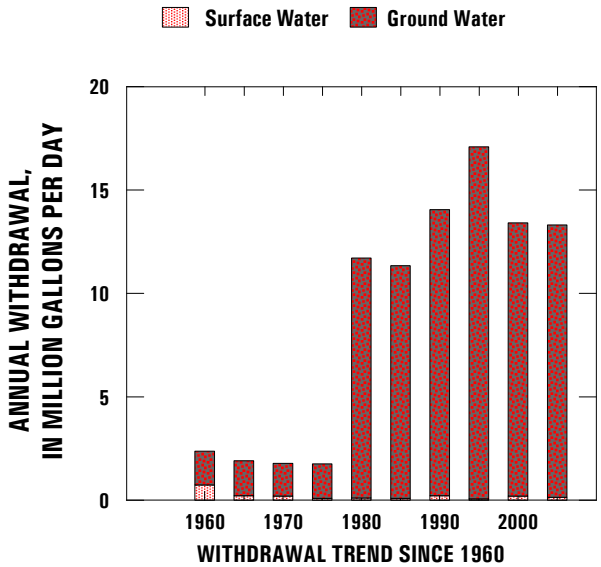
BIENVILLE

Population: 15,361
Population served by public supply: 10,922
Per capita withdrawals (gal/d): 866
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.94	0.00	1.94
Industrial	10.84	.00	10.84
Power generation	.00	.00	.00
Rural domestic	.36	.00	.36
Livestock	.04	.02	.06
Rice irrigation	.00	.00	.00
General irrigation	.00	.12	.12
Aquaculture	.00	.00	.00
TOTAL	13.17	0.14	13.31



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
15	Building Construction	0.42	
20	Food products	.01	
26	Paper products	.01	

Withdrawals by Major Public Supplier (Mgal/d)

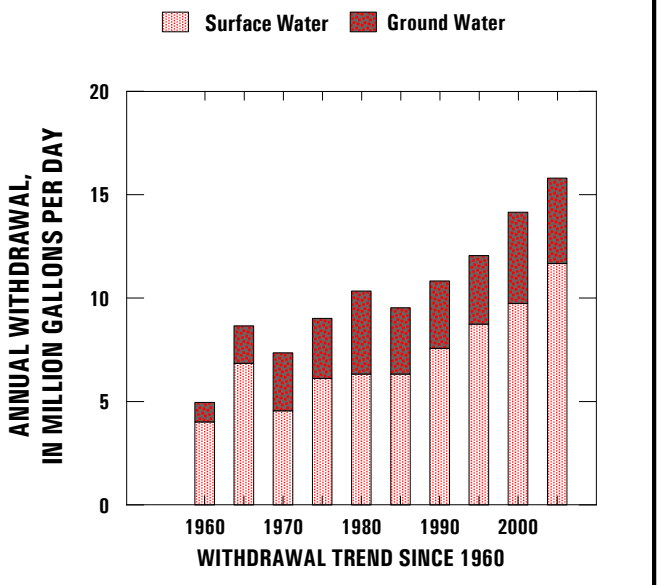
Public Supplier	GW	SW
Alabama Water System	0.06	
Alberta Water System	.20	
Arcadia Water System	.46	
Bryceland Water System	.03	
Castor Water System	.24	
Cypress Water System	.06	
Friendship Water System	.07	
Gibsland Water System	.22	
Jamestown-Fryeburg W. S.	.03	
Lucky Water System	.02	
Mt. Calm Water System	.03	
Mt. Lebanon Water System	.01	
Mt. Olive Water System	.04	
Old Saline Comm. W. S.	.03	
Ringgold Water System	.21	
S. E. Bienville Water System	.01	
Saline Water System	.04	
Social Springs Water System	.04	
Springhill Community W. S.	.09	
Taylor Water System	.04	

BOSSIER

Population: 104,080
Population served by public supply: 88,052
Per capita withdrawals (gal/d): 152
Acres irrigated: 2,145
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.73	10.67	12.40
Industrial	.42	.02	.44
Power generation	.00	.00	.00
Rural domestic	1.28	.00	1.28
Livestock	.07	.02	.09
Rice irrigation	.16	.00	.16
General irrigation	.24	.97	1.22
Aquaculture	.21	.00	.21
TOTAL	4.12	11.68	15.80



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
29	Petroleum refining	0.42	0.02

Withdrawals by Major Public Supplier (Mgal/d)

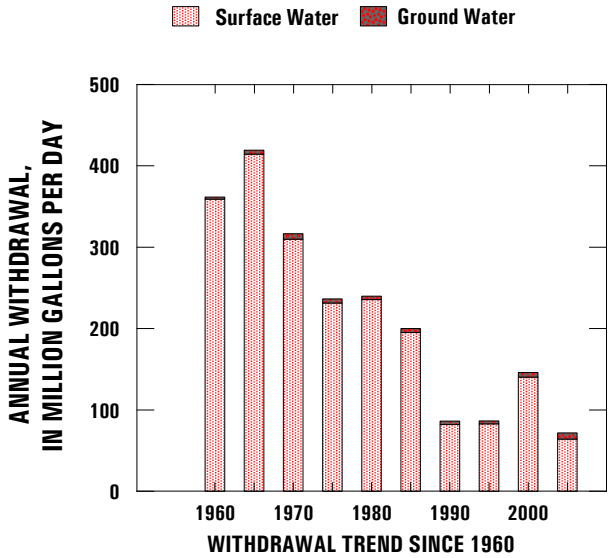
Public Supplier	GW	SW
Bellevue Water System	0.06	
Bodcau Comm. W. S.	.01	
Bossier City Water System		10.67
Central Bossier Water System	.07	
Evangeline Oaks W. S.	.01	
Haughton Water System	.18	
Plain Dealing Water System	.16	
Red Chute Utilities Co.	.26	
S. Bossier Water System	.11	
Sligo Water System, Inc.	.09	
St. Mary's Water System	.02	
Village Water System	.74	

CADDO

Population: 251,506
Population served by public supply: 231,134
Per capita withdrawals (gal/d): 290
Acres irrigated: 7,310
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.56	50.04	51.61
Industrial	.09	.04	.12
Power generation	.00	14.18	14.18
Rural domestic	1.63	.00	1.63
Livestock	.10	.16	.27
Rice irrigation	.00	.00	.00
General irrigation	2.94	.73	3.66
Aquaculture	1.39	.00	1.39
TOTAL	7.70	65.15	72.85



Withdrawals by Major Industrial Group (Mgal/d)

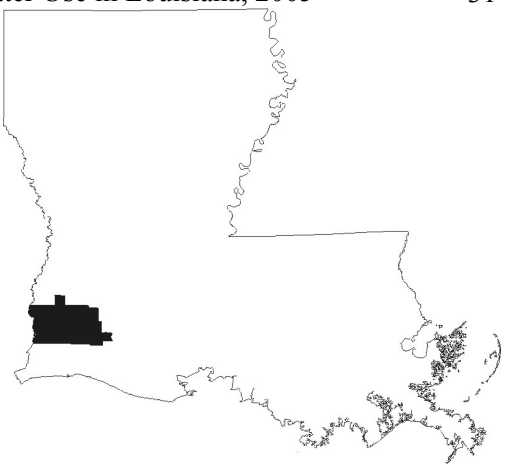
Standard Industrial Classification		GW	SW
29	Petroleum refining	0.09	0.04

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bel-Di-Gil Water System	0.13	
Blanchard Water System		0.70
Cypress Gardens Mar.	.01	
Deep Woods Utilities	.06	
Eagle Water Co.	.19	
East Cove Util. Water System		.03
East Mooringsport W. S.		.02
Four Forks Water System	.04	
Greenwood Water System	.02	.43
Hosston Mira Water System	.08	
Ida Water System	.02	
Keithville Water Works Dist. 7	.26	
Meadowwood Estates Utility	.01	
Mooringsport Water System	.11	.11
North Caddo Utilities Inc.	.03	
Oil City Water System (Dist. 1)		.26
Pine Hills Water Works	.24	
Rodessa Water System	.02	
Shreveport Water System		47.92
Southview Estates	.01	
Tyson Comm. Water System	.01	
Vivian Water System		.58
Wildwood S. Water System	.03	

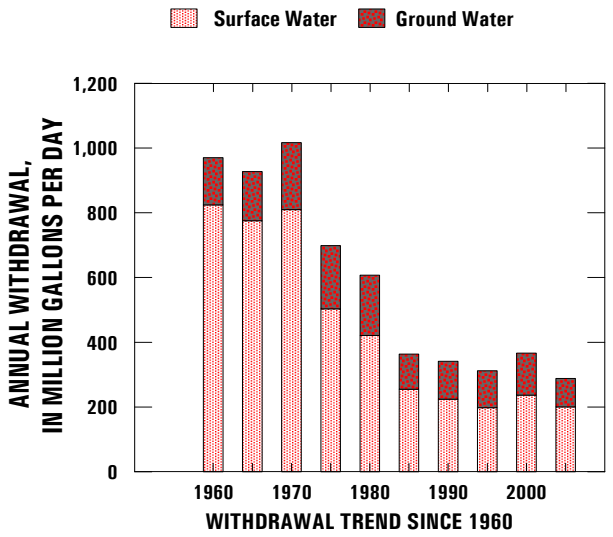
CALCASIEU

Population: 184,961
Population served by public supply: 157,587
Per capita withdrawals (gal/d): 1,582
Acres irrigated: 16,490
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	25.42	0.41	25.84
Industrial	43.63	180.24	223.87
Power generation	1.40	14.04	15.44
Rural domestic	2.19	.00	2.19
Livestock	.19	.28	.46
Rice irrigation	14.44	6.98	21.42
General irrigation	.18	.00	.18
Aquaculture	2.36	.79	3.15
TOTAL	89.80	202.75	292.56



Withdrawals by Major Industrial Group (Mgal/d)

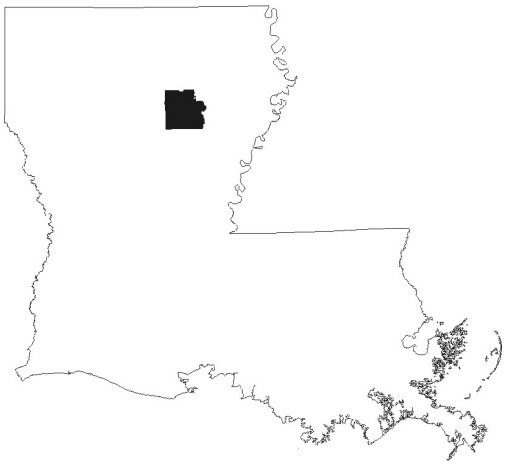
Standard Industrial Classification		GW	SW
13	Oil and gas extraction	0.02	
28	Chemicals	29.41	136.89
29	Petroleum refining	10.79	43.35
30	Rubber and plastics	1.36	
33	Primary metals	2.01	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bell City Water System	0.02	
Calcasieu W. W. Dist. 2	.22	
Calcasieu W. W. Dist. 4	.37	
Calcasieu W. W. Dist. 5	.67	
Calcasieu W. W. Dist. 7	.28	
Calcasieu W. W. Dist. 8	.54	
Calcasieu W. W. Dist. 9	1.05	
DeQuincy Water System	.49	
Gulfway Water Services	.01	
Hayes Water System	.25	
Houston River W. W. Dist. 11		0.41
Iowa Water System	.26	
Lake Charles Water System	12.80	
Lake Street Water Co.	.09	
Moss Bluff Water Dist. 1	2.18	
Oak Meadows Water Works	.03	
Starks Water And Gas	.04	
Sulphur Water System	3.66	
Util. Services of Lake Charles	.01	
Vinton Water System	.65	
Westlake Water System	1.06	

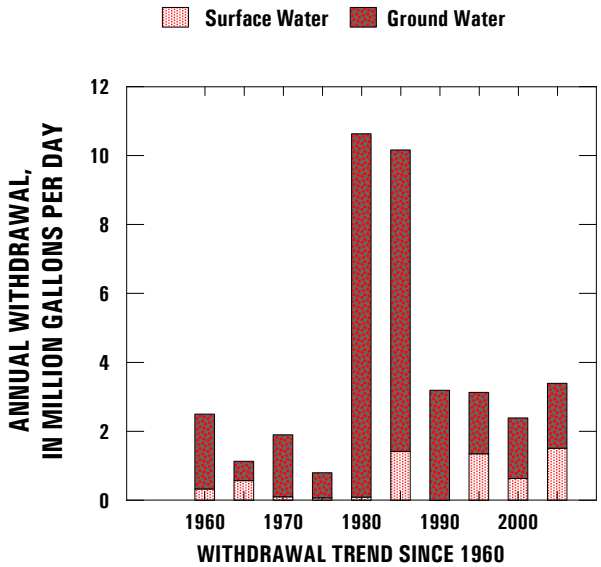
CALDWELL

Population: 10,837
Population served by public supply: 10,024
Per capita withdrawals (gal/d): 329
Acres irrigated: 4,505
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.97	0.00	1.97
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.07	.00	.07
Livestock	.02	.02	.05
Rice irrigation	.00	.00	.00
General irrigation	.00	1.49	1.49
Aquaculture	.00	.00	.00
TOTAL	2.06	1.51	3.57



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

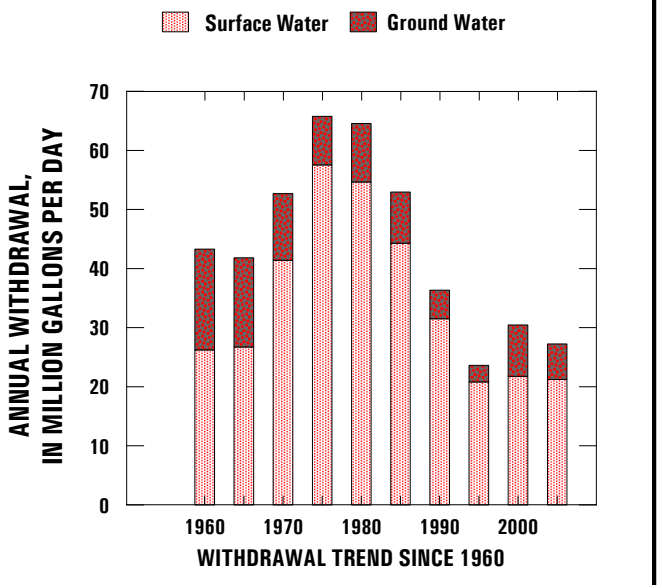
Public Supplier	GW	SW
Clarks Water System	0.10	
Columbia Heights Water Dist.	.28	
Columbia Water System	.08	
Cottonplant Water System	.05	
East Columbia Water Dist.	1.02	
Hebert Water System	.12	
Kelly Water System	.06	
Vixen Water System	.04	
Wards 4 & 5 Water System	.05	

CAMERON

Population: 9,681
Population served by public supply: 8,461
Per capita withdrawals (gal/d): 2,815
Acres irrigated: 13,161
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.09	0.00	2.09
Industrial	.62	4.66	5.28
Power generation	.00	.00	.00
Rural domestic	.10	.00	.10
Livestock	.10	.29	.38
Rice irrigation	3.11	16.26	19.37
General irrigation	.00	.01	.01
Aquaculture	.00	.01	.01
TOTAL	6.02	21.22	27.23



Withdrawals by Major Industrial Group (Mgal/d)

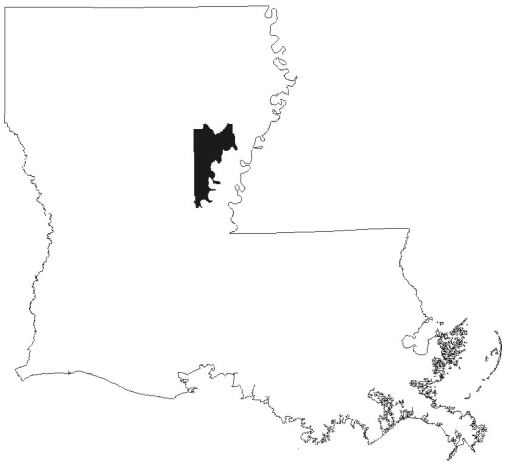
Standard Industrial Classification		GW	SW
13	Oil and gas extraction	0.05	0.12
20	Food products	.07	.52
29	Petroleum refining		4.01

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Cameron W. W. Dist. 11	0.37	
Cameron W. W. Dist. 9	.25	
Cameron W.W. Dist. 1	.80	
Cameron W.W. Dist. 2	.33	
Cameron W.W. Dist. 7	.06	
Holly Beach Water Works	.28	

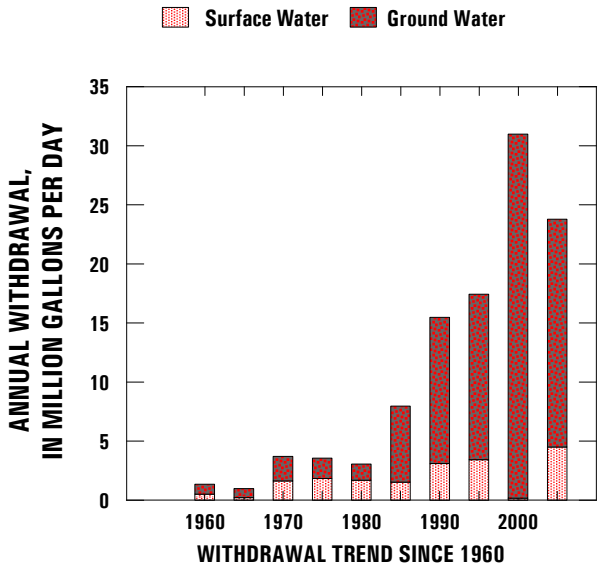
CATAHOULA

Population: 10,627
Population served by public supply: 9,320
Per capita withdrawals (gal/d): 2,238
Acres irrigated: 24,249
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.09	0.00	1.09
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.10	.00	.10
Livestock	.02	.04	.06
Rice irrigation	10.74	.00	10.74
General irrigation	4.46	4.46	8.92
Aquaculture	2.87	.00	2.87
TOTAL	19.28	4.50	23.78



Withdrawals by Major Industrial Group (Mgal/d)

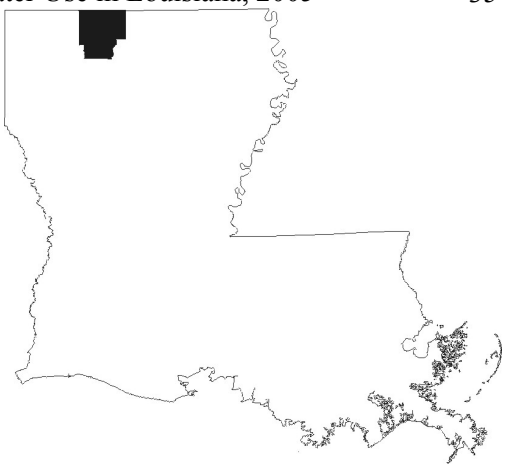
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Black River Water System	0.24	
Enterprise W. W. Dist. 1	.03	
Harrisonburg Water System	.07	
Jonesville Water System	.31	
Leland Water System	.01	
Maitland W. W. District	.04	
Manifest-Rhinehart W. S.	.15	
S. Bayou Macon W. S.	.07	
Sandy Lake Water System	.09	
Sicily Island Water System	.05	
Whitehall Water System	.03	

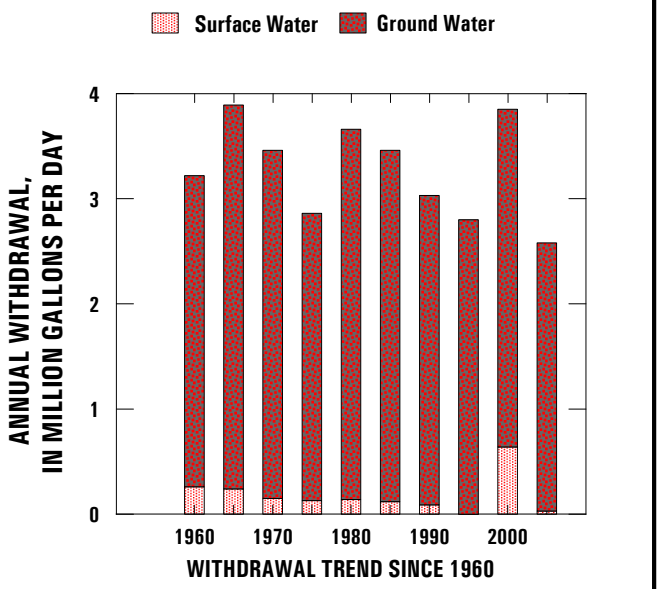
CLAIBORNE

Population: 16,471
Population served by public supply: 14,396
Per capita withdrawals (gal/d): 157
Acres irrigated: 10
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.28	0.00	2.28
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.17	.00	.17
Livestock	.02	.03	.04
Rice irrigation	.00	.00	.00
General irrigation	.09	.00	.09
Aquaculture	.00	.00	.00
TOTAL	2.55	0.03	2.57



Withdrawals by Major Industrial Group (Mgal/d)

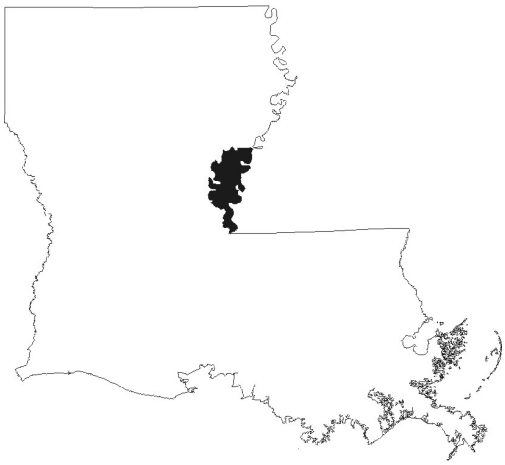
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Athens Water System	0.05	
Central Claiborne W. S.	.26	
Claiborne Ward 9 W. S.	.03	
Haynesville Water System	.40	
Homer Water System	.36	
Junction City Water System	.04	
Leatherman Creek W. S.	.03	
Lisbon Water System	.05	
Middle Fork Water System	.03	
Norton Shop Water System	.01	
Pine Hill Water System	.08	
South Claiborne W. S.	.40	
Summerfield Water System	.11	

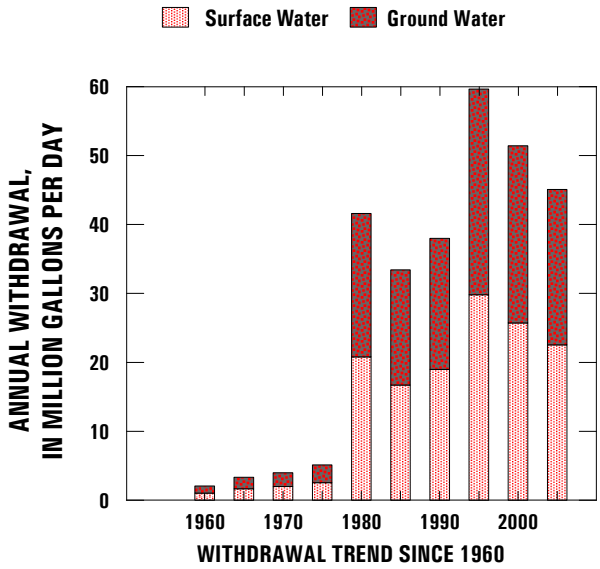
CONCORDIA

Population: 19,724
Population served by public supply: 18,955
Per capita withdrawals (gal/d): 2,272
Acres irrigated: 36,476
Hydroelectric power instream use (Mgal/d): 74,000



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.75	1.50	3.25
Industrial	.00	.00	.00
Power generation	.00	8.26	8.26
Rural domestic	.06	.00	.06
Livestock	.07	.01	.08
Rice irrigation	10.90	10.90	21.81
General irrigation	8.60	.96	9.55
Aquaculture	1.16	.64	1.80
TOTAL	22.54	22.27	44.81



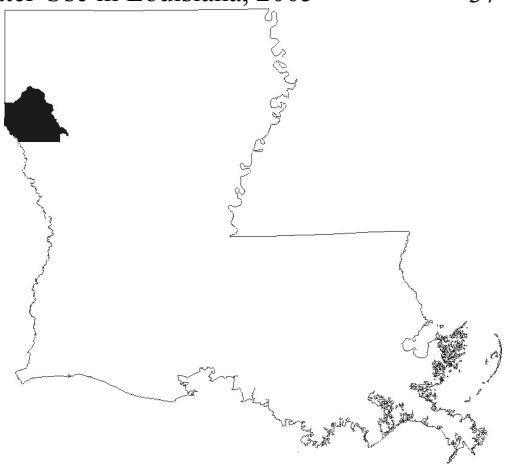
Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Clayton Water System	0.05	
Concordia W. W. Dist. 1	.61	
Ferriday Water System		1.50
Lake St. John Water Dist.	.08	
Monterey Rural Water System	.24	
Ridgecrest Water System	.05	
Vidalia Water System	.71	

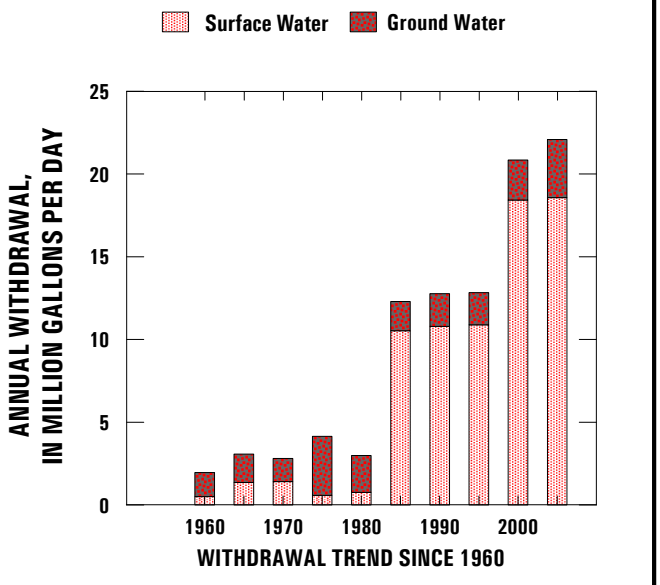
DESOTO



Population: 26,231
Population served by public supply: 18,519
Per capita withdrawals (gal/d): 842
Acres irrigated: 200
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.34	1.64	2.97
Industrial	1.34	16.70	18.05
Power generation	.00	.00	.00
Rural domestic	.62	.00	.62
Livestock	.18	.06	.24
Rice irrigation	.00	.00	.00
General irrigation	.02	.17	.19
Aquaculture	.03	.00	.03
TOTAL	3.52	18.57	22.09



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
12	Coal and lignite mining	1.24	
26	Paper products	.10	16.70

Withdrawals by Major Public Supplier (Mgal/d)

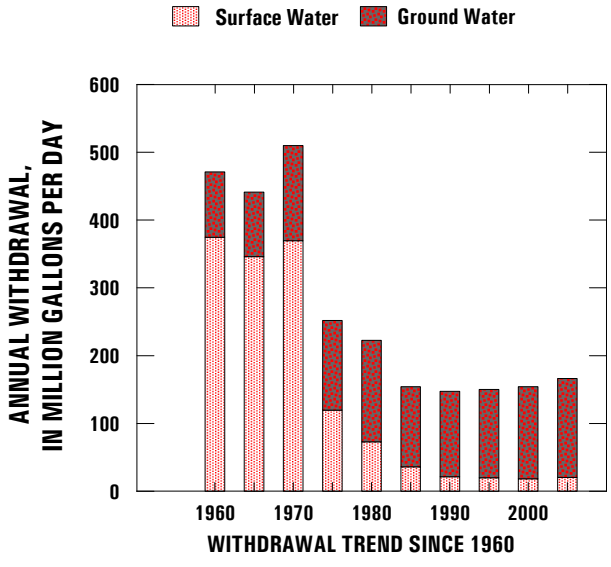
Public Supplier	GW	SW
Bayou Pierre Water System	0.11	
East DeSoto Water System	.11	
Grand Cane Water System	.05	
Keatchie Water System	.26	
Logansport Water System		0.64
Mansfield Water System	.14	.99
North DeSoto Water System	.26	
Rambin-Wallace W. S.	.09	
Ricks Well Water Service	.01	
South DeSoto Water System	.04	
South Mansfield Water System	.22	
Stanley Water System	.02	

EAST BATON ROUGE

Population: 412,633
Population served by public supply: 409,332
Per capita withdrawals (gal/d): 403
Acres irrigated: 255
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	67.03	0.00	67.03
Industrial	70.69	20.41	91.10
Power generation	7.32	.00	7.32
Rural domestic	.26	.00	.26
Livestock	.16	.01	.17
Rice irrigation	.00	.00	.00
General irrigation	.43	.00	.43
Aquaculture	.02	.00	.02
TOTAL	145.91	20.42	166.34



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	0.22	
26	Paper products	36.65	
28	Chemicals	21.73	
29	Petroleum refining	11.52	20.41
30	Rubber and plastics	.17	
33	Primary metals	.19	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Baker Utilities	2.45	
Baton Rouge Water Company	47.36	
Bellingrath Water Co., Inc.	.23	
Parish Water Company	13.55	
Red Oak Water Company	.26	
Slaughter Water System	.03	
Zachary Water System	2.16	

EAST CARROLL

Population: 8,954
Population served by public supply: 8,739
Per capita withdrawals (gal/d): 5,040
Acres irrigated: 59,331
Hydroelectric power instream use (Mgal/d): 0

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

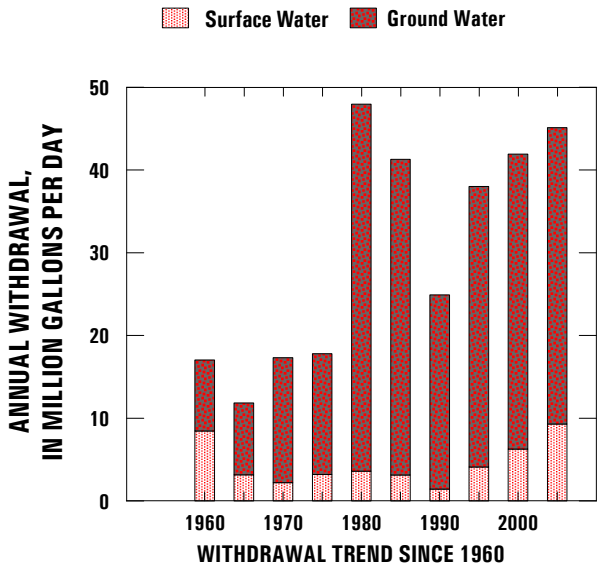
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.42	0.00	1.42
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.02	.00	.02
Livestock	.00	.01	.01
Rice irrigation	17.67	5.19	22.86
General irrigation	16.28	4.07	20.34
Aquaculture	.46	.02	.48
TOTAL	35.84	9.29	45.13

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

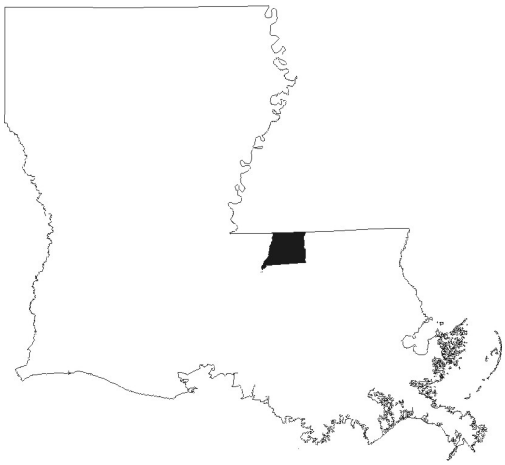
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
E. Carroll W. S. South	0.27	
Lake Providence W. S.	1.15	



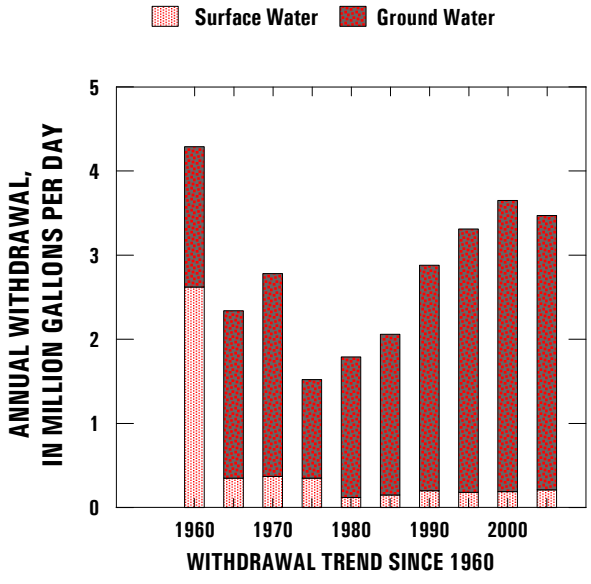
EAST FELICIANA

Population: 20,950
Population served by public supply: 17,661
Per capita withdrawals (gal/d): 165
Acres irrigated: 20
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.84	0.00	2.84
Industrial	.07	.00	.07
Power generation	.00	.00	.00
Rural domestic	.26	.00	.26
Livestock	.02	.18	.21
Rice irrigation	.00	.00	.00
General irrigation	.07	.02	.09
Aquaculture	.00	.00	.00
TOTAL	3.26	0.21	3.46



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

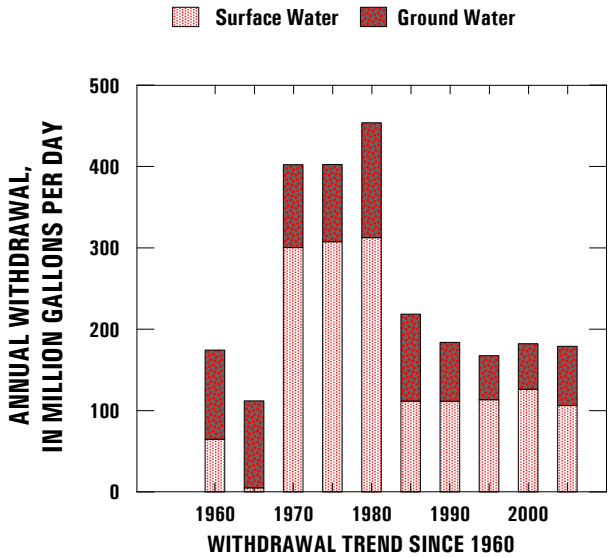
Public Supplier	GW	SW
Clinton Water System	0.27	
East Feliciana Rural W. S.	1.27	
E. Feliciana Water District 1	.05	
E. Feliciana Water District 7	.15	
Jackson Water System	.21	
Norwood Water System	.05	
Plantation Utility Company	.09	
Slaughter Water System	.13	

