Bureau of Water

South Carolina Department of Health and Environmental Control

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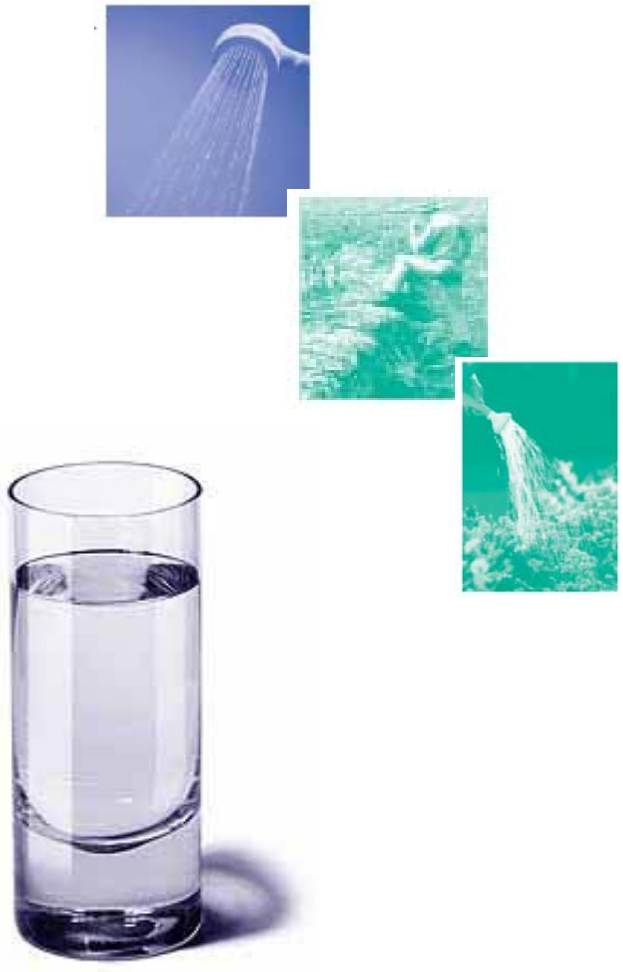
South Carolina Water Use Report

2004 Annual Summary



www.scdhec.net/water

South Carolina Water Use Report
2004 Summary

South Carolina Department of Health and Environmental Control
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Bureau of Water
July 2005

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 registered users of 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.

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
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Introduction

South Carolinians have enjoyed an available fresh water supply that is clean, abundant, easily attainable and, for all practical purposes, inexhaustible. 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 sundry uses. According to the U.S. Census Bureau, South Carolina will increase its population by 600,000 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 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 relying 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 2004. 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 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 orographic 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-50's in the mountains to low-60's 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, and most recently 1998. 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. The drought that officially began in June 1998 abated in the late summer of 2002 with the onset of more seasonal (and in some locations torrential) precipitation for many parts of South Carolina.

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. 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.

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 found in the Piedmont. Where streams once rolled across exposed Piedmont rocks and tumbled down the occasional stretch of whitewater, the Coastal Plain dictates a slower pace and quiet meandering river channels with adjacent wetlands are 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.

