Bureau of Water

South Carolina Department of Health and Environmental Control

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South Carolina Water Use Report
2007 Annual Summary

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South Carolina Water Use Report
2007 Summary

South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

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Definitions

Aquifer – A geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs. An alternate definition includes saturated material capable of providing economically viable amounts of water to wells or springs.

Aquaculture water use (water use category) – Water used for raising, farming and/or harvesting of organisms that live in water, such as fish, shrimp and other shellfish and vegetal matter (seaweed).

Consumptive water use – The amount of water withdrawn that is evaporated, transpired, incorporated into products or crops, consumed by humans or livestock, or otherwise removed from the immediate water environment.

Effluent (wastewater) – Water conveyed out of a wastewater treatment facility or other works used for the purpose of treating, stabilizing, or holding wastewater. Effluent is often highly treated and is an excellent option for reuse of wastewater for irrigation.

Evapotranspiration – Collective term, including water discharged to the atmosphere as a result of evaporation from the soil and surface-water bodies and plant transpiration.

Fall Line – The geologic and physiographic surface boundary separating the sedimentary deposits of the Coastal Plain from the metamorphic and igneous rocks of the Piedmont.

Farm – Any operation from which $1000.00 or more of agricultural products were sold or normally would be sold during the year.

Golf course irrigation (water use category) – Water applied to maintain golf course turf, including tee boxes, fairways, putting greens, associated practice areas and periphery aesthetic landscaping.

Groundwater – Generally, all subsurface water as distinct from surface water; specifically, that part of the subsurface water in the saturated zone.

Hydroelectric water use (water use category) – Water used in generating electricity where turbine generators are driven by falling water.

Industrial water use (water use category) – Water used for commercial and industrial purposes, including fabrication, processing, washing, in-plant conveyance and cooling.

Irrigated acreage – Acreage capable of being irrigated, with regard to availability of water, suitable soils and topography of land.

Irrigation water use (water use category) – Water that is used for agricultural and landscaping purposes including turf farming and livestock management.

Mining water use (water use category) – Water that is used for in conjunction with surface or subsurface mining of minerals or natural materials

Other use (water use category) – Any use of surface water or groundwater not specifically identified in any of the other categories.

Reclaimed water – Wastewater treatment plant effluent that has been diverted, intercepted, or otherwise conveyed for use before it reaches a natural waterway or aquifer.

Surface water – Water flowing or stored on the earth's surface such as a stream, lake, or reservoir.

Thermoelectric water use (water use category) – Water used in generating electricity from fossil fuel (coal, oil, natural gas), geothermal, biomass, solid waste, or nuclear energy.

Water supply (water use category) – Water withdrawn by public and private water suppliers and conveyed to users or groups of users. Water suppliers provide water for a variety of uses including domestic, commercial, industrial and public water use.

Water usage rates – As utilized in this report, measurements to quantitatively represent volumetric withdrawals per unit of time; as in gallons per minute (gpm), gallons per day (gpd) and gallons per year (gpy). Unless otherwise stated, figures in this report are presented in millions of gallons per year.

Water use – Generally, water that is used for a specific purpose (i.e., domestic use, industrial, etc.). Broadly, human interaction with and influence on the hydrologic cycle, and includes water withdrawal, distribution, consumptive use, wastewater collection and return flow.

Withdrawal – The removal of surface water or groundwater from its current setting in the natural hydrologic system for use, including, but not limited to, water supply, industrial use, commercial use, domestic use, irrigation, livestock, power generation

Forward

The South Carolina Department of Health and Environmental Control (DHEC) is committed to the responsible management of South Carolina's water resources by encouraging continued conservation and reasonable use to ensure a sustainable supply for present and future demands. The South Carolina *Surface Water Withdrawal and Reporting Act*, §49-4-10 et. seq., and the South Carolina *Groundwater Use and Reporting Act*, §49-5-10 et. seq., require water users that withdraw three (3) million gallons or greater in any month to register with and report that use annually to the Water Use Program at DHEC.

Water Use data is used by the State of South Carolina to better define the distribution and demand for our surface and groundwater resources across the state. Data from the Water Use Program at DHEC is shared between other local, state, and federal regulatory and scientific agencies to establish a common understanding of the demands placed upon our water resources. This common database has proven critical in water management decisions and water use conflict resolution.

Statistics utilized in this report represent data obtained from users registered with the Water Use Program. Consumptive use from private domestic wells, small surface water irrigation intakes, facilities that do not meet the reporting threshold, or data from facilities failing to report their annual water use are not included in this annual summary. For the year 2007, compliance of reporting facilities exceeded 99.9%.

If you have questions about this or previous Annual Water Use Reports, or would like to obtain further information about reported water withdrawals in South Carolina, please contact:

Water Use Program
SCDHEC Bureau of Water
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Introduction

South Carolinians have enjoyed an available fresh water supply that is clean, abundant, and easily attainable. In South Carolina today, close to 1.2 million people rely on groundwater and 2.8 million people rely on surface water for their drinking water and other uses. According to the U.S. Census Bureau, South Carolina will increase its population by 600,000 (Appendix C) people by 2025 and the U.S. Department of Agriculture reports development converts approximately 100,000 acres per year to urban uses. This growth and development in the state has placed increasing demand on our water supplies. With limited and sporadic rainfall events, groundwater systems and surface water bodies under continuous natural discharge and, in recent years, human use (pumpage) showed steady and, at times, drastic water level declines with numerous waterways reaching record low flow conditions. Due to the low flow conditions, excursions of saltwater inland along coastal waterways threatened some surface water intakes. Some homeowners that rely on shallow water wells have been forced to drill deeper wells or seek alternate sources of water supply.

In conjunction with natural conditions, the continued impact to groundwater systems through human induced contamination (physical and chemical) or natural impact demonstrate the vulnerability of this finite resource and the continuing need to closely monitor, manage and preserve the resource in South Carolina for current and future generations. The state General Assembly declared that,

"…the groundwater resources of the State be put to beneficial use to the fullest extent to which they [are] capable and to provide and maintain conditions which are conducive to the development and use of all water resources."

Consistent and accurate data collection is requisite in establishing water use trends and implementing reasonable management strategies. Water use reporting outside of designated Capacity Use Areas has been historically voluntary. As of January 1, 2001, anyone withdrawing groundwater or surface water in excess of three (3) million gallons per month (in any month) must register and report that use annually to the South Carolina Department of Health and Environmental Control (Department). Registration and reporting is now a requirement of law and the Department has authority to take enforcement action against those not reporting.

Purpose and Methodology

The purpose of the annual *South Carolina Water Use Report* is to summarily present reported water use in South Carolina by county and use category during calendar year 2006. The Department maintains and continually updates the water use and facility databases utilized in this report. Water use data were collected by annual reporting of water use by registered users, as required and mandated by state law, and are reported in **million gallons** unless stated otherwise.

South Carolina Climate

The climate in South Carolina is affected by many factors, notably its location in the mid-latitudes and its proximity to the Appalachian Mountains and the Atlantic Ocean. During the summer, ocean current-driven air masses such as the Bermuda High routinely push tropical air from the Gulf of Florida upland from the coast. These warm, moist currents collide with cooler, drier air masses to generate rainfall, and at times, severe thunderstorms. In contrast, the Appalachian region in the northwest portion of the state experiences cooler temperatures, owing in part to upward lifting of air masses and subsequent cooling effect provided by the increase in altitude. Altitude change also causes the additional phenomenon of down-slope heating as air masses from the mountains settle and compress over the eastern Blue Ridge and Piedmont region. During the winter months, the highlands of the Blue Ridge escarpment deflect northerly cold air to the southwest, often lessening the impact of major cold fronts and winter storms.

The vast majority of the state is classified as humid subtropical except in the Blue Ridge physiographic province, where it is humid continental. Average temperature varies from the mid-50s °F in the mountains to low-60s °F along the coast. The average annual precipitation is approximately 48 inches, with an annual total in the mountains of 70 to 80 inches, an annual total in the Midlands of 42 to 47 inches and an annual total along the coast of 50 to 52 inches. According to the South Carolina State Climatology Office, no month in South Carolina averages less than two inches of precipitation, regardless of location within the state. Measurable snowfall is rare, occurring one to three times a year with accumulations seldom remaining more than a day or two. Since 1900 severe droughts have occurred statewide in 1925, 1933, 1954, 1977, 1983, 1986, 1990, 1993, 1998, and most recently 2007. The latest multiyear drought was one of the most severe in South Carolina's history, with average precipitation, groundwater levels, and stream flows at or near record lows. In 2007 the average statewide temperature was 63.9°F. The average rainfall for 2007 was 36.27 inches[1].

[1] Southeast Regional Climate Center, 1885-2006, "Monthly and Seasonal Climate Information"

South Carolina Geography and Hydrology

Geography and Physiography

South Carolina has a distinct natural beauty and an ecological diversity covering nearly 31,189 square miles, with approximately 30,111 square miles land area, 1,078 square miles inland or coastal waterways and 135 miles of coastline. The diversity we experience is resultant of climatic conditions, geology and three major physiographic regions: the Blue Ridge, the Piedmont and the Coastal Plain (**Figure 1**). The physiographic regions exhibit variations in topography, geology, hydrology and vegetation that directly affect the quantity, quality and availability of water resources in South Carolina.

Blue Ridge

The Blue Ridge physiographic province is located in the extreme northwest portion of Oconee and Pickens counties, and is distinguished from other parts of South Carolina by greater elevations (1,000 – 3,300 feet) and surface relief. Dissected mountains, rugged hills and thick forest regions characterize the land surface. Surface water in the Blue Ridge takes the form of high gradient creeks and streams and natural or man-made lakes, while groundwater occurs in the fractures of the bedrock and a thin veneer of soil and saprolite overlying the bedrock. In general, water quality of streams and groundwater is excellent in the Blue Ridge owing to the constant replenishment from abundant local rainfall.

Piedmont

The Piedmont physiographic province includes all counties, or portions of counties, northwest of and to the Fall Line, exclusive of those counties within the Blue Ridge province. Although similar to the Blue Ridge, the region demonstrates lower topographic relief, and therefore lower gradient streams, while elevations range from between 450 to 1000 feet above sea level. Counties in the Piedmont and Blue Ridge physiographic provinces depend primarily on the abundant regional rainfall that recharges lakes, reservoirs and major river systems. These surface water bodies constitute the primary source of water for public supply, industry, agriculture, and power production in the Piedmont Region. Similar to the Blue Ridge Province, groundwater occurs in the fractures of the bedrock and overlying soil and saprolite, and is also of good quality, except in locations where its chemical quality has been impacted by man.

Coastal Plain

The Coastal Plain physiographic province includes all counties, or portions of counties, extending from the Fall Line east to the Atlantic Ocean. Elevations of the exposed Coastal Plain range between 450 feet to sea level. Once below the Fall Line, rivers and streams assume a different character than those found in the Piedmont. Where streams once rolled across exposed Piedmont rocks and tumbled down the occasional stretch of whitewater, the Coastal Plain streams have a slower pace with quiet meandering river channels with adjacent wetlands common. Regional geology of the Coastal Plain is characterized by aquifers developed in layers of sands, silts, or high-permeability limestone confined by units of clay and silts or low-permeability limestone. The vast majority of South Carolina's water resources are contained as groundwater in the Coastal Plain, and in general, reliance on groundwater for irrigation, industrial uses, and public water supply increases dramatically east of the Fall Line (**Figure 7**). A generalized cross-section for the Coastal Plain aquifers is presented as **Figure 2**, and a brief outline of the major aquifers in South Carolina follows.