EVANGELINE

Population: 35,451
Population served by public supply: 31,055
Per capita withdrawals (gal/d): 5,049
Acres irrigated: 49,373
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	5.29	0.00	5.29
Industrial	1.25	.00	1.25
Power generation	.00	96.03	96.03
Rural domestic	.35	.00	.35
Livestock	.14	.05	.19
Rice irrigation	48.43	7.14	55.57
General irrigation	.42	.05	.46
Aquaculture	16.89	2.95	19.83
TOTAL	72.77	106.21	178.97



Withdrawals by Major Industrial Group (Mgal/d)

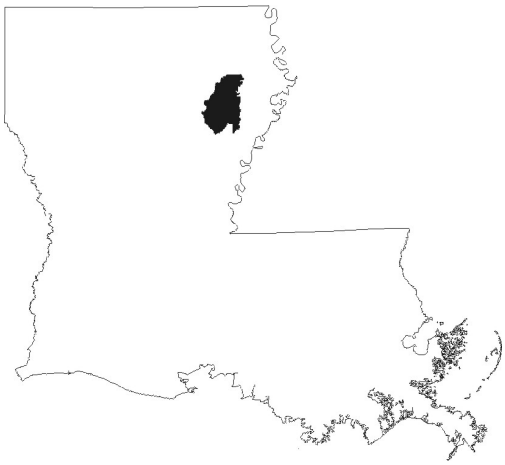
Standard Industrial Classification		GW	SW
28	Chemicals	1.16	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bayou Des Cannes W. S.	0.59	
Chataignier Water System	.03	
East Side Water System	.34	
Evangeline Parish - Ward 4	.12	
Evangeline Water Dist. 1	.29	
Mamou Road Water Dist.	.15	
Mamou Water System	.99	
Point Blue Water System	.12	
Reddell-Vidrine Water Dist.	.19	
Savoy-Swords Water System	.43	
Te Mamou Water Dist.	.26	
Turkey Creek Water System	.32	
Ville Platte Water System	1.46	

FRANKLIN

Population: 20,812
Population served by public supply: 12,737
Per capita withdrawals (gal/d): 2,464
Acres irrigated: 70,602
Hydroelectric power instream use (Mgal/d): 0



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

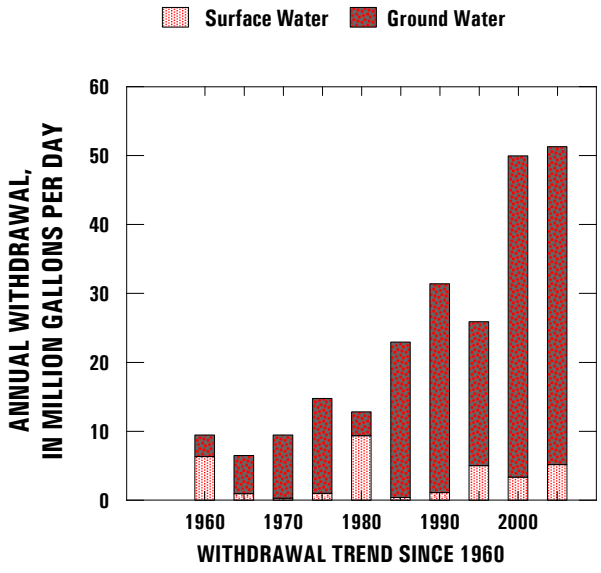
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.08	0.00	2.08
Industrial	.75	.00	.75
Power generation	.00	.00	.00
Rural domestic	.65	.00	.65
Livestock	.14	.00	.14
Rice irrigation	.42	1.66	2.08
General irrigation	30.46	3.38	33.85
Aquaculture	11.63	.13	11.77
TOTAL	46.12	5.18	51.31

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	0.75	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
N. Franklin Water Works	0.65	
Turkey Creek Water System	.07	
W. Winnsboro Water System	.24	
Winnsboro Water System	1.01	
Wisner Water System	.11	



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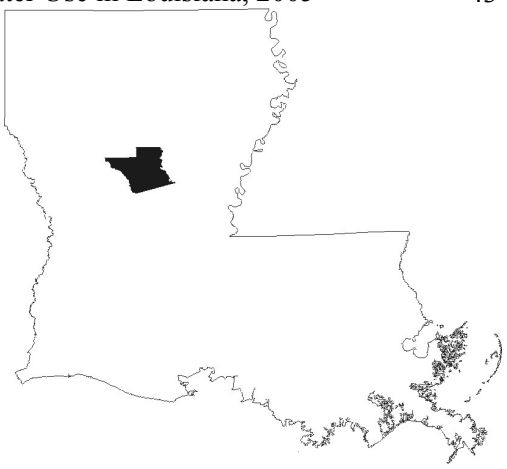
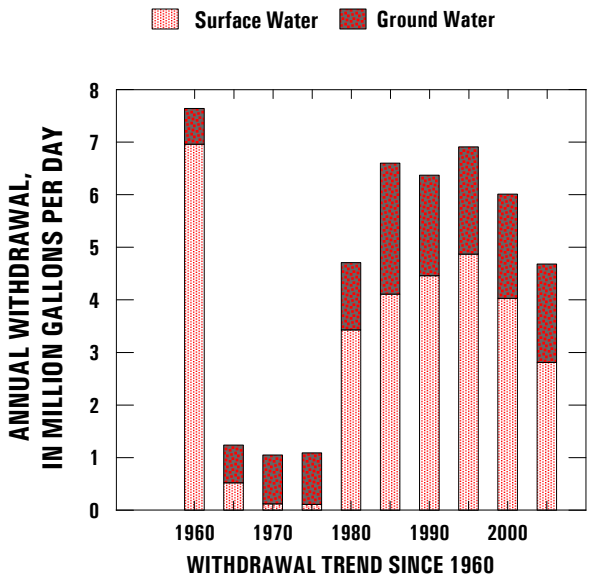


Population: 19,139
Population served by public supply: 16,345
Per capita withdrawals (gal/d): 244
Acres irrigated: 1,165
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.56	2.04	3.6
Industrial	.07	.00	.07
Power generation	.00	.00	.00
Rural domestic	.22	.00	.22
Livestock	.02	.03	.06
Rice irrigation	.00	.00	.00
General irrigation	.00	.73	.73
Aquaculture	.00	.00	.00
TOTAL	1.87	2.81	4.68



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
24	Lumber	0.07	

Withdrawals by Major Public Supplier (Mgal/d)

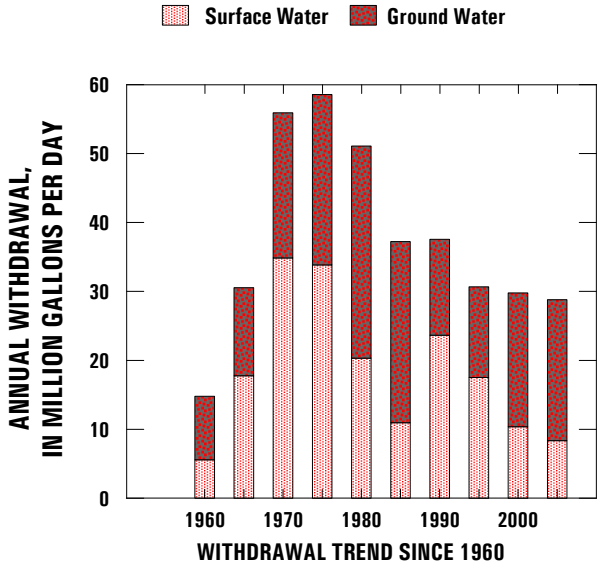
Public Supplier	GW	SW
Central Grant W. S.	0.12	
Colfax Water System	.40	
Dry Prong Water System	.06	
Georgetown Water System		0.01
Grant Parish Zone 2 W. S.	.10	
Jordan Hill\Red Hill W. W.	.05	
Montgomery Water System	.01	
Pollock Area Water System	.23	
Pollock Water System	.04	
Rapides Water Works Dist. 3		2.03
South Grant Water Corp.	.30	
S. E. Grant Water System	.02	
West Grant Water Assoc.	.23	

IBERIA

Population: 74,449
Population served by public supply: 59,857
Per capita withdrawals (gal/d): 387
Acres irrigated: 2,197
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	9.90	0.00	9.90
Industrial	2.79	5.45	8.24
Power generation	.00	.00	.00
Rural domestic	1.17	.00	1.17
Livestock	.03	.01	.03
Rice irrigation	.16	1.32	1.48
General irrigation	.09	.00	.09
Aquaculture	6.31	1.58	7.88
TOTAL	20.44	8.35	28.79



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	0.64	0.38
28	Chemicals	2.15	5.07

Withdrawals by Major Public Supplier (Mgal/d)

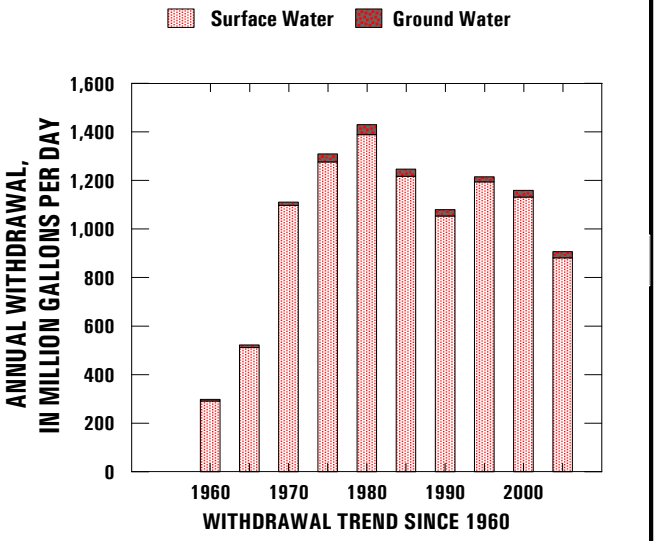
Public Supplier	GW	SW
Bayou Teche Water Works	1.37	
Coteau Water System	.52	
Jeanerette Water System	1.33	
Loreauville Water System	.12	
New Iberia Water System	6.46	
Patoutville Village W. S.	.05	

IBERVILLE

Population: 32,497
Population served by public supply: 30,612
Per capita withdrawals (gal/d): 27,891
Acres irrigated: 1,200
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.11	1.04	3.15
Industrial	18.17	516.92	535.09
Power generation	.49	363.01	363.50
Rural domestic	.15	.00	.15
Livestock	.05	.02	.07
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	4.42	.00	4.42
TOTAL	25.39	880.99	906.37



Withdrawals by Major Industrial Group (Mgal/d)

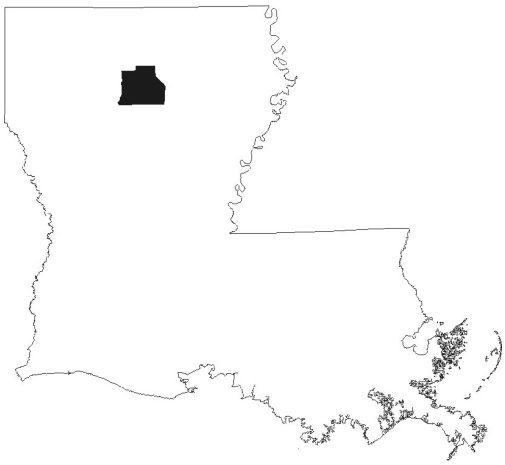
Standard Industrial Classification		GW	SW
13	Oil and gas extraction		0.36
20	Food products	5.20	
28	Chemicals	12.97	516.56

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Iberville W. W. Dist. 3	0.37	1.04
Iberville W. W. Dist. 4	.28	
Maringouin Water System	1.18	
Rosedale Water System	.07	
White Castle Water System	.19	

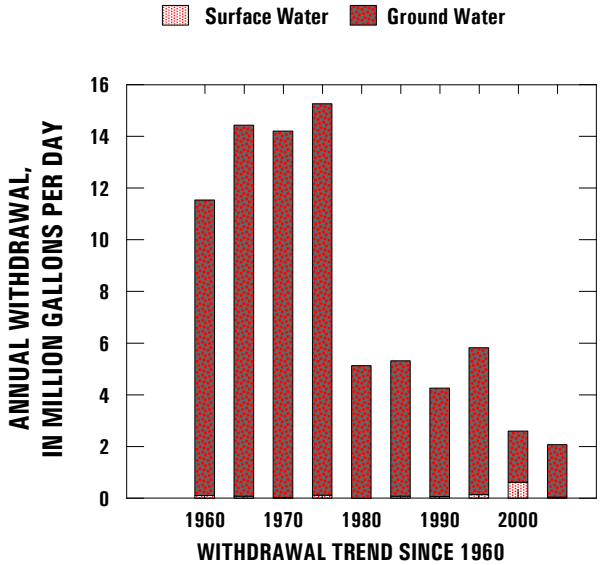
JACKSON

Population: 15,278
Population served by public supply: 13,460
Per capita withdrawals (gal/d): 135
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.85	0.00	1.85
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.15	.00	.15
Livestock	.00	.04	.05
Rice irrigation	.00	.00	.00
General irrigation	.04	.00	.04
Aquaculture	.00	.00	.00
TOTAL	2.03	0.04	2.07



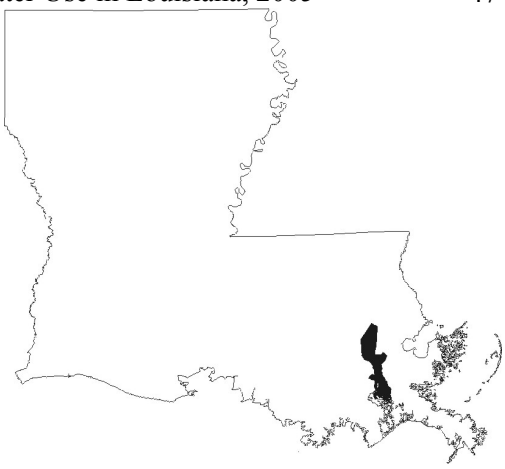
Withdrawals by Major Industrial Group (Mgal/d)

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	
East Hodge Water System	.04	
Ebeneezer Water System	.03	
Eros Community W. S.	.05	
Eros Water System	.02	
Hodge Water System	.35	
Jonesboro Water System	.75	
McDonald Water System	.06	
New Hope-St. Clair W. S.	.01	
North Hodge Water System	.05	
Punkin-Hilltop Water System	.12	
Quitman Water System	.03	
S. E. Hodge Water System	.01	
Shady Grove Water System	.02	
St. Rest Water System	.03	
Vixen Water System	.01	
Walker Community W. S.	.02	
Weston Water System	.10	

JEFFERSON



Population: 453,590
Population served by public supply: 453,136
Per capita withdrawals (gal/d): 2,496
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0

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

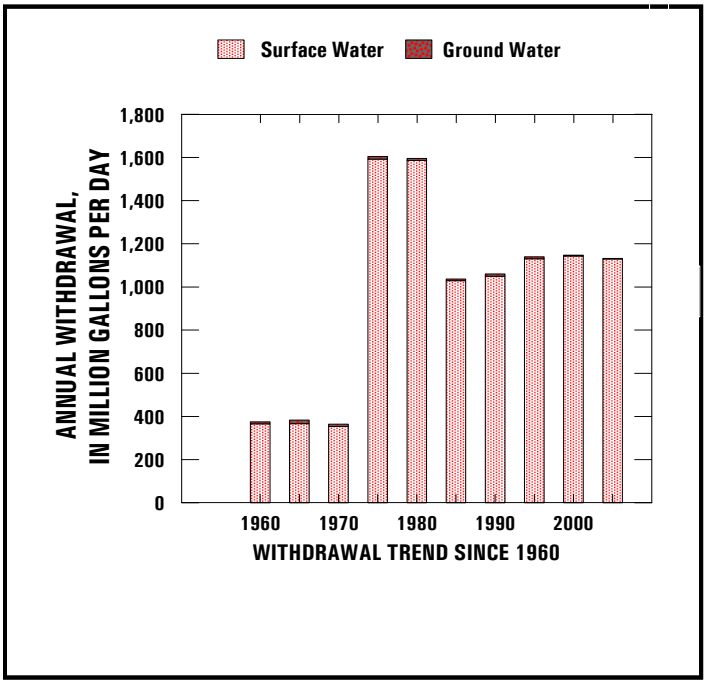
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	75.93	75.93
Industrial	2.25	4.70	6.96
Power generation	.42	1,048.93	1,049.34
Rural domestic	.04	.00	.04
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.03	.00	.03
Aquaculture	.00	.00	.00
TOTAL	2.74	1,129.56	1,132.30

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
26	Paper products	0.70	
28	Chemicals		4.70
37	Transportation equipment	1.55	

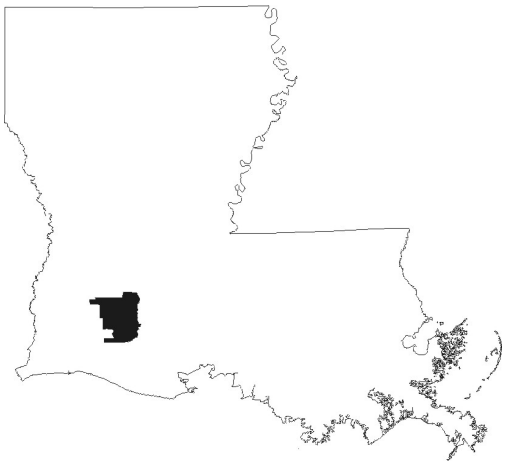
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
East Jefferson Water Works		46.69
Gretna Water Works		2.83
West Jefferson Water Works		23.85
Westwego Water System		2.58



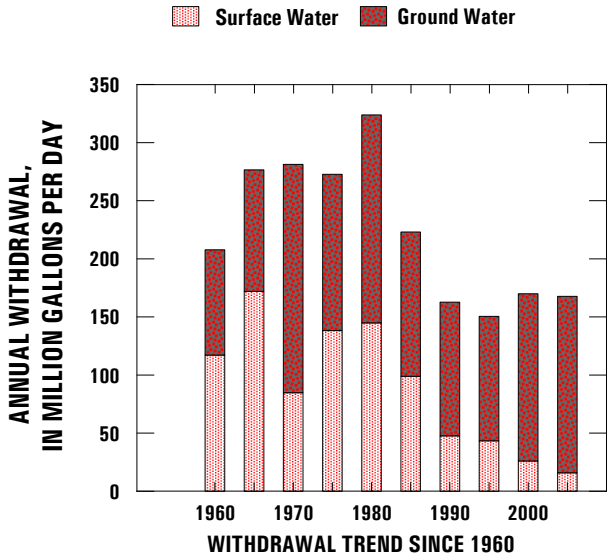
JEFFERSON DAVIS

Population: 31,235
Population served by public supply: 26,456
Per capita withdrawals (gal/d): 5,369
Acres irrigated: 81,940
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	3.72	0.00	3.72
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.38	.00	.38
Livestock	.16	.00	.16
Rice irrigation	126.05	12.04	138.09
General irrigation	.08	.05	.13
Aquaculture	21.39	3.84	25.23
TOTAL	151.78	15.93	167.70



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

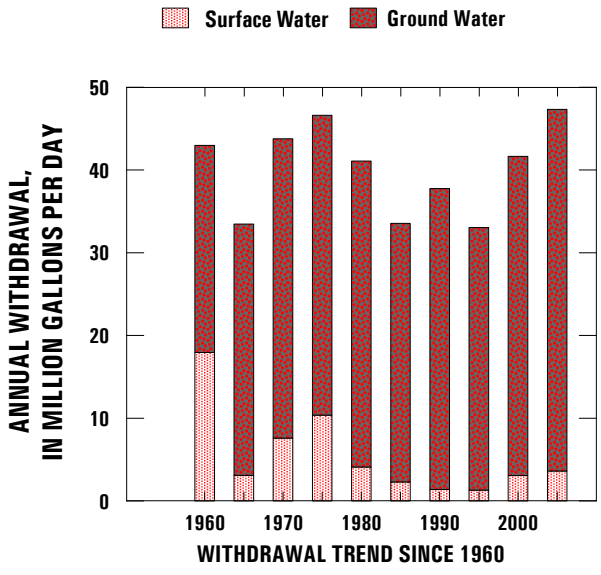
Public Supplier	GW	SW
Fenton Water System	0.04	
Jefferson Davis Central W. W.	.44	
Jefferson Davis W. W. Dist. 1	.04	
Jefferson Davis W. W. Dist. 4	.25	
Jefferson Davis W. W. Dist. 5	.02	
Jennings Water System	1.74	
Lake Arthur Water System	.69	
Welsh Water System	.51	

LAFAYETTE

Population: 195,707
Population served by public supply: 158,327
Per capita withdrawals (gal/d): 242
Acres irrigated: 7,037
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	22.98	0.00	22.98
Industrial	.53	.00	.53
Power generation	1.69	.00	1.69
Rural domestic	2.99	.00	2.99
Livestock	.16	.00	.16
Rice irrigation	8.48	1.92	10.40
General irrigation	.13	.02	.16
Aquaculture	6.73	1.68	8.41
TOTAL	43.71	3.62	47.33



Withdrawals by Major Industrial Group (Mgal/d)

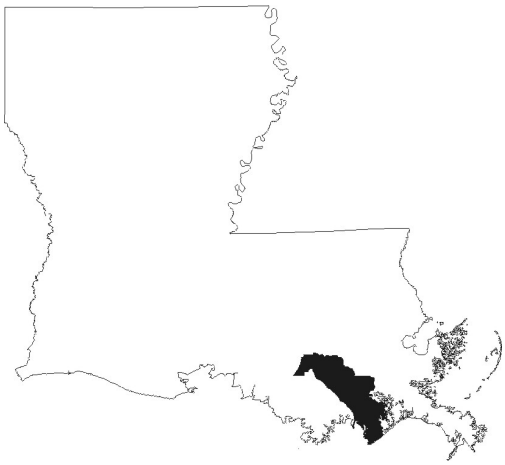
Standard Industrial Classification		GW	SW
20	Food products	0.53	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Broussard Water System	0.47	
Carencro Water System	1.46	
Duson Water System	.16	
Lafayette Water System	19.78	
S. Lafayette Water Works Dist.	.10	
Water and Wastewater Util.	.10	
Youngsville Water System	.25	

LAFOURCHE

Population: 92,157
Population served by public supply: 91,881
Per capita withdrawals (gal/d): 466
Acres irrigated: 400
Hydroelectric power instream use (Mgal/d): 0



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

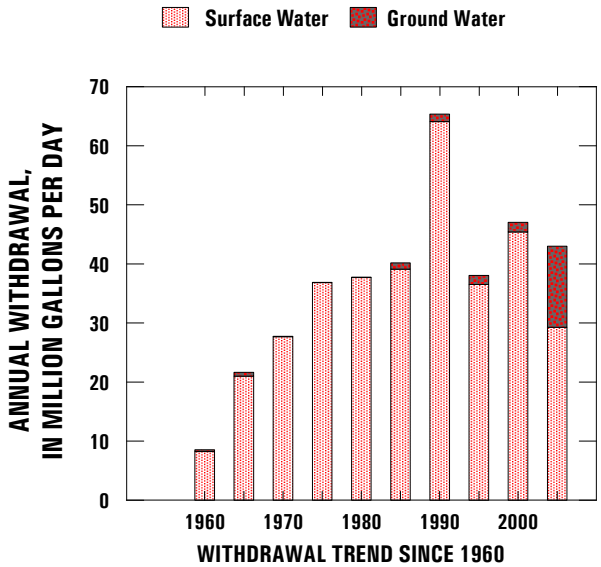
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	21.38	21.38
Industrial	.00	7.75	7.75
Power generation	.00	.00	.00
Rural domestic	.02	.00	.02
Livestock	.12	.12	.23
Rice irrigation	.00	.00	.00
General irrigation	.00	.02	.02
Aquaculture	13.57	.00	13.57
TOTAL	13.71	29.28	42.99

Withdrawals by Major Industrial Group (Mgal/d)

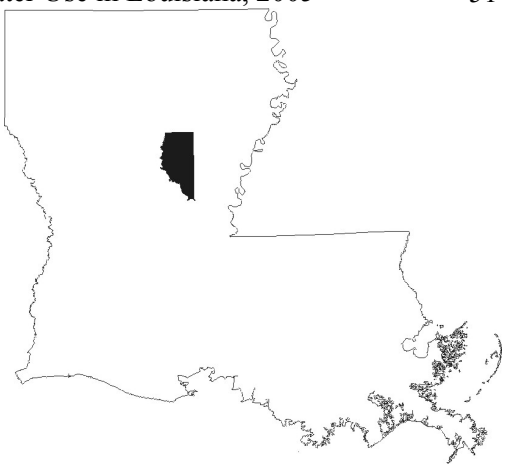
Standard Industrial Classification		GW	SW
20	Food products		6.54
26	Paper products		1.21

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Lafourche Parish W. W. Dist. 1		9.92
Lockport Water System		.26
Terrebonne W. W. Distict 1		8.55
Thibodaux Water System		2.65



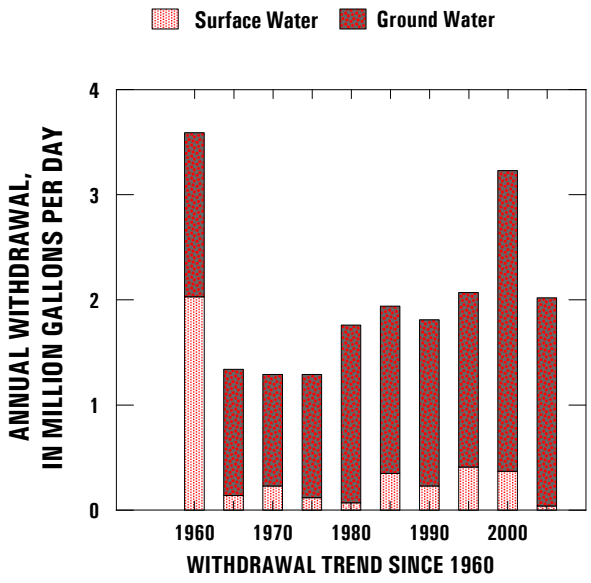
LASALLE



Population: 14,161
Population served by public supply: 13,481
Per capita withdrawals (gal/d): 142
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.92	0.00	1.92
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.05	.00	.05
Livestock	.01	.02	.03
Rice irrigation	.00	.00	.00
General irrigation	.00	.01	.01
Aquaculture	.00	.00	.00
TOTAL	1.98	0.04	2.01



Withdrawals by Major Industrial Group (Mgal/d)

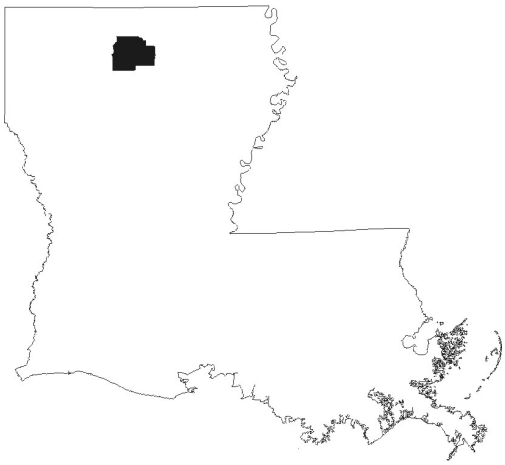
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Belah-Fellowship Water System	0.19	
East Jena Water System	.08	
Goodpine Water System	.31	
Jena Water System	.43	
La Salle W. W. Dist. 1	.31	
Nebo Water System	.05	
Olla Water System	.28	
Rogers Community W. S.	.03	
Summerville-Rosefield Water	.09	
Tullos Water System	.08	
Urania Water System	.07	

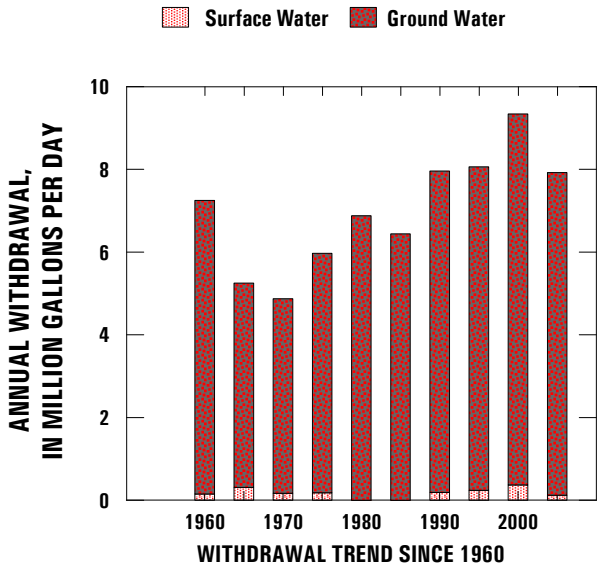
LINCOLN

Population: 42,382
Population served by public supply: 40,263
Per capita withdrawals (gal/d): 187
Acres irrigated: 10
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	6.97	0.00	6.97
Industrial	.66	.00	.66
Power generation	.00	.00	.00
Rural domestic	.17	.00	.17
Livestock	.00	.04	.04
Rice irrigation	.00	.00	.00
General irrigation	.01	.09	.10
Aquaculture	.00	.00	.00
TOTAL	7.80	0.12	7.93



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
24	Lumber	0.09	

Withdrawals by Major Public Supplier (Mgal/d)

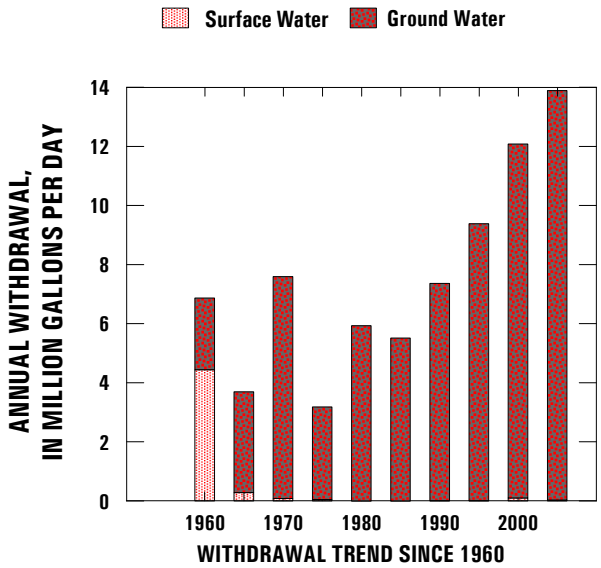
Public Supplier	GW	SW
Choudrant Water System	0.08	
Culbertson Water System	.25	
Dubach Water System	.16	
Fellowship Water System	.06	
Grambling Water System	.56	
Greater Ward One W. W.	.57	
Hico Water System	.17	
Hilly-Greenwood W. S.	.10	
Lincoln W. W. Dist. 1	.04	
Lincoln W. W. Dist. 3	.24	
Mineral Springs Water System	.07	
Mt. Olive Water Dist.	.05	
Mt. Zion Water System	.12	
Ruston Utilities System	3.85	
Simsboro Water System	.09	
Wesley Chapel Water System	.22	

LIVINGSTON

Population: 105,653
Population served by public supply: 74,485
Per capita withdrawals (gal/d): 131
Acres irrigated: 50
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	10.94	0.00	10.94
Industrial	.12	.00	.12
Power generation	.00	.00	.00
Rural domestic	2.37	.00	2.37
Livestock	.05	.03	.08
Rice irrigation	.00	.00	.00
General irrigation	.08	.00	.08
Aquaculture	.29	.00	.29
TOTAL	13.86	0.03	13.89



Withdrawals by Major Industrial Group (Mgal/d)

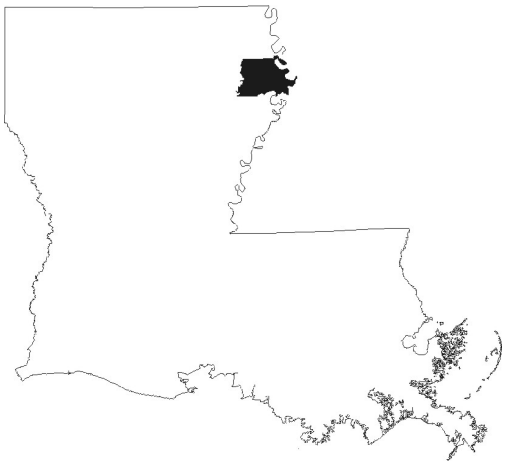
Standard Industrial Classification	GW	SW
24 Lumber	0.10	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Albany Water System	0.29	
Capitol Utilities Corp.	.40	
Colyell Comm. Water Assoc.	.19	
Denham Springs W. S.	3.37	
Diversion Water Company	.12	
Fourth Ward Water Works	.23	
French Settlement W. S.	.52	
Head of Island Water System	.20	
Killian Water System	.04	
Livingston Water System	.61	
Port Vincent Water System	.05	
Springfield Water System	.21	
Vincent Place Subdivision	.03	
Walker Water System	.99	
Ward 2 Water District	3.63	

MADISON

Population: 12,996
Population served by public supply: 12,736
Per capita withdrawals (gal/d): 1,554
Acres irrigated: 31,013
Hydroelectric power instream use (Mgal/d): 0



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

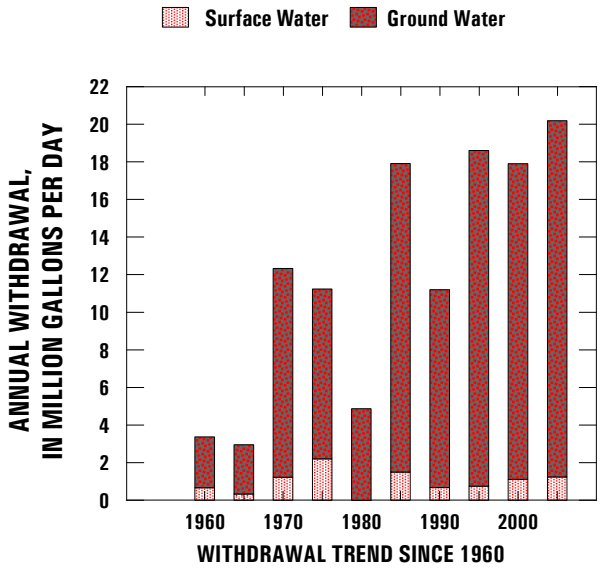
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.75	0.00	1.75
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.02	.00	.02
Livestock	.01	.01	.02
Rice irrigation	6.04	.00	6.04
General irrigation	11.13	1.24	12.37
Aquaculture	.00	.00	.00
TOTAL	18.95	1.24	20.19