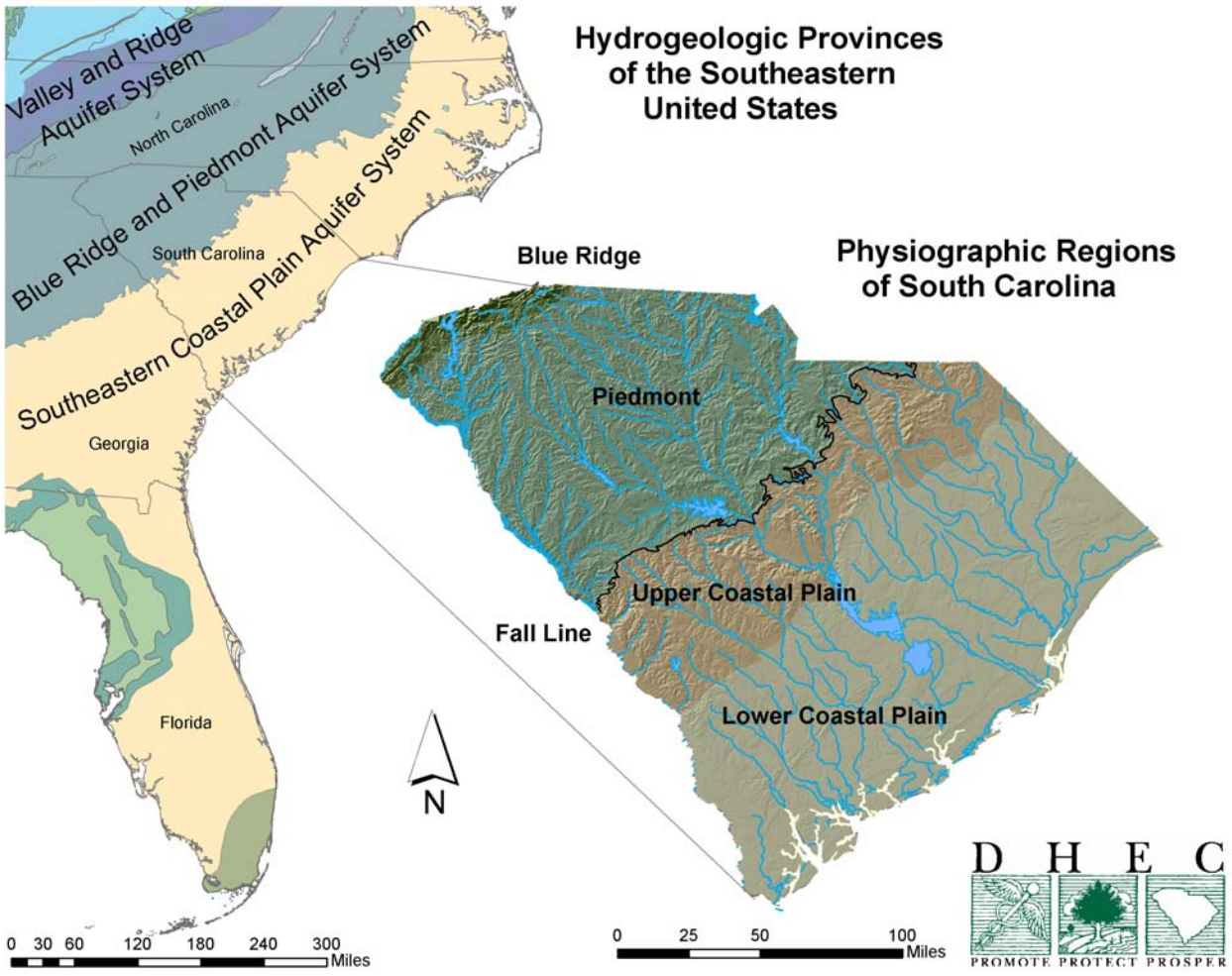


Figure 1: Hydrogeologic and Physiographic Setting for Water Use in South Carolina