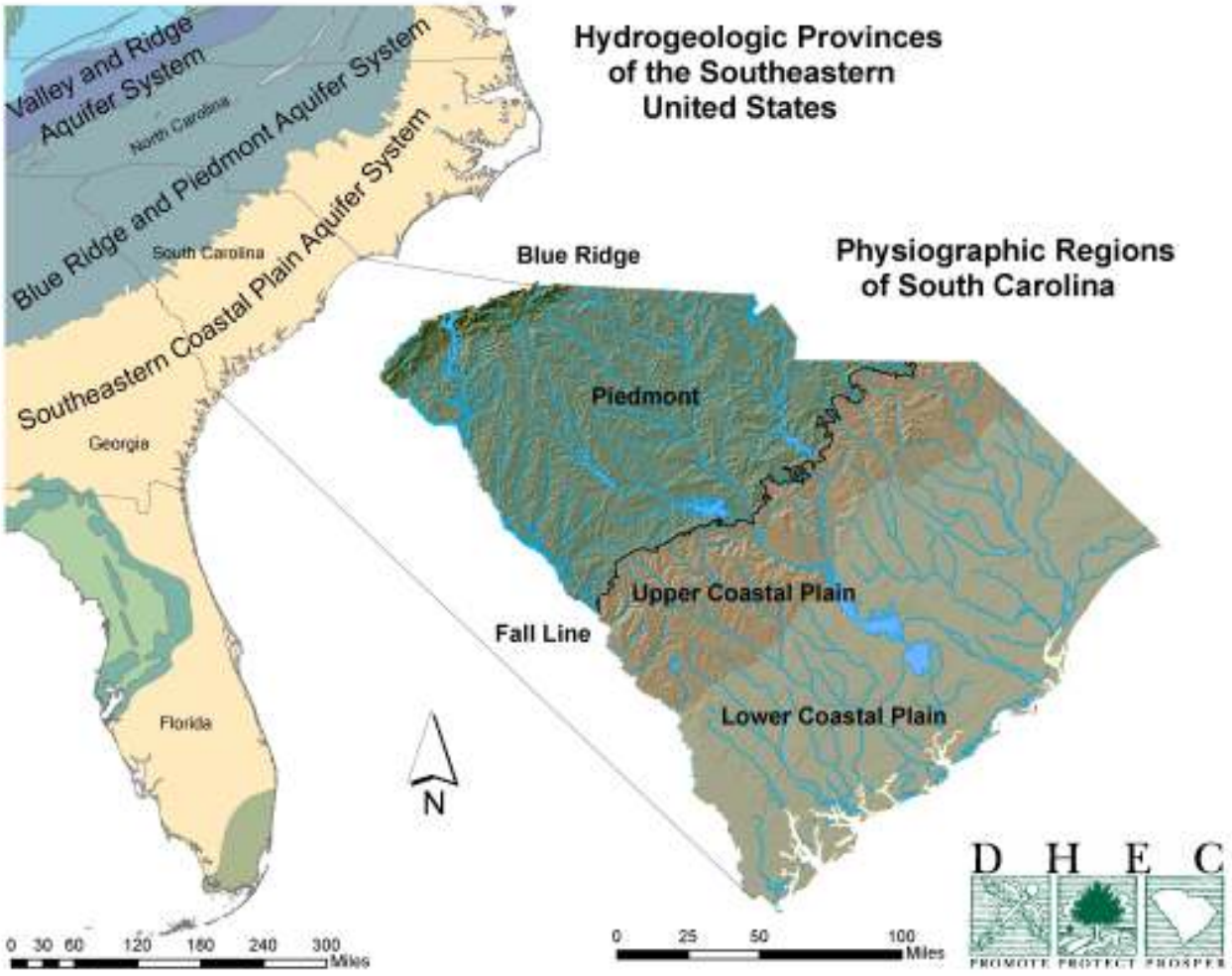


Figure 1: Hydrogeologic and Physiographic Setting for Water Use in South Carolina

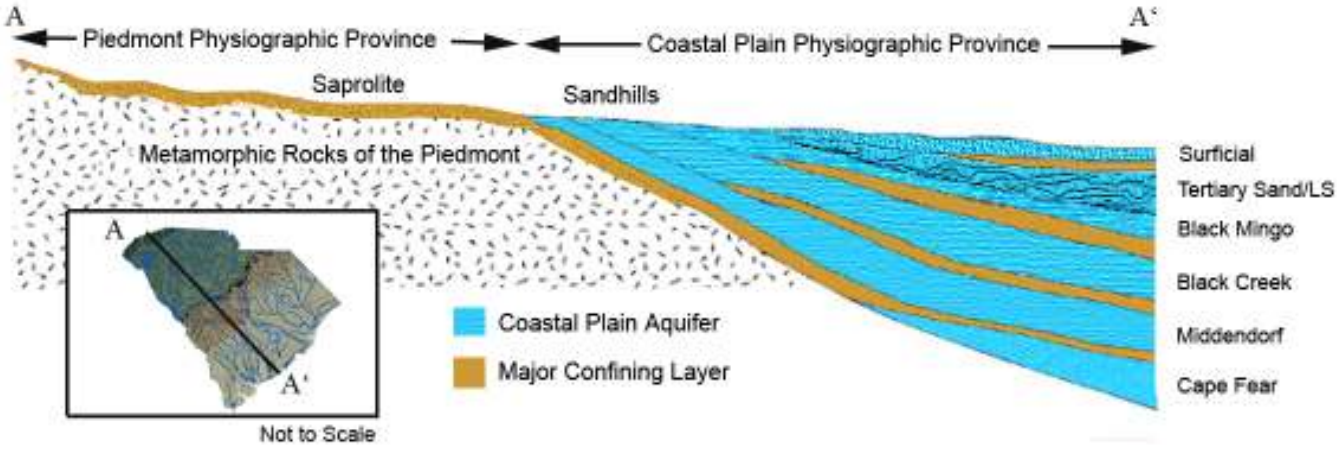


Figure 2: Generalized Hydrogeologic Cross-Section from the Blue Ridge through the Lower Coastal Plain in South Carolina

Groundwater Resources

Groundwater resources are found throughout the subsurface of South Carolina in varying quantities, qualities, and depths that reflect the nature of the geologic materials that host the respective aquifers. The following is a brief description of the State's major groundwater resources.

Crystalline Rock Aquifer System of the Blue Ridge and Piedmont

Geology of the Blue Ridge is typically characterized by clayey saprolite, ranging in depth from several feet to tens of feet, overlying metamorphic crystalline rock. The saprolite grades downward through a highly permeable transition zone to unaltered parent bedrock. Groundwater conditions of the bedrock are dependent on the number of fractures and degree of interconnection of the fracture systems. Groundwater moves slowly through the saprolite and discharges to surface water bodies, wells, or is released from storage to the underlying bedrock through fractures. Geology of the Piedmont is similar to that of the Blue Ridge, but the diminished relief allows for greater thickness of saprolite development. In general, wells in the Blue Ridge and Piedmont regions yield little water when compared to wells drilled in the Coastal Plain owing to the inherently low porosity and permeability of the crystalline rock present in the upstate.

Surficial Aquifer System

Shallow sands that comprise the Surficial aquifer are among the youngest of the Coastal Plain sediments and are found exclusively in the Lower Coastal Plain (**Figure 1**). This system is capable of producing water in modest amounts for irrigation and private drinking water supply, but is susceptible to contamination due to its shallow, unconfined nature. The Surficial sands are highly influenced by local precipitation and river stage and are prone to dramatic water level declines during times of drought.

Tertiary Limestone/Sand Aquifer System (Floridan Aquifer System)

In the southern half of the Coastal Plain, Tertiary aquifers consisting of sand grade southeastward into an ever thickening wedge of limestone. Development of the aquifer system is common in the Charleston, Dorchester, and Berkeley County area. Southwest of the Combahee and Salkehatchie Rivers, upper sections of the limestone become increasingly permeable owing to abundant voids created from dissolved marine fossils, and are capable of storing and supplying tremendous amounts of water. The majority of utilization of the aquifer occurs near the upper, highly permeable zone that supplies the majority of residential wells in Beaufort and Jasper Counties, and is the primary source of water for public supply, irrigation, and industry in the Low Country. This southern section of the Tertiary Limestone correlates regionally with the Upper Floridan Aquifer that extends from southern South Carolina to the southern keys of Florida.

Black Mingo Aquifer

Development of the Black Mingo is common in the vicinity of Charleston, Dorchester, and Berkeley counties, but has been largely overlooked south of Dorchester County owing to the increasingly prolific nature of the more shallow Tertiary Limestone (Floridan Aquifer System). Like the majority of Coastal Plain sediments, the nature of the aquifer differs dramatically from one area to the next. In the Charleston area, the aquifer is composed of permeable sand and limestone, while within the Upper Coastal Plain the Black Mingo is often a poorly producing aquifer composed of fine silt and clay, and therefore is unused in favor of the Middendorf or Tertiary Sand Aquifer.

Pee Dee Aquifer

The Pee Dee aquifer, where present, generally produces quality water at moderate rates. The aquifer matrix is composed of sand and silt separated by discontinuous intervals of clay. Development of the Pee Dee aquifer usually takes place in conjunction with the more prolific Black Creek aquifer and has become an excellent alternative to the often-overburdened Black

Creek for many uses, especially irrigation. The Pee Dee aquifer is most utilized in the northeast portion of the State, with the most demand centered between Florence and Horry Counties.

Black Creek Aquifer

Though present throughout much of the Coastal Plain, development of the Black Creek aquifer has been conducted primarily in the mid-to-northern portions of the Coastal Plain. The aquifer is composed of silt and fine sand with coarse sand in the Upper Coastal Plain. The Black Creek aquifer is an important source of water for public supply, irrigation, and industry from Marion County southeast to Georgetown County.

Middendorf Aquifer

The Middendorf Aquifer is a prolific source of water throughout the majority of the coastal plain and consists of coarse-grained fluvial sands near the Fall Line that grade to fine-grained marine sands and clay in the northern and eastern Lower Coastal Plain. The majority of the Pee Dee region, including Chesterfield, Darlington, Florence, and Marlboro Counties, as well as Orangeburg and Sumter Counties rely heavily on the Middendorf for irrigation, public supply, and industrial use. In the past decade, use of the Middendorf has increased along the southern coast in areas such as Charleston County.

Cape Fear Aquifer

Little information exists from this deep sand aquifer owing to the few wells that have penetrated the formation. In general, water quality from the Cape Fear aquifer is poor over much of its extent owing to ancient, unflushed seawater and extensive mineralization. In South Carolina, the Cape Fear aquifer is largely unused.

Surface Water Resources

South Carolina's land surface is drained by eight (8) major river basins, all of which are critical to public water supply, irrigation, industry, and/or power generation. These major watersheds are shown as **Figure 3**, and a brief description of each major watershed follows.