Withdrawals by Major Industrial Group (Mgal/d)

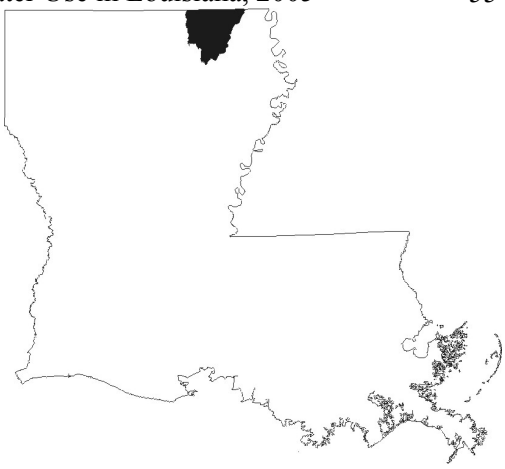
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Delta Water System	0.02	
Tallulah Water Service	1.24	
Walnut Bayou Water Assoc.	.49	



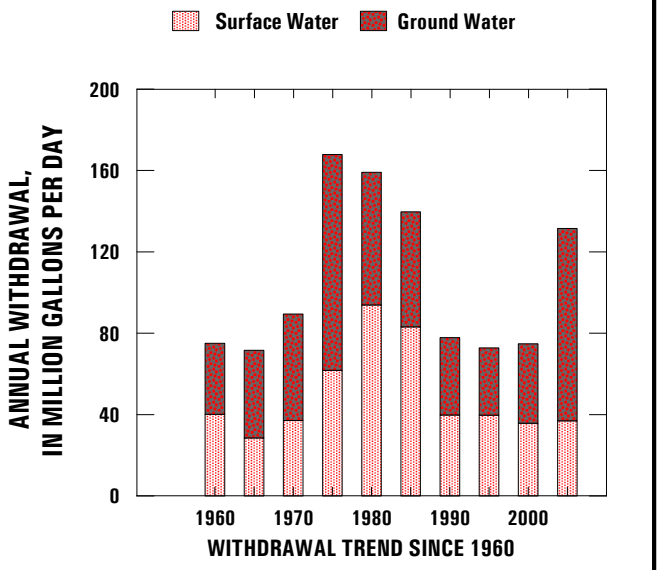
MOREHOUSE



Population: 30,551
Population served by public supply: 28,290
Per capita withdrawals (gal/d): 4,303
Acres irrigated: 135,012
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.94	0.00	2.94
Industrial	4.33	27.27	31.60
Power generation	.00	.00	.00
Rural domestic	.18	.00	.18
Livestock	.05	.01	.06
Rice irrigation	50.43	5.60	56.03
General irrigation	36.06	4.01	40.07
Aquaculture	.59	.00	.59
TOTAL	94.58	36.90	131.48



Withdrawals by Major Industrial Group (Mgal/d)

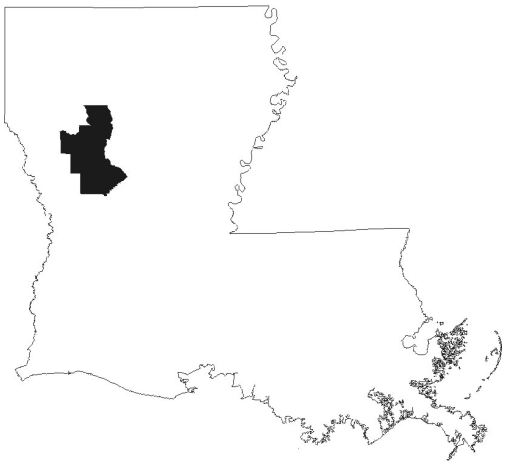
Standard Industrial Classification		GW	SW
26	Paper products	4.33	27.27

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Bayou Bonne Idee W. S.	0.09	
Beekman Water System	.08	
Bonita Water System	.04	
Jones-McGinty Water System	.10	
Mer Rouge Water System	.12	
Morehouse Central W. S.	.04	
Morehouse W. W. Dist. 1	.13	
Morehouse Parish W. W. Dist. 2	.30	
Oak Ridge Water System	.03	
Peoples Water Service Co.	1.92	
S. Bonne Idee Water System	.02	
Ward 3 Water System	.07	

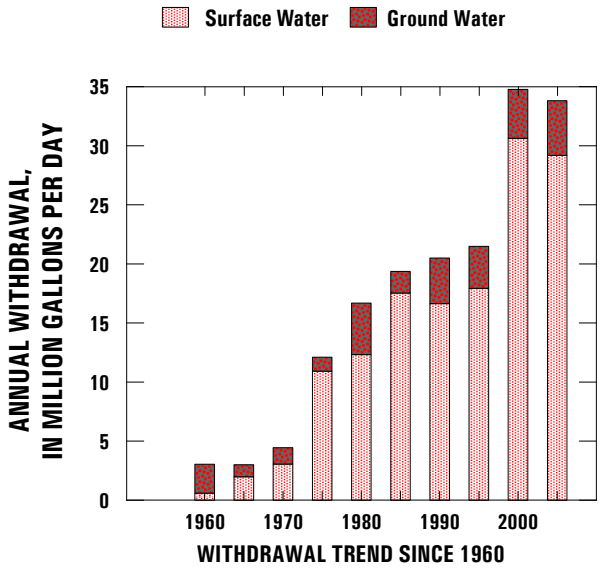
NATCHITOCHES

Population: 38,741
Population served by public supply: 32,426
Per capita withdrawals (gal/d): 873
Acres irrigated: 7,677
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.08	5.20	6.29
Industrial	.00	14.10	14.10
Power generation	.00	.00	.00
Rural domestic	.51	.00	.51
Livestock	.28	.00	.28
Rice irrigation	.88	5.01	5.89
General irrigation	.33	1.31	1.64
Aquaculture	1.53	3.57	5.11
TOTAL	4.62	29.19	33.81



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
26 Paper products		14.10

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Campti Water System	0.17	
Chee Chee Bay Water System	.02	
Chestnut-Readhimer W.S.	.03	
Clarence Water System	.09	
Creston Water System	.04	
Goldonna Water System	.05	
Hagewood Water System	.04	
Natchitoches Utility System		5.18
Natchitoches W. W. Dist. 2	.40	
Powhatan Water System	.05	
Provencal Water System	.08	
Robeline-Marthaville Water	.12	
Sandy Point 480 W. S.		.03

ORLEANS

Population: 462,269
Population served by public supply: 459,495
Per capita withdrawals (gal/d): 1,458
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0

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

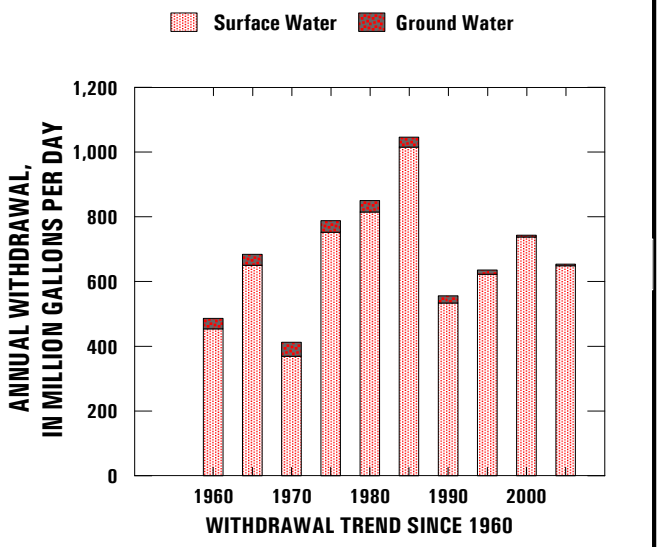
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	132.70	132.70
Industrial	1.83	.00	1.83
Power generation	2.99	515.89	518.88
Rural domestic	.22	.00	.22
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.00	.00	.00
Aquaculture	.00	.00	.00
TOTAL	5.04	648.59	653.63

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
28	Chemicals	1.72	
32	Glass, clay, and concrete	.11	

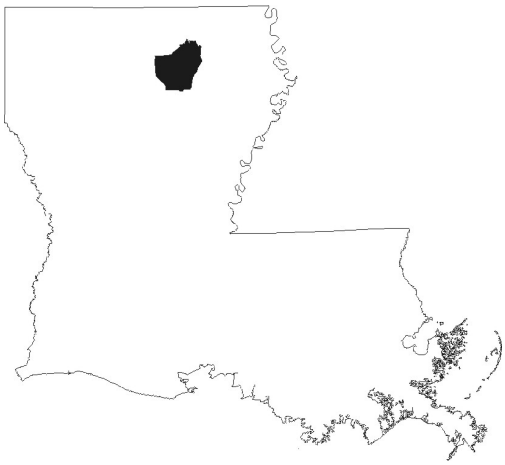
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
New Orleans Sewage & Water		132.70



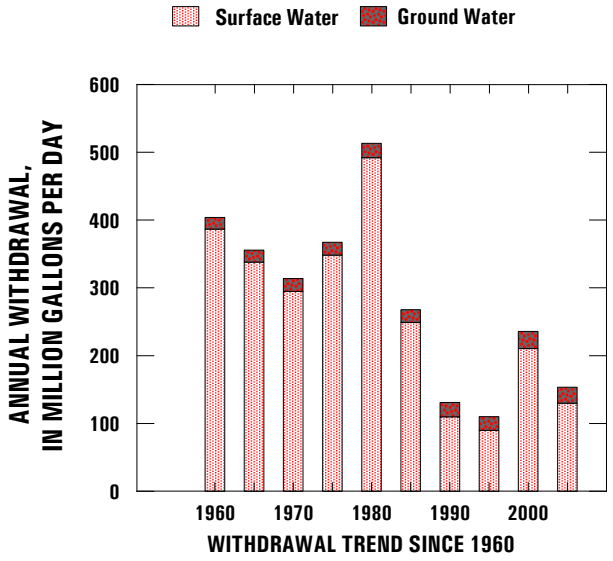
OUACHITA

Population: 148,355
Population served by public supply: 143,014
Per capita withdrawals (gal/d): 1,034
Acres irrigated: 17,358
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	10.83	11.07	21.90
Industrial	11.00	14.82	25.82
Power generation	.00	87.26	87.26
Rural domestic	.43	.00	.43
Livestock	.00	.05	.05
Rice irrigation	.84	13.00	13.84
General irrigation	.43	3.70	4.13
Aquaculture	.00	.02	.02
TOTAL	23.52	129.93	153.45



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
14	Nonfuels/nonmetals mining		0.05
26	Paper products	10.84	10.92
28	Chemicals	.16	3.85

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Aqua Water System	0.01	
Better Water Works	.21	
Cadeville Water Dist.	.28	
Calhoun Water System	.08	
Cheniere-Drew Water System	1.05	
D'arbonne Hills Subdivision	.39	
Enterprise Water Co.	.01	
Frost Town Water System	.09	
Greater Ouachita Water. Co.	3.66	
Hickory Bend Water System	.03	
Indian Village Water System	.10	
L & R Utilities	.10	
LWC Management Co. Inc.	.44	
Monroe Water System		11.07
Neighbors Water Well Corp.	.01	
Prairie Road Water System	.19	
Sikes Water System	.03	
S. W. Ouachita Water District	.79	
Swartz Water Works	.02	
Tidwell Enterprises	.21	
Toney Road Water System	.01	
W. Monroe Water System	2.99	
Western Utilities Inc.	.08	

PLAQUEMINES

Population: 28,969
Population served by public supply: 28,303
Per capita withdrawals (gal/d): 4,699
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0

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

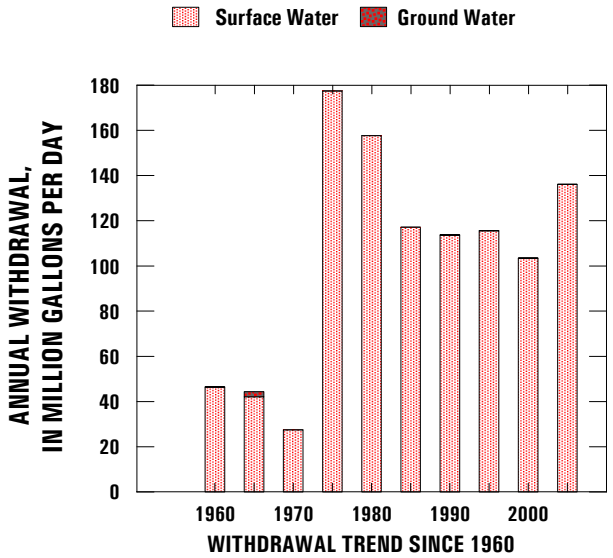
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	7.42	7.42
Industrial	.00	128.54	128.54
Power generation	.00	.00	.00
Rural domestic	.05	.00	.05
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.00	.12	.12
Aquaculture	.00	.00	.00
TOTAL	0.05	136.08	136.13

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
28	Chemicals		23.11
29	Petroleum refining		105.43

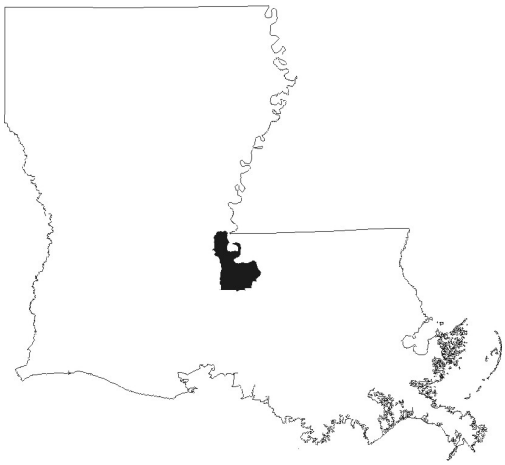
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Plaquemines Parish W. W.		7.42



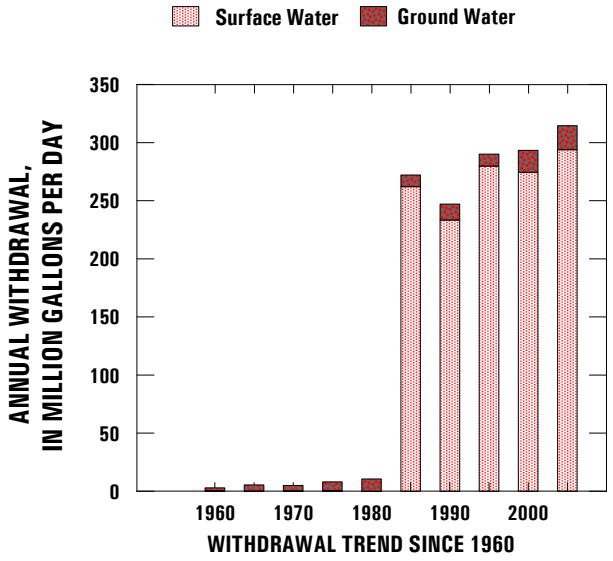
POINTE COUPEE

Population: 22,537
Population served by public supply: 19,720
Per capita withdrawals (gal/d): 13,960
Acres irrigated: 4,656
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	3.36	0.00	3.36
Industrial	5.98	.00	5.98
Power generation	2.21	293.82	296.02
Rural domestic	.23	.00	.23
Livestock	.12	.08	.19
Rice irrigation	2.79	.00	2.79
General irrigation	1.20	.00	1.20
Aquaculture	4.81	.00	4.81
TOTAL	20.68	293.90	314.58



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	4.3	
32	Glass, clay, and concrete	1.63	

Withdrawals by Major Public Supplier (Mgal/d)

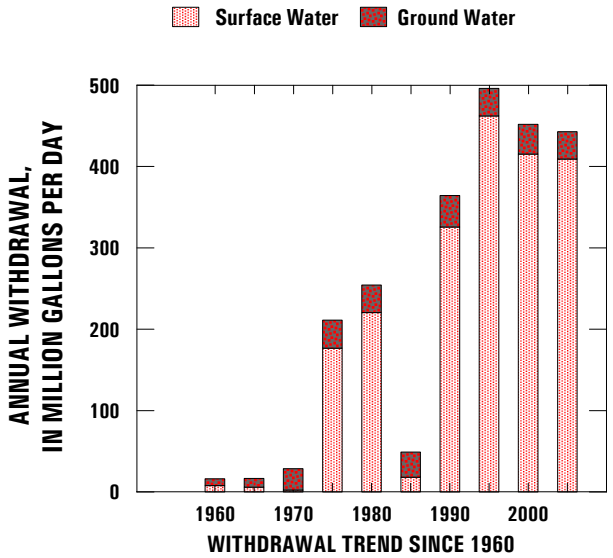
Public Supplier	GW	SW
Brownview Water Supply Co.	0.04	
False River Water Company	.37	
Fordoche Water System	.15	
Innis Water Works	.17	
Livonia Water System	.19	
M. & S. Water Supply	.10	
Maringouin Village W. S.	.29	
Morganza Water System	.07	
New Roads Water System	1.06	
Old River Water Dist. 1	.05	
Pointe Coupee W. W. Corp.	.22	
Pointe Coupee Water Dist. 1	.22	
Pointe Coupee Water Dist. 2	.37	
Torbert-Frisco Water System	.05	
Waterloo Water Service	.01	

RAPIDES

Population: 128,013
Population served by public supply: 121,740
Per capita withdrawals (gal/d): 3,458
Acres irrigated: 12,438
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	27.17	0.00	27.17
Industrial	.65	.00	.65
Power generation	.12	402.39	402.51
Rural domestic	.50	.00	.50
Livestock	.03	.12	.15
Rice irrigation	3.03	4.54	7.57
General irrigation	.69	.69	1.39
Aquaculture	1.44	1.35	2.79
TOTAL	33.63	409.09	442.72



Withdrawals by Major Industrial Group (Mgal/d)

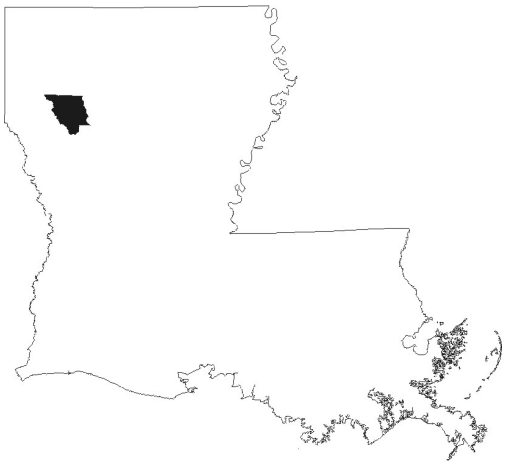
Standard Industrial Classification		GW	SW
26	Paper products	0.65	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Alexandria Water System	18.19	
Avoyelles Ward 1 W. S.	.15	
Boyce Water System	.16	
Buckeye Water District 50	.82	
Bunkie Water System	.63	
Cheneyville Water System	.13	
Elmer-Melder-Cal W. S.	.19	
Forest Hill Water System	.41	
Gardner Comm Water System	.31	
Glenmora Water System	.06	
Hammock Water System	.06	
Hineston Water System	.08	
Kolin-Ruby-Wise Water Dist.	.33	
Lecompte Water System	.28	
Lena Water System	.25	
McNary Water System	.08	
Pineville Water System	3.33	
Rapides Island Water Assoc.	.41	
Rapides Parish W. W. Dist. 3	.91	
Sieper Area Water System	.05	
Woodworth Water System	.13	

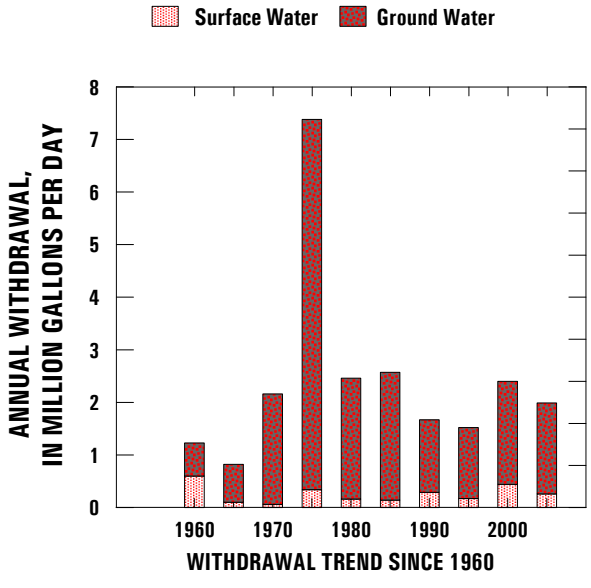
RED RIVER

Population: 9,606
Population served by public supply: 6,849
Per capita withdrawals (gal/d): 207
Acres irrigated: 1,630
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.72	0.00	0.72
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.22	.00	.22
Livestock	.05	.08	.13
Rice irrigation	.00	.00	.00
General irrigation	.73	.18	.92
Aquaculture	.00	.00	.00
TOTAL	1.73	0.26	1.99



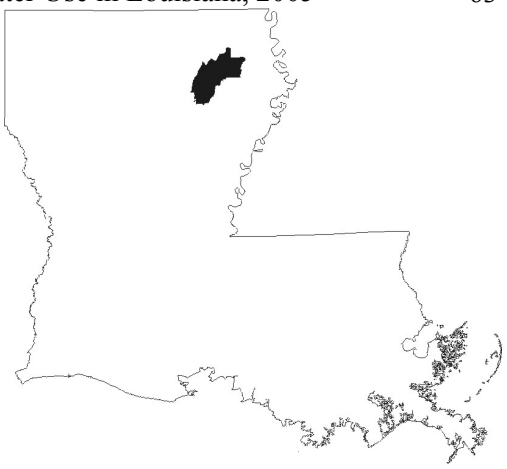
Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Coushatta Water System	0.39	
East Cross Water System	.03	
Edgefield Water System	.03	
Halfway-Carroll Water System	.03	
Hall Summit Water System	.06	
Hickory Grove Water System	.04	
Martin Water System	.10	
Social Springs Water System	.04	

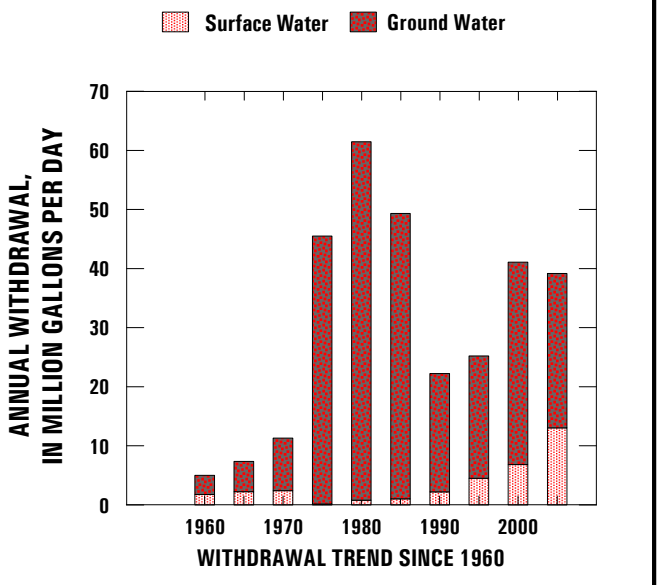
RICHLAND



Population: 20,485
Population served by public supply: 14,626
Per capita withdrawals (gal/d): 1,913
Acres irrigated: 59,121
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.81	0.00	2.81
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.47	.00	.47
Livestock	.05	.15	.19
Rice irrigation	8.77	.00	8.77
General irrigation	12.89	12.89	25.78
Aquaculture	1.16	.00	1.16
TOTAL	26.14	13.04	39.17



Withdrawals by Major Industrial Group (Mgal/d)

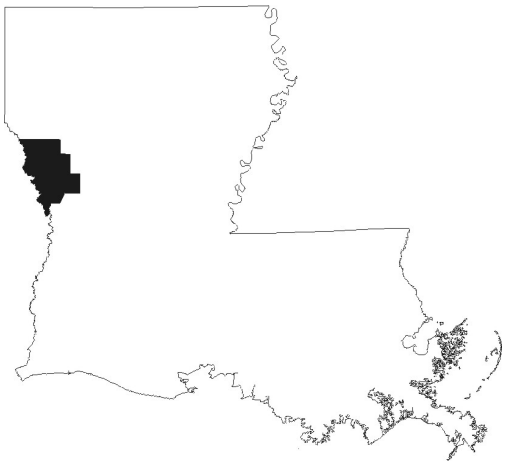
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Archibald Water System	0.27	
Delhi Water System	1.00	
Liddieville Water System	.13	
Mangham Water System	.18	
N. Franklin Water Works	.74	
Rayville Water System	.02	
Richland Detention Ctr.	.07	
River Road Water System	.21	
Stuart Water System	.16	

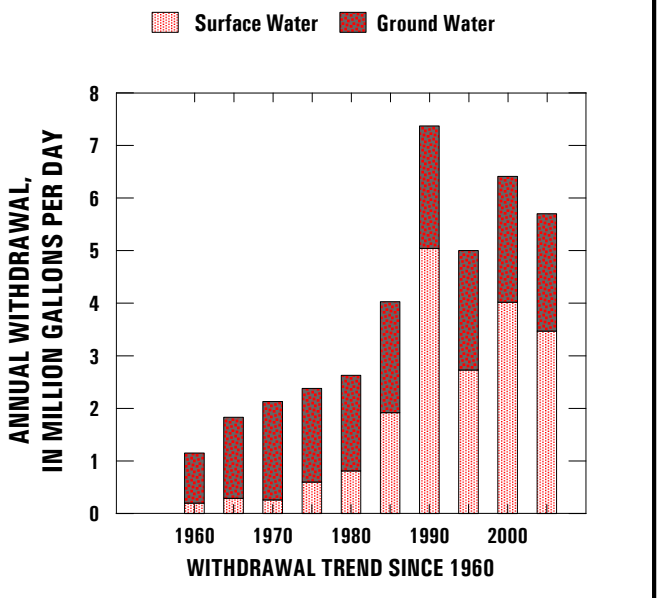
SABINE

Population: 23,616
Population served by public supply: 11,312
Per capita withdrawals (gal/d): 241
Acres irrigated: 5
Hydroelectric power instream use (Mgal/d): 1,700



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.22	1.36	2.58
Industrial	.00	.00	.00
Power generation	.00	1.91	1.91
Rural domestic	.98	.00	.98
Livestock	.02	.15	.16
Rice irrigation	.00	.00	.00
General irrigation	.00	.05	.06
Aquaculture	.00	.00	.00
TOTAL	2.23	3.47	5.70



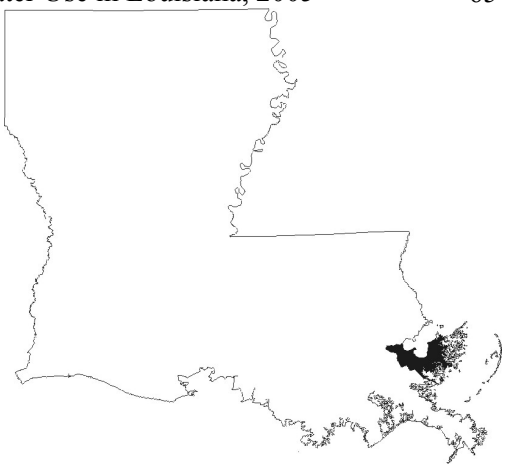
Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Belmont Water System	0.39	
Converse Water System	.03	
Ebarb Water System		0.26
Fisher Water System	.03	
Many Water System	.39	.43
Noble Water System	.03	
Pendleton Water Assoc.		.12
Pleasant Hill Water System	.11	
S. Toledo Bend W. W. District		.55
Union Springs Water System	.04	
Zwolle Water System	.19	

ST. BERNARD



Population: 65,554
Population served by public supply: 65,423
Per capita withdrawals (gal/d): 4,436
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0

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

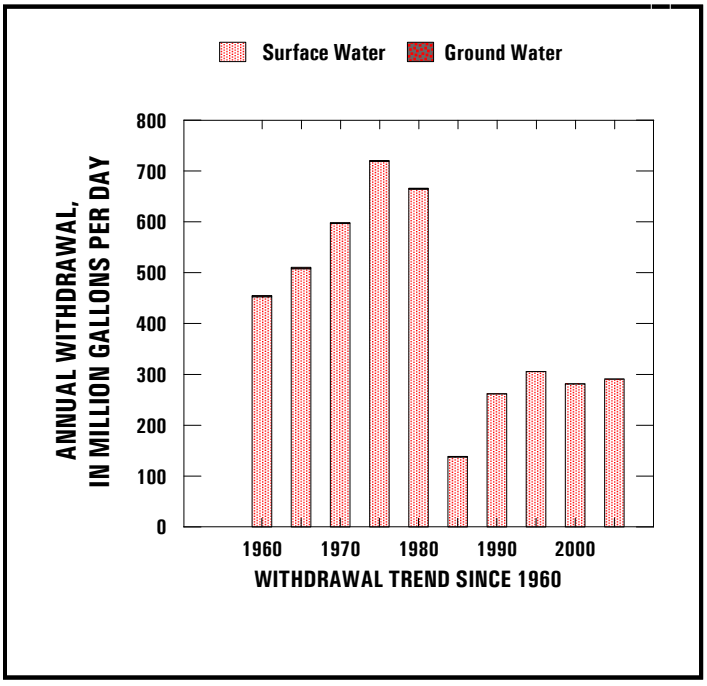
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	9.35	9.35
Industrial	.00	281.42	281.42
Power generation	.00	.00	.00
Rural domestic	.01	.00	.01
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.02	.00	.02
Aquaculture	.00	.00	.00
TOTAL	0.04	290.77	290.80

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
13	Oil and gas extraction		1.71
20	Food products		15.01
29	Petroleum refining		264.7

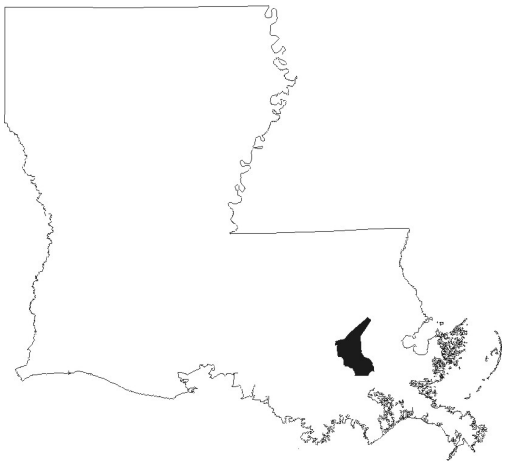
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
St. Bernard Public Works Dept.		9.35



ST. CHARLES

Population: 50,073
Population served by public supply: 49,823
Per capita withdrawals (gal/d): 62,077
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0



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

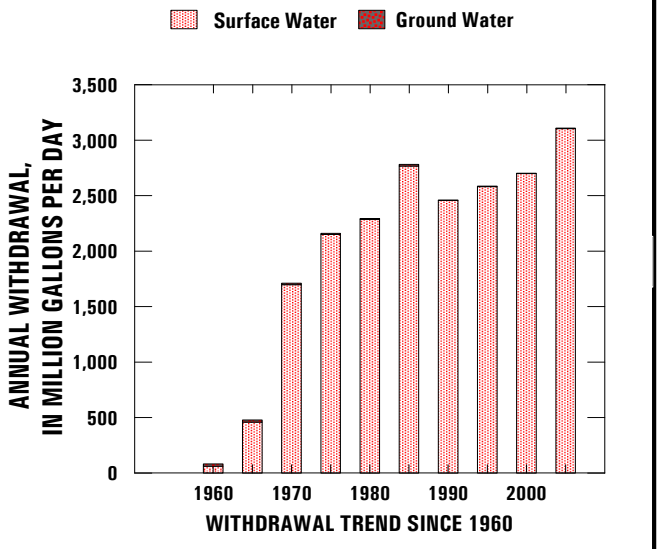
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	8.42	8.42
Industrial	4.85	973.85	978.70
Power generation	.00	2,121.17	2,121.17
Rural domestic	.02	.00	.02
Livestock	.01	.04	.05
Rice irrigation	.00	.00	.00
General irrigation	.02	.01	.03
Aquaculture	.00	.00	.00
TOTAL	4.89	3,103.49	3,108.38

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
28	Chemicals	0.48	940.33
29	Petroleum refining	4.37	33.52

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
St. Charles W. W. Dist. 1		4.27
St. Charles W. W. Dist. 2		4.15



ST. HELENA

Population: 10,309
Population served by public supply: 3,917
Per capita withdrawals (gal/d): 127
Acres irrigated: 15
Hydroelectric power instream use (Mgal/d): 0

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

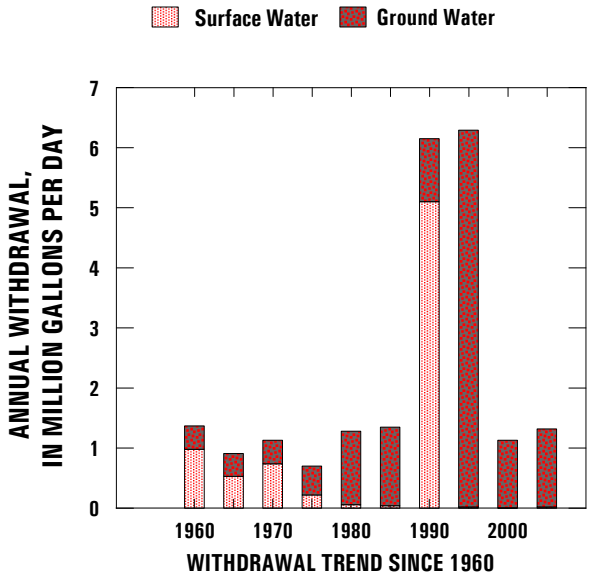
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.62	0.00	0.62
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.51	.00	.51
Livestock	.13	.01	.14
Rice irrigation	.00	.00	.00
General irrigation	.04	.00	.05
Aquaculture	.00	.00	.00
TOTAL	1.30	0.02	1.32