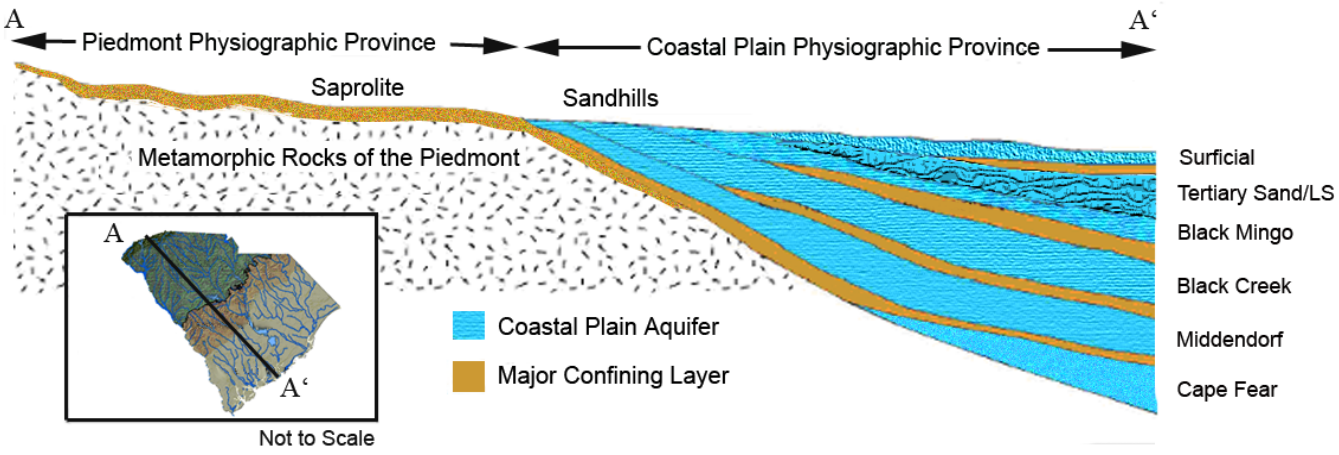


Figure 2: Generalized Hydrogeologic Cross-Section from the Blue Ridge through the Lower Coastal Plain in South Carolina

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 especially susceptible to contamination due to its shallow, unconfined nature. The Surficial sands are highly influenced by local precipitation and river stage and are especially 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, 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 (connate) 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.

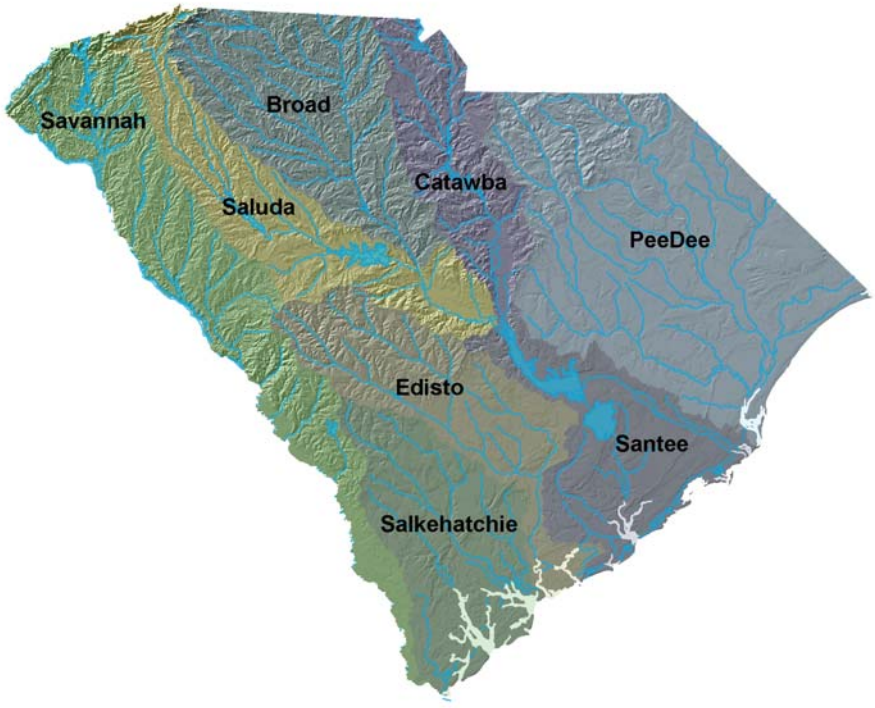


Figure 3: Major River Basins of South Carolina

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 4,588,000 acres (7,170 square miles). Of this, approximately 2,500,000 acres (3,905 square miles) are cropland[1]. 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[2]. 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 (2004) totaled 94,363 million kilowatt hours[3].