Broad River Basin

The Broad River Watershed encompasses portions of North and South Carolina and drains the majority of Cherokee, Union, Spartanburg, and Greenville Counties. Portions of Chester, Fairfield, Richland and York counties are also included in the basin, and are drained by the Enoree, Pacolet, and Tyger Rivers, major tributary streams to the Broad River.

Catawba River Basin

Similar to the Broad River Basin, the watershed of the Catawba River drains counties in North and South Carolina east of a hydrologic divide in York, Chester, and Fairfield Counties. All or portions of the following counties lie within the basin: Chester, Fairfield, Kershaw, Lancaster, Richland, Sumter and York. The Catawba basin hosts Lake Wylie, Fishing Creek Reservoir, Lake Wateree, the Catawba and Wateree Rivers and associated tributary streams.

Edisto River Basin

The Edisto River Basin encompasses nearly all of Orangeburg County and portions of Aiken, Berkeley, Calhoun, Dorchester, and Lexington counties. The basin drains the central Coastal Plain and contains the North and South Forks of the Edisto River and tributaries, as well as numerous ecologically important wetland areas.

Pee Dee River Basin

The Pee Dee River Basin is the largest of South Carolina's watersheds and drains all or portions of Chesterfield, Darlington, Dillon, Georgetown, Horry, Kershaw, Lancaster, Lee, Marion, Marlboro, Williamsburg counties, and portions of southeastern North Carolina. The

Greater Pee Dee Watershed encompasses 5.1 million acres and includes the Pee Dee, Lynches, Waccamaw, and Sampit watersheds, as well as the Intracoastal Waterway and Winyah Bay.

Salkehatchie River Basin

The Salkehatchie basin is located entirely in the Coastal Plain and drains portions of Bamberg, Barnwell, Beaufort, Colleton, Hampton, and Jasper counties. The Coosawhatchie, Salkehatchie and Little Salkehatchie Rivers, along with their associated tributaries and local wetlands drain the basin and form tide-dominated distributary channels near the coast.

Saluda River Basin

The Saluda River Basin drains the central portion of South Carolina's Piedmont Region and encompasses major portions of Greenville and Pickens counties, as well as portions of Abbeville, Greenwood, Laurens, Lexington, Richland, and Saluda Counties. The basin includes all tributary streams to the Saluda River and Lakes Greenwood and Murray, the latter being a critical source for public water supply and hydroelectric power in central South Carolina.

Santee River Basin

The Santee River basin originates near the confluence of the Catawba and Broad River Basins and includes two of the State's largest reservoirs, Lake Marion and Lake Moultrie. These two major surface water resources are important power generating assets for the South Carolina. The basin drains Berkeley, Calhoun, Charleston, Clarendon, Dorchester, and small portions of Georgetown and Sumter Counties via tributaries of the Cooper, Santee and Ashley Rivers.

Savannah River Basin

The Savannah River Basin stretches from the Blue Ridge to the Atlantic Ocean and encompasses the border counties of South Carolina. The watershed drains major portions of Abbeville, Aiken, Allendale, Anderson, Edgefield, Greenwood, Hapton, McCormick, Oconee, and Pickens County, as well as adjacent counties in Georgia. The watershed includes the Savannah, Chatooga, Seneca, Little River, Stevens Creek, Rocky, and Tugaloo Rivers, and discharges approximately 8.0 billion gallons per day.

Figure 3: Major River Basins of South Carolina

Demographics

According to the 2000 Census, South Carolina's estimated population is 4,012,012. Approximately 54.6% of the population resides in an urban setting and approximately 45.4% reside in rural communities (**Figure 4**). South Carolina has approximately 25,000 farms, occupying 4,846,000 acres (7,572 square miles). Of this, approximately 2,270,000 acres (3,547 square miles) are cropland[2]. Major manufacturing industries are located along the I-26/I-85 corridor, specifically in the Greenville-Spartanburg Metropolitan Statistical Area (MSA), Columbia MSA, Charlotte-Gastonia-Rock Hill MSA and the Charleston MSA. Other manufacturing concentrations are located in the Augusta-Aiken MSA, and the Florence area[3]. South Carolina is served by 47 electric utilities and nine (9) generating utility companies with 51 power plants (206 generators) with a total rating capacity of 18,827.4 megawatts. Power production in the State (2005) totaled 94,363 million kilowatt hours[4].

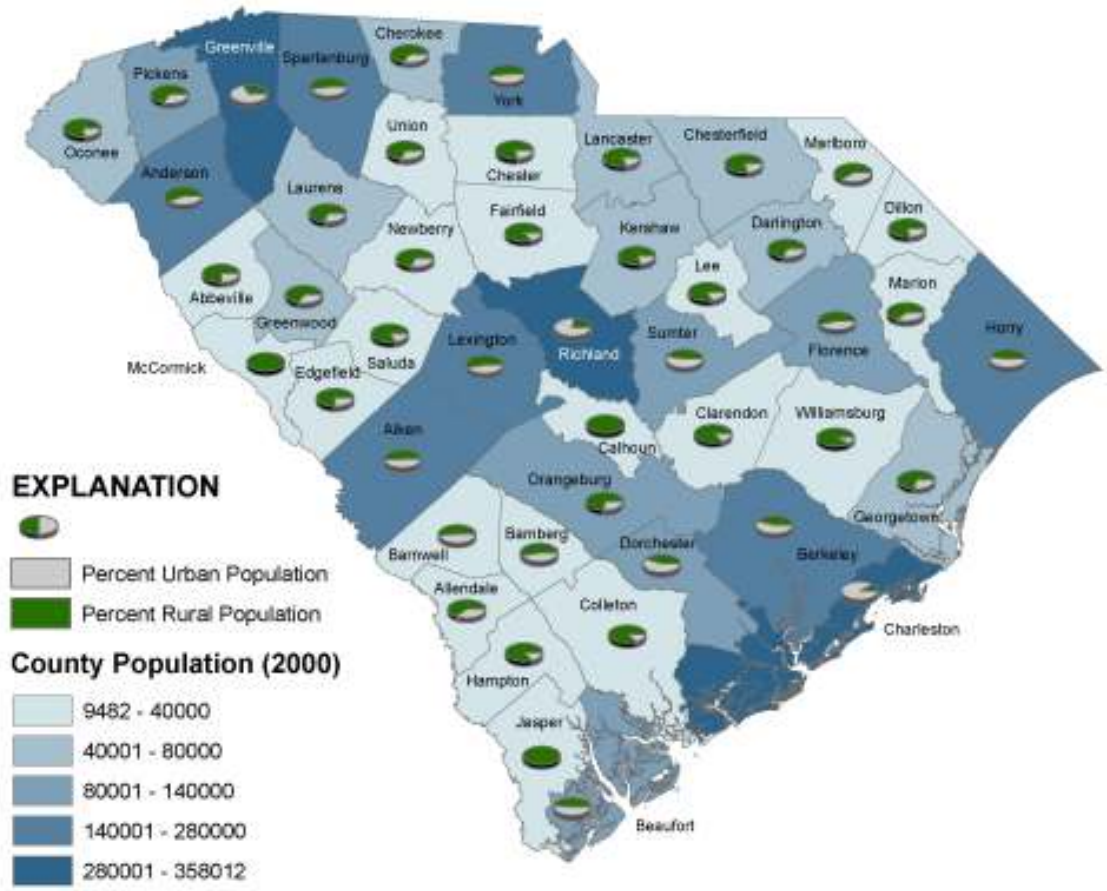


Figure 4: Population by County in South Carolina, 2000

[2] 2002 Census of Agriculture, Volume 1 Geographic Area Series, Historical Highlights: "Table 1: 2002 and Earlier Census Years"

[3] S.C. Department of Commerce, 2000/2001 "South Carolina Industrial Directory."

[4] S.C. Budget and Control Board Statistical Abstract 2004

2007 Water Use Profile

Surface and Groundwater Use Summary by Category and County in South Carolina, 2007

The following section outlines all reported water use for the State of South Carolina for the calendar year 2007. Water use is summarized by category, (Appendix A)and further tabulated on a county-by-county basis (Appendix B). Where appropriate, the spatial distribution of the magnitude of water use is demonstrated on an accompanying map with a breakdown chart of groundwater and surface water use as a percentage of total use for the category.

Reporting Water Withdrawers

For the reporting year 2007, South Carolina had registered 866 water withdrawers with 2589 sources, 1870 surface water sources and 719 groundwater sources.

Water Use Category	Facilities	GW Source	SW Source
Golf Course	246	253	267
Water Supply	224	793	79
Irrigation	230	524	263
Industrial	94	238	50
Hydroelectric	31	1	30
Thermoelectric	18	15	21
Mining	11	10	4
Aquaculture	8	12	5
Other	4	24	1
Total	866	1,870	719

Total Reported Water Use

Total water use reported for 2007 was more than 14.9 trillion gallons from 866 reporting facilities. Surface water withdrawal accounted for approximately 14.8 trillion gallons, approximately 99.4% of total water use. Groundwater withdrawal accounted for approximately 81.1 billion gallons or approximately 0.6%.

Water Use Category	Surface Water	Groundwater	Total	Percentage
Aquaculture	117.61	227.20	344.82	0.002312351%
Golf Course	11,548.69	4,200.01	15,748.70	0.105611162%
Industrial	135,807.89	10,744.70	146,552.59	0.982785084%
Irrigation	22,214.37	20,008.09	42,222.47	0.283144846%
Mining	314.72	2,058.84	2,373.56	0.015917162%
Other	4.70	59.61	64.31	0.000431291%
Water Supply	198,351.91	41,639.93	239,991.83	1.609390821%
Hydroelectric Power	10,909,447.29	0.35	10,909,447.63	73.15900957%
Nuclear Power	3,157,552.54	363.70	3,157,916.24	21.17705977%
Thermoelectric Power	395,443.51	1,861.69	397,305.21	2.664337946%
Total	14,830,803.23	81,164.14	14,911,967.37	100%

Water Use	2001	2002	2003	2004	2005	2006	2007
Hydroelectric	9,796,267.91	11,415,081.44	18,958,207.77	15,203,000.52	15,766,867.08	12,408,954.88	10,909,447.63
Thermoelectric	1,624,984.88	2,467,042.32	3,558,474.88	3,232,104.071	4,256,504.44	3,570,217.168	3,555,221.45
Water Supply	193,525.29	212,402.79	197,088.27	209,464.303	215,771.05	225,420.72	239,991.83
Industrial	180,579.90	167,051.34	168,334.76	157,309.024	152,086.80	138,188.07	146,552.59
Irrigation	27,121.14	29,668.39	12,172.86	24,119.869	21,924.04	29,157.46	42,222.47
Golf Course	13,302.54	14,022.92	10,373.47	13,230.462	11,908.10	12,646.90	15,748.70
Mining	2,691.75	3,159.88	4,935.07	3,241.623	3,305.18	3,723.79	2,373.56
Aquaculture	865.17	2,283.95	1,451.98	1,355.631	410.31	320.00	344.82
Other	204.84	106.22	59.033	85.505	105.63	54.01	64.31
Total	11,839,543.4	14,310,819.25	22,911,098.09	18,843,911.00	20,428,882.61	16,400,793.21	14,911,967.37
Facilities	931	848	833	848	862	849	866