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

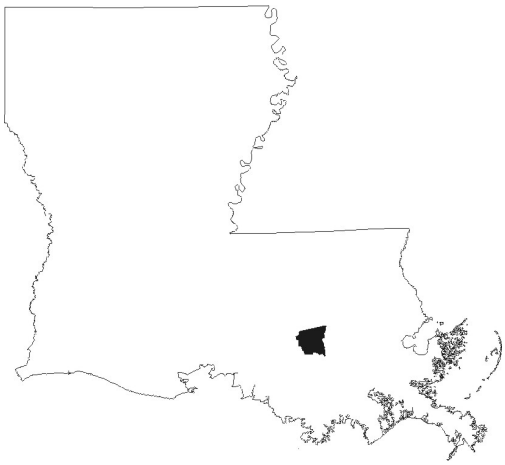
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Crossroad Water Works	0.04	
Darlington W. W. Assoc.	.02	
Dennis Mills W. W. Assoc.	.07	
Greensburg Water System	.15	
Montpelier Water System	.03	
Pine Grove W. W. Assoc.	.01	
St. Helena W. W. Dist. 2	.29	



ST. JAMES

Population: 21,146
Population served by public supply: 20,977
Per capita withdrawals (gal/d): 11,255
Acres irrigated: 400
Hydroelectric power instream use (Mgal/d): 0



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

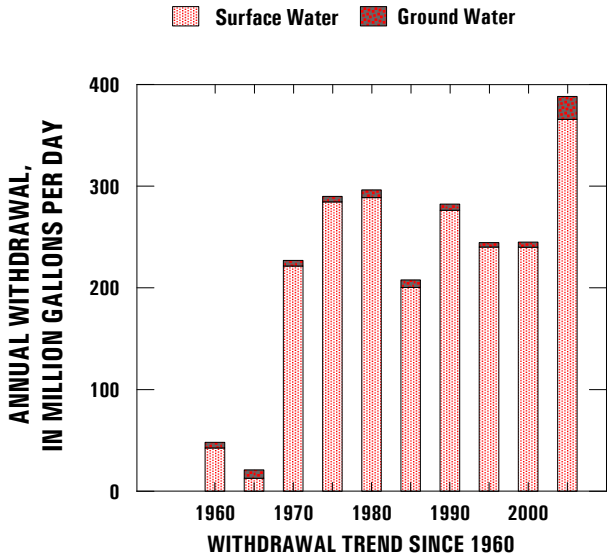
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	2.48	2.48
Industrial	3.01	363.1	366.11
Power generation	.00	.00	.00
Rural domestic	.01	.00	.01
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.00	.01	.01
Aquaculture	19.61	.00	19.61
TOTAL	22.63	365.6	388.23

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	3.01	1.09
28	Chemicals		354.33
29	Petroleum refining		7.69

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Gramercy Water System		0.50
Lutcher Water System		.53
St. James Parish Utilities		1.46



ST. JOHN THE BAPTIST

Population: 45,581
Population served by public supply: 44,533
Per capita withdrawals (gal/d): 1,464
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0

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

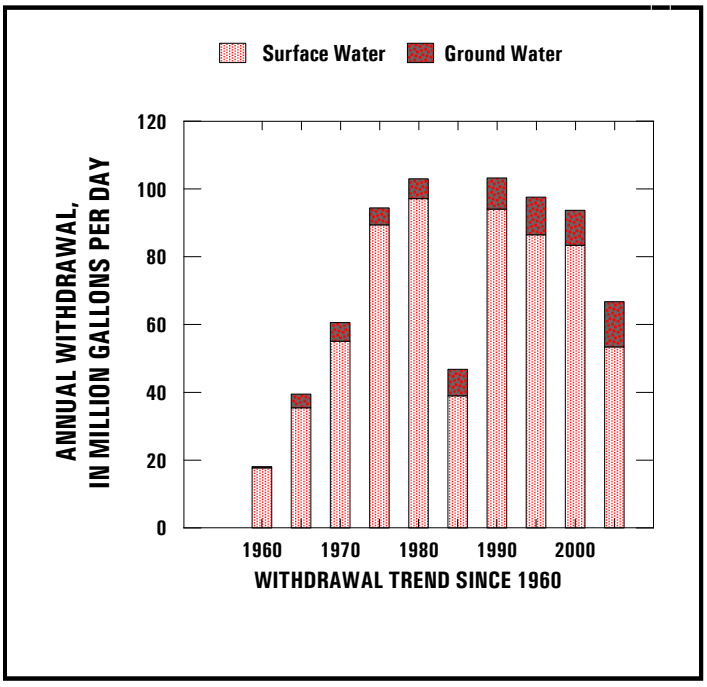
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	3.68	2.66	6.34
Industrial	9.55	50.71	60.26
Power generation	.00	.00	.00
Rural domestic	.08	.00	.08
Livestock	.00	.00	.00
Rice irrigation	.00	.00	.00
General irrigation	.00	.06	.06
Aquaculture	.00	.00	.00
TOTAL	13.31	53.43	66.74

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
28	Chemicals	5.07	42.85
29	Petroleum refining		6.86
33	Primary metals		1.00

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
St. John the Baptist Utilities	3.68	2.66

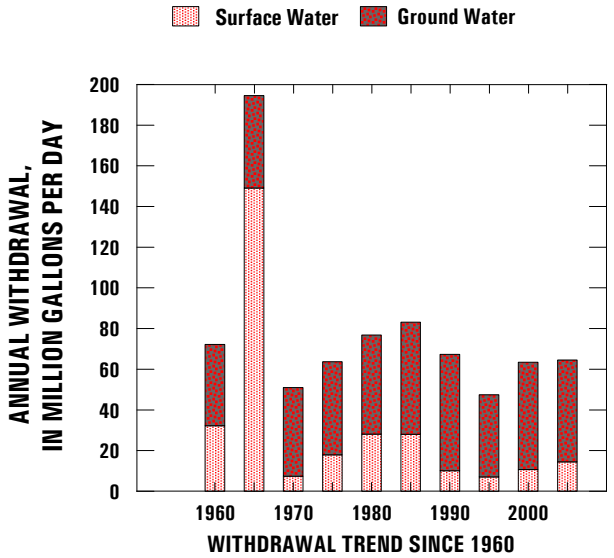


ST. LANDRY

Population: 89,635
Population served by public supply: 80,044
Per capita withdrawals (gal/d): 720
Acres irrigated: 31,453
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	10.25	0.00	10.25
Industrial	1.19	.00	1.19
Power generation	.00	.00	.00
Rural domestic	.77	.00	.77
Livestock	.13	.03	.17
Rice irrigation	18.60	9.69	28.29
General irrigation	1.48	.37	1.85
Aquaculture	17.68	4.37	22.05
TOTAL	50.10	14.47	64.57



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
29	Petroleum refining	1.19	

Withdrawals by Major Public Supplier (Mgal/d)

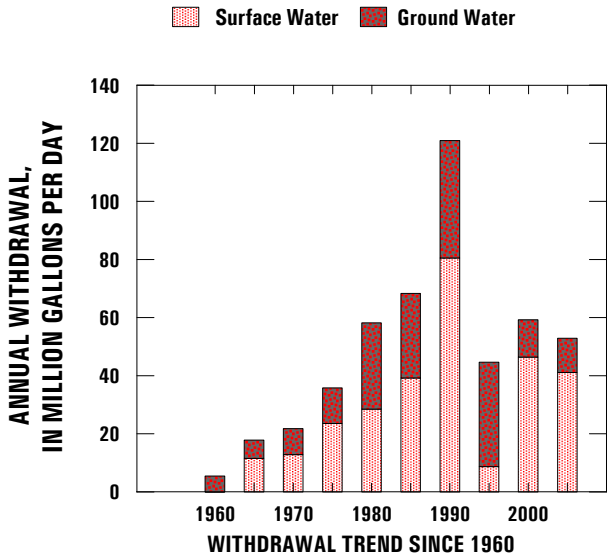
Public Supplier	GW	SW
Arnaudville Water System	0.33	
Cankton Water System	.16	
Eunice Water System	1.66	
Grand Coteau Water System	.14	
Grand Prairie Water System	.06	
Greenbriar-Prairie Basse W.S.	.08	
K S Water System Inc	.03	
Krotz Springs Water System	.11	
Lawtell W. W. Dist. 1	.24	
Leonville Water System	.59	
Lewisburg-Bellevue W. S.	.47	
Melville Water System	.18	
Midway Water Works	.01	
Opelousas Water System	4.64	
Palmetto Water System	.11	
Plaisance Water System	.47	
Port Barre Water System	.27	
Prairie Ronde W. S.	.38	
Sunset Water System	.20	
Washington Water System	.11	

ST. MARTIN

Population: 50,453
Population served by public supply: 40,009
Per capita withdrawals (gal/d): 1,049
Acres irrigated: 5,600
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	6.40	0.00	6.40
Industrial	.23	.00	.23
Power generation	.00	.00	.00
Rural domestic	.84	.00	.84
Livestock	.05	.01	.06
Rice irrigation	.35	7.94	8.29
General irrigation	.01	.04	.05
Aquaculture	3.94	33.11	37.05
TOTAL	11.81	41.10	52.92



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
28	Chemicals	0.23	

Withdrawals by Major Public Supplier (Mgal/d)

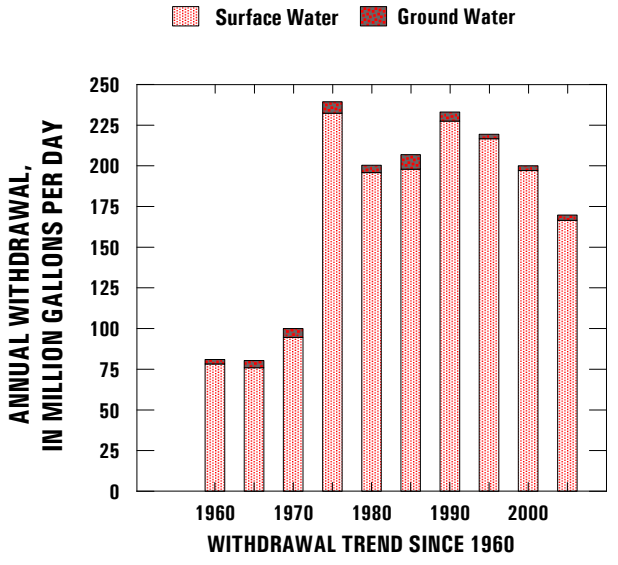
Public Supplier	GW	SW
Breaux Bridge Water System	1.16	
Catahoula Water System	.15	
Cecilia Water System	.66	
Henderson-Nina W. S.	.45	
Parks Water System	.65	
River Ridge Estates W. S.	.01	
St. Martin Parish W. & W.	1.82	
St. Martinville Water System	1.16	
United Water System	.30	

ST. MARY

Population: 52,189
Population served by public supply: 50,362
Per capita withdrawals (gal/d): 3,253
Acres irrigated: 400
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.41	9.83	10.24
Industrial	2.15	3.58	5.73
Power generation	.00	153.03	153.03
Rural domestic	.15	.00	.15
Livestock	.00	.05	.05
Rice irrigation	.00	.00	.00
General irrigation	.12	.01	.13
Aquaculture	.43	.00	.43
TOTAL	3.26	166.50	169.75



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
13	Oil and gas extraction		0.39
20	Food products	.29	.81
28	Chemicals	1.86	2.37

Withdrawals by Major Public Supplier (Mgal/d)

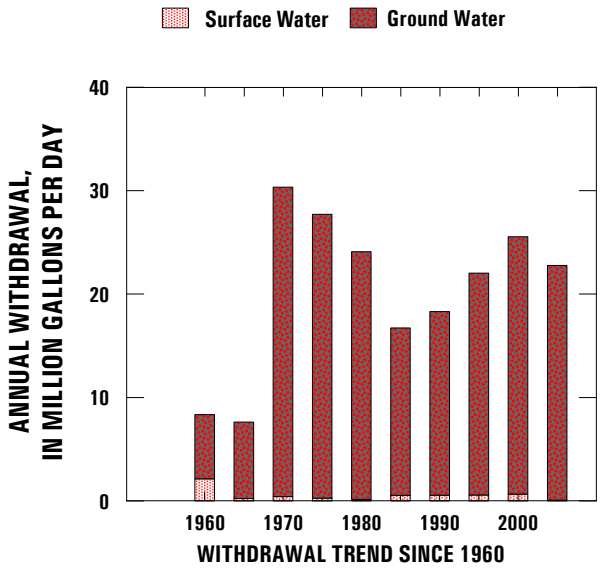
Public Supplier	GW	SW
Baldwin Water System	0.29	
Franklin Water System		1.12
Glencoe Comm Water System	.02	
Morgan City Water System		3.54
Patterson Water System		.57
St. Mary Water and Sewer		.91
St. Mary Water Dist. 2		1.19
St. Mary Water Dist. 5		1.11
St. Mary Water Dist. 6		1.39
St. Mary Water Dist. 7	.10	

ST. TAMMANY

Population: 213,553
Population served by public supply: 133,044
Per capita withdrawals (gal/d): 134
Acres irrigated: 50
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	15.89	0.00	15.89
Industrial	.14	.00	.14
Power generation	.00	.00	.00
Rural domestic	6.44	.00	6.44
Livestock	.06	.04	.11
Rice irrigation	.00	.00	.00
General irrigation	.13	.01	.15
Aquaculture	.03	.00	.03
TOTAL	22.70	0.06	22.76



Withdrawals by Major Industrial Group (Mgal/d)

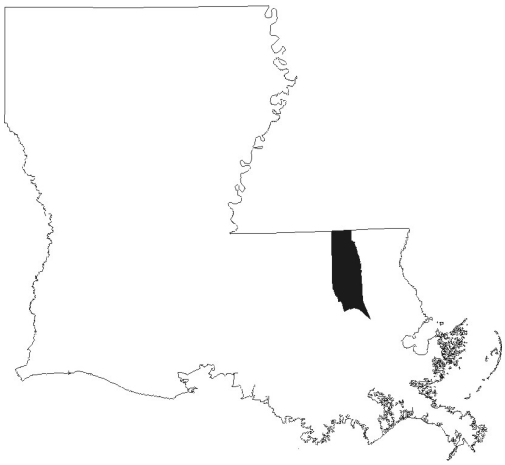
Standard Industrial Classification		GW	SW
28	Chemicals	0.13	
30	Rubber and plastics	.01	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Abita Springs Water Co.	0.05	
Alton Water System	.02	
Bayou Liberty Water Co.	.99	
Beau Village Subd.	.01	
Ben Thomas Rd. Water Dist.	.04	
Covington Public Works Dept.	2.42	
Cross Gates Utilities Co.	.17	
Lewisburg Estates W. S.	.02	
Eden Isles Water Supply	.99	
Folsom Water System	.12	
LA Water & Utilities Inc.	2.50	
Lee Rd Water Co.	.04	
Madisonville Water System	.07	
Mandeville Water Supply	1.64	
Northshore Utility Co.	.07	
Ozone Pine Subdivision	.01	
Pearl River Water System	.12	
Resolve Water System	.48	
Slidell Water System	3.38	
St. Tammany Water Dist. 2	.33	
S. E. LA Water & Sewer	1.40	
Sun Water System	.06	
Whisperwood Estates	.45	

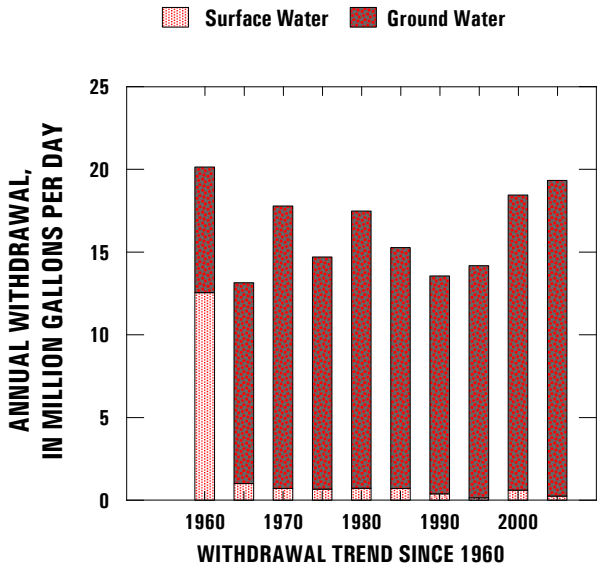
TANGIPAHOA

Population: 105,158
Population served by public supply: 64,252
Per capita withdrawals (gal/d): 184
Acres irrigated: 350
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	13.65	0.00	13.65
Industrial	1.31	.00	1.31
Power generation	.00	.00	.00
Rural domestic	3.27	.00	3.27
Livestock	.25	.25	.50
Rice irrigation	.00	.00	.00
General irrigation	.48	.00	.48
Aquaculture	.12	.00	.12
TOTAL	19.08	0.25	19.32



Withdrawals by Major Industrial Group (Mgal/d)

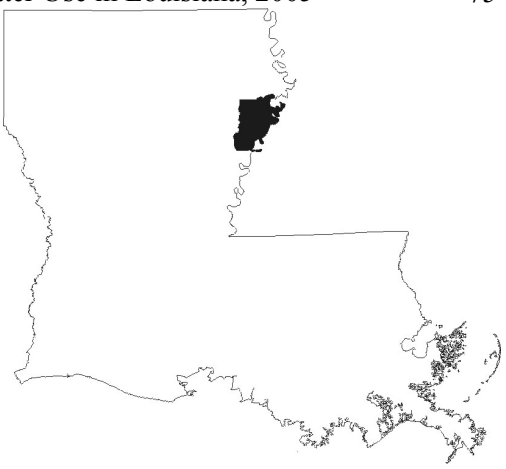
Standard Industrial Classification		GW	SW
20	Food products	1.02	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Amite Water System	1.68	
Bon Aire Estates Util. Co.	.06	
Eastern Heights W. W.	.13	
Fluker Water Works	.03	
Hammond Hgts. Water Co.	.17	
Hammond Water System	4.52	
High Hat Water System	.01	
Independence Water System	.21	
Kentwood Water System	.28	
Pine Hill Forest Subdivision	.02	
Ponchatoula Water System	.69	
Roseland Water System	.50	
Tangipahoa W. W.	.05	
Tangipahoa Water District 2	4.77	
Tickfaw Water System	.07	
Westview Water Works	.21	

TENSAS

Population: 6,176
Population served by public supply: 5,892
Per capita withdrawals (gal/d): 2,727
Acres irrigated: 27,786
Hydroelectric power instream use (Mgal/d): 0



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

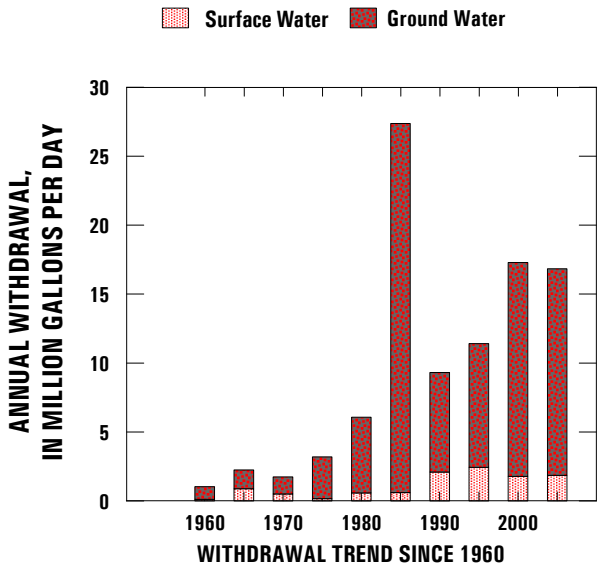
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.33	0.53	0.86
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.02	.00	.02
Livestock	.00	.01	.01
Rice irrigation	2.65	.00	2.65
General irrigation	11.87	1.32	13.19
Aquaculture	.12	.00	.12
TOTAL	14.98	1.86	16.84

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW

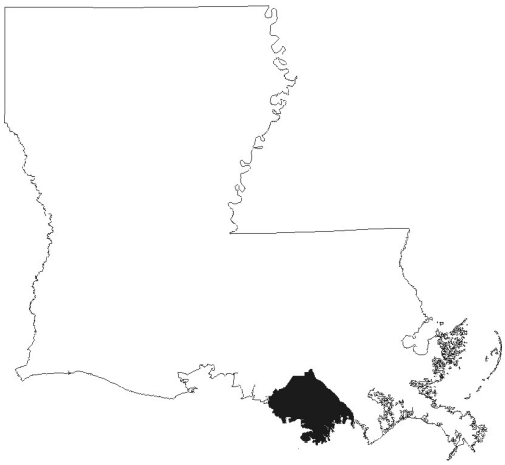
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Lake Bruin Water System		0.04
Newellton Water System	0.26	.26
St. Joseph Water System	.19	
Tensas Water Dist. Assoc.		.23
Waterproof Water System	.13	



TERREBONNE

Population: 106,523
Population served by public supply: 106,416
Per capita withdrawals (gal/d): 60
Acres irrigated: 200
Hydroelectric power instream use (Mgal/d): 0



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

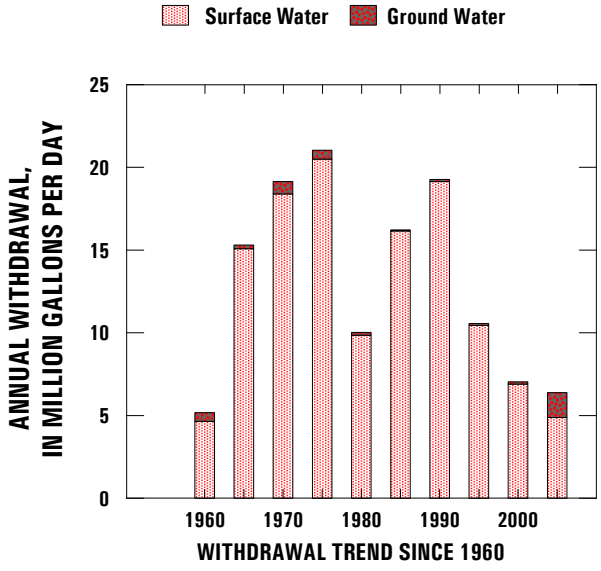
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	0.00	4.85	4.85
Industrial	.24	.00	.24
Power generation	.00	.00	.00
Rural domestic	.01	.00	.01
Livestock	.01	.02	.03
Rice irrigation	.00	.00	.00
General irrigation	.02	.00	.02
Aquaculture	1.23	.00	1.23
TOTAL	1.50	4.88	6.38

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	0.24	

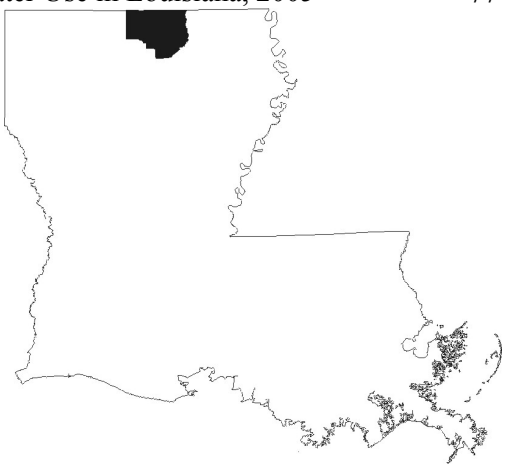
Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Terrebonne W. W. Distict 1		4.85



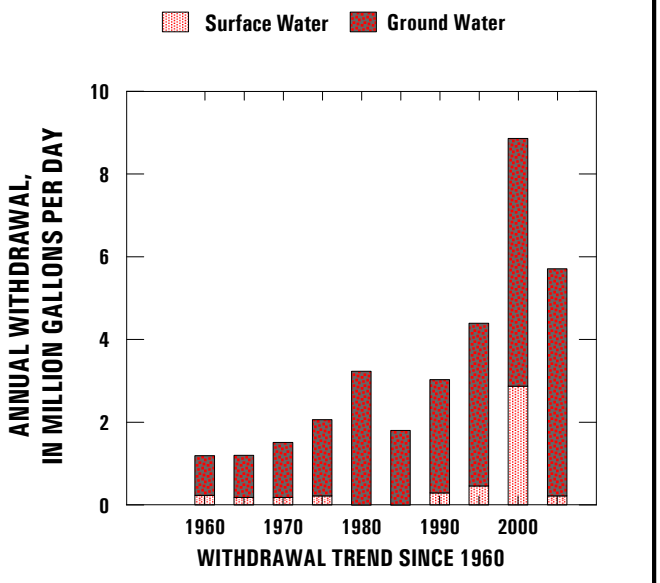
UNION

Population: 22,894
Population served by public supply: 20,467
Per capita withdrawals (gal/d): 250
Acres irrigated: 10
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	4.82	0.00	4.82
Industrial	.06	.00	.06
Power generation	.00	.00	.00
Rural domestic	.19	.00	.19
Livestock	.04	.17	.21
Rice irrigation	.00	.00	.00
General irrigation	.03	.05	.09
Aquaculture	.34	.00	.34
TOTAL	5.49	0.22	5.71



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
24	Lumber	0.06	

Withdrawals by Major Public Supplier (Mgal/d)

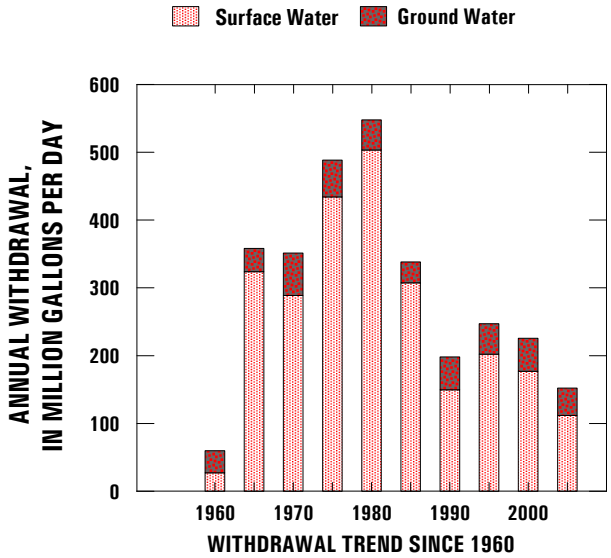
Public Supplier	GW	SW
Bernice Water System	0.18	
Concord Water System	.03	
Corney Water System	.02	
Cox Ferry Water System	.01	
D'arbonne Water System N.	.87	
Downsville Water System	.02	
Farmerville Water System	2.44	
Holmesville Water System	.21	
Junction City Water System	.02	
Linville-Haile Water System	.15	
Litroe Water System	.05	
Marion Water System	.05	
Point-Wilhite Water System	.14	
Randolph Water System	.02	
Rocky Branch W. W. Dist.	.10	
Salem Water System	.03	
Sardis Water System	.08	
Tri-Water System	.20	
Union W. W. Dist. 1	.02	
Wards Chapel W. S.	.10	
West Sterlington W. S.	.08	

VERMILION

Population: 54,751
Population served by public supply: 26,773
Per capita withdrawals (gal/d): 2,780
Acres irrigated: 77,261
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	5.21	0.00	5.21
Industrial	1.68	.00	1.68
Power generation	.00	.00	.00
Rural domestic	2.24	.00	2.24
Livestock	.08	.34	.42
Rice irrigation	11.31	105.87	117.18
General irrigation	.02	.07	.09
Aquaculture	19.84	5.54	25.38
TOTAL	40.38	111.82	152.20



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	0.92	
29	Petroleum refining	.75	

Withdrawals by Major Public Supplier (Mgal/d)

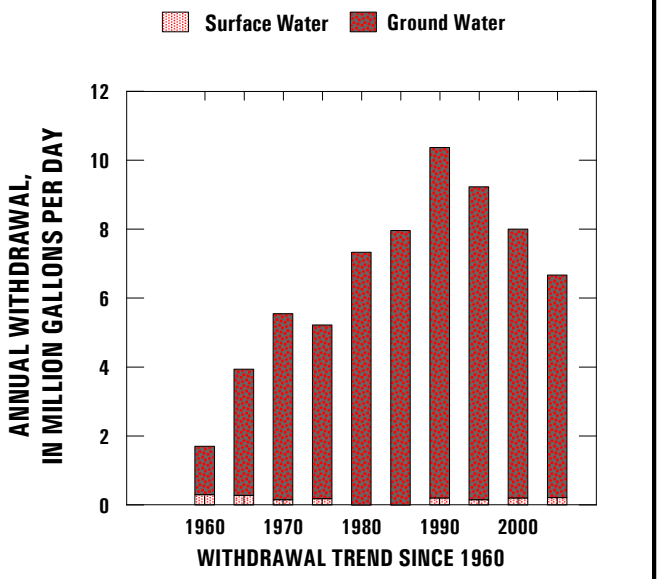
Public Supplier	GW	SW
Abbeville Water System	2.10	
Delcambre Water System	.87	
Erath Water System	.39	
Grand Prairie Water System	.02	
Gueydan Water System	.42	
Kaplan Water System	.56	
Magnolia Plantation W. S.	.37	
Maurice Water System	.11	
Nunez Water Works District 1	.03	
Pecan Island W. W. Dist. 3	.05	
Southeast W. W. Dist. 2	.29	

VERNON

Population: 49,545
Population served by public supply: 32,700
Per capita withdrawals (gal/d): 135
Acres irrigated: 10
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	5.06	0.00	5.06
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	1.35	.00	1.35
Livestock	.02	.15	.16
Rice irrigation	.00	.00	.00
General irrigation	.00	.06	.06
Aquaculture	.03	.00	.03
TOTAL	6.46	0.21	6.67



Withdrawals by Major Industrial Group (Mgal/d)

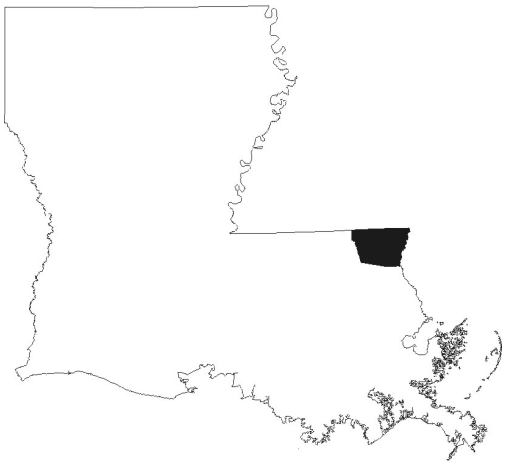
Standard Industrial Classification	GW	SW

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Anacoco Water System	0.10	
E. Central Vernon W. S.	.31	
Hornbeck Water System	.04	
Leesville Water System	1.76	
Pitkin Water System	.07	
Rosepine Water System	.14	
S. Vernon W. W. Dist. 1	.15	
Simpson Water System	.05	
Vernon Ward 4 Water Dist.	.76	
W. Vernon Parish W. W. Dist.	.17	

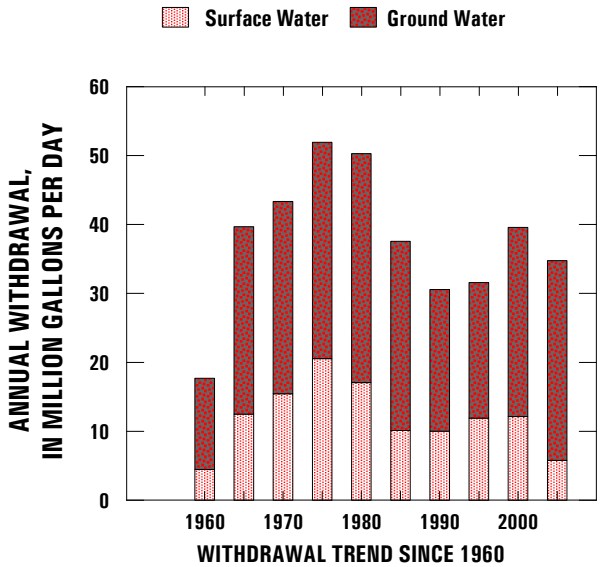
WASHINGTON

Population: 44,161
Population served by public supply: 27,866
Per capita withdrawals (gal/d): 787
Acres irrigated: 25
Hydroelectric power instream use (Mgal/d): 0



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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	11.94	0.00	11.94
Industrial	15.37	5.58	20.96
Power generation	.00	.00	.00
Rural domestic	1.30	.00	1.30
Livestock	.16	.16	.32
Rice irrigation	.00	.00	.00
General irrigation	.19	.05	.23
Aquaculture	.00	.00	.00
TOTAL	28.96	5.79	34.75



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	0.12	14.40
26	Paper products		5.58

Withdrawals by Major Public Supplier (Mgal/d)

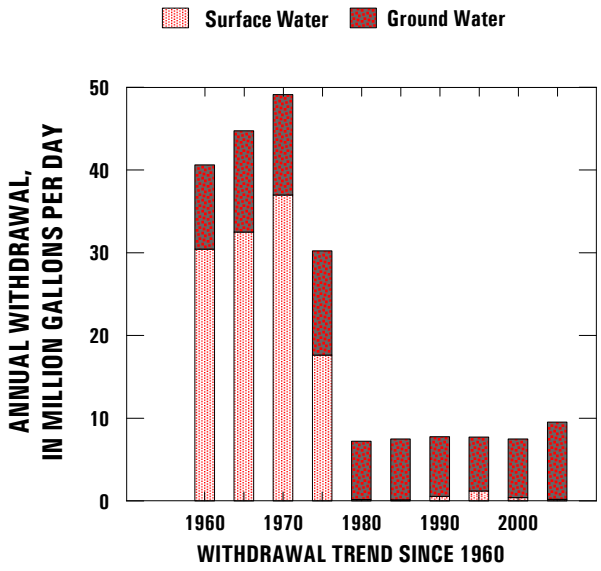
Public Supplier	GW	SW
Angie Water System	0.07	
Bogalusa Water System	9.83	
Bogue Lusa W. W. Dist.	.35	
Franklinton Water System	.97	
Rural Franklinton W. S.	.19	
Varnado W. W. District	.52	

WEBSTER

Population: 41,254
Population served by public supply: 36,634
Per capita withdrawals (gal/d): 231
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	5.97	0.00	5.97
Industrial	2.91	.00	2.91
Power generation	.00	.00	.00
Rural domestic	.37	.00	.37
Livestock	.02	.16	.17
Rice irrigation	.00	.00	.00
General irrigation	.00	.04	.04
Aquaculture	.06	.00	.06
TOTAL	9.33	0.19	9.52