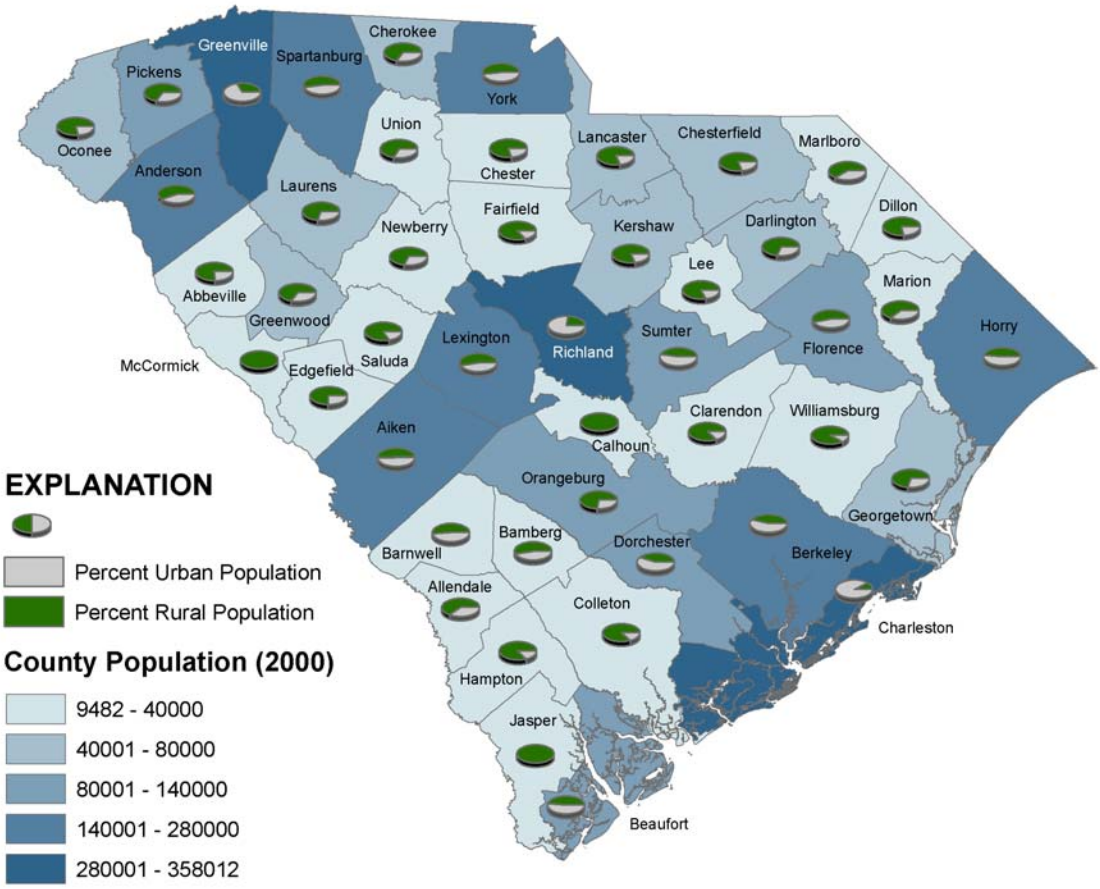


Figure 4: Population by County in South Carolina, 2000

[1] 1997 Census of Agriculture, Volume 1 Geographic Area Series, "Table 1. County Summary Highlights: 1997."

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

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

2004 Water Use Profile

Surface and Groundwater Use Summary by Category and County in South Carolina, 2004

The following section outlines all reported water use for the State of South Carolina for the calendar year 2004. Water use is summarized by category, and further tabulated on a county-by-county basis. 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 2004, South Carolina had registered 848 water withdrawers with 2425 sources, 481 surface water facilities with 712 sources and 536 groundwater facilities with 1,713 sources. It should be noted 169 facilities utilized both groundwater and surface water sources.

Water Use Category	Facilities	GW Source	SW Source
Golf Course	257	291	284
Water Supply	223	745	82
Irrigation	201	413	226
Industrial	94	209	55
Hydroelectric	30	1	31
Thermoelectric	19	13	22
Mining	12	13	4
Aquaculture	10	12	8
Other	2	16	NR
Total	**848**	**1713**	**712**

NR = None Reported

Total Reported Water Use

Total water use reported for 2004 was more than 18.8 trillion gallons from 848 reporting facilities. Surface water withdrawal from 481 facilities accounted for approximately 18.7 trillion gallons, approximately 99% of total water use. Groundwater withdrawal from 536 reporting facilities accounted for approximately 67.6 billion gallons or approximately 1%.