Water Use in Power Production

According to the 2001 Energy Use Profile, South Carolina has 9 power generating utility companies with 51 power plants containing 206 generators with a total rating capacity of 18,827.4 megawatts (2000). The type generators are as follows:

- 96- Hydraulic Turbine (conventional)
- 54- Gas Combustion Turbine
- 37- Steam Turbine (boiler)
- 16- Hydraulic Turbine (pump storage)
- 3- Internal Combustion (diesel)

The primary energy source for the generators is as follows:

- 112- Water
- 32- Diesel Fuel Oil
- 28- Coal
- 25- Natural Gas
- 7- Nuclear
- 2- Residual Fuel Oil

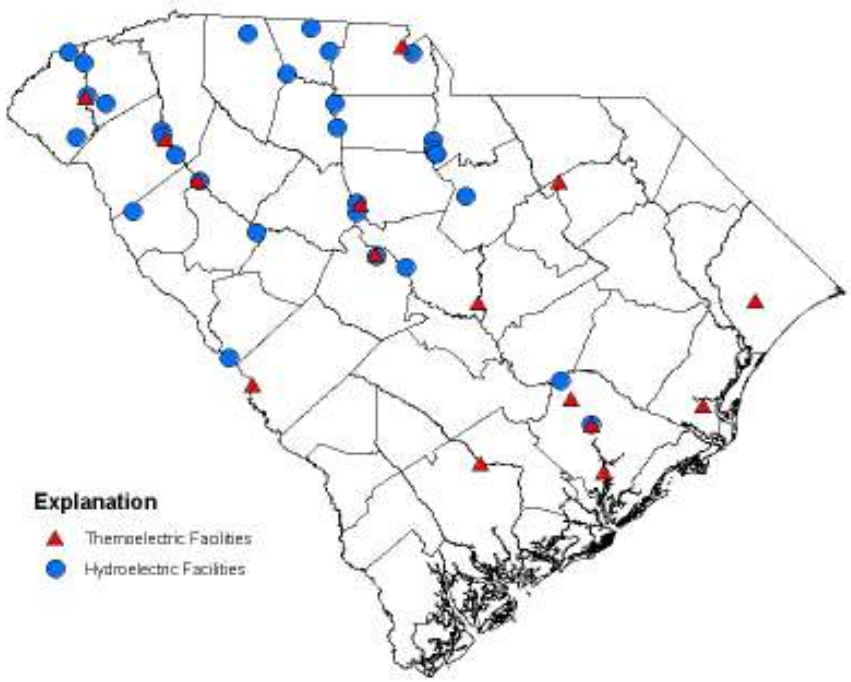
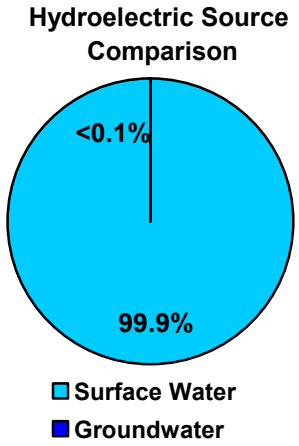
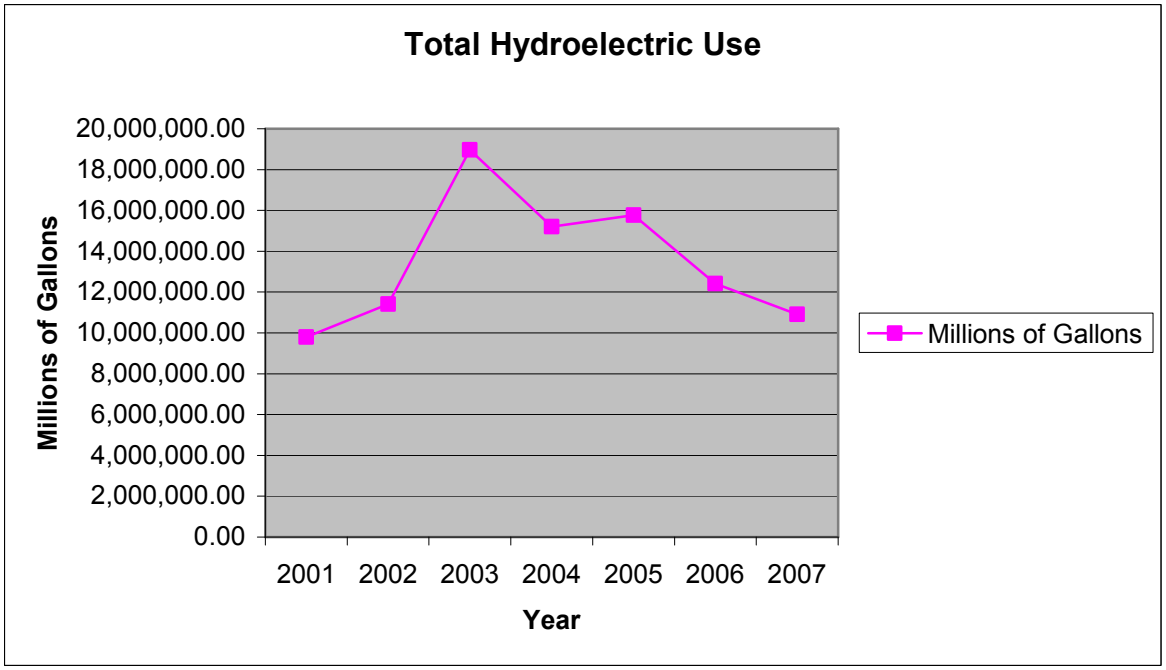


Figure 5: Distribution of Hydroelectric and Thermoelectric Facilities in South Carolina

Hydroelectric Water Use

Hydroelectric facilities employ energy from flowing water to generate electricity. Hydroelectric facilities utilize *impoundments* (reservoirs), *diversion* (run-of river), *or pumped storage* (reversible turbines). Water use is typically non-consumptive flow-through, with temporary diversion from down stream users. Reported water use for 32 hydroelectric sources accounted for approximately 12.409 trillion gallons, approximately 76% of reported water use for power production.

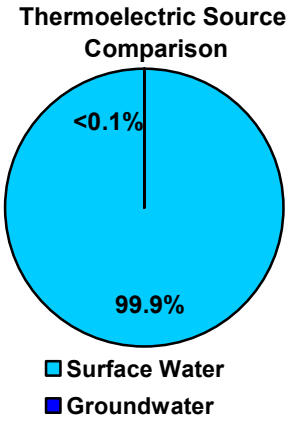


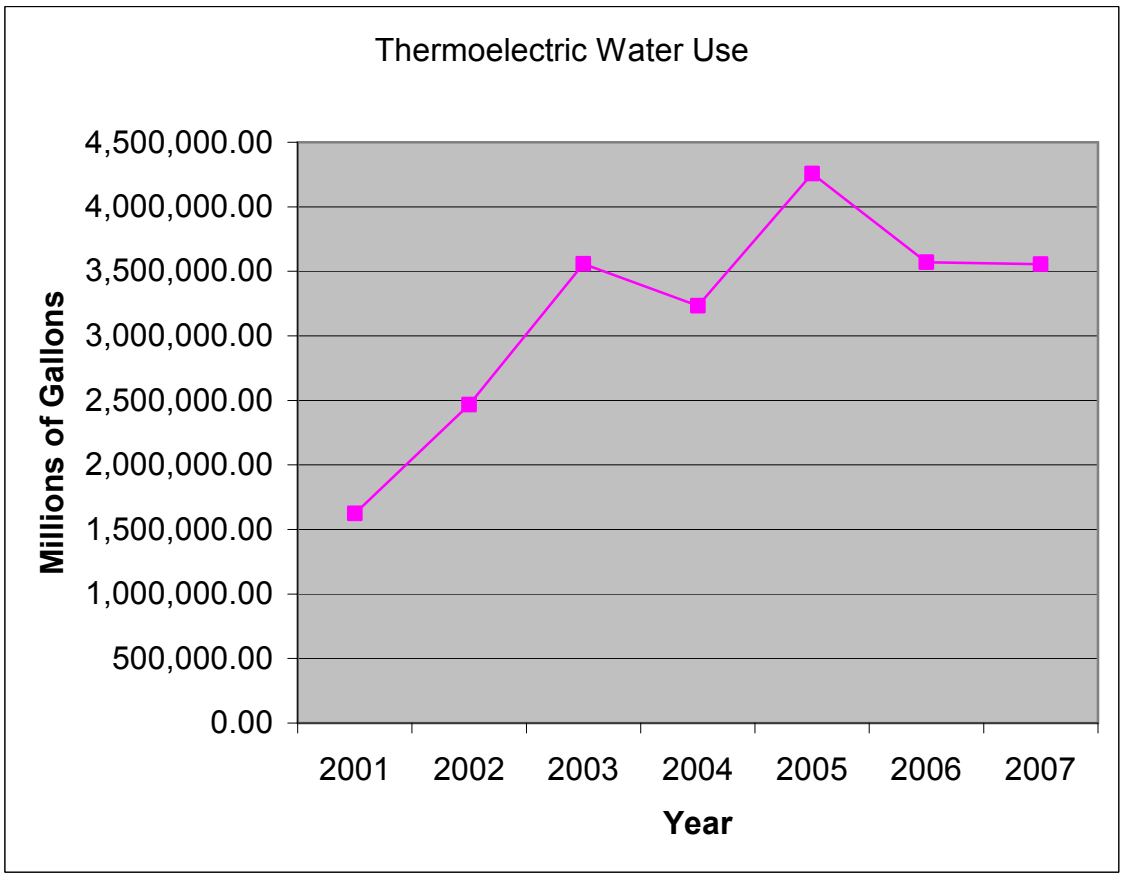


County	Groundwater	Surface Water	County Total
Abbeville	0	14359	14359
Aiken	0	0	0.00
Allendale	0	0	0
Anderson	0	72.7	73
Bamberg	0	0	0.00
Barnwell	0	0	0.00
Beaufort	0	0	0
Berkeley	0.346	1102455.389	1,102,456
Calhoun	0	0	0
Charleston	0	0	0
Cherokee	0	316841	316841
Chester	0	1285603	1,285,603.00
Chesterfield	0	0	0
Clarendon	0	0	0
Colleton	0	0	0.00
Darlington	0	0	0.00
Dillon	0	0	0.00
Dorchester	0	0	0
Edgefield	0	801040.95	801040.95
Fairfield	0	2371972.68	2371972.68
Florence	0	0	0
Georgetown	0	0	0
Greenville	0	87072	87072
Greenwood	0	210939	210939
Hampton	0	0	0
Horry	0	0	0
Jasper	0	0	0
Kershaw	0	732322	732322
Lancaster	0	630521	630521
Laurens	0	45.4	45.4
Lee	0	0	0
Lexington	0	213576.81	213576.81
Marion	0	0	0
Marlboro	0	0	0
McCormick	0	0	0
Newberry	0	0	0
Oconee	0	11.1	11.1
Orangeburg	0	0	0
Pickens	0	2190510	2190510
Richland	0	174628.33	174628.33
Saluda	0	0	0
Spartanburg	0	5026.246	5026.246
Sumter	0	0	0
Union	0	235260.68	235260.68
Williamsburg	0	0	0
York	0	537190	537190
Total	**0.346**	**10909447.29**	**10909447.63**

Thermoelectric Water Use

Thermoelectric facilities generate electricity by superheating water to steam then passing the steam under pressure to turbines. Boilers are fired by coal, nuclear power or residual fuel oil. Large volumes of cooling water are required to condense the steam to the liquid state. Reported water use for 19 thermoelectric sources accounted for more than 3.555 trillion gallons, approximately 23% of total reported water use for the year.