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
14	Nonfuels/nonmetals mining	0.7	
24	Lumber	.06	
26	Paper products	.89	
29	Petroleum refining	.53	
34	Metal products	.75	

Withdrawals by Major Public Supplier (Mgal/d)

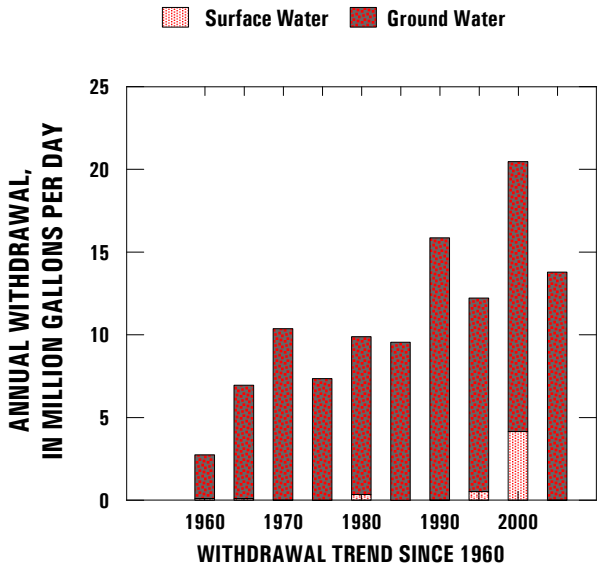
Public Supplier	GW	SW
Bistineau Water System	0.09	
Blocker Water Works Corp.	.07	
Central Water System	.03	
Cotton Valley Water System	.06	
Cullen Water System	.15	
Dorcheat Acres Water System	.02	
Doyline Water System	.05	
Dubberly Water System	.08	
Germantown Water System	.14	
Gilark Water System	.05	
Gilgal Water System	.08	
Heflin Water System	.04	
Horse Shoe Road W. S.	.02	
Jenkins Comm. Water System	.11	
Leton Water System	.06	
McIntyre Water System	.03	
Midway Water Works	.04	
Minden Water System	2.09	
Pleasant Valley Water System	.05	
Salt Works Water System	.03	
Sarepta Water System	.12	
Shongaloo Water System	.10	
Sibley Water System	.11	
Springhill Water System	1.76	
State Line Water System	.02	
Thomasville Water System	.02	
Union Grove Water System	.03	
Village Water System	.34	

WEST BATON ROUGE

Population: 21,880
Population served by public supply: 21,399
Per capita withdrawals (gal/d): 630
Acres irrigated: 0
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	6.71	0.00	6.71
Industrial	4.32	.00	4.32
Power generation	.00	.00	.00
Rural domestic	.05	.00	.05
Livestock	.02	.01	.03
Rice irrigation	.00	.00	.00
General irrigation	.02	.01	.02
Aquaculture	2.66	.00	2.66
TOTAL	13.77	0.02	13.79



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
20	Food products	2.15	
28	Chemicals	1.16	
29	Petroleum refining		

Withdrawals by Major Public Supplier (Mgal/d)

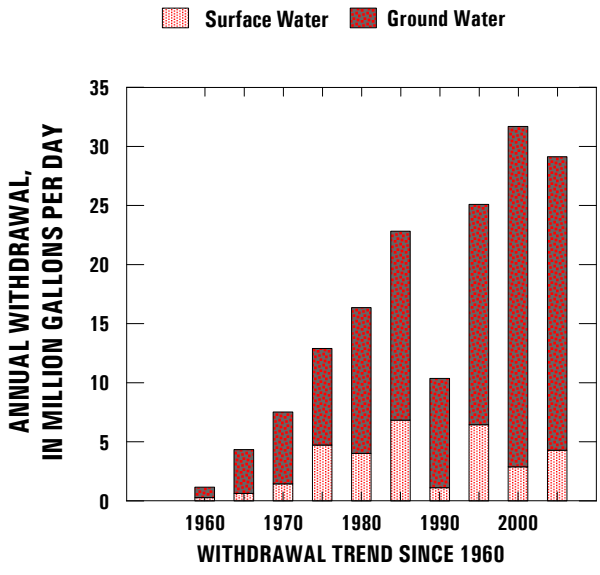
Public Supplier	GW	SW
Plaquemine Light & Water	1.15	
Port Allen Water System	.58	
W. Baton Rouge Gas & Water	2.77	
W. Baton Rouge Water Dist. 1	.16	
W. Baton Rouge Water Dist. 2	.99	
W. Baton Rouge Water Dist. 4	.91	
Westport Properties	.16	

WEST CARROLL

Population: 11,963
Population served by public supply: 11,030
Per capita withdrawals (gal/d): 2,435
Acres irrigated: 38,503
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	1.65	0.00	1.65
Industrial	.00	.00	.00
Power generation	.00	.00	.00
Rural domestic	.07	.00	.07
Livestock	.11	.02	.13
Rice irrigation	10.52	2.06	12.57
General irrigation	12.49	2.20	14.69
Aquaculture	.01	.00	.01
TOTAL	24.85	4.28	29.13



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 and Sewer	0.08	
Fiske Union Water System	.24	
Forest Water System	.10	
Goodwill Water System	.18	
Monticello Water System	.08	
N.- E.- W. Carroll W. S.	.37	
Oak Grove Water System	.40	
Pioneer-Darnell Water System	.20	

WEST FELICIANA

Population: 15,108
Population served by public supply: 14,594
Per capita withdrawals (gal/d): 3,856
Acres irrigated: 10
Hydroelectric power instream use (Mgal/d): 0

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

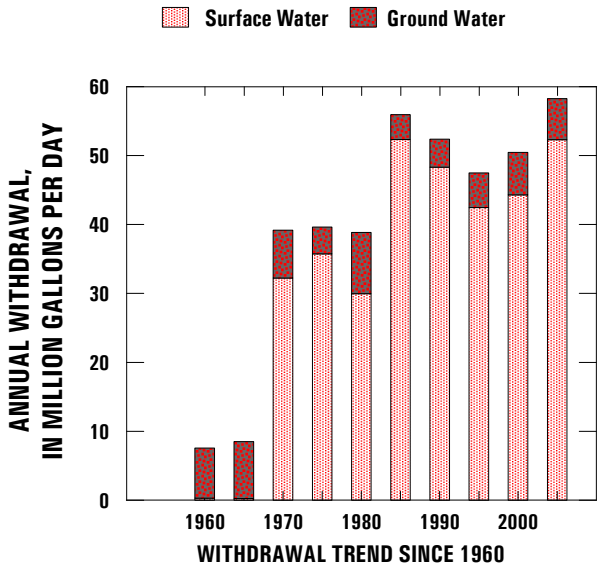
	Ground Water (GW)	Surface Water (SW)	Total
Public supply	4.57	0.00	4.57
Industrial	1.25	33.29	34.54
Power generation	.02	18.88	18.91
Rural domestic	.10	.00	.10
Livestock	.00	.05	.05
Rice irrigation	.00	.00	.00
General irrigation	.00	.09	.09
Aquaculture	.00	.00	.00
TOTAL	5.95	52.31	58.25

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
26	Paper products	1.25	33.29

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
St. Francisville Water System	0.59	
W. Feliciana Water District 2	.73	
W. Feliciana Water District 13	1.42	

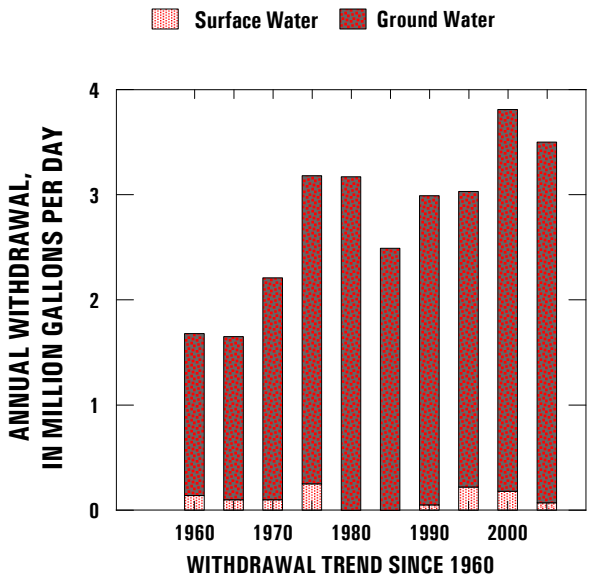


WINN

Population: 16,151
Population served by public supply: 13,421
Per capita withdrawals (gal/d): 217
Acres irrigated: 100
Hydroelectric power instream use (Mgal/d): 0

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	2.13	0.00	2.13
Industrial	1.02	.00	1.02
Power generation	.00	.00	.00
Rural domestic	.22	.00	.22
Livestock	.01	.03	.04
Rice irrigation	.00	.00	.00
General irrigation	.05	.04	.09
Aquaculture	.00	.00	.00
TOTAL	3.43	0.07	3.50



Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification		GW	SW
24	Lumber	0.60	
28	Chemicals	.42	

Withdrawals by Major Public Supplier (Mgal/d)

Public Supplier	GW	SW
Atlanta Water System	0.10	
Backwood Village W. S.	.05	
Calvin Water System	.04	
Dodson Water System	.08	
Hudson-Gaars Mill W. S.	.03	
Hwy 84 West Water System	.05	
Jordan Hill\Red Hill W. W.	.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, Inc.	.09	
Wheeling Water System, Inc.	.02	
Winnfield Water System	1.30	

Table 2. Water withdrawals in
[Withdrawals are in million gallons
Summation of numbers in columns

Parish	Public supply		Industrial		Power generation		Rural domestic	Livestock	
	GW	SW	GW	SW	GW	SW	GW	GW	SW
Acadia	6.04		0.01				1.31	0.12	0.01
Allen	3.71		.07				.25	.06	.02
Ascension	2.64	1.53	3.04	188.77			3.29	.11	.03
Assumption		3.26	14.14	1.52			.18		
Avoyelles	4.60		.02				.22	.21	
Beauregard	3.73		22.01				.77	.08	.06
Bienville	1.94		10.84				.36	.04	.02
Bossier	1.73	10.67	.42	.02			1.28	.07	.02
Caddo	1.56	50.04	.09	.04		14.18	1.63	.10	.16
Calcasieu	25.42	0.41	43.63	180.24	1.40	14.04	2.19	.19	.28
Caldwell	1.97						.07	.02	.02
Cameron	2.09		.62	4.66			.10	.10	.29
Catahoula	1.09						.10	.02	.04
Claiborne	2.28						.17	.02	.03
Concordia	1.75	1.50				8.26	.06	.07	.01
DeSoto	1.34	1.64	1.34	16.70			.62	.18	.06
East Baton Rouge	67.03		70.69	20.41	7.32		.26	.16	.01
East Carroll	1.42						.02		.01
East Feliciana	2.84		.07				.26	.02	.18
Evangeline	5.29		1.25			96.03	.35	.14	.05
Franklin	2.08		.75				.65	.14	
Grant	1.56	2.04	.07				.22	.02	.03
Iberia	9.90		2.79	5.45			1.17	.03	.01
Iberville	2.11	1.04	18.17	516.92	.49	363.01	.15	.05	.02
Jackson	1.85						.15		.04
Jefferson		75.93	2.25	4.70	.42	1,048.93	.04		
Jefferson Davis	3.72						.38	.16	
Lafayette	22.98		.53		1.69		2.99	.16	
Lafourche		21.38		7.75			.02	.12	.12
LaSalle	1.92						.05	.01	.02
Lincoln	6.97		.66				.17		.04
Livingston	10.94		.12				2.37	.05	.03
Madison	1.75						.02	.01	.01
Morehouse	2.94		4.33	27.27			.18	.05	.01
Natchitoches	1.08	5.20		14.10			.51	.28	
Orleans		132.70	1.83		2.99	515.89	.22		
Ouachita	10.83	11.07	11.00	14.82		87.26	.43		.05
Plaquemines		7.42		128.54			.05		
Pointe Coupee	3.36		5.98		2.21	293.82	.23	.12	.08
Rapides	27.17		.65		0.12	402.39	.50	.03	.12
Red River	0.72						.22	.05	.08
Richland	2.81						.47	.05	.15
Sabine	1.22	1.36				1.91	.98	.02	.15
St. Bernard		9.35		281.42			.01		
St. Charles		8.42	4.85	973.85		2,121.17	.02	.01	.04
St. Helena	.62						.51	.13	.01
St. James		2.48	3.01	363.10			.01		
St. John the Baptist	3.68	2.66	9.55	50.71			.08		
St. Landry	10.25		1.19				.77	.13	.03
St. Martin	6.40		.23				.84	.05	.01
St. Mary	.41	9.83	2.15	3.58		153.03	.15		.05
St. Tammany	15.89		.14				6.44	.06	.04
Tangipahoa	13.65		1.31				3.27	.25	.25
Tensas	.33	.53					.02		.01
Terrebonne		4.85	.24				.01	.01	.02
Union	4.82		.06				.19	.04	.17
Vermilion	5.21		1.68				2.24	.08	.34
Vernon	5.06						1.35	.02	.15
Washington	11.94		15.37	5.58			1.30	.16	.16
Webster	5.97		2.91				.37	.02	.16
West Baton Rouge	6.71		4.32				.05	.02	.01
West Carroll	1.65						.07	.11	.02
West Feliciana	4.57		1.25	33.29	.02	18.88	.10		.05
Winn	2.13		1.02				.22	.01	.03
Subtotals	353.65	365.34	266.65	2,843.45	16.66	5,138.78	43.68	4.18	3.82
Totals	**718.99**		**3,110.09**		**5,155.44**		**43.68**	**8.00**	

Louisiana by parish, source, and principal use, 2005.
per day. GW, ground water; SW, surface water.
may differ slightly from totals due to rounding]

Irrigation				Aquaculture		Total use			Parish
Rice		General							
GW	SW	GW	SW	GW	SW	GW	SW	Total	
130.47	36.05	0.14	0.14	30.37	8.38	168.47	44.58	213.04	**Acadia**
19.51	2.23	.20		2.95	.21	26.75	2.45	29.20	**Allen**
		.04		2.52		11.65	190.33	201.98	**Ascension**
				.63		14.96	4.79	19.75	**Assumption**
16.45	5.48	2.22	.55	.61	.21	24.33	6.24	30.57	**Avoyelles**
3.23		.40	.04	.23		30.45	.10	30.55	**Beauregard**
			.12			13.17	.14	13.31	**Bienville**
.16		.24	.97	.21		4.12	11.68	15.80	**Bossier**
		2.94	.73	1.39		7.70	65.15	72.85	**Caddo**
14.44	6.98	.18		2.36	.79	89.80	202.75	292.56	**Calcasieu**
			1.49			2.06	1.51	3.57	**Caldwell**
3.11	16.26		.01		.01	6.02	21.22	27.23	**Cameron**
10.74		4.46	4.46	2.87		19.28	4.50	23.78	**Catahoula**
		.09				2.55	.03	2.57	**Claiborne**
10.90	10.90	8.60	.96	1.16	.64	22.54	22.27	44.81	**Concordia**
		.02	.17	.03		3.52	18.57	22.09	**DeSoto**
		.43		.02		145.91	20.42	166.34	**East Baton Rouge**
17.67	5.19	16.28	4.07	.46	.02	35.84	9.29	45.13	**East Carroll**
		.07	.02			3.26	.21	3.46	**East Feliciana**
48.43	7.14	.42	.05	16.89	2.95	72.77	106.21	178.97	**Evangeline**
.42	1.66	30.46	3.38	11.63	.13	46.12	5.18	51.31	**Franklin**
			.73			1.87	2.81	4.68	**Grant**
.16	1.32	.09		6.31	1.58	20.44	8.35	28.79	**Iberia**
				4.42		25.39	880.99	906.37	**Iberville**
		.04				2.03	.04	2.07	**Jackson**
		.03				2.74	1,129.56	1,132.30	**Jefferson**
126.05	12.04	.08	.05	21.39	3.84	151.78	15.93	167.70	**Jefferson Davis**
8.48	1.92	.13	.02	6.73	1.68	43.71	3.62	47.33	**Lafayette**
			.02	13.57		13.71	29.28	42.99	**Lafourche**
			.01			1.98	.04	2.01	**LaSalle**
		.01	.09			7.80	.12	7.93	**Lincoln**
		.08		.29		13.86	.03	13.89	**Livingston**
6.04		11.13	1.24			18.95	1.24	20.19	**Madison**
50.43	5.60	36.06	4.01	.59		94.58	36.90	131.48	**Morehouse**
0.88	5.01	.33	1.31	1.53	3.57	4.62	29.19	33.81	**Natchitoches**
						5.04	648.59	653.63	**Orleans**
0.84	13.00	.43	3.70		.02	23.52	129.93	153.45	**Ouachita**
			.12			.05	136.08	136.13	**Plaquemines**
2.79		1.20		4.81		20.68	293.90	314.58	**Pointe Coupee**
3.03	4.54	.69	.69	1.44	1.35	33.63	409.09	442.72	**Rapides**
		.73	.18			1.73	.26	1.99	**Red River**
8.77		12.89	12.89	1.16		26.14	13.04	39.17	**Richland**
			.05			2.23	3.47	5.70	**Sabine**
		.02				.04	290.77	290.80	**St. Bernard**
		.02	.01			4.89	3,103.49	3,108.38	**St. Charles**
		.04				1.30	.02	1.32	**St. Helena**
			.01	19.61		22.63	365.60	388.23	**St. James**
			.06			13.31	53.43	66.74	**St. John the Baptist**
18.60	9.69	1.48	.37	17.68	4.37	50.10	14.47	64.57	**St. Landry**
.35	7.94	.01	.04	3.94	33.11	11.81	41.10	52.92	**St. Martin**
		.12	.01	.43		3.26	166.50	169.75	**St. Mary**
		.13	.01	.03		22.70	.06	22.76	**St. Tammany**
		.48		.12		19.08	.25	19.32	**Tangipahoa**
2.65		11.87	1.32	.12		14.98	1.86	16.84	**Tensas**
		.02		1.23		1.50	4.88	6.38	**Terrebonne**
		.03	.05	.34		5.49	.22	5.71	**Union**
11.31	105.87	.02	.07	19.84	5.54	40.38	111.81	152.20	**Vermilion**
			.06	.03		6.46	.21	6.67	**Vernon**
		.19	.05			28.96	5.79	34.75	**Washington**
			.04	.06		9.33	.19	9.52	**Webster**
		.02	.01	2.66		13.77	.02	13.79	**West Baton Rouge**
10.52	2.06	12.49	2.20	.01		24.85	4.28	29.13	**West Carroll**
			.09			5.95	52.31	58.25	**West Feliciana**
		.05	.04			3.43	.07	3.50	**Winn**
526.42	260.89	158.08	46.74	202.66	68.39	1,571.98	8,727.40	10,299.38	
787.30		**204.83**		**271.05**		**10,299.38**			

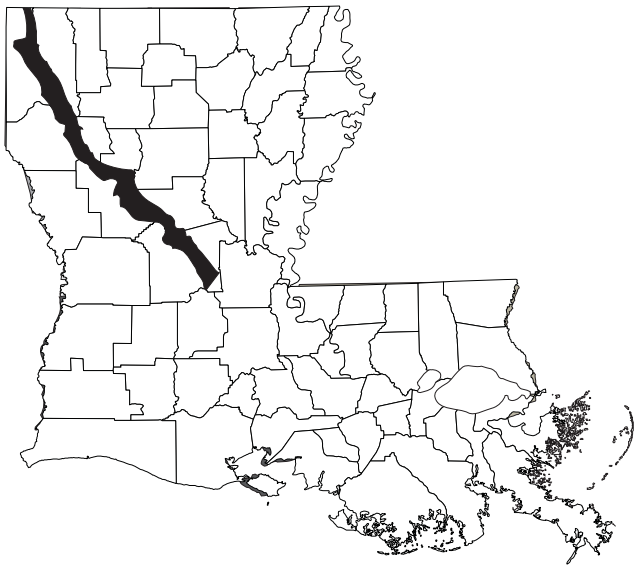
WATER USE BY AQUIFER

Total ground-water withdrawals were approximately 1,600 Mgal/d, of which 99.9 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 (southeastern Louisiana), Evangeline aquifer, Evangeline equivalent aquifer system (southeastern Louisiana), Jasper aquifer system, Jasper equivalent aquifer system (southeastern Louisiana), Catahoula aquifer, Cockfield aquifer, Sparta aquifer, and the Carrizo-Wilcox aquifer. The largest withdrawals were from the Chicot aquifer (about 660 Mgal/d) which represents 42 percent of all ground-water withdrawals. The second largest withdrawals were from the Mississippi River alluvial aquifer (about 400 Mgal/d) which represents 26 percent of all ground-water withdrawals.

This section provides information on ground-water withdrawals for the 13 aquifers 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

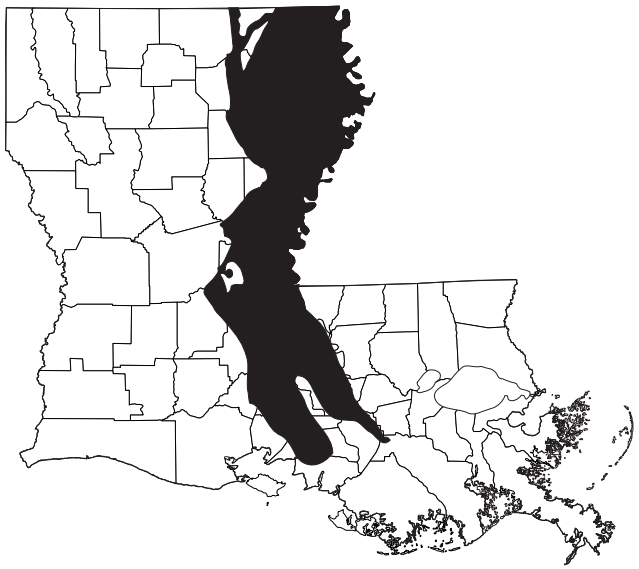


Withdrawals by Parish

Parish	Mgal/d
Avoyelles	1.37
Bossier	.50
Caddo	1.97
Catahoula	.14
DeSoto	.04
Grant	.02
Natchitoches	2.65
Rapides	1.38
Red River	.57
Winn	.01

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	0.19
Industry	.00
Power generation	.00
Rural domestic	.24
Livestock	.47
Rice irrigation	2.64
General irrigation	2.44
Aquaculture	2.66
TOTAL	8.64

MISSISSIPPI RIVER ALLUVIAL AQUIFER



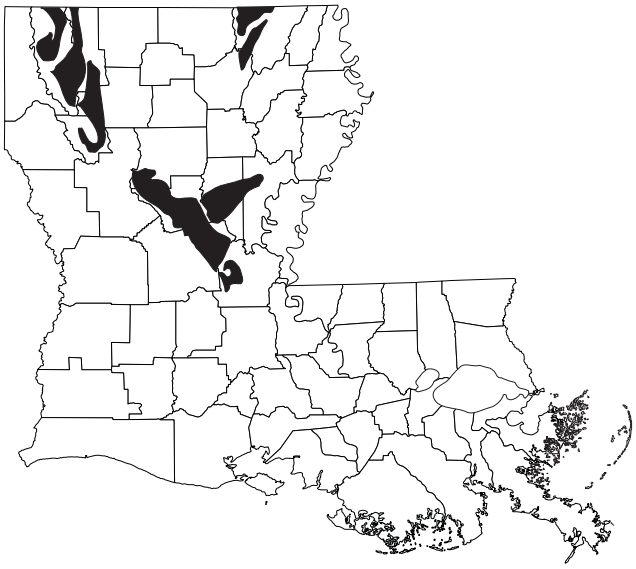
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	9.51
Industry	33.93
Power generation	.49
Rural domestic	3.50
Livestock	.97
Rice irrigation	141.10
General irrigation	146.59
Aquaculture	65.89
TOTAL	402.00

Withdrawals by Parish

Parish	Mgal/d
Ascension	1.00
Assumption	10.77
Avoyelles	19.09
Caldwell	.04
Catahoula	18.00
Concordia	20.58
East Baton Rouge	.11
East Carroll	34.42
Franklin	46.12
Iberia	3.32
Iberville	22.54
Lafayette	.57
Lafourche	13.71
LaSalle	.01
Madison	18.95
Morehouse	83.43
Ouachita	.99
Pointe Coupee	11.08
Rapides	.07
Richland	24.75
St. James	3.34
St. Landry	16.17
St. Martin	5.90
St. Mary	.47
Tensas	14.98
Terrebonne	1.50
Union	.01
West Baton Rouge	6.90
West Carroll	23.19

UPLAND TERRACE AQUIFER

(NORTHERN LOUISIANA)



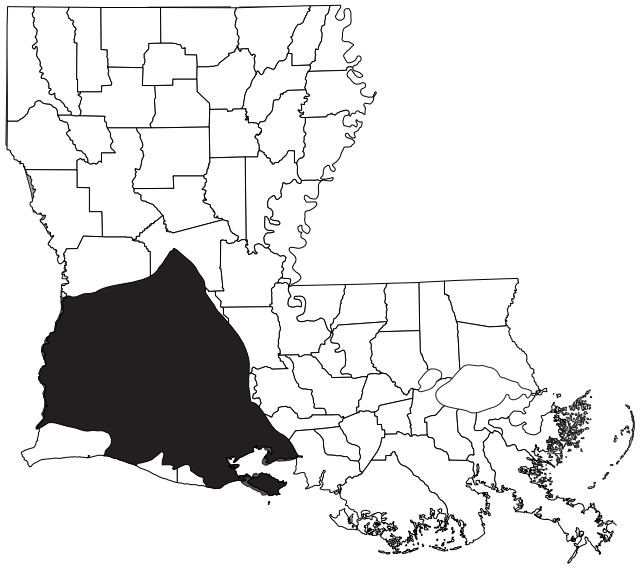
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	6.34
Industry	.36
Power generation	.00
Rural domestic	.92
Livestock	.03
Rice irrigation	3.14
General irrigation	2.10
Aquaculture	.57
TOTAL	13.47

Withdrawals by Parish

Parish	Mgal/d
Avoyelles	0.63
Bienville	.03
Bossier	.98
Caddo	.47
DeSoto	.23
Grant	.63
LaSalle	1.22
Morehouse	5.92
Natchitoches	.12
Ouachita	.07
Rapides	2.11
Red River	.16
Sabine	.01
Union	.02
Vernon	.27
Webster	.36
West Carroll	.18
Winn	.03

CHICOT

AQUIFER SYSTEM

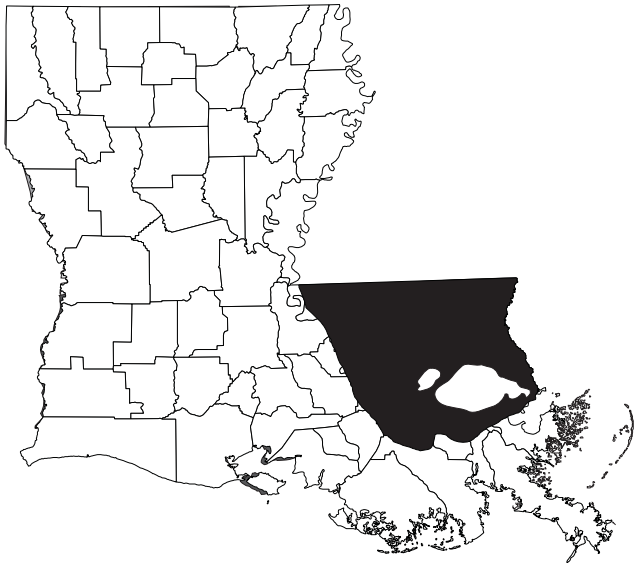


Withdrawals, in million gallons per day (Mgal/d)	
Public supply	93.49
Industry	58.43
Power generation	3.09
Rural domestic	12.63
Livestock	1.18
Rice irrigation	377.22
General irrigation	2.79
Aquaculture	112.81
TOTAL	661.64

Withdrawals by Parish

Parish	Mgal/d
Acadia	168.47
Allen	23.23
Beauregard	12.35
Calcasieu	89.04
Cameron	6.02
Evangeline	68.62
Iberia	17.11
Jefferson Davis	151.78
Lafayette	43.13
Rapides	.76
St. Landry	31.63
St. Martin	5.91
St. Mary	2.79
Vermillion	40.38
Vernon	.42

CHICOT EQUIVALENT AQUIFER SYSTEM (SOUTHEASTERN LOUISIANA)

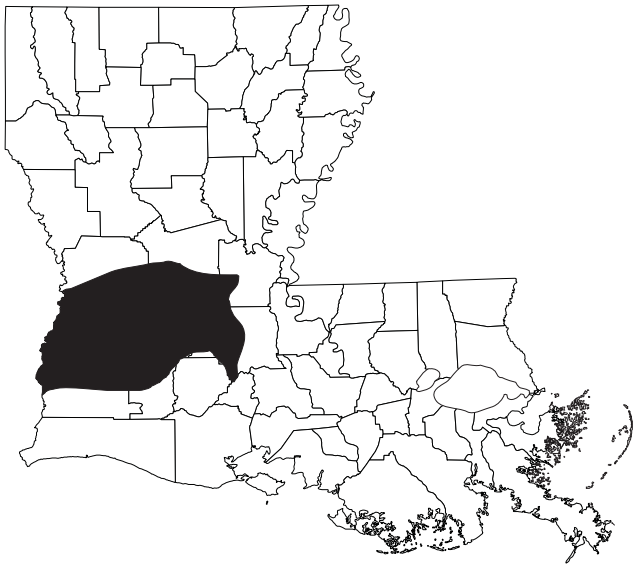


Withdrawals, in million gallons per day (Mgal/d)	
Public supply	13.18
Industry	54.68
Power generation	3.41
Rural domestic	15.61
Livestock	.47
Rice irrigation	.00
General irrigation	1.37
Aquaculture	18.32
TOTAL	107.03

Withdrawals by Parish

Parish	Mgal/d
Ascension	10.65
Assumption	4.19
East Baton Rouge	25.28
East Feliciana	.21
Iberville	1.60
Jefferson	2.74
Livingston	3.31
Orleans	5.04
Plaquemines	.04
Pointe Coupee	1.87
St. Bernard	.03
St. Charles	4.89
St. Helena	.83
St. James	19.30
St. John the Baptist	9.63
St. Tammany	5.99
Tangipahoa	4.22
Washington	7.18
West Baton Rouge	.01
West Feliciana	.02

EVANGELINE AQUIFER

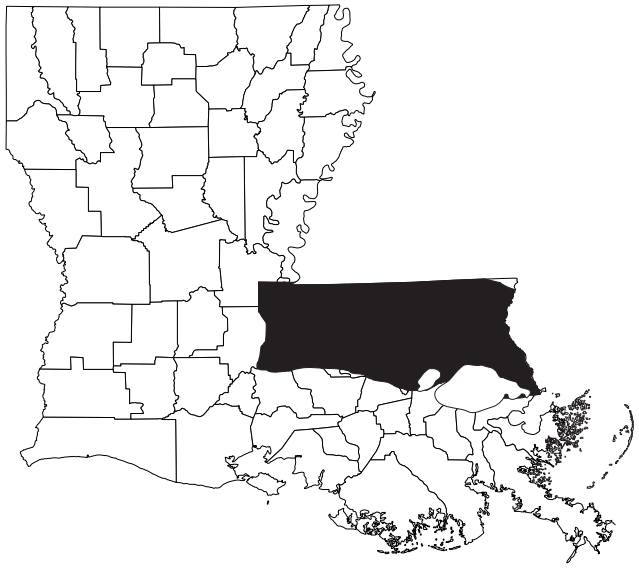


Withdrawals by Parish

Parish	Mgal/d
Allen	3.52
Avoyelles	2.48
Beauregard	3.19
Calcasieu	.77
Evangeline	4.15
Rapides	1.96
St. Landry	2.31
Vernon	.16

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	13.94
Industry	2.98
Power generation	.00
Rural domestic	.27
Livestock	.09
Rice irrigation	.95
General irrigation	.18
Aquaculture	.12
TOTAL	18.53

EVANGELINE EQUIVALENT AQUIFER SYSTEM (SOUTHEASTERN LOUISIANA)



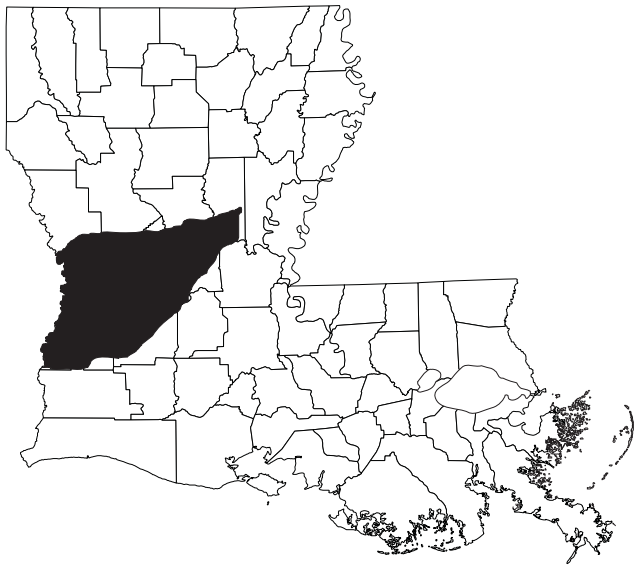
Withdrawals by Parish

Parish	Mgal/d
East Baton Rouge	52.27
East Feliciana	0.37
Livingston	4.79
Pointe Coupee	3.17
St. John the Baptist	3.68
St. Tammany	12.32
Tangipahoa	2.64
Washington	0.25
West Baton Rouge	6.85
West Feliciana	0.76

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	59.21
Industry	20.56
Power generation	4.34
Rural domestic	2.36
Livestock	.33
Rice irrigation	.07
General irrigation	.15
Aquaculture	.07
TOTAL	87.09