Water Use Category	Groundwater	Surface Water	Total	Percentage
Aquaculture	238.249	1,117.382	1,355.631	0.01%
Golf Courses	3,699.103	9,531.359	13,230.462	0.07%
Industrial	11,794.443	145,514.581	157,309.024	0.83%
Irrigation	13,992.558	10,127.311	24,119.869	0.13%
Mining	2,456.623	785.000	3,241.623	0.02%
Other	85.505	NR	85.505	0.0005%
Hydroelectric	1.181	15,202,999.340	15,203,000.521	80.68%
Thermoelectric	2,040.139	3,230,063.932	3,232,104.071	17.15%
Water Supply	39,764.832	169,699.471	209,464.303	1.11%

NR = None Reported

Water Use	1999	2000	2001	2002	2003	2004
Hydroelectric	12,160,642.62	10,281,681.91	9,796,267.91	11,415,081.44	18,958,207.77	15,203,000.521
Thermoelectric	2,326,627.77	2,240,508.37	1,624,984.88	2,467,042.32	3,558,474.88	3,232,104.071
Water Supply	221,911.79	148,265.21	193,525.29	212,402.79	197,088.27	209,464.303
Industrial	172,314.14	157,463.33	180,579.90	167,051.34	168,334.76	157,309.024
Irrigation	9,470.97	3,182.73	27,121.14	29,668.39	12,172.86	24,119.869
Golf Course	6,323.77	6,806.35	13,302.54	14,022.92	10,373.47	13,230.462
Mining	2,546.92	3,056.08	2,691.75	3,159.88	4,935.07	3,241.623
Aquaculture	35.97	13.67	865.17	2,283.95	1,451.98	1,355.631
Other	367.06	223.61	204.84	106.22	59.033	85.505
Total	14,900,241.01	12,841,201.26	11,839,543.42	14,310,819.25	22,911,098.09	18,843,911.009
Facilities	717	577	931	848	833	848