County	Groundwater Total	Surface Water Total	County Total
Abbeville			0
Aiken		60983	60983
Allendale			0
Anderson		38678.999	38679
Bamberg			0
Barnwell			0
Beaufort			0
Berkeley	20.891	177328.209	354656.4
Calhoun			0
Charleston			0
Cherokee	0		0
Chester			0
Chesterfield			0
Clarendon			0
Colleton	0.921	2274.847	4549.694
Darlington	363.698	273601	820803
Dillon			0
Dorchester			0
Edgefield			0
Fairfield		282467.544	282467.5
Florence			0
Georgetown		5066.607	5066.607
Greenville			0
Greenwood			0
Hampton			0
Horry		38083.1	38083.1
Jasper			0
Kershaw			0
Lancaster			0
Laurens			0
Lee			0
Lexington		48836.5	48836.5
Marion			0
Marlboro			0
McCormick			0
Newberry			0
Oconee		2557386	2557386
Orangeburg	1839.881	0	0
Pickens			0
Richland		24192.25	24192.25
Saluda			0
Spartanburg			0
Sumter			0
Union			0
Williamsburg			0
York		44098	44098
Total	2225.3915	3552996.056	**3555221.447**

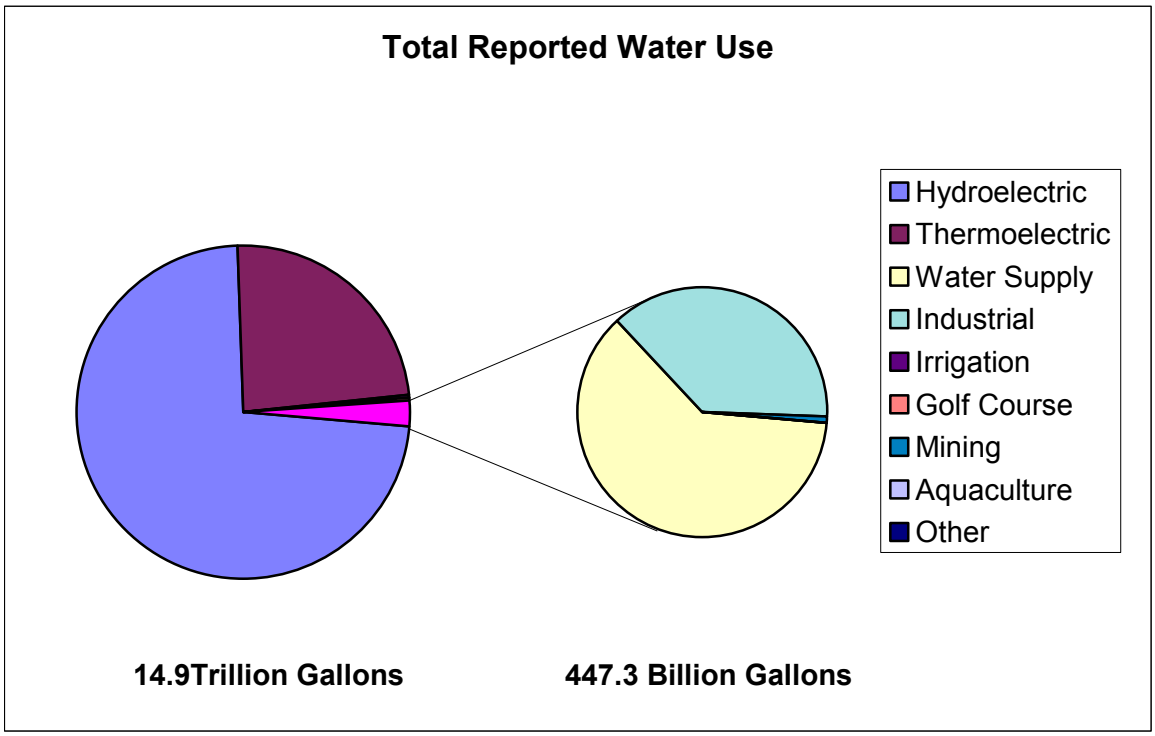


Figure 6: Reported Water Use by Category in South Carolina, 2007

Reported Water Use Excluding Power Production

During 2007, reported water use (excluding power production) totaled approximately 44.3 billion gallons with surface water withdrawal accounting for 368.3 billion gallons or approximately 82%, and groundwater withdrawal accounting for 70.1 billion gallons or approximately 18%. Non-power production-oriented water use accounted for 3% of all reported water use in 2007.

	Groundwater	*Surface Water*	*Total*	*Percentage of Total Non-Power Use*
Aquaculture	117.61	227.2	344.82	0.08%
Golf Course	11,548.69	4,200.01	15,748.70	3.52%
Industrial	135,807.89	10,744.70	146,552.59	32.76%
Irrigation	22,214.37	20,008.09	42,222.47	9.44%
Mining	314.72	2,058.84	2,373.56	0.53%
Other	4.7	59.61	64.31	0.01%
Water Supply	198,351.91	41,639.93	239,991.83	53.65%

Total Non-Power Water Use	447,298.28	million gallons

NR = None Reported

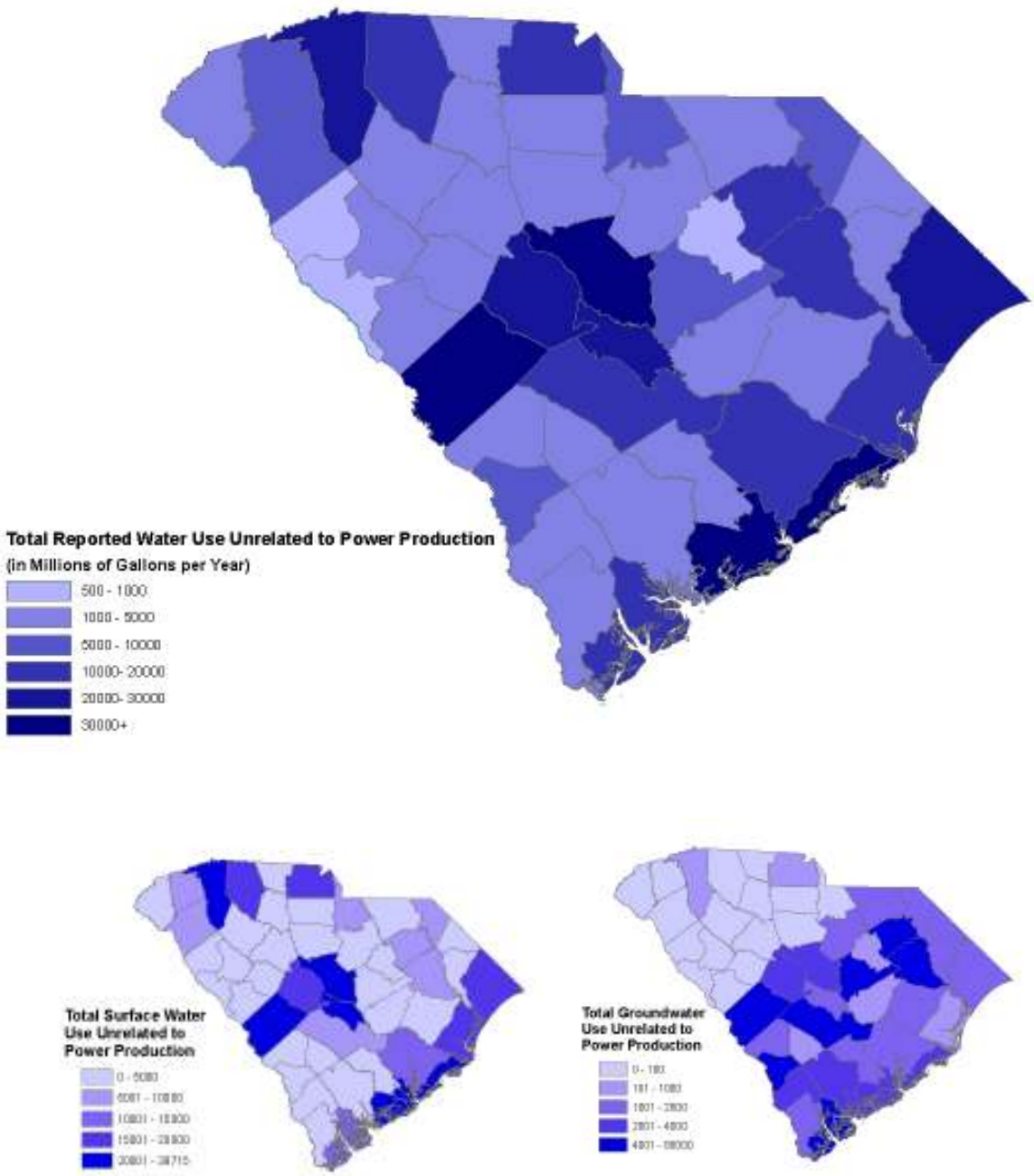
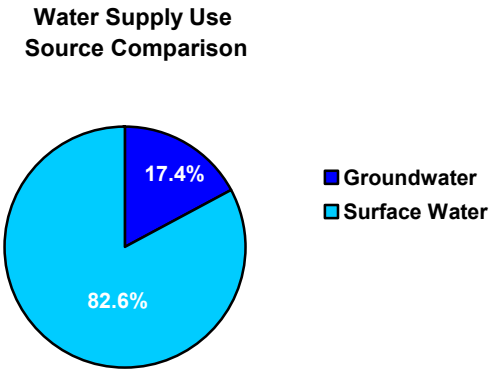
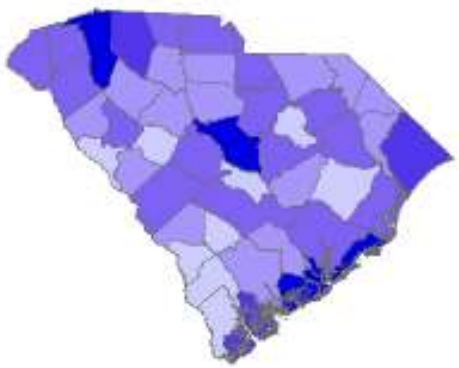


Figure 7: Distribution of Reported Water Usage Unrelated to Power Production, 2007. Figures in millions of gallons per year.