JASPER

AQUIFER SYSTEM

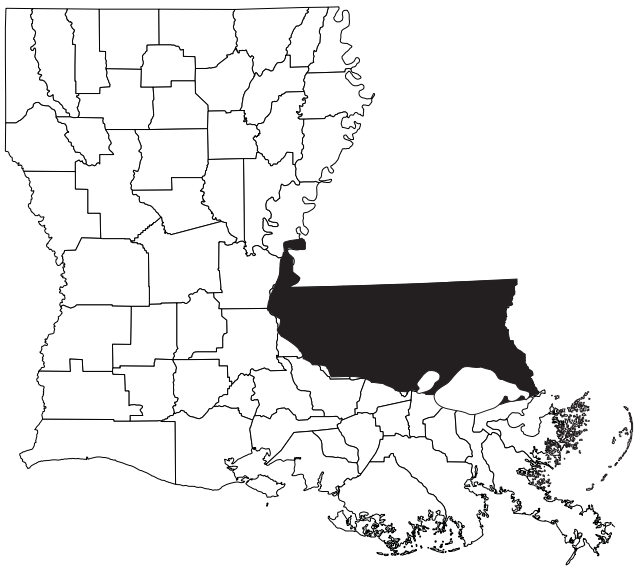


Withdrawals by Parish

Parish	Mgal/d
Avoyelles	0.11
Beauregard	14.76
Concordia	1.65
Grant	.54
LaSalle	.03
Rapides	26.47
Sabine	.02
Vernon	5.42

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	31.74
Industry	15.40
Power generation	.12
Rural domestic	1.00
Livestock	.04
Rice irrigation	.20
General irrigation	.16
Aquaculture	.35
TOTAL	49.00

JASPER EQUIVALENT AQUIFER SYSTEM (SOUTHEASTERN LOUISIANA)

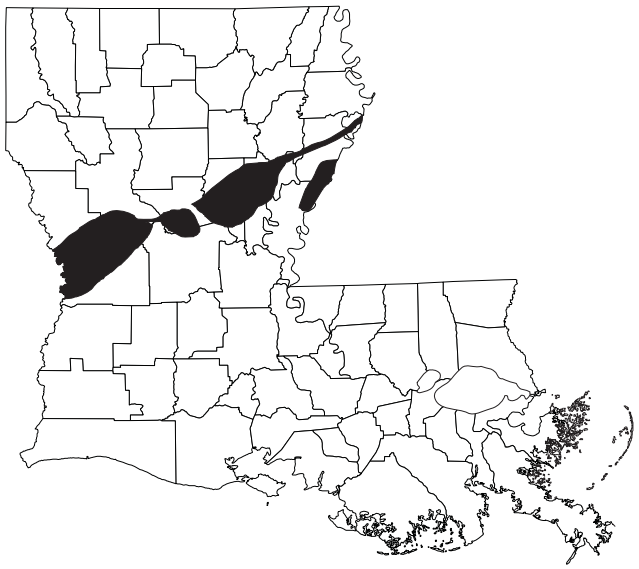


Withdrawals by Parish

Parish	Mgal/d
East Baton Rouge	68.24
East Feliciana	2.68
Iberville	1.25
Livingston	5.76
Pointe Coupee	4.57
St. Helena	.47
St. Tammany	4.39
Tangipahoa	12.21
Washington	21.53
West Baton Rouge	.01
West Feliciana	5.17

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	72.57
Industry	47.93
Power generation	5.20
Rural domestic	.31
Livestock	.12
Rice irrigation	.00
General irrigation	.03
Aquaculture	.14
TOTAL	126.29

CATAHOULA AQUIFER

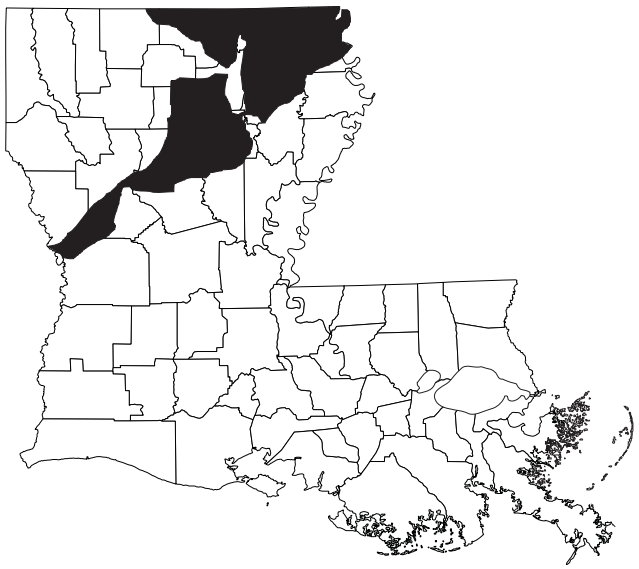


Withdrawals by Parish

Parish	Mgal/d
Catahoula	1.14
Concordia	.32
Grant	.47
LaSalle	.07
Natchitoches	.03
Rapides	.51
Sabine	.06
Vernon	.14

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	2.26
Industry	.07
Power generation	.00
Rural domestic	.24
Livestock	.03
Rice irrigation	.07
General irrigation	.09
TOTAL	2.75

COCKFIELD AQUIFER

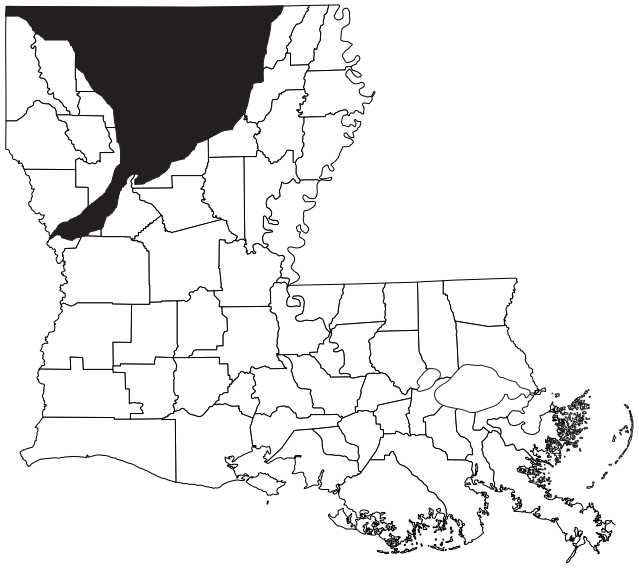


Withdrawals, in million gallons per day (Mgal/d)	
Public supply	7.29
Industry	.00
Power generation	.00
Rural domestic	.54
Livestock	.02
Rice irrigation	.36
General irrigation	.29
Aquaculture	.17
TOTAL	8.66

Withdrawals by Parish

Parish	Mgal/d
Caldwell	1.97
Claiborne	.02
East Carroll	1.43
Grant	.20
Jackson	.08
LaSalle	.44
Lincoln	.04
Morehouse	.79
Natchitoches	.04
Ouachita	.14
Richland	1.39
Sabine	.10
Union	.25
Vernon	.04
West Carroll	1.47
Winn	.25

SPARTA AQUIFER

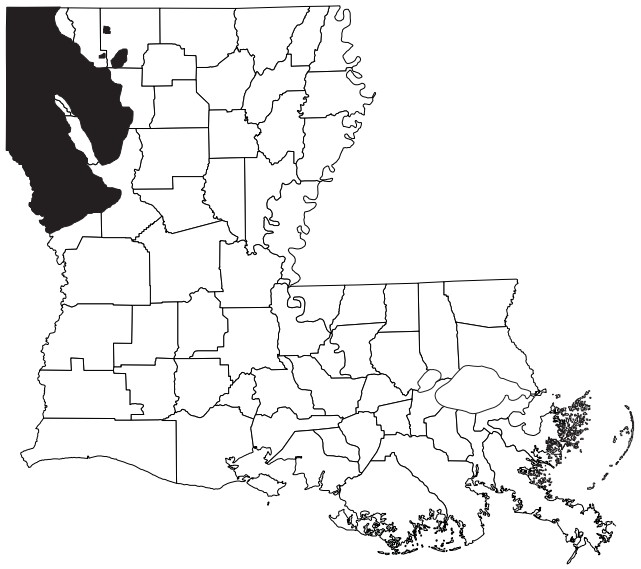


Withdrawals, in million gallons per day (Mgal/d)	
Public supply	35.70
Industry	30.01
Power generation	.00
Rural domestic	1.44
Livestock	.15
Rice irrigation	.18
General irrigation	.30
Aquaculture	.19
TOTAL	67.98

Withdrawals by Parish

Parish	Mgal/d
Bienville	12.09
Bossier	.19
Caddo	.04
Caldwell	.05
Claiborne	2.53
Jackson	1.95
LaSalle	.20
Lincoln	7.76
Morehouse	4.44
Natchitoches	.50
Ouachita	22.32
Sabine	.17
Union	5.20
Webster	7.44
Winn	3.08

CARRIZO-WILCOX AQUIFER



Withdrawals by Parish

Parish	Mgal/d
Bienville	1.01
Bossier	2.46
Caddo	5.22
DeSoto	3.25
Natchitoches	1.23
Red River	.99
Sabine	1.87
Webster	1.53

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	7.49
Industry	2.29
Power generation	.00
Rural domestic	4.60
Livestock	.28
Rice irrigation	.42
General irrigation	1.59
Aquaculture	.88
TOTAL	17.56

Table 3. Ground-water withdrawals in
[Withdrawals are in million gallons
in columns may differ slightly

Parish	Red River alluvial aquifer	Mississippi River alluvial aquifer	Upland terrace aquifer (northern Louisiana)	Chicot aquifer system	Chicot equivalent aquifer system (southeastern Louisiana)	Evangeline aquifer	Evangeline equivalent aquifer system (southeastern Louisiana)
Acadia				168.47			
Allen				23.23		3.52	
Ascension		1.00			10.65		
Assumption		10.77			4.19		
Avoyelles	1.37	19.09	0.63			2.48	
Beauregard				12.35		3.19	
Bienville			.03				
Bossier	.50		.98				
Caddo	1.97		.47				
Calcasieu				89.04		.77	
Caldwell		.04					
Cameron				6.02			
Catahoula	.14	18.00					
Claiborne							
Concordia		20.58					
DeSoto	.04		.23				
East Baton Rouge		.11			25.28		52.27
East Carroll		34.42					
East Feliciana					.21		.37
Evangeline				68.62		4.15	
Franklin		46.12					
Grant	.02		.63				
Iberia		3.32		17.11			
Iberville		22.54			1.60		
Jackson							
Jefferson					2.74		
Jefferson Davis				151.78			
Lafayette		.57		43.13			
Lafourche		13.71					
LaSalle		.01	1.22				
Lincoln							
Livingston					3.31		4.79
Madison		18.95					
Morehouse		83.43	5.92				
Natchitoches	2.65		.12				
Orleans					5.04		
Ouachita		.99	.07				
Plaquemines					.04		
Pointe Coupee		11.08			1.87		3.17
Rapides	1.38	.07	2.11	.76		1.96	
Red River	.57		.16				
Richland		24.75					
Sabine			.01				
St. Bernard					.03		
St. Charles					4.89		
St. Helena					.83		
St. James		3.34			19.30		
St. John the Baptist					9.63		3.68
St. Landry		16.17		31.63		2.31	
St. Martin		5.90		5.91			
St. Mary		.47		2.79			
St. Tammany					5.99		12.32
Tangipahoa					4.22		2.64
Tensas		14.98					
Terrebonne		1.50					
Union		.01	.02				
Vermilion				40.38			
Vernon			.27	.42		.16	
Washington					7.18		.25
Webster			.36				
West Baton Rouge		6.90			.01		6.85
West Carroll		23.19	.18				
West Feliciana					.02		.76
Winn	.01		.03				
Totals	**8.64**	**402.00**	**13.47**	**661.64**	**107.03**	**18.53**	**87.09**

Louisiana by parish and aquifer, 2005.
per day. Summation of numbers
from totals due to rounding]

Jasper aquifer system	Jasper equivalent aquifer system (southeastern Louisiana)	Catahoula aquifer	Cockfield aquifer	Sparta aquifer	Carrizo-Wilcox aquifer	Other	Parish
							Acadia
							Allen
							Ascension
							Assumption
0.11						0.65	**Avoyelles**
14.76						.16	**Beauregard**
				12.09	1.01	.04	**Bienville**
				.19	2.46		**Bossier**
				.04	5.22		**Caddo**
							Calcasieu
			1.97	.05			**Caldwell**
							Cameron
		1.14					**Catahoula**
			.02	2.53			**Claiborne**
1.65		.32					**Concordia**
					3.25		**DeSoto**
	68.24						**East Baton Rouge**
			1.43				**East Carroll**
	2.68						**East Feliciana**
							Evangeline
							Franklin
.54		.47	.20			.01	**Grant**
							Iberia
	1.25						**Iberville**
			.08	1.95			**Jackson**
							Jefferson
							Jefferson Davis
							Lafayette
							Lafourche
.03		.07	.44	.20			**LaSalle**
			.04	7.76			**Lincoln**
	5.76						**Livingston**
							Madison
			.79	4.44			**Morehouse**
		.03	.04	.50	1.23		**Natchitoches**
							Orleans
			.14	22.32			**Ouachita**
						.01	**Plaquemines**
	4.57						**Pointe Coupee**
26.47		.51				.33	**Rapides**
					.99		**Red River**
			1.39				**Richland**
.02		.06	.10	.17	1.87		**Sabine**
						.01	**St. Bernard**
							St. Charles
	.47						**St. Helena**
							St. James
							St. John the Baptist
							St. Landry
							St. Martin
							St. Mary
	4.39						**St. Tammany**
	12.21						**Tangipahoa**
							Tensas
							Terrebonne
			.25	5.20		.01	**Union**
							Vermilion
5.42		.14	.04				**Vernon**
	21.53						**Washington**
				7.44	1.53		**Webster**
	.01						**West Baton Rouge**
			1.47				**West Carroll**
	5.17						**West Feliciana**
			.25	3.08		.05	**Winn**
49.00	**126.29**	**2.75**	**8.66**	**67.98**	**17.56**	**1.27**	**Totals**

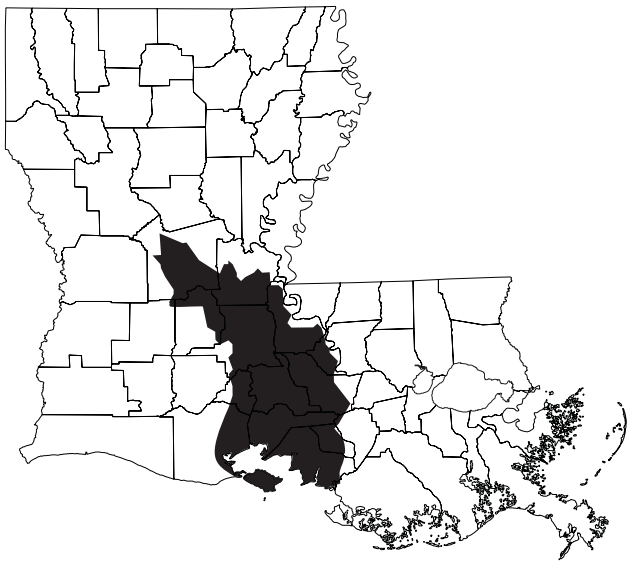
WATER USE BY SURFACE-WATER BASIN

Total surface-water withdrawals were approximately 8,700 Mgal/d, of which about 8,600 Mgal/d or 98 percent was withdrawn from the 10 major surface-water basins. They include the following: Atchafalaya-Teche-Vermilion, Calcasieu-Mermentau River, and Lake Pontchartrain-Lake Maurepas surface-water basins; Mississippi River mainstem; and Mississippi River Delta, Ouachita River, Pearl River, Red River, Sabine River, and Tensas River surface-water basins. The greatest withdrawls were from the Mississippi River mainstem (about 6,700 Mgal/d). The Mississippi River represented about 76 percent of all surface-water withdrawals in 2005, which was a 7.6 percent increase in withdrawals from 2000. Since 2000, total surface-water withdrawals were virtually unchanged.

This section presents information on surface-water withdrawals for each of the 10 major surface-water basins in Louisiana. Each one-page summary includes tables that list surface-water withdrawals by category of use: public supply, industry, power generation, rural domestic, livestock, rice irrigation, general irrigation, and aquaculture; and the total withdrawals for the basin. Parishes and the withdrawal amount within the basin also are listed. A table of withdrawals by major water bodies within the basin is listed in the lower right corner of each summary. A map on the one-page summaries shows the areal extent of the basin within Louisiana (modified from Garrison and Covay, 1994).

Withdrawals from major water bodies may be incomplete because withdrawals made for rice irrigation, general irrigation, livestock, and agriculture were estimated from few 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 sum of withdrawals from the major water bodies may be less than the total withdrawals in the basin as indicated in the table of withdrawals by category because of withdrawals attributed to miscellaneous streams.

ATCHAFALAYA-TECHE-VERMILION SURFACE-WATER BASIN



Withdrawals by Parish

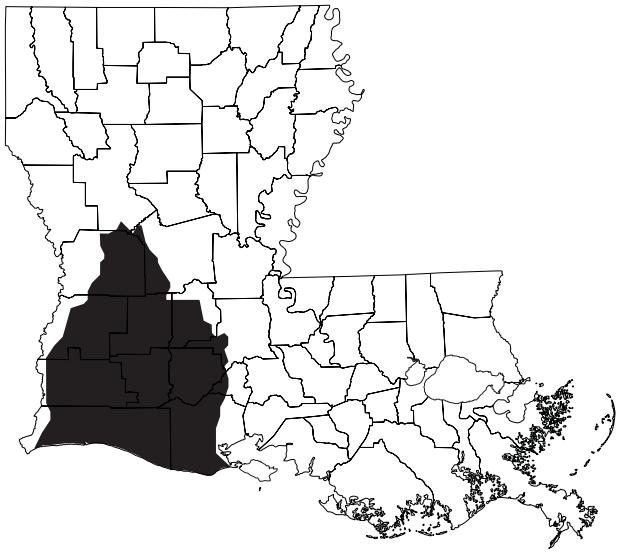
Parish	Mgal/d
Avoyelles	6.24
Evangeline	97.48
Grant	.03
Iberia	8.35
Iberville	1.42
Lafayette	2.44
Pointe Coupee	.08
Rapides	6.71
St. Landry	9.69
St. Martin	41.10
St. Mary	165.58
Vermilion	36.76
West Baton Rouge	.02

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	9.96
Industry	9.39
Power generation	249.05
Rural domestic	.00
Livestock	.33
Rice irrigation	63.36
General irrigation	1.73
Aquaculture	42.09
TOTAL	375.91

Withdrawals by Major Water Body

Water Body	Mgal/d
Alligator Bayou	1.30
Atchafalaya River	1.67
Bayou Boeuf	8.95
Bayou Cocodrie	97.48
Bayou du Lac	1.37
Bayou Portage	10.26
Bayou Teche	19.38
Charenton Canal	153.31
Chatlin Lake Canal	1.90
Intracoastal Waterway	9.51
Lower Grand River	1.04
Six Mile Lake	1.11
Vermilion River	37.95

CALCASIEU-MERMENTAU RIVER SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Acadia	44.58
Allen	2.45
Beauregard	.10
Calcasieu	202.75
Cameron	21.22
Evangeline	8.72
Jefferson Davis	15.93
Lafayette	1.19
St. Landry	4.78
Vermilion	75.05

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

Public supply	0.41
Industry	184.90
Power generation	14.04
Rural domestic	.00
Livestock	1.03
Rice irrigation	154.10
General irrigation	.36
Aquaculture	21.92
TOTAL	376.77

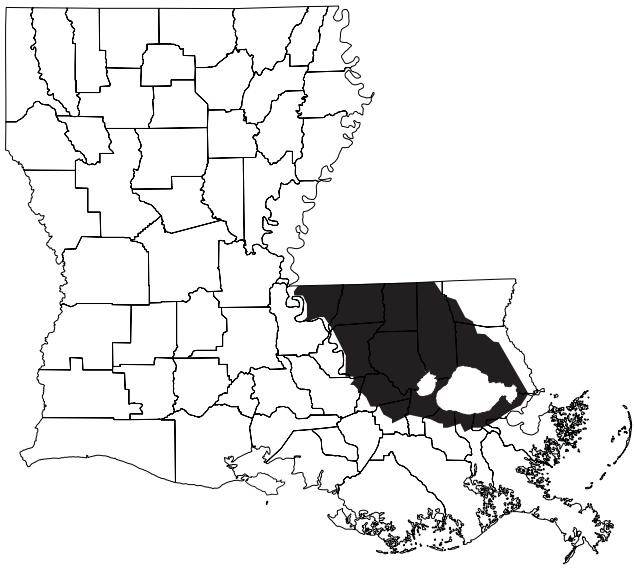
Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou Chene	4.42
Bayou Des Cannes	1.16
Bayou Lacassine	4.44
Bayou Marron	1.17
Bayou Nezpique	2.44
Bayou Plaquemine	12.16
Bayou Queue de Tortue	47.83
Calcasieu River	146.85
Intracoastal Waterway	1.98
Lyons Point Gully	6.71
Mermentau River	20.03
Millers Lake	1.08
Sabine River Diversion Canal	52.31

LAKE PONTCHARTRAIN-

LAKE MAUREPAS

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Ascension	.03
East Baton Rouge	.01
East Feliciana	.21
Livingston	.03
St. Helena	.02
St. Tammany	.06
Tangipahoa	.25
West Feliciana	.14

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	.00
Industry	.00
Power generation	.00
Rural domestic	.00
Livestock	.62
Rice irrigation	.00
General irrigation	.13
Aquaculture	.00
TOTAL	0.75

Withdrawals by Major Water Body

Water Body	Mgal/d

MISSISSIPPI RIVER MAINSTEM

Withdrawals by Parish

Parish	Mgal/d
Ascension	188.77
Concordia	8.26
East Baton Rouge	20.41
Iberville	879.57
Jefferson	1,129.56
Orleans	132.70
Plaquemines	136.08
Pointe Coupee	293.82
St. Bernard	289.06
St. Charles	3,101.27
St. James	365.60
St. John the Baptist	53.37
West Feliciana	52.17

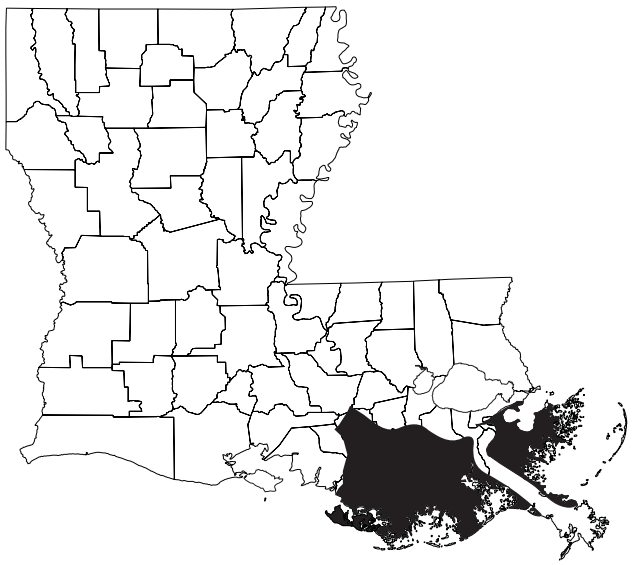
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	238.97
Industry	2,557.48
Power generation	3,854.06
Rural domestic	.00
Livestock	.01
Rice irrigation	.00
General irrigation	.13
Aquaculture	.00
TOTAL	6,650.65

Withdrawals by Major Water Body

Water Body	Mgal/d
Mississippi River	6,573.87
Tante Phine Pass	76.63

MISSISSIPPI RIVER DELTA

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Ascension	1.53
Assumption	4.79
Lafourche	29.28
Orleans	515.89
St. Bernard	1.71
St. Charles	2.22
St. John the Baptist	.06
St. Mary	.91
Terrebonne	4.88

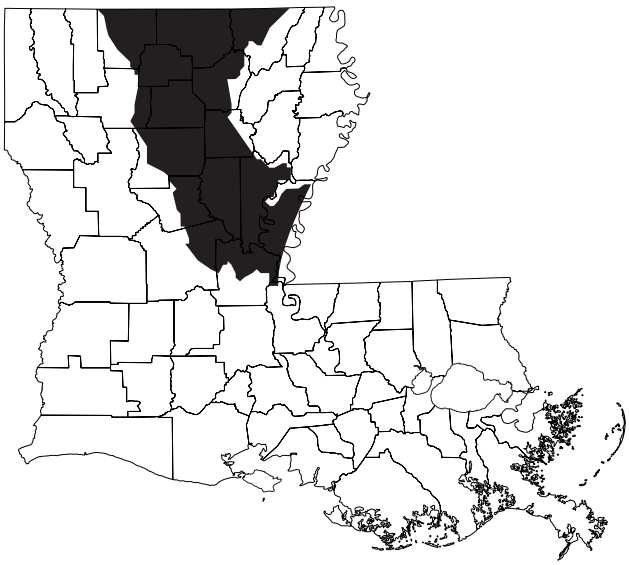
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	31.94
Industry	13.15
Power generation	515.89
Rural domestic	.00
Livestock	.19
Rice irrigation	.00
General irrigation	.10
Aquaculture	.00
TOTAL	561.28

Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou Lafourche	34.17
Humble Canal	2.16
Inner Harbor Navigation Canal	18.59
Intracostal Waterway	4.42
Lake Verret	1.29
Mississippi River Gulf Outlet	499.01

OUACHITA RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Caldwell	.02
Catahoula	4.50
Claiborne	.03
Concordia	14.01
Grant	2.77
Jackson	.04
LaSalle	.04
Lincoln	.12
Morehouse	30.39
Ouachita	107.32
Union	.22
Winn	.08

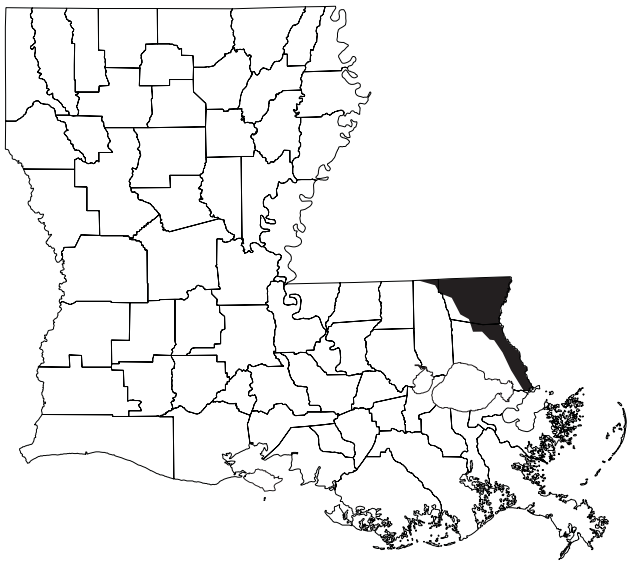
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	3.54
Industry	42.05
Power generation	87.26
Rural domestic	.00
Livestock	.48
Rice irrigation	18.08
General irrigation	7.48
Aquaculture	.66
TOTAL	159.55

Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou Batholomew	27.27
Bayou Cocodrie	8.93
Big Creek	2.03
Cross Bayou	3.09
Marango Bend	1.50
Ouachita River	110.13

PEARL RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Washington	5.79

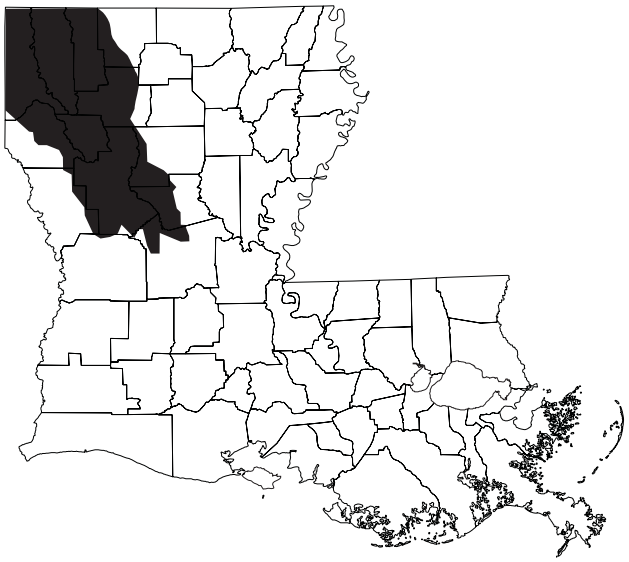
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	0.00
Industry	5.58
Power generation	.00
Rural domestic	.00
Livestock	.16
Rice irrigation	.00
General irrigation	.05
Aquaculture	.00
TOTAL	5.79

Withdrawals by Major Water Body

Water Body	Mgal/d
Bogue Lusa Creek	5.58

RED RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Bienville	0.14
Bossier	11.68
Caddo	65.15
DeSoto	.17
Natchitoches	29.19
Rapides	402.39
Red River	.26
Webster	.19

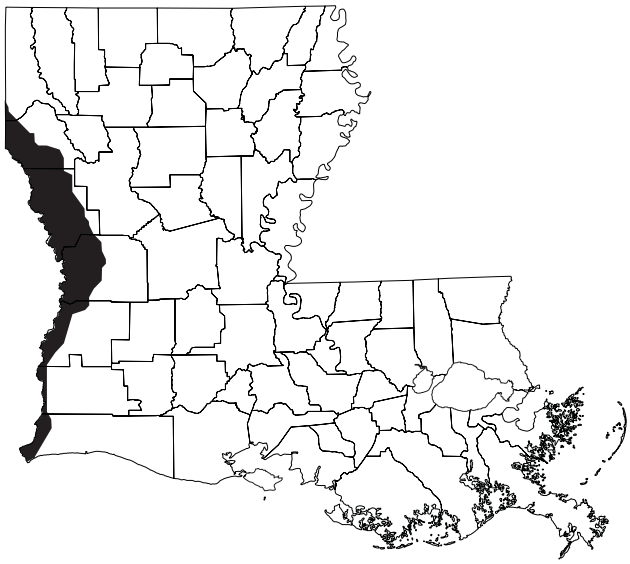
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	65.92
Industry	14.15
Power generation	416.57
Rural domestic	.00
Livestock	.44
Rice irrigation	5.01
General irrigation	3.53
Aquaculture	3.57
TOTAL	509.19

Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou Pierre	3.22
Black Lake	1.24
Caddo Lake	2.16
Cross Lake	47.92
Lake Rodemacher	402.39
Little River	2.83
Red River	23.56
Sibley Lake	5.18

SABINE RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
DeSoto	18.40
Sabine	3.47
Vernon	.21

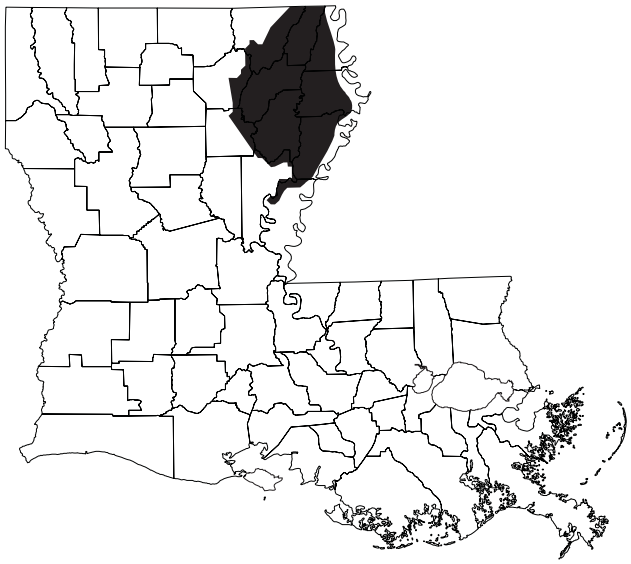
Withdrawals, in million gallons per day (Mgal/d)	
Public supply	2.99
Industry	16.70
Power generation	1.91
Rural domestic	.00
Livestock	.35
Rice irrigation	.00
General irrigation	.11
Aquaculture	.00
TOTAL	22.07

Withdrawals by Major Water Body

Water Body	Mgal/d
Toledo Bend Reservior	21.60

TENSAS RIVER

SURFACE-WATER BASIN



Withdrawals by Parish

Parish	Mgal/d
Caldwell	1.49
East Carroll	9.28
Franklin	5.18
Madison	1.24
Morehouse	6.50
Ouachita	22.61
Richland	13.04
Tensas	1.86
West Carroll	4.28

Withdrawals, in million gallons per day (Mgal/d)	
Public supply	11.60
Industry	.05
Power generation	.00
Rural domestic	.00
Livestock	.20
Rice irrigation	20.35
General irrigation	33.13
Aquaculture	.15
TOTAL	65.48

Withdrawals by Major Water Body

Water Body	Mgal/d
Bayou de Siard	11.05
Bayou Lafourche	5.22
Bayou Macon	11.97
Big Creek	3.13
Big Cypress Creek	4.45
Boeuf River	8.04
Joes Bayou	1.45
Lake Bruin	1.19

TOTAL WATER USE

Total withdrawals from surface-water and ground-water sources in 2005 (fig. 12) were approximately 10,300 Mgal/d. Of this total, about 1,600 Mgal/d was from ground water and about 8,700 Mgal/d was from surface water (table 2). Withdrawals for power generation accounted for about 50 percent of the total, industry about 30 percent, irrigation about 9.6 percent (rice and general irrigation combined), public supply about 7.0 percent, aquaculture about 2.6 percent, and rural domestic and livestock combined accounted for the other 0.5 percent (figs. 13-15). Figures 16 and 17 show the distribution of surface- and ground-water withdrawals by parish.

Forty-two percent (about 660 Mgal/d) of all ground water was withdrawn from the Chicot aquifer system, and 26 percent (about 400 Mgal/d) was withdrawn from the Mississippi River alluvial aquifer (table 3). About 76 percent (about 6,700 Mgal/d) of all surface water was withdrawn from the Mississippi River mainstem.

St. Charles Parish had the largest surface-water withdrawals and the largest total withdrawals in the State, about 3,100 Mgal/d, mostly attributable to power generation and industrial water use. Acadia Parish had ground-water withdrawals of about 170 Mgal/d, the largest in the State, mostly attributable to about 130 Mgal/d for rice irrigation water use (table 2) .