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

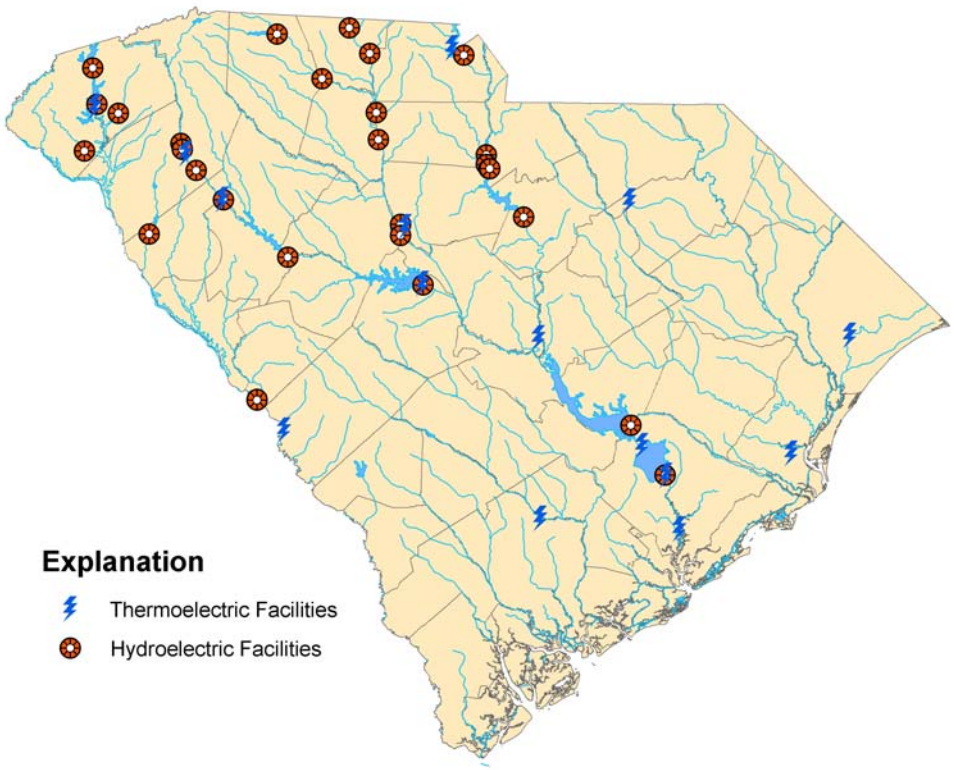


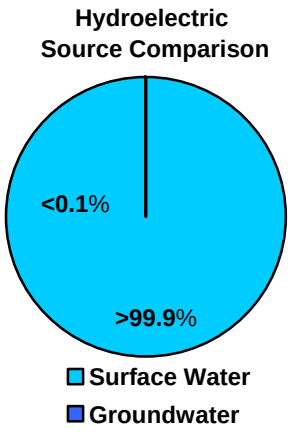
Figure 5: Distribution of Hydroelectric and Thermoelectric Facilities in South Carolina

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 31 hydroelectric sources accounted for approximately 15.203 trillion gallons, approximately 82.44% of reported water use for power production and 80.68% of total reported water use for the year.

County	*Surface Water*	*Groundwater*	*County Total*
Abbeville	28,619.000	NR	28,619.000
Anderson	274.193	NR	274.193
Berkeley	1,213,836.312	1.181	1,213,837.493
Cherokee	455,113.000	NR	455,113.000
Chester	2,171,229.000	NR	2,171,229.000
Edgefield	999,809.310	NR	999,809.310
Fairfield	3,025,896.060	NR	3,025,896.060
Greenville	140,851.000	NR	140,851.000
Greenwood	317,017.000	NR	317,017.000
Kershaw	1,207,267.000	NR	1,207,267.000
Lancaster	1,093,794.000	NR	1,093,794.000
Laurens	149.400	NR	149.400
Lexington	201,784.930	NR	201,784.930
Oconee	12.200	NR	12.200
Pickens	2,611,758.000	NR	2,611,758.000
Richland	473,338.480	NR	473,338.480
Spartanburg	13,852.416	NR	13,852.416
Union	316,309.036	NR	316,309.036
York	932,089.000	NR	932,089.000

NR = None Reported



Average daily flow-through hydroelectric use for any of the 31 reporting facilities averaged 1.34 billion gallons of surface water per day in 2004

	Surface Water	*Groundwater*
Source Total:	15,202,999.337	1.181

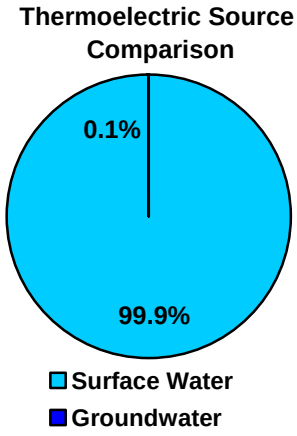
Total Hydro Power Use (million gallons):	**15,203,000.518**

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 3.232 trillion gallons, approximately 17.56% of reported water use for power production and 17.15% of total reported water use for the year.

County	*Surface Water*	*Groundwater*	*County Total*
Aiken	46,744.000	NR	46,744.000
Anderson	37,417.276	NR	37,417.276
Berkeley	167,653.708	12.035	167,665.743
Cherokee	NR	1.326	1.326
Colleton	1,616.455	1.828	1,618.283
Darlington	285,140.000	363.509	285,503.509
Fairfield	246,543.778	NR	246,543.778
Georgetown	4,687.310	NR	4,687.310
Greenwood	116.137	NR	116.137
Horry	38,448.870	NR	38,448.870
Lexington	46,310.870	NR	46,310.870
Oconee	2,147,899.000	NR	2,147,899.000
Orangeburg	0.328	1,661.441	1,661.769
Richland	169,724.200	NR	169,724.200
York	37,762.000	NR	37,762.000