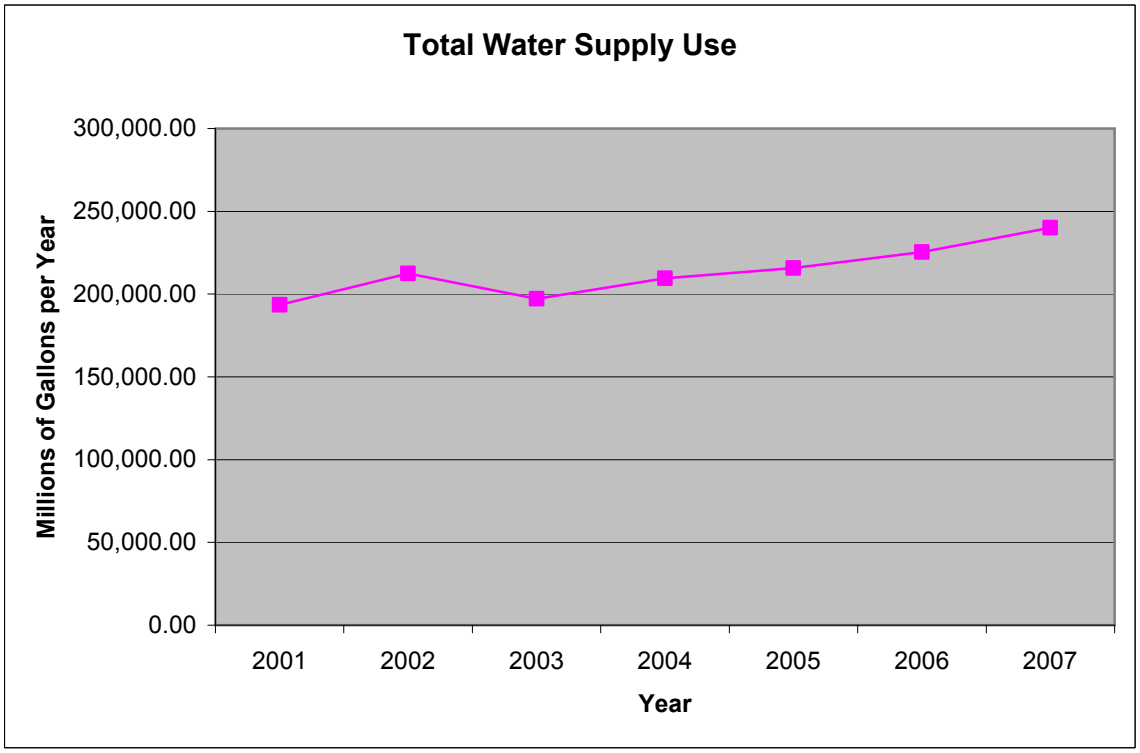
Water Supply

Water withdrawal for public water supply from 224 reporting suppliers totaled 239.99 billion gallons, with 79 surface water sources accounting for 198.35 billion gallons and 793 groundwater sources accounting for 41.64 billion gallons.





Distribution of reported water supply water use in South Carolina, 2007. Darker shades indicate the highest use areas.



County	Groundwater	Surface Water	County Total
Abbeville	2.893	964.928	967.821
Aiken	5257.106	2604.976	7862.082
Allendale	440.629		440.629
Anderson		8467.134	8467.134
Bamberg	546.855		546.855
Barnwell	827.371		827.371
Beaufort	4339.366	9234.093	13573.46
Berkeley	201.452	6104.918	6306.37
Calhoun	263.856		263.856
Charleston	1849.441	30904.29	32753.74
Cherokee	45.875	2602.6	2648.475
Chester		1002.195	1002.195
Chesterfield	1023.264	772.802	1796.066
Clarendon	756.593		756.593
Colleton	790.102		790.102
Darlington	2513.189		2513.189
Dillon	1658.096		1658.096
Dorchester	829.409		829.409
Edgefield		1719.174	1719.174
Fairfield	68.145	1104.16	1172.305
Florence	4864.09	1304.98	6169.07
Georgetown	1208.477	2023.559	3232.036
Greenville	58.153	27348.37	27406.52
Greenwood	9.467	4170.6	4180.067
Hampton	438.236		438.236
Horry	1434.496	17121.11	18555.61
Jasper	378.753		378.753
Kershaw	781.451	1866.903	2648.354
Lancaster		7657.47	7657.47
Laurens		1757.557	1757.557
Lee	614.411		614.411
Lexington	478.419	6271.3	6749.719
Marion	1251.998		1251.998
Marlboro	1085.371	345.43	1430.801
McCormick		454.536	454.536
Newberry	15.575	2296.423	2311.998
Oconee	36.15	4040.781	4076.931
Orangeburg	618.856	3282.2	3901.056
Pickens		4395.44	4395.44
Richland	302.012	25115.87	25417.88
Saluda	10.196		10.196
Spartanburg	36.753	15658.03	15694.78
Sumter	5789.335		5789.335
Union		1341.7	1341.7
Williamsburg	731.155		731.155
York	82.933	6418.375	6501.308

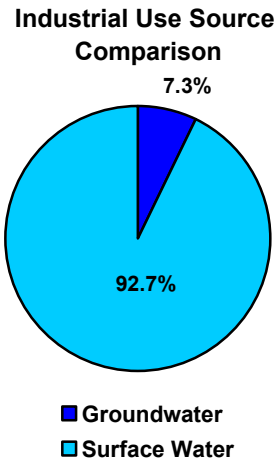
NR = None Reported

	Groundwater	Surface Water
Source Total:	**41639.929**	**198351.9**

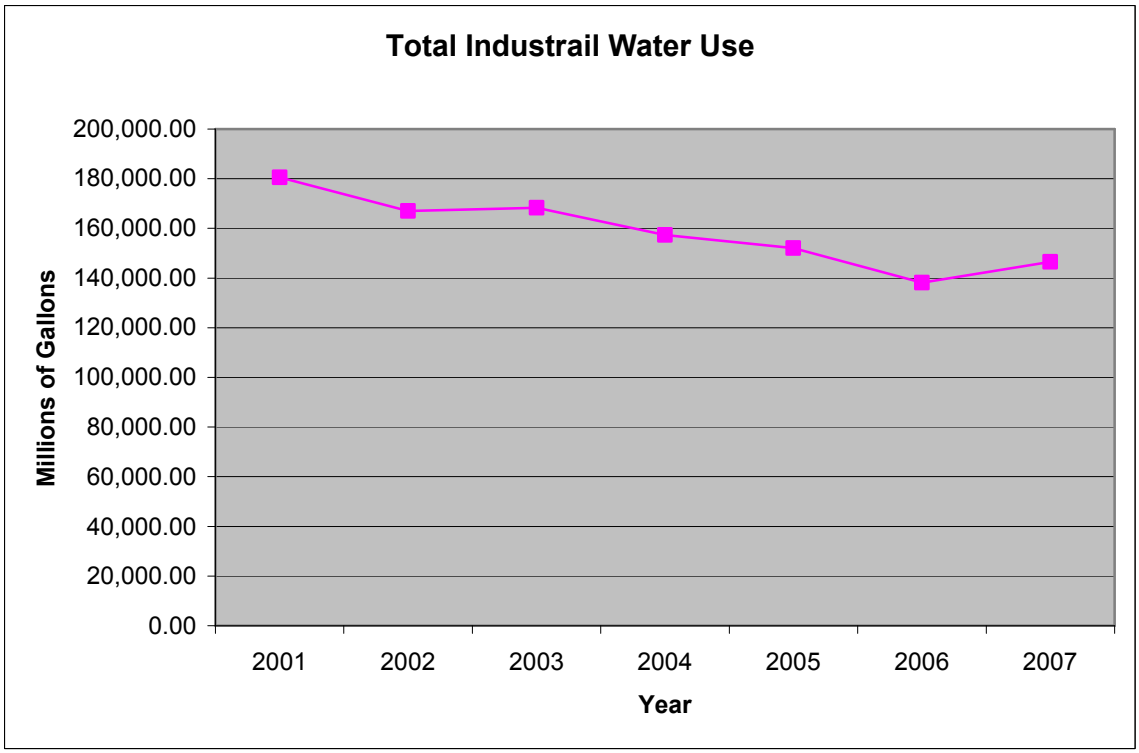
Total Water Supply Use (millions of gallons): **239991.8**

Industrial Use

Water withdrawal for industrial use from 94 reporting industries totaled 146.55 billion gallons, with 50 surface water sources accounting for 135.80 billion gallons and 238 groundwater sources accounting for 10.74 billion gallons. Water use at industrial facilities is predominantly cooling water (contact and non-contact) with return to surface water systems through permitted NPDES discharges.



Distribution of reported industrial water use in South Carolina, 2007. Darker shades indicate the highest use areas.



County	*Groundwater*	*Surface Water*	*County Total*
Abbeville			0
Aiken	1073.055	21478.22	22551.27
Allendale	787.07		787.07
Anderson		70.79	70.79
Bamberg			0
Barnwell	154.454		154.454
Beaufort	101.206		101.206
Berkeley	1484.912	3951.952	5436.864
Calhoun	147.46	26814.22	26961.68
Charleston	35.35	9418.96	9454.31
Cherokee		612.034	612.034
Chester	2.137	46.855	48.992
Chesterfield			0
Clarendon			0
Colleton			0
Darlington	1538.768	7685.441	9224.209
Dillon			0
Dorchester	424.508	0	424.508
Edgefield			0
Fairfield			0
Florence	479.541	8123.824	8603.365
Georgetown	119.608	12126.54	12246.15
Greenville	68.398		68.398
Greenwood	9.55	13.96	23.51
Hampton	290.2		290.2
Horry	187.038	10.148	197.186
Jasper			0
Kershaw	471.336	830.949	1302.285
Lancaster		577.59	577.59
Laurens			0
Lee			0
Lexington	398.359	12279.73	12678.09
Marion			0
Marlboro	227.785	5927.141	6154.926
McCormick			0
Newberry			0
Oconee		29.925	29.925
Ora		144.754	1335.549
Pi		2799.389	2799.389
Ri		11090.35	11817.48
S			0
Spa			13.145
Sumter	210.785		210.785
Union	2.701	544.4	547.101
Williamsburg	597.2		597.2
York	2.215	11230.72	11232.94