LOUISIANA

Population: 4,515,770
Population served by public supply: 3,971,389
Per capita withdrawals (gal/d): 2,282
Acres irrigated: 939,054
Hydroelectric power instream use (Mgal/d): 68,028.54

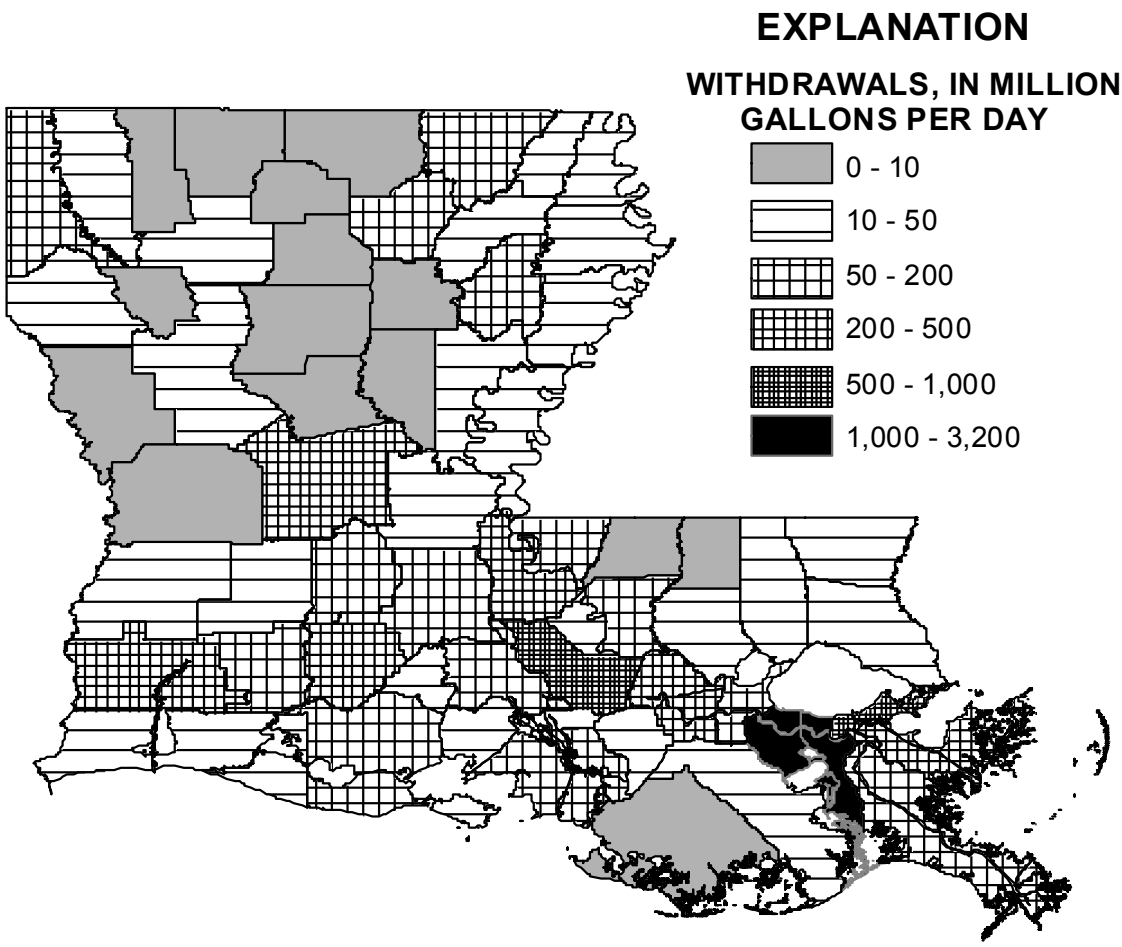


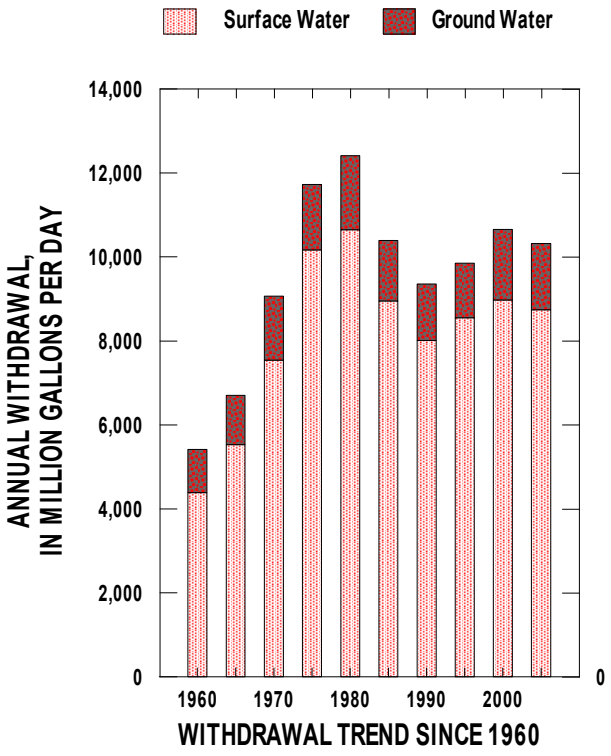
Figure 12. Summary of total water withdrawals, 2005.

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

	Ground Water (GW)	Surface Water (SW)	Total
Public supply	353.65	365.34	718.99
Industry	266.65	2,843.45	3,110.09
Power generation	16.66	5,138.78	5,155.44
Rural domestic	43.68	.00	43.68
Livestock	4.18	3.82	8.00
Rice irrigation	526.42	260.89	787.30
General irrigation	158.08	46.74	204.83
Aquaculture	202.66	68.39	271.05
TOTAL	1,571.98	8,727.40	10,299.38

Withdrawals by Major Industrial Group (Mgal/d)

Standard Industrial Classification	GW	SW
12 Coal and lignite mining	1.24	
13 Oil and gas extraction	.09	2.58
14 Nonfuels/nonmetals mining	0.70	.05
15 Building construction	.42	
20 Food products	19.49	25.88
24 Lumber	1.00	
26 Paper products	101.85	109.08
28 Chemicals	101.35	2,218.84
29 Petroleum refining	29.84	486.02
30 Rubber and plastics	1.55	
32 Glass, clay, and concrete	1.74	
33 Primary metals	2.20	1.00
34 Metal products	.75	
37 Transportation equipment	1.58	
44 Water transportation	.19	



Withdrawals by Top 25 Public Suppliers (Mgal/d)

Public Supplier	GW	SW
Alexandria Water System	18.19	
Baton Rouge Water Company	47.36	
Bogalusa Water System	9.83	
Bossier City Water System		10.67
East Jefferson Water Works		46.69
Hammond Water System	4.52	
Lafayette Water System	19.78	
Lafourche Parish W. W. Dist. 1		9.92
Lake Charles Water Co.	12.80	
Monroe Water System		11.07
Natchitoches Utility System		5.18
New Iberia Water System	6.46	
New Orleans Sewage & Water		132.70
Opelousas Water System	4.64	
Parish Water Company	14.74	
Plaquemine Parish W. W.		7.42
Ruston Utilities System	3.85	
Shreveport Water System		47.92
St. Bernard Dept. of Public Works		9.35
St. Charles W. W. Dist. 1		4.27
St. Charles W. W. Dist. 2		4.15
St. John the Baptist Utilities	3.68	
Tangipahoa Water District 2	4.77	
Terrebonne W. W. District 1		13.40
West Jefferson Water Works		23.85

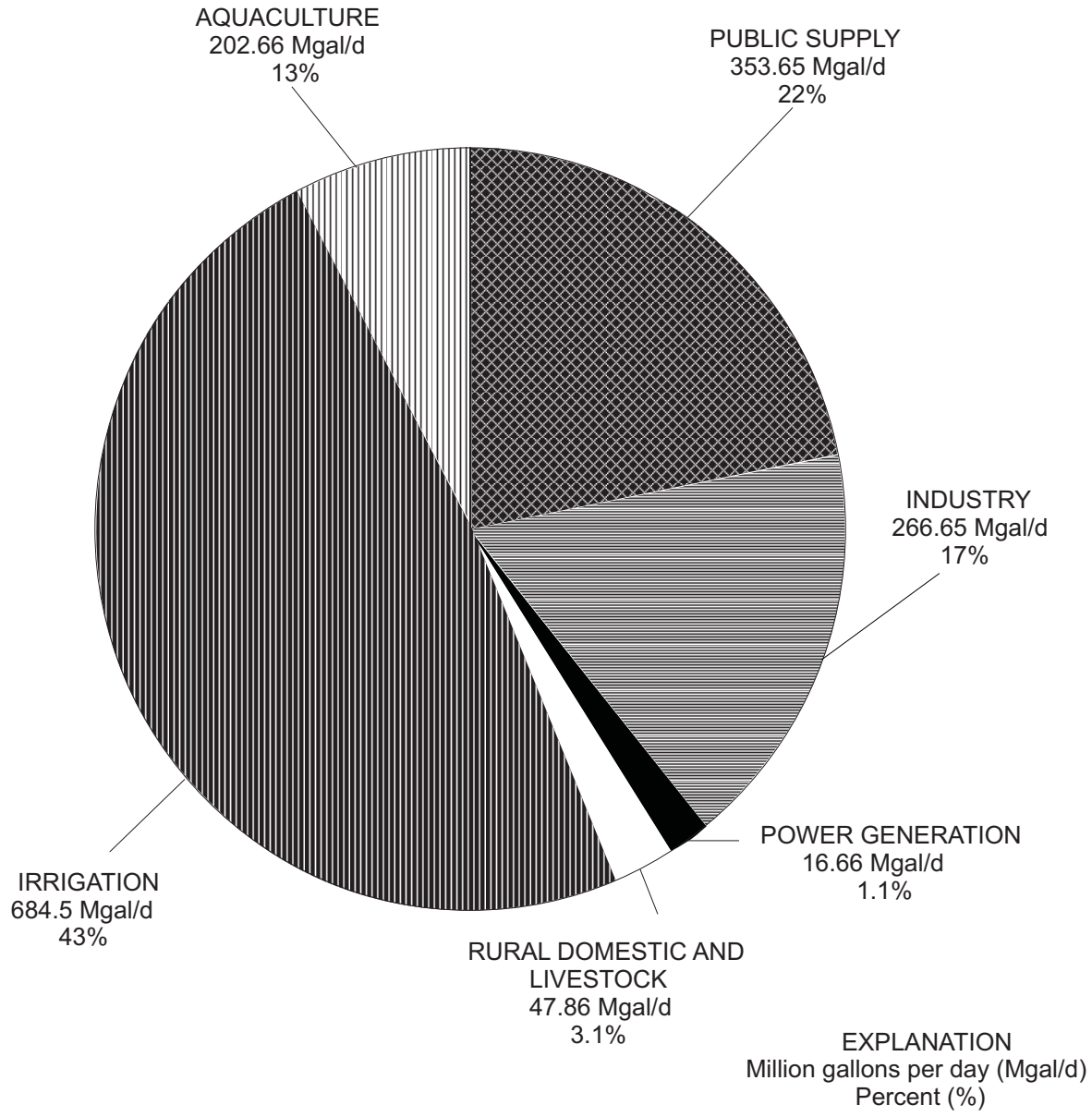


Figure 13. Ground-water withdrawals in Louisiana, 2005.

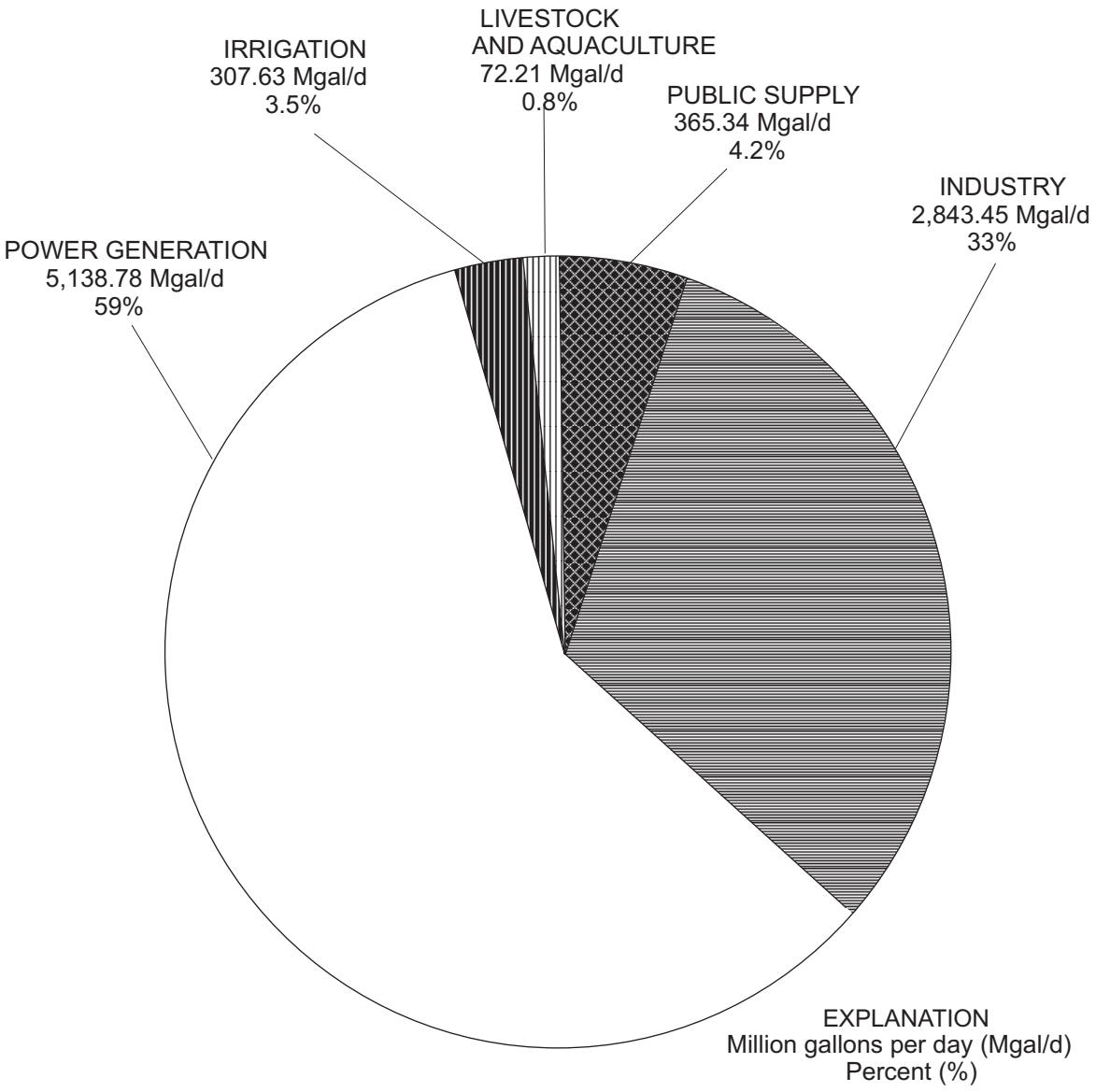


Figure 14. Surface-water withdrawals in Louisiana, 2005.

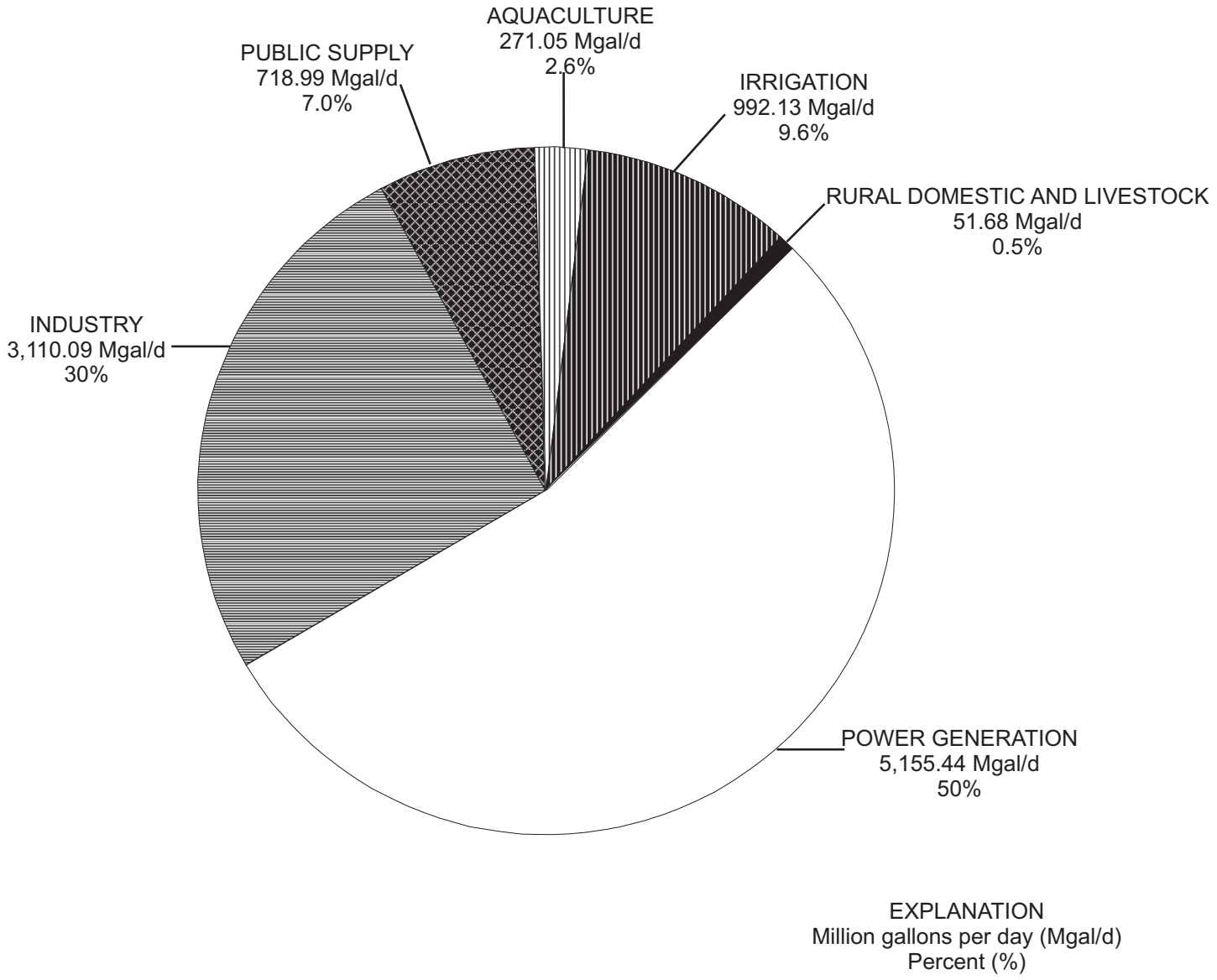


Figure 15. Total water withdrawals in Louisiana, 2005.

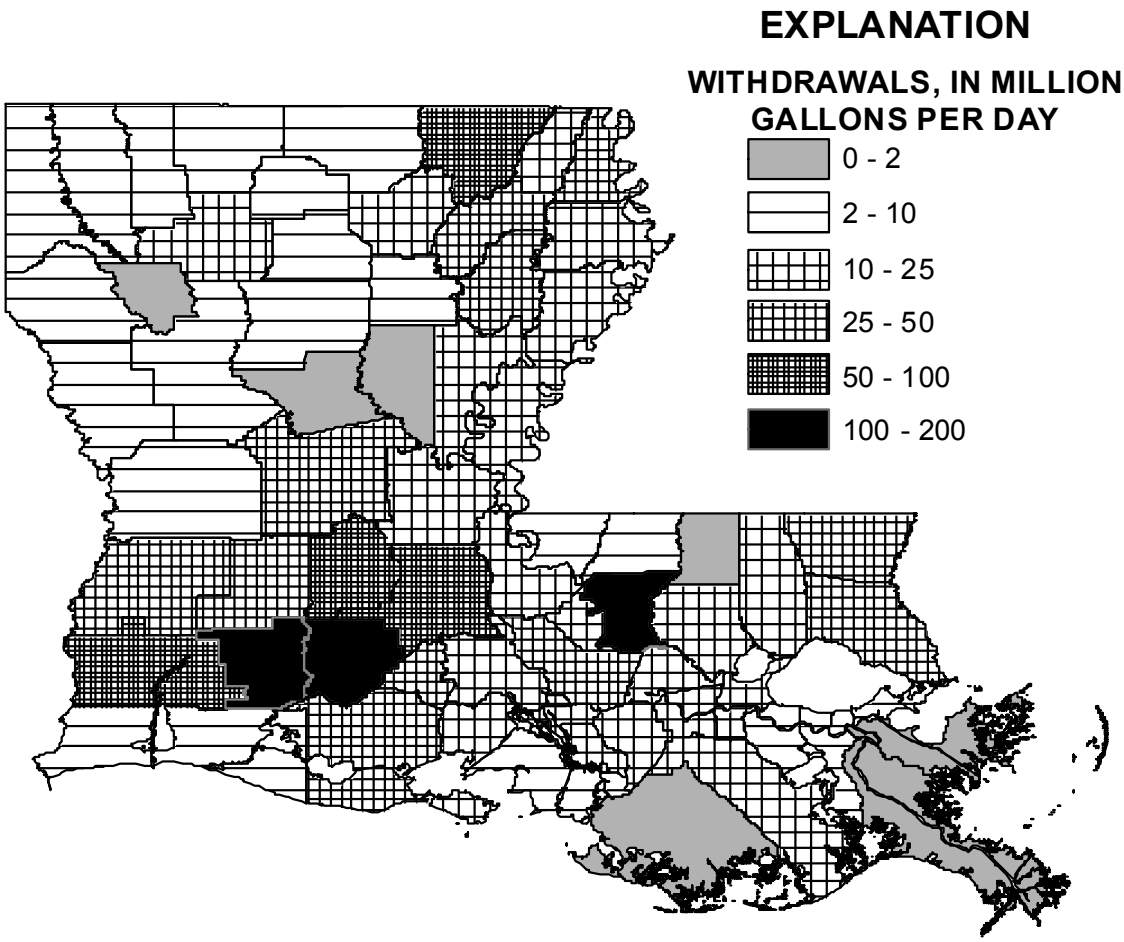


Figure 16. Ground-water withdrawals in Louisiana by parish, 2005.

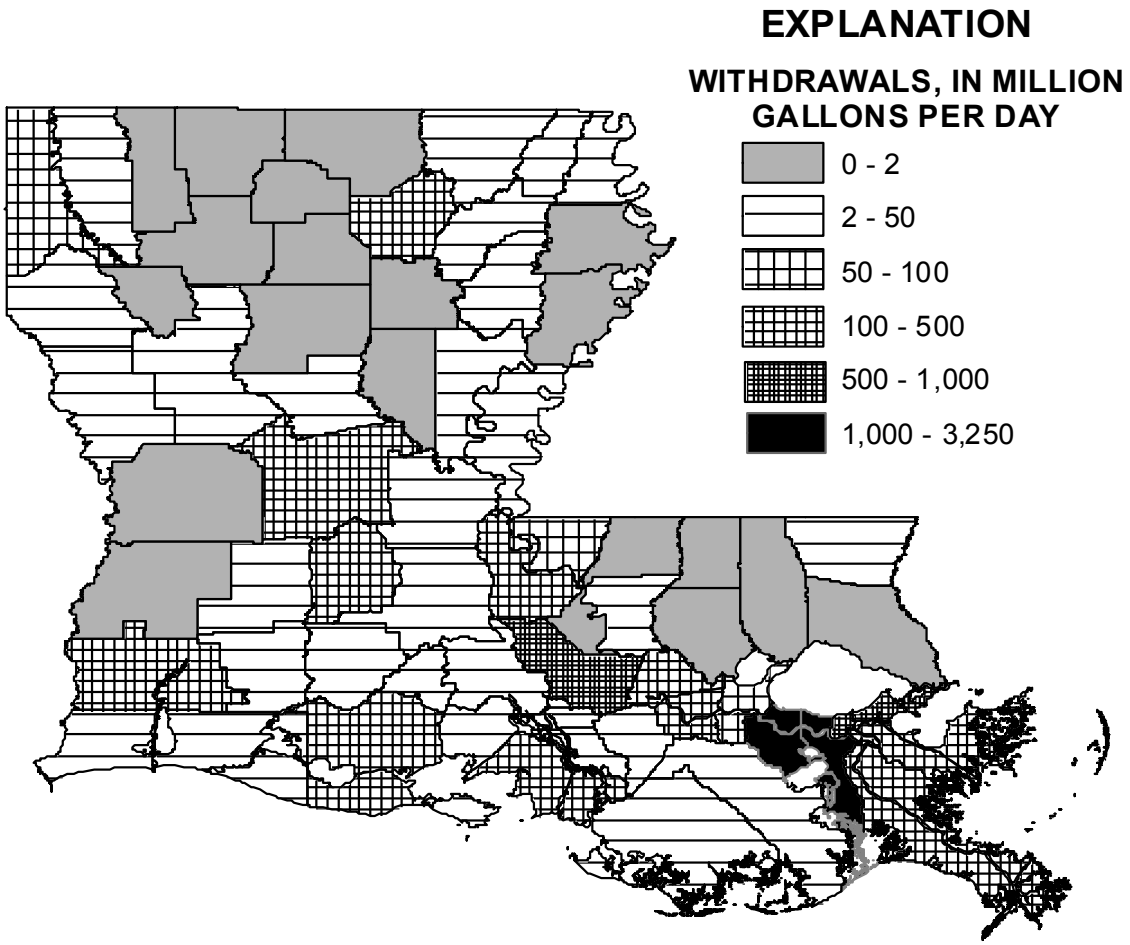


Figure 17. Surface-water withdrawals in Louisiana by parish, 2005.

WATER USE TRENDS

The State's population increased by 3.3 percent from 2000 to 2005 (fig. 18); however, total public-supply withdrawals decreased by approximately 5.1 percent from 2000 to 2005 (fig. 19). Ground-water withdrawals for public supply decreased by less than 1.0 percent, and public-supply use of surface water decreased by about 9.5 percent from 2000 to 2005. Public-supply withdrawals decreased in 37 of Louisiana's 64 parishes between 2000 and 2005. Orleans Parish had the greatest decrease, 22 Mgal/d; East Baton Rouge Parish had the greatest increase, 2.9 Mgal/d. The median change in water use was a decrease of 0.1 Mgal/d; that is, the change for half of the parishes was greater than a 0.1 Mgal/d decrease, and the change for the other half was less than the 0.1 Mgal/d decrease. The nature of the overall spread of the increase or decrease in withdrawals is better shown by providing a median change value. Since 1960, the State's population has increased by 39 percent (U.S. Census Bureau, 1961, 2005), and public-supply withdrawals have increased by 170 percent.

Industrial ground-water use decreased by 6 percent and surface-water use increased by 19 percent, for an overall increase of 16 percent in withdrawals by industry since 2000 (fig. 20). Thirty-five of the 64 parishes (55 percent) had a decrease in industrial water use from 2000 to 2005. Calcasieu Parish had the greatest decrease, 47 Mgal/d. The median change in industrial water use was a 0.06 Mgal/d decrease. Of the 18 parishes that had an increase in withdrawals, St. Charles Parish had the greatest increase, 394 Mgal/d. Total industrial withdrawals have decreased by 24 percent since 1960.

Ground-water withdrawals for power generation decreased by 34 percent from 2000 to 2005. Surface-water withdrawals decreased by 7.6 percent, resulting in a overall decrease of 7.7 percent for power-generation withdrawals from 2000 to 2005 (fig. 21). Eleven of the 16 parishes (69 percent) that had water withdrawals for power generation showed a decrease in withdrawals from 2000 to 2005. The parish with the greatest decrease in power generation water withdrawals was Iberville Parish, 210 Mgal/d. The median change in power generation withdrawals was a decrease of 3.7 Mgal/d. Pointe Coupee Parish had the greatest increase, 19 Mgal/d. Since 1965, withdrawals for power generation have increased by 130 percent.

Rural-domestic withdrawals increased by 6.0 percent from 2000 to 2005 (fig. 22). Nineteen of the 64 parishes (30 percent) had a decrease in rural-domestic water use from 2000 to 2005. Vernon Parish had the greatest decrease, 0.05 Mgal/d, and St. Tammany Parish had the greatest increase, 0.62 Mgal/d. Three of the fastest growing parishes (St. Tammany, Ascension, and Livingston Parishes) had increases greater than 10 percent. The median change in rural-domestic water use was an increase of 0.005 Mgal/d. 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. Overall, ground-water withdrawals for rural-domestic use increased by 7.5 percent in comparison to the 1960 value. In intervening years, the values increased and decreased from one period to the next.

Ground water used for livestock decreased by 33 percent and surface water used for this purpose decreased by 70 percent from 2000 to 2005. Total withdrawals for livestock decreased by 58 percent from 2000 to 2005. The decreases in livestock water use during the 5-year period are largely attributable to changes in the available data for estimation of poultry water use. Twenty-four of 63 parishes (38 percent) had an increase in livestock water use from 2000 to 2005. Richland Parish had the greatest increase, 0.11 Mgal/d, which was attributed to an increase in poultry production in the northern parishes. Other northern parishes, Lincoln and Claiborne Parishes, had a decrease in livestock water use, 2.2 and 1.2 Mgal/d, respectively. The median change in livestock water use was a decrease of 0.01 Mgal/d. Union Parish had the greatest decrease, 3.4 Mgal/d. Withdrawals for livestock decreased by 69 percent since 1960 (fig. 23).

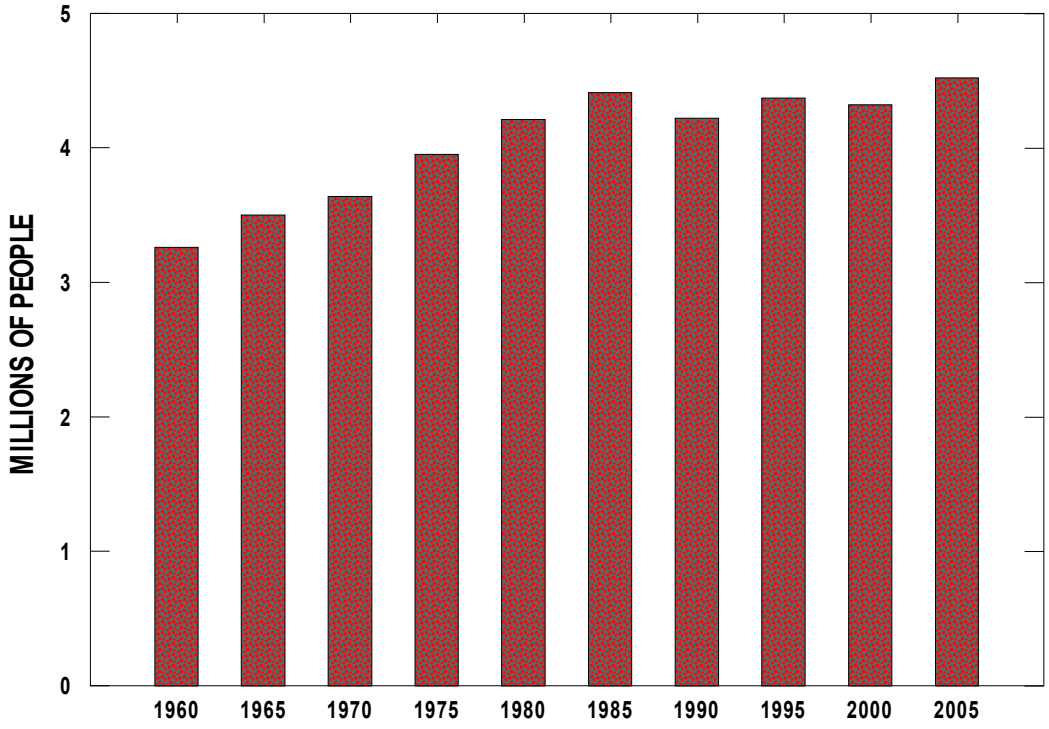


Figure 18. Total population in Louisiana, 1960-2005.

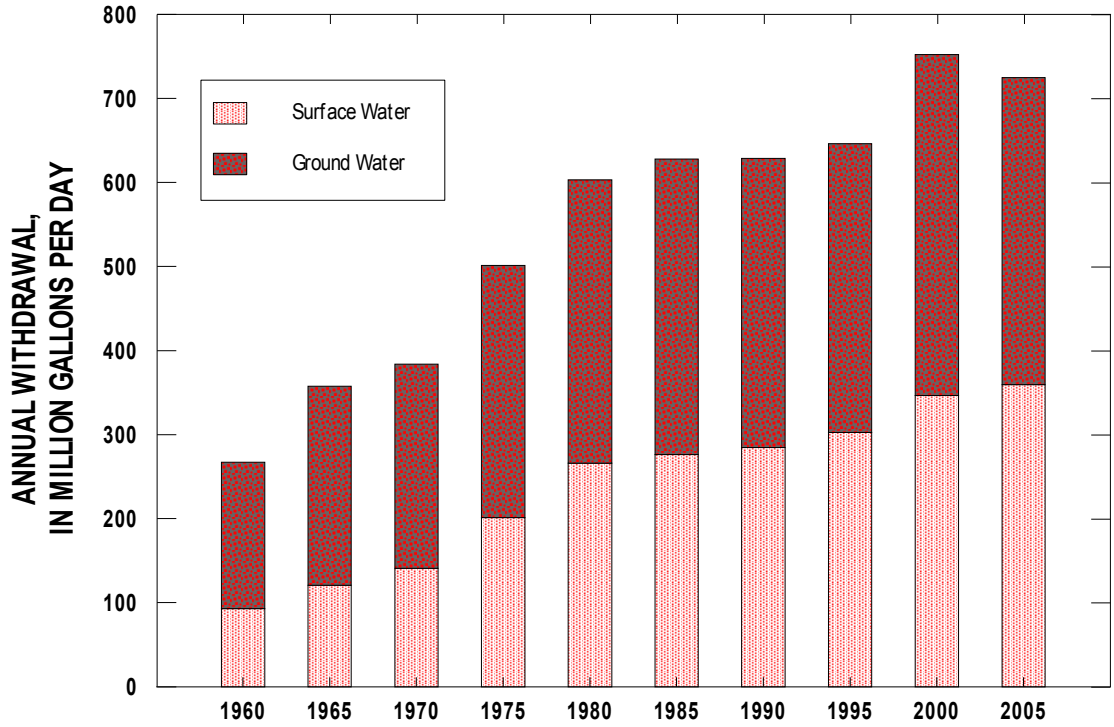


Figure 19. Public-supply water withdrawals in Louisiana, 1960-2005.