NR = None Reported



Average daily use for any thermoelectric facility (19 total) equaled 4.66 billion gallons of surface water per day

	Surface Water	*Groundwater*
Source Total:	3,230,063.932	2,036.985

Total Thermoelectric Use (million gallons):	**3,232,104.071**

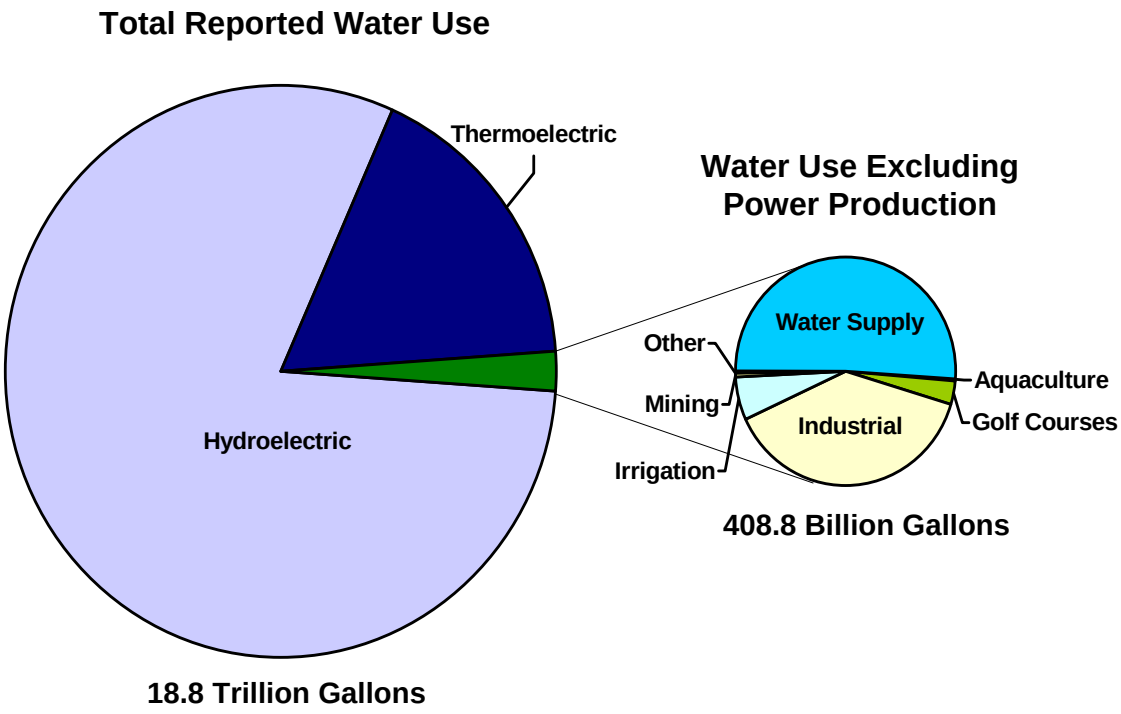


Figure 6: Reported Water Use by Category in South Carolina, 2004

Reported Water Use Excluding Power Production

During 2004, reported water use (excluding power production) totaled more than 408.8 billion gallons with surface water withdrawal accounting for 336.7 billion gallons or approximately 82.3%, and groundwater withdrawal accounting for 72.0 billion gallons or approximately 17.7%. Non-power production-oriented water use accounted for 2.2% of all reported water use in 2004.

	Groundwater	*Surface Water*	*Total*	*Percentage of Total Non-Power Use*
Aquaculture	238.249	1,117.38	1,355.63	0.33%
Golf Courses	3,699.10	9,531.36	13,230.46	3.24%
Industrial	11,794.44	145,514.58	157,309.02	38.48%
Irrigation	13,992.56	10,127.31	24,119.87	5.90%
Mining	2,456.62	785.00	3,241.62	0.79%
Other	85.505	NR	85.505	0.02%
Water Supply	39,764.83	169,699.47	209,464.30	51.24%

Total Non-Power Water Use	**408,806.42**	million gallons

NR = None Reported