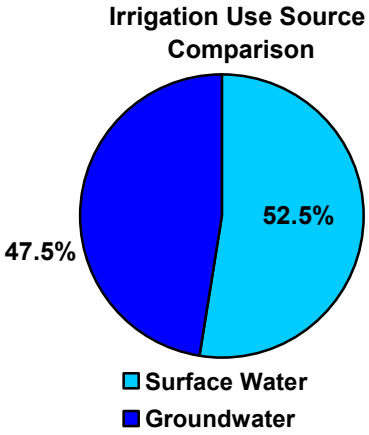
NR = None Reported

	Groundwater	*Surface Water*
Source Total:	**10744.701**	**135807.9**

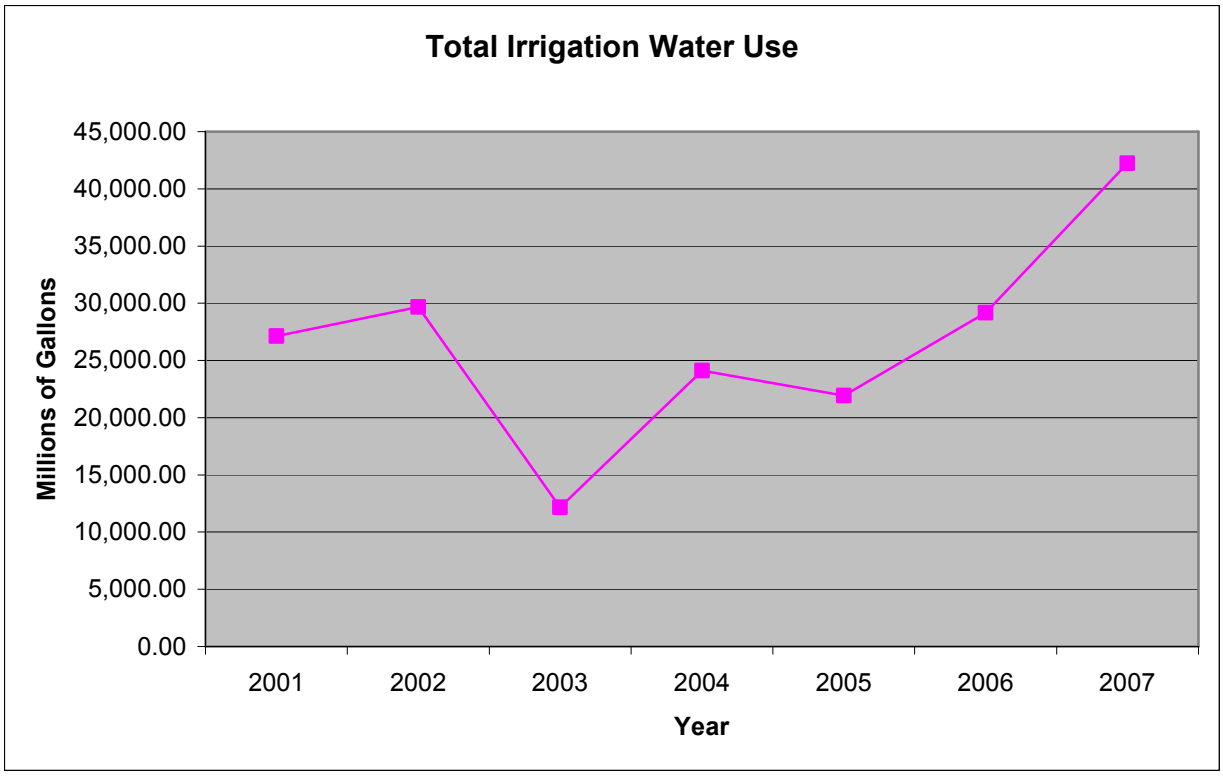
Total Industrial Use (millions of gallons): **146552.6**

Irrigation Use

Water withdrawal for irrigation use from 216 reporting entities totaled 29.157 billion gallons, with 229 surface water sources accounting for 11.176 billion gallons and 489 groundwater sources accounting for 17.980 billion gallons.



Distribution of reported irrigation water use in South Carolina, 2007. Darker shades indicate the highest use areas.



County	*Groundwater*	*Surface Water*	*County Total*
Abbeville			
Aiken	562.9	7652	8214.9
Allendale	3826.972	669.198	4496.17
Anderson			
Bamberg	544.067	635.691	1179.758
Barnwell	580.25	137.3	717.55
Beaufort	506.81	0	506.81
Berkeley	0.24	989.202	989.442
Calhoun	1433.459	218.534	1651.993
Charleston	0.219	30.401	30.62
Cherokee			
Chester			
Chesterfield	501.402	24.026	525.428
Clarendon	541.385	51.943	593.328
Colleton	1911.7	790.9	2702.6
Darlington	186.51	176.64	363.15
Dillon	35.9		35.9
Dorchester			
Edgefield	0	2512.3	2512.3
Fairfield			
Florence	53.05	0.352	53.402
Georgetown	24.127	2942.046	2966.173
Greenville	0	49	49
Greenwood	1.2		1.2
Hampton	1819.457	60	1879.457
Horry	189.033	53.18	242.213
Jasper	683.011	0	683.011
Kershaw			
Lancaster			
Laurens			
Lee	177.505	11.5	189.005
Lexington	2420.804	581.756	3002.56
Marion	31.3	2.1	33.4
Marlboro	295.766	381.885	677.651
McCormick			
Newberry	62.4	163.232	225.632
Oconee		320.55	320.55
Orangeburg	2804.545	1830.935	4635.48
Pickens		0	0
Richland	25.69	0.05	25.74
Saluda		1415.8	1415.8
Spartanburg		176.3	176.3
Sumter	895.615	340.092	1235.707
Union			
Williamsburg		0	0
York		2.66	2.66

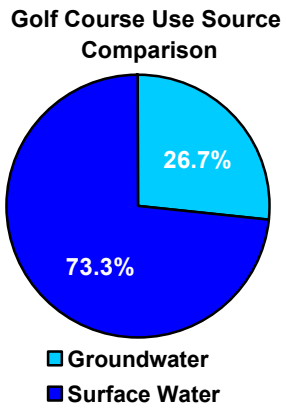
Blank= None Reported

	Groundwater	*Surface Water*
Source Total:	**20115.32**	**22219.57**

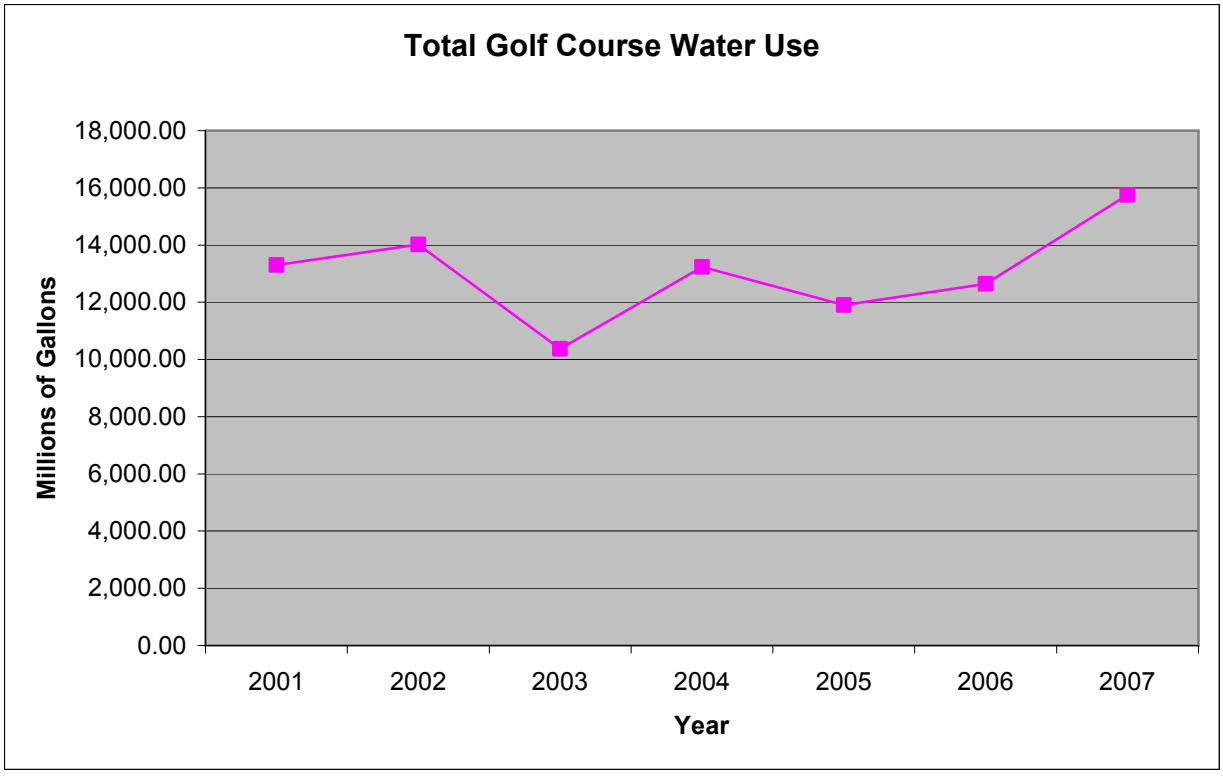
Total Irrigation Use (millions of gallons): **42334.89**

Golf Course Use

Water withdrawal from 267 reporting courses for golf course irrigation totaled 15.75 billion gallons, with 246 surface water sources accounting for 11.55 billion gallons and 253 groundwater sources accounting for 4.20 billion gallons.



Distribution of reported golf course water use in South Carolina, 2007. Darker shades indicate the highest use areas.



County	*Groundwater*	*Surface Water*	*County Total*
Abbeville			
Aiken	16.872	415.282	432.154
Allendale			
Anderson		150.042	150.042
Bamberg			
Barnwell		64.665	64.665
Beaufort	1517.543	2112.697	3630.24
Berkeley	17.2	17.2	34.4
Calhoun	30.4	36.5	66.9
Charleston	727.591	347.866	1075.457
Cherokee			
Chester	36	21	57
Chesterfield		121.576	121.576
Clarendon	0.58	39.19	39.77
Colleton	75.51	1.343	76.853
Darlington	155.8	70.509	226.309
Dillon			
Dorchester	34	41.8	75.8
Edgefield	129.9	49	178.9
Fairfield			
Florence	154.573	53.564	208.137
Georgetown	26.98	1506.288	1533.268
Greenville	38.327	376.572	414.899
Greenwood	0.47	136.059	136.529
Hampton	45.6		45.6
Horry	718.748	3599.401	4318.149
Jasper	28.655		28.655
Kershaw	43.84	61.8	105.64
Lancaster	10.18	9.7	19.88
Laurens		82.71	82.71
Lee			
Lexington	30.71	174.162	204.872
Marion	0	66.343	66.343
Marlboro			
McCormick		50.889	50.889
Newberry	0	11.74	11.74
Oconee		139.731	139.731
Orangeburg	58.76	114.173	172.933
Pickens		607.015	607.015
Richland	89.482	356.899	446.381
Saluda			
Spartanburg	18.753	278.679	297.432
Sumter	87.73	233.528	321.258
Union		4.3	4.3
Williamsburg			
York	105.81	196.465	302.275

Blank = None Reported

	Groundwater	*Surface Water*
Source Total:	**4200.014**	**11548.69**

Total Golf Course Use (millions of gallons): **15748.7**

Mining Use

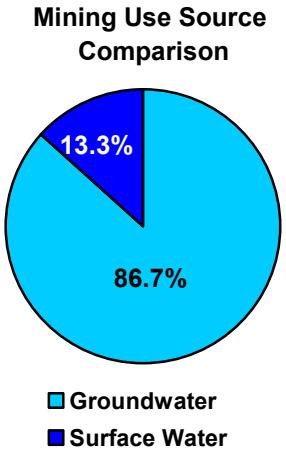
Water withdrawal associated with mining activities at 11 reporting facilities totaled 2.37 billion gallons, with 4 surface water sources accounting for 314 million gallons and 10 groundwater sources accounting for 2.05 billion gallons.

County	*Groundwater*	*Surface Water*	*County Total*
Aiken	36.288		
Berkeley	4.119	NR	4.119
Chesterfield	67.075	NR	67.075
Horry	NR	59.2	59.2
Lexington	251.54	255.52	507.06
Orangeburg	1234.3	NR	1234.3
Richland	453.44	NR	453.44
York	12.11	NR	12.11

NR = None Reported

	Groundwater	*Surface Water*
Source Total:	**2058.9**	**314.72**

Total Irrigation Use (million gallons):	**2373.56**



Aquaculture Use

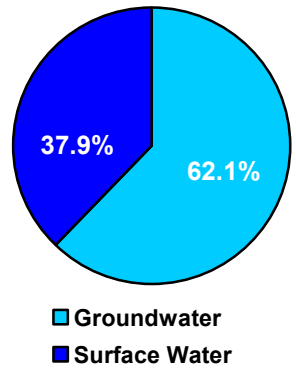
Water withdrawal from 7 reporting aquaculture-farming facilities totaled 320 Million gallons, with 5 surface water sources accounting for 171.872 million gallons and 11 groundwater sources accounting for 148.129 million gallons.