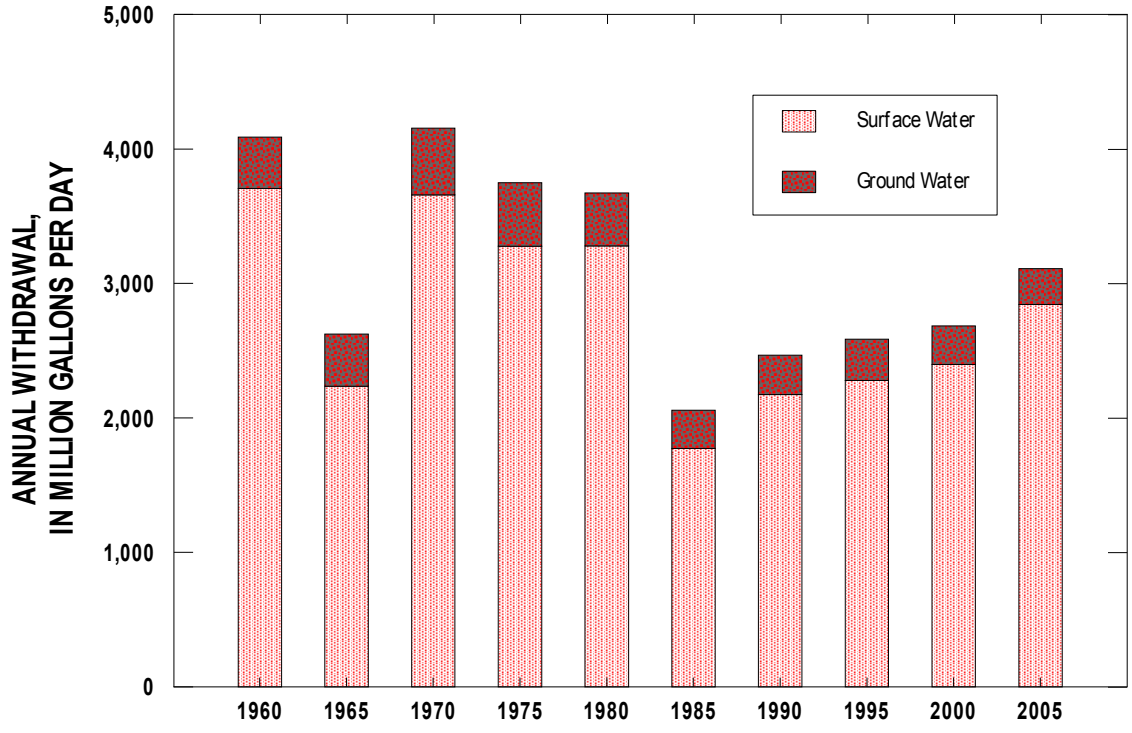


Figure 20. Industrial water withdrawals in Louisiana, 1960-2005.

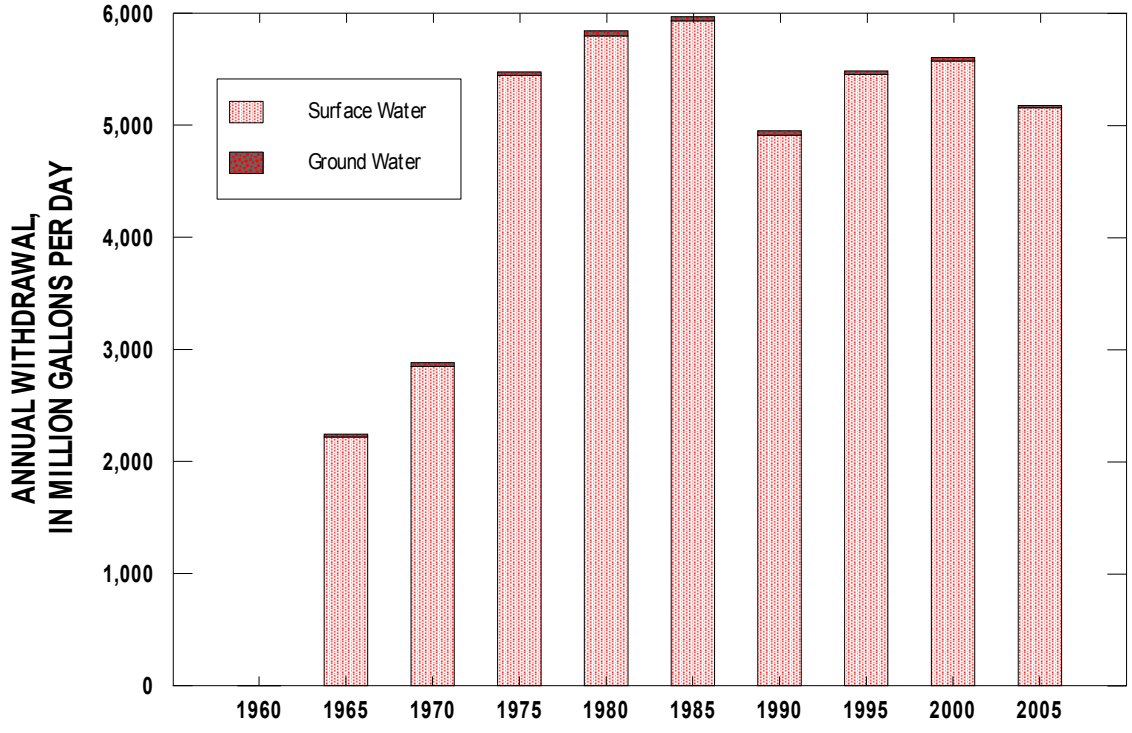


Figure 21. Power-generation water withdrawals in Louisiana, 1965-2005.

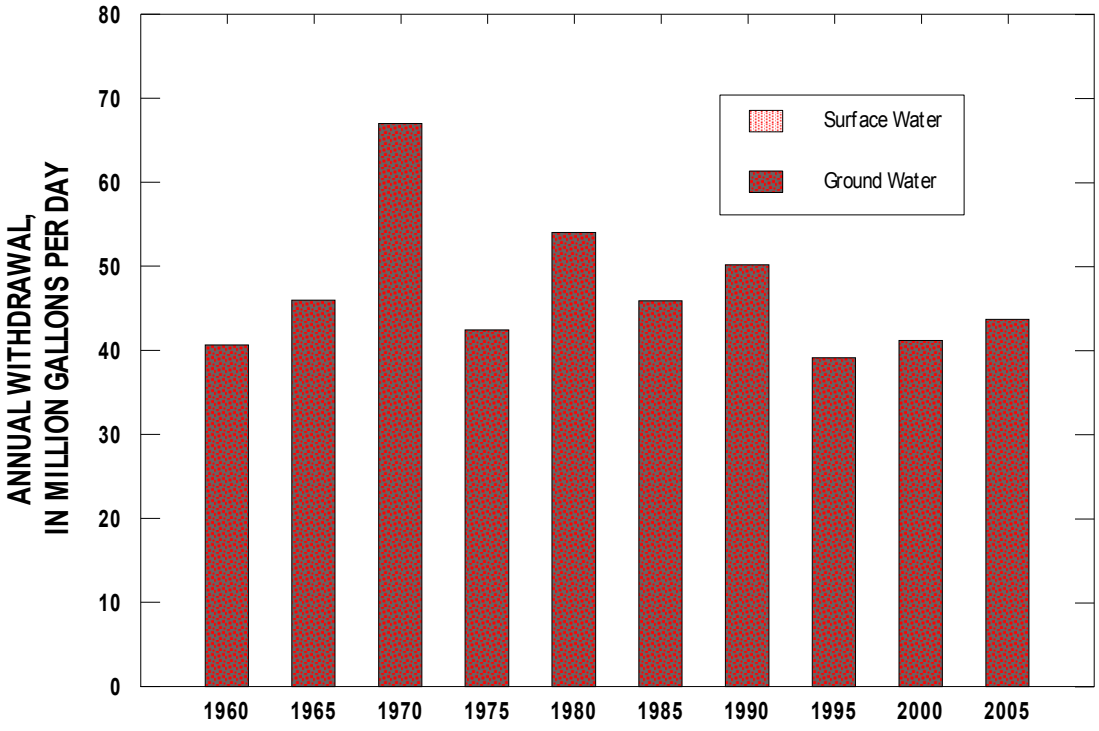


Figure 22. Rural-domestic water withdrawals in Louisiana, 1960-2005.

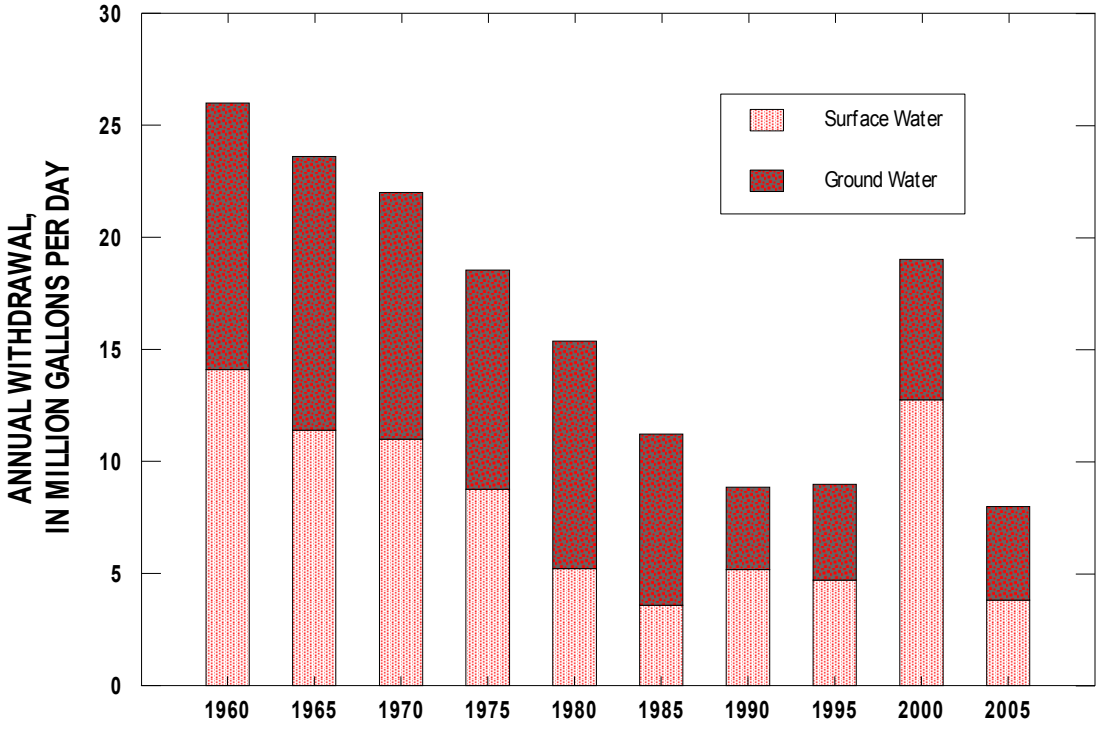


Figure 23. Livestock water withdrawals in Louisiana, 1960-2005.

Ground-water withdrawals for rice irrigation decreased by 23 percent, and surface-water withdrawals for rice irrigation increased by 26 percent from 2000 to 2005 (fig. 24). Rice-harvest acreage decreased by approximately 16 percent, and total withdrawals for rice irrigation decreased by 11 percent (Louisiana Cooperative Extension Service, 2000, 2005). This difference could be attributed to changes in the average yearly application rate from 2000 to 2005. Eleven of the 28 parishes in Louisiana (39 percent) that withdrew water for rice irrigation had an increase in water use from 2000 to 2005. Morehouse Parish had the greatest increase, 27 Mgal/d. The median change in rice-irrigation water use was a decrease of 0.67 Mgal/d. Vermilion Parish had the greatest decrease, 73 Mgal/d. Total withdrawals for rice irrigation decreased by 19 percent from 1960 to 2005.

Total withdrawals for general irrigation showed an increase of 52 percent from 2000 to 2005. During the same period, ground-water withdrawals for general irrigation increased by 45 percent, and surface-water withdrawals increased by 79 percent. Forty-seven of the 64 parishes in Louisiana (73 percent) that have general irrigation withdrawals had an increase in water use from 2000 to 2005. East Carroll Parish had the greatest decrease, 2.6 Mgal/d, and Morehouse Parish had the greatest increase, 23 Mgal/d. The median change in general irrigation water use was an increase of 0.08 Mgal/d. General-irrigation withdrawals increased by 65 percent since 1960 (fig. 25).

Ground-water withdrawals for aquaculture increased by 58 percent, and surface-water withdrawals for aquaculture decreased by 41 percent from 2000 to 2005. Total withdrawals for aquaculture increased by 11 percent from 2000 to 2005. Twenty-two of the 49 parishes in Louisiana (45 percent) that have aquaculture withdrawals had an increase in water use from 2000 to 2005. Acadia Parish had the greatest increase, 21 Mgal/d. The median change in aquaculture water use was a decrease of 0.02 Mgal/d. Franklin Parish had the greatest decrease, 11 Mgal/d. Total withdrawals for aquaculture have increased by 78 percent since aquaculture withdrawals were first reported in the 1980 water-use report (fig. 26).

Total ground-water withdrawals for all water-use categories decreased by 3.7 percent from 2000 to 2005. Since 2000, withdrawals from the Chicot aquifer system decreased by 17 percent, and withdrawals from the Mississippi River alluvial aquifer increased by 14 percent. Total surface-water withdrawals were virtually unchanged. Total withdrawals decreased by less than 1.0 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 decreased by 11 percent from 1980 to 2005. Total surface-water withdrawals increased by 140 percent from 1960 to 1980 but decreased by 18 percent from 1980 to 2005. Total water withdrawals in Louisiana increased by 129 percent, from 5,400 to 12,000 Mgal/d from 1960 to 1980. However, from 1980 to 2005, total withdrawals decreased by 17 percent (about 2,000 Mgal/d). Overall, since 1960, ground-water withdrawals increased by 53 percent; surface-water withdrawals increased by 99 percent; and total withdrawals increased by 91 percent.

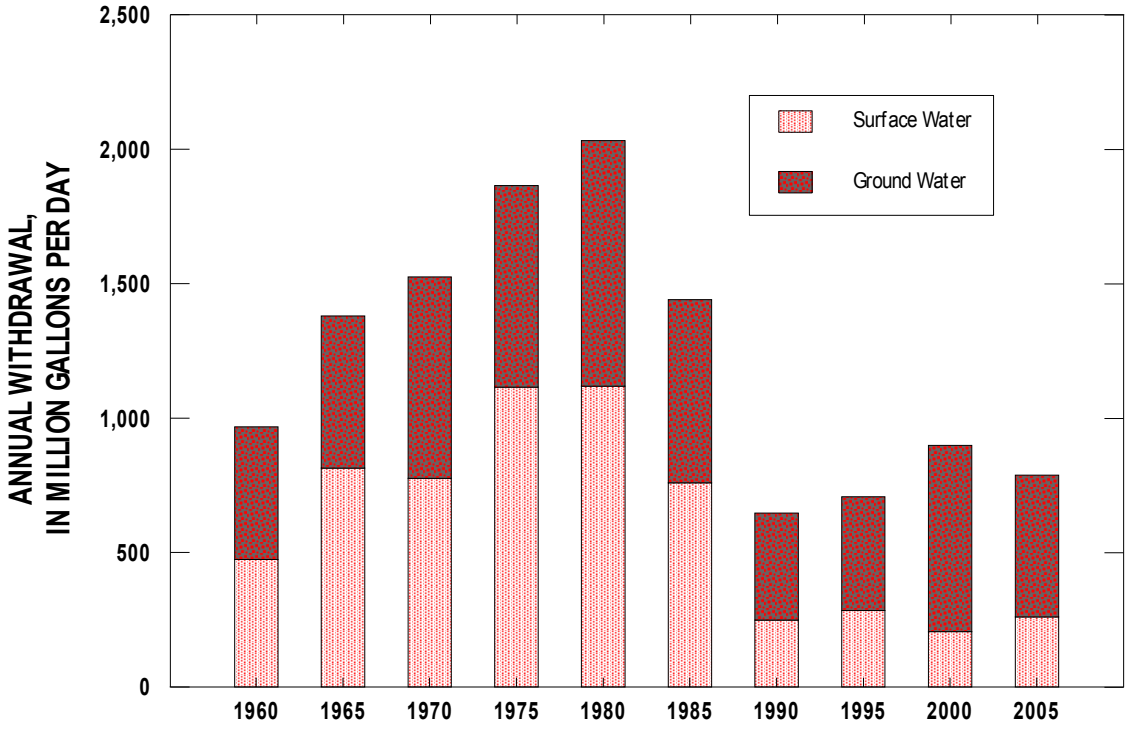


Figure 24. Rice-irrigation water withdrawals in Louisiana, 1960-2005.

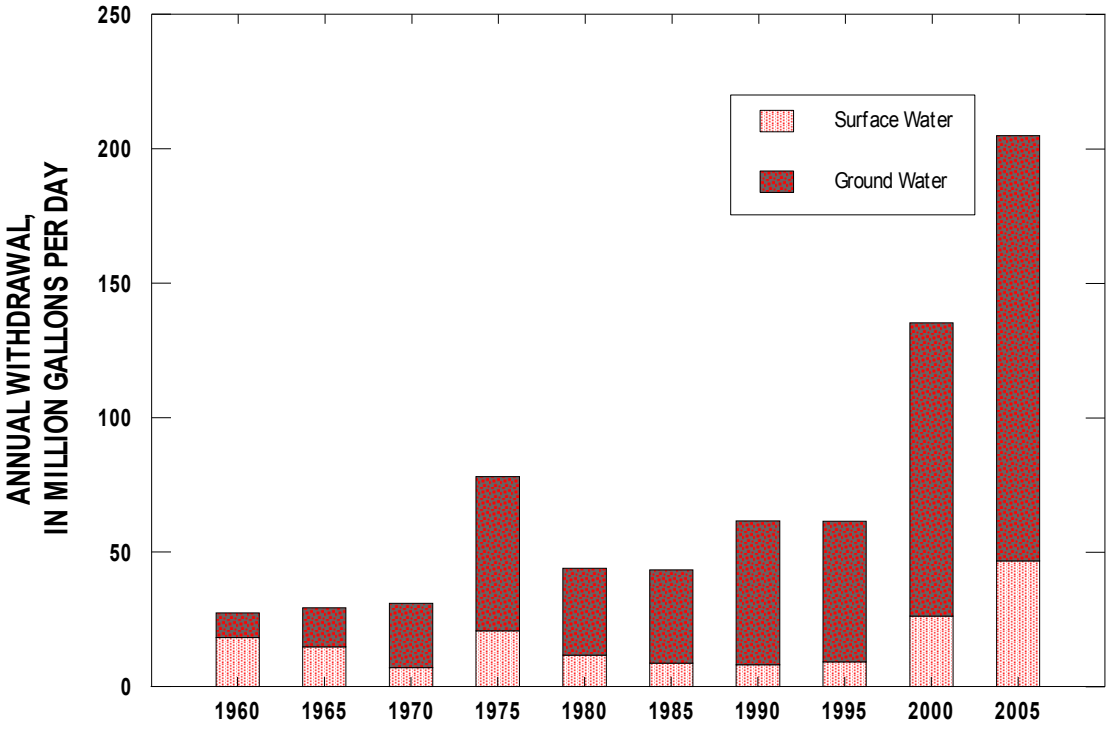


Figure 25. General-irrigation water withdrawals in Louisiana, 1960-2005.

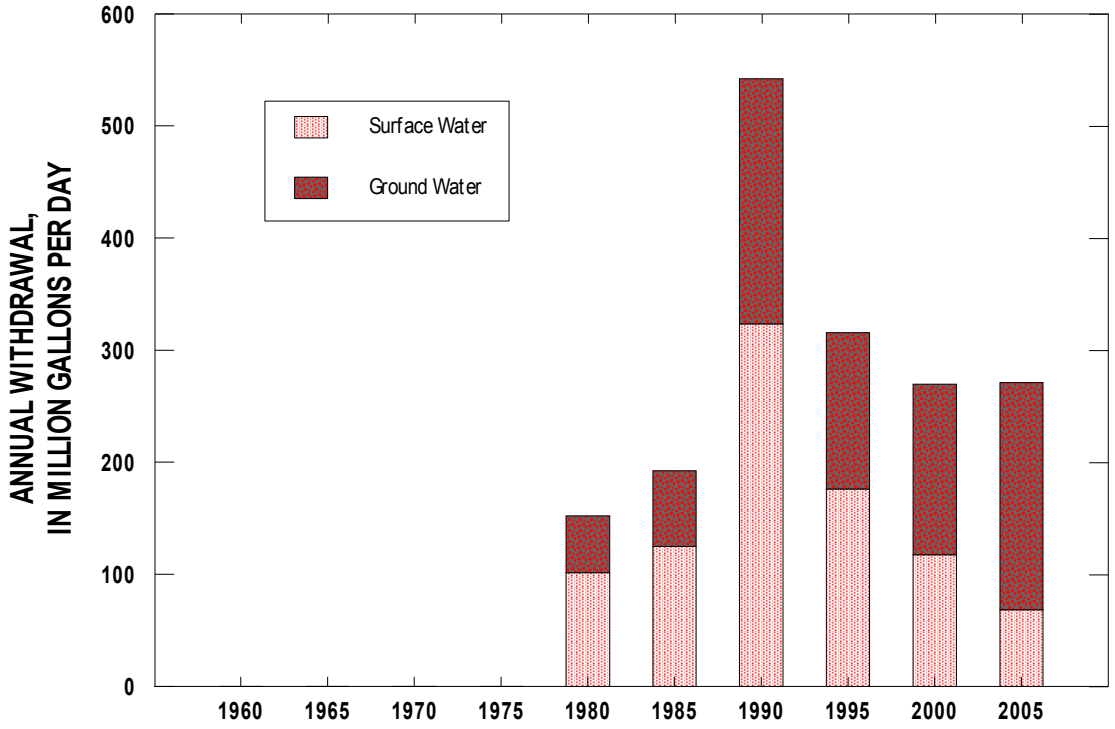


Figure 26. Aquaculture water withdrawals in Louisiana, 1980-2005.

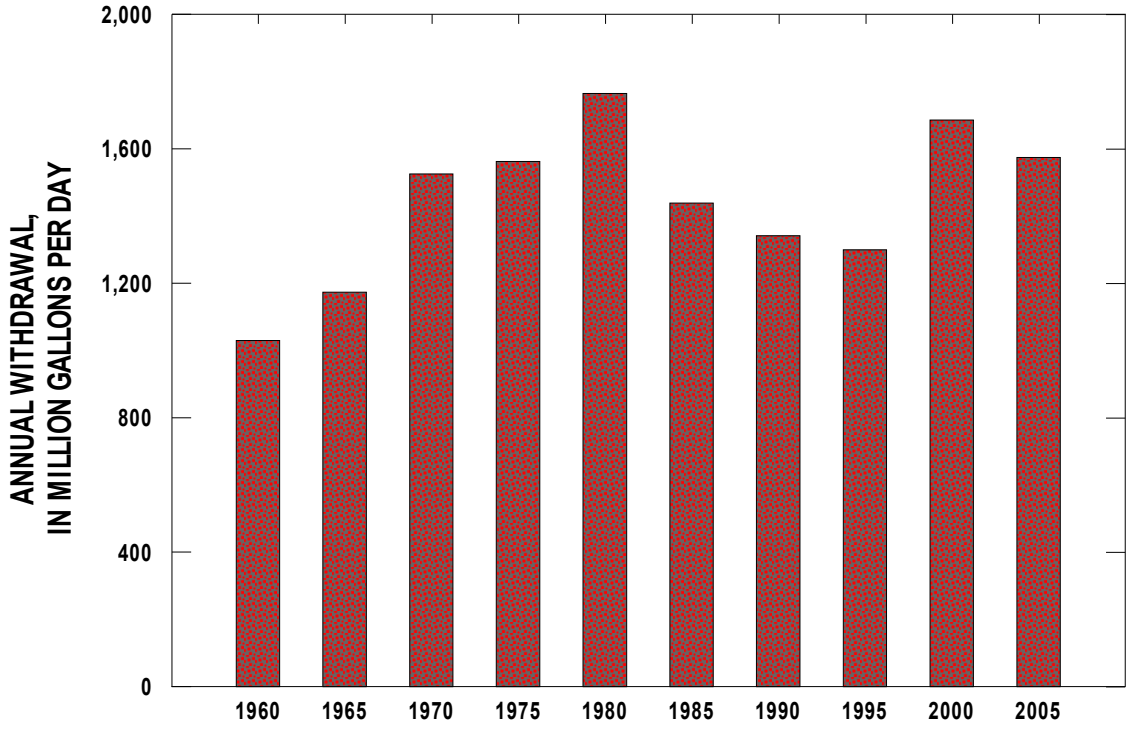


Figure 27. Ground-water withdrawals in Louisiana, 1960-2005.

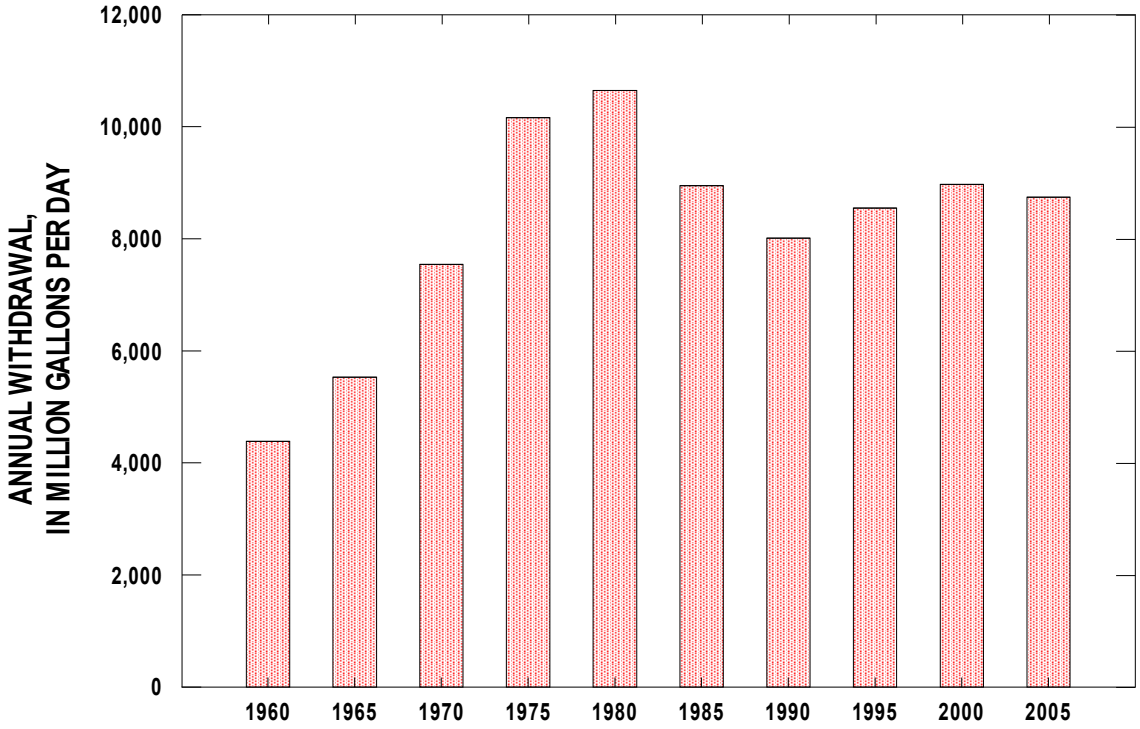


Figure 28. Surface-water withdrawals in Louisiana, 1960-2005.

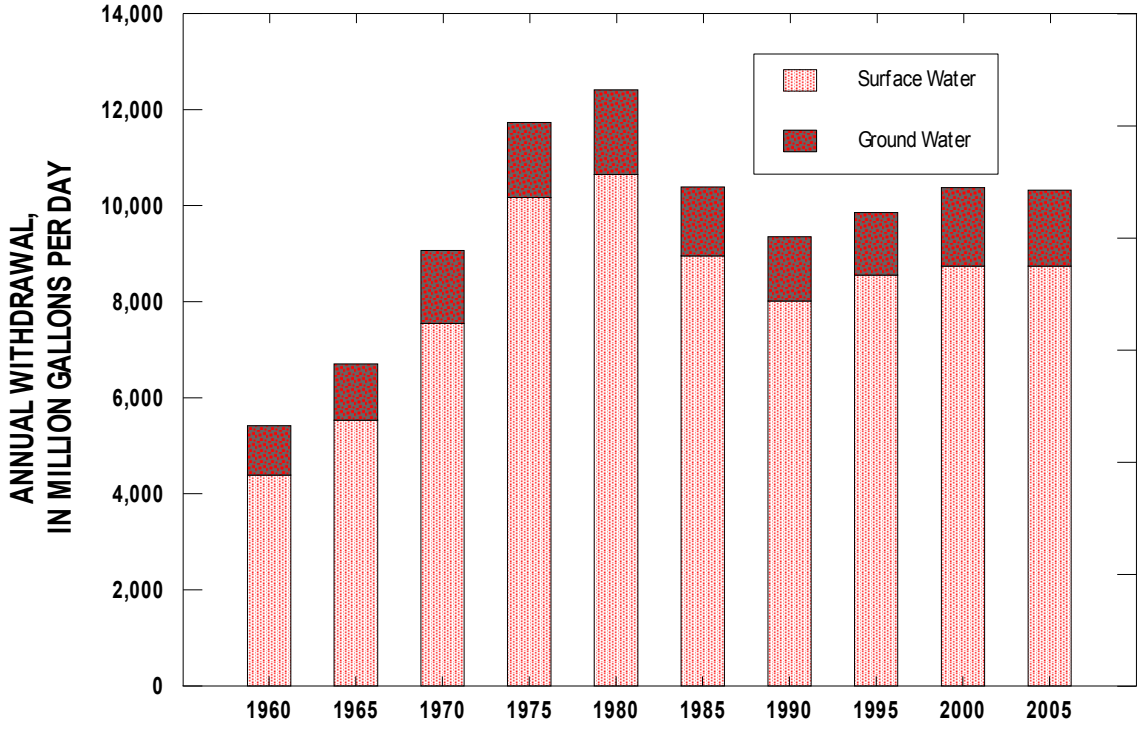


Figure 29. Total water withdrawals in Louisiana, 1960-2005.

SUMMARY

In 2005, public suppliers in Louisiana withdrew approximately 720 Mgal/d of water, 350 Mgal/d from ground-water sources and 370 Mgal/d from surface-water sources, to supply approximately 4.0 million Louisiana residents. Ground-water use for public supply decreased by less than 1.0 percent and surface-water use decreased by 9.5 percent for an overall decrease of approximately 5.1 percent from 2000 to 2005.

Industry in Louisiana withdrew approximately 3,100 Mgal/d of water, 270 Mgal/d from ground-water sources and 2,800 Mgal/d from surface-water sources. Industrial withdrawals in 2005 accounted for 30 percent of all withdrawals. Industrial ground-water use decreased by 6 percent and surface-water use increased by 19 percent for an overall increase of 16 percent in withdrawals since 2000.

Power-generation facilities withdrew approximately 5,200 Mgal/d, which accounted for more than 50 percent of all water withdrawn in 2005. Of this amount, only 19 Mgal/d came from ground-water sources. Eighty-four percent (4,400 Mgal/d) of the surface water withdrawn for power generation was from the Mississippi River and the Mississippi River Gulf Outlet in southeastern Louisiana. Ground-water withdrawals for power generation decreased by 34 percent from 2000 to 2005. Surface-water withdrawals decreased by 7.6 percent, resulting in an overall decrease of 7.7 percent for power-generation withdrawals from 2000 to 2005.

In 2005, an average of 67,000 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 2,400 Mgal/d of water passed through its turbines, 1,200 Mgal/d of which was counted as power-generation instream use for Louisiana in 2005. 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, 544,381 people, using privately owned domestic wells, withdrew an estimated 44 Mgal/d of ground water for domestic use in 2005. Rural-domestic withdrawals increased by 6.0 percent from 2000 to 2005. 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 8.0 Mgal/d of water in 2005. Of this total, 4.2 Mgal/d was ground water and 3.8 Mgal/d was surface water. Ground water used for livestock decreased by 33 percent, and surface water decreased by 70 percent from 2000 to 2005, with a total decrease of 58 percent.

Rice farmers withdrew approximately 790 Mgal/d of water to irrigate their fields in 2005. Of this total, 530 Mgal/d was ground water and 260 Mgal/d was surface water. The Chicot aquifer system in southwestern Louisiana provided 72 percent of the ground water used for rice irrigation. Ground-water withdrawal for rice irrigation decreased by 23 percent and surface-water withdrawal increased by 26 percent from 2000 to 2005. Rice-harvest acreage decreased by 16 percent, and total withdrawals for rice irrigation decreased 11 percent.

Farmers also withdrew approximately 160 Mgal/d of ground water and 47 Mgal/d of surface water for crops other than rice in 2005 (based on 2004 to 2005 data). Ground-water withdrawals for these crops increased by 45 percent and surface-water withdrawals increased by 79 percent from 2000 to 2005. Total withdrawals for general irrigation (about 200 Mgal/d) increased by 52 percent from 2000 to 2005.

Water withdrawn for aquaculture in Louisiana was approximately 270 Mgal/d in 2005. Of this total, 200 Mgal/d was ground water and 70 Mgal/d was surface water. Since 2000, ground-water withdrawals increased by 58 percent, and surface-water withdrawals decreased by 41 percent. Total withdrawals for aquaculture increased by 11 percent.

Total withdrawals in 2005 were approximately 10,300 Mgal/d. Total ground-water withdrawals were 1,600 Mgal/d, and total surface-water withdrawals were 8,700 Mgal/d. About 42 percent (660 Mgal/d) of all ground water withdrawn was from the Chicot aquifer system, and about 26 percent (400 Mgal/d) was withdrawn from the Mississippi River alluvial aquifer. About 76 percent (6,700 Mgal/d) of all surface water withdrawn was from the Mississippi River mainstem. This value represents a 7.6 percent increase in withdrawals from 2000 to 2005.

Since 2000, total surface-water withdrawals were virtually unchanged, and total ground-water withdrawals decreased by 3.7 percent. Ground-water withdrawals from the Chicot aquifer system decreased by 17 percent, and ground-water withdrawals from the Mississippi River alluvial aquifer increased by 14 percent during that period. Total withdrawals for all water-use categories decreased by less than 1.0 percent from 2000 to 2005.

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