County	*Groundwater*	*Surface Water*	*County Total*
Beaufort	4.663	51.383	56.046
Berkeley	0.78	3.69	4.47
Hampton	168.3		168.3
Richland	19.361	27.5	46.861
Spartanburg		35.04	35.04

NR = None Reported

	Groundwater	*Surface Water*
Source Total:	193.104	117.61

Total Aquaculture Use (million gallons):	310.717



Other Use

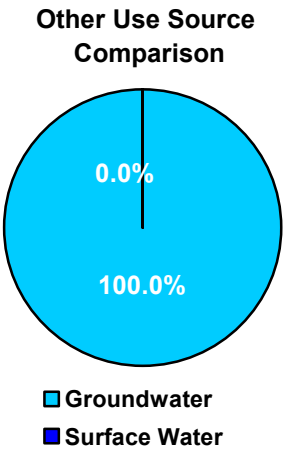
Water withdrawal for other, non-specific use from 4 reporting facilities totaled 105.634 million gallons, with groundwater accounting for all reported use.

County	*Groundwater*	*Surface Water*	*County Total*
Beaufort	38.015	NR	38.015
Dorchester	7.585	NR	7.585
Horry	14.014	NR	14.014

NR = None Reported

	Groundwater	*Surface Water*
Source Total:	59.614	NR

Total Other Use (million gallons):	59.614



Appendix A: Surface and Groundwater Use Summary Tables

Surface Water Use Summary Table (Figures in Millions of Gallons)

County	Grand Total	Aquaculture	Golf Course	Industrial	Irrigation	Mining	Other	Hydroelectric	Nuclear	Thermoelectric	Water Supply
Abbeville	15323.928							14359			964.928
Aiken	93133.474		415.282	21478.216	7652					60983	2604.976
Allendale	669.198				669.198						
Anderson	47439.665		150.042	70.79				72.7		38679	8467.134
Bamberg	635.691				635.691						
Barnwell	201.965		64.665		137.3						
Beaufort	11398.173	51.383	2112.697		0						9234.093
Berkeley	1290850.56	3.69	17.2	3951.952	989.202			1102455.39		177328.2	6104.918
Calhoun	27069.254		36.5	26814.22	218.534						
Charleston	40701.521		347.866	9418.96	30.401						30904.294
Cherokee	320055.634			612.034				316841			2602.6
Chester	1286673.05		21	46.855				1285603			1002.195
Chesterfield	918.404		121.576		24.026						772.802
Clarendon	91.133		39.19		51.943						
Colleton	3067.09		1.343		790.9	0				2274.847	
Darlington	281533.59		70.509	7685.441	176.64				273601		
Dorchester	41.8		41.8	0							
Edgefield	805321.424		49		2512.3			801040.95			1719.174
Fairfield	2655544.384							2371972.68	282467.544		1104.16
Florence	9482.72		53.564	8123.824	0.352						1304.98
Georgetown	23665.044		1506.288	12126.544	2942.046					5066.607	2023.559
Greenville	114845.942		376.572		49			87072			27348.37
Greenwood	215259.619		136.059	13.96				210939			4170.6
Hampton	60				60						
Horry	58926.139		3599.401	10.148	53.18	59.2				38083.1	17121.11
Jasper	0				0						
Kershaw	735081.652		61.8	830.949				732322			1866.903
Lancaster	638765.76		9.7	577.59				630521			7657.47
Laurens	1885.667		82.71					45.4			1757.557
Lee	11.5				11.5						
Lexington	281975.774		174.162	12279.726	581.756	255.52		213576.81		48836.5	6271.3
Marion	68.443		66.343		2.1						
Marlboro	6654.456			5927.141	381.885						345.43
McCormick	505.425		50.889								454.536
Newberry	2471.395		11.74		163.232						2296.423
Oconee	2561928.087		139.731	29.925	320.55			11.1	2557386		4040.781
Orangeburg	5372.062		114.173	144.754	1830.935					0	3282.2
Pickens	2198311.844		607.015	2799.389	0			2190510			4395.44
Richland	235411.251	27.5	356.899	11090.352	0.05			174628.33		24192.25	25115.87
Saluda	1415.8				1415.8						
Spartanburg	21174.292	35.04	278.679		176.3			5026.246			15658.027
Sumter	573.62		233.528		340.092						
Union	237151.08		4.3	544.4				235260.68			1341.7
Williamsburg	0				0						
York	599140.92		196.465	11230.72	2.66		4.7	537190	44098		6418.375
Total	**14830808.43**	**117.61**	**11548.69**	**135807.89**	**22219.57**	**314.72**	**4.7**	**10909447.3**	**3157552.54**	**395443.5**	**198351.91**

Blank = None Reported

Groundwater Use Summary Table (Figures in Millions of Gallons)

County	GrandTotal	AQ	GC	IN	IR	MI	OT	PH	PN	PT	WS
Abbeville	2.893										2.893
Aiken	6946.221		16.872	1073.055	562.9	36.288					5257.106
Allendale	5054.671			787.07	3826.972						440.629
Bamberg	1090.922				544.067						546.855
Barnwell	1562.075			154.454	580.25						827.371
Beaufort	6507.603	4.663	1517.543	101.206	506.81		38.015				4339.366
Berkeley	1729.94	0.78	17.2	1484.912	0.24	4.119		0.346		20.891	201.452
Calhoun	1875.175		30.4	147.46	1433.459						263.856
Charleston	2612.601		727.591	35.35	0.219						1849.441
Cherokee	45.875									0	45.875
Chester	38.137		36	2.137							
Chesterfield	1591.741				501.402	67.075					1023.264
Clarendon	1298.558		0.58		541.385						756.593
Colleton	2778.233		75.51		1911.7					0.921	790.102
Darlington	4757.965		155.8	1538.768	186.51				363.698		2513.189
Dillon	1728.096	34.1			35.9						1658.096
Dorchester	1295.502		34	424.508			7.585				829.409
Edgefield	129.9		129.9		0						
Fairfield	68.145										68.145
Florence	5551.254		154.573	479.541	53.05						4864.09
Georgetown	1379.192		26.98	119.608	24.127						1208.477
Greenville	164.878		38.327	68.398	0						58.153
Greenwood	20.687		0.47	9.55	1.2						9.467
Hampton	2761.793	168.3	45.6	290.2	1819.457						438.236
Horry	2543.329		718.748	187.038	189.033		14.014				1434.496
Jasper	1090.419	0	28.655		683.011						378.753
Kershaw	1296.627		43.84	471.336							781.451
Lancaster	10.18		10.18								
Lee	791.916				177.505						614.411
Lexington	3579.832		30.71	398.359	2420.804	251.54					478.419
Marion	1283.298		0		31.3						1251.998
Marlboro	1608.922			227.785	295.766						1085.371
Newberry	77.975		0		62.4						15.575
Oconee	36.15										36.15
Orangeburg	7747.107		58.76	1190.795	2804.545	1234.3				1839.9	618.856
Richland	1617.11	19.361	89.482	727.125	25.69	453.44					302.012
Saluda	10.196										10.196
Spartanburg	68.651		18.753	13.145							36.753
Sumter	6983.465		87.73	210.785	895.615						5789.335
Union	2.701			2.701							
Williamsburg	1328.355			597.2							731.155
York	203.068		105.81	2.215		12.11					82.933
Total	**81271.358**	**227.204**	**4200.014**	**10744.7**	**20115.32**	**2058.8**	**59.614**	**0.346**	**363.698**	**1861.7**	**41639.93**

Blank = None Reported

Appendix B: Population by County

Population and Projections by County

County	2000	2005	2010	2015	2020	2025
Abbeville	26,167	26,740	27,610	28,480	29,350	30,210
Aiken	142,552	153,900	163,950	174,000	184,060	194,110
Allendale	11,211	11,820	11,960	12,110	12,260	12,400
Anderson	165,740	172,120	180,280	188,440	196,590	204,750
Bamberg	16,658	16,130	15,740	15,340	14,950	14,560
Barnwell	23,478	24,350	25,390	26,440	27,490	28,540
Beaufort	120,937	132,760	146,440	160,110	173,790	187,460
Berkeley	142,651	156,610	167,520	178,420	189,330	200,230
Calhoun	15,185	15,570	16,350	17,130	17,910	18,690
Charleston	309,969	320,080	328,570	337,070	345,560	354,060
Cherokee	52,537	54,770	57,860	60,960	64,050	67,140
Chester	34,068	34,630	35,500	36,370	37,240	38,110
Chesterfield	42,768	43,100	44,310	45,520	46,730	47,940
Clarendon	32,502	33,300	34,650	35,990	37,330	38,680
Colleton	38,264	39,910	41,590	43,260	44,940	46,610
Darlington	67,394	67,910	69,260	70,610	71,960	73,310
Dillon	30,722	30,220	30,280	30,340	30,400	30,460
Dorchester	96,413	106,590	115,430	124,280	133,130	141,980
Edgefield	24,595	25,490	27,400	29,320	31,230	33,150
Fairfield	23,454	24,260	25,010	25,770	26,520	27,280
Florence	125,761	130,140	134,510	138,870	143,230	147,590
Georgetown	55,797	58,300	61,770	65,240	68,710	72,190
Greenville	379,616	397,580	421,210	444,840	468,470	492,100
Greenwood	66,271	68,590	71,170	73,750	76,330	78,910
Hampton	21,386	21,810	22,690	23,570	24,450	25,330
Horry	196,629	215,850	239,020	262,190	285,360	308,530
Jasper	20,678	21,390	23,000	24,610	26,220	27,830
Kershaw	52,647	55,300	58,880	62,460	66,040	69,620
Lancaster	61,351	61,940	63,940	65,950	67,950	69,950
Laurens	69,567	72,800	77,190	81,580	85,960	90,350
Lee	20,119	20,540	21,010	21,480	21,960	22,430
Lexington	216,014	233,060	252,580	272,090	291,600	311,120
McCormick	9,958	10,670	11,290	11,910	12,530	13,150
Marion	35,466	35,930	36,390	36,840	37,300	37,760
Marlboro	28,818	28,100	27,460	26,820	26,170	25,530
Newberry	36,108	37,270	38,530	39,790	41,050	42,320
Oconee	66,215	70,910	75,470	80,040	84,600	89,160
Orangeburg	91,582	94,260	96,890	99,510	102,140	104,770
Pickens	110,757	119,040	127,110	135,190	143,260	151,330
Richland	320,677	331,810	345,660	359,520	373,370	387,220
Saluda	19,181	19,400	20,090	20,790	21,480	22,180
Spartanburg	253,791	267,390	280,590	293,790	306,990	320,190
Sumter	104,646	112,030	116,100	120,180	124,260	128,330
Union	29,881	29,720	29,480	29,240	29,010	28,770
Williamsburg	37,217	36,960	36,820	36,680	36,540	36,400
York	164,614	177,420	192,290	207,160	222,030	236,900
South Carolina:	4,012,012	4,218,460	4,446,240	4,674,050	4,901,810	5,129,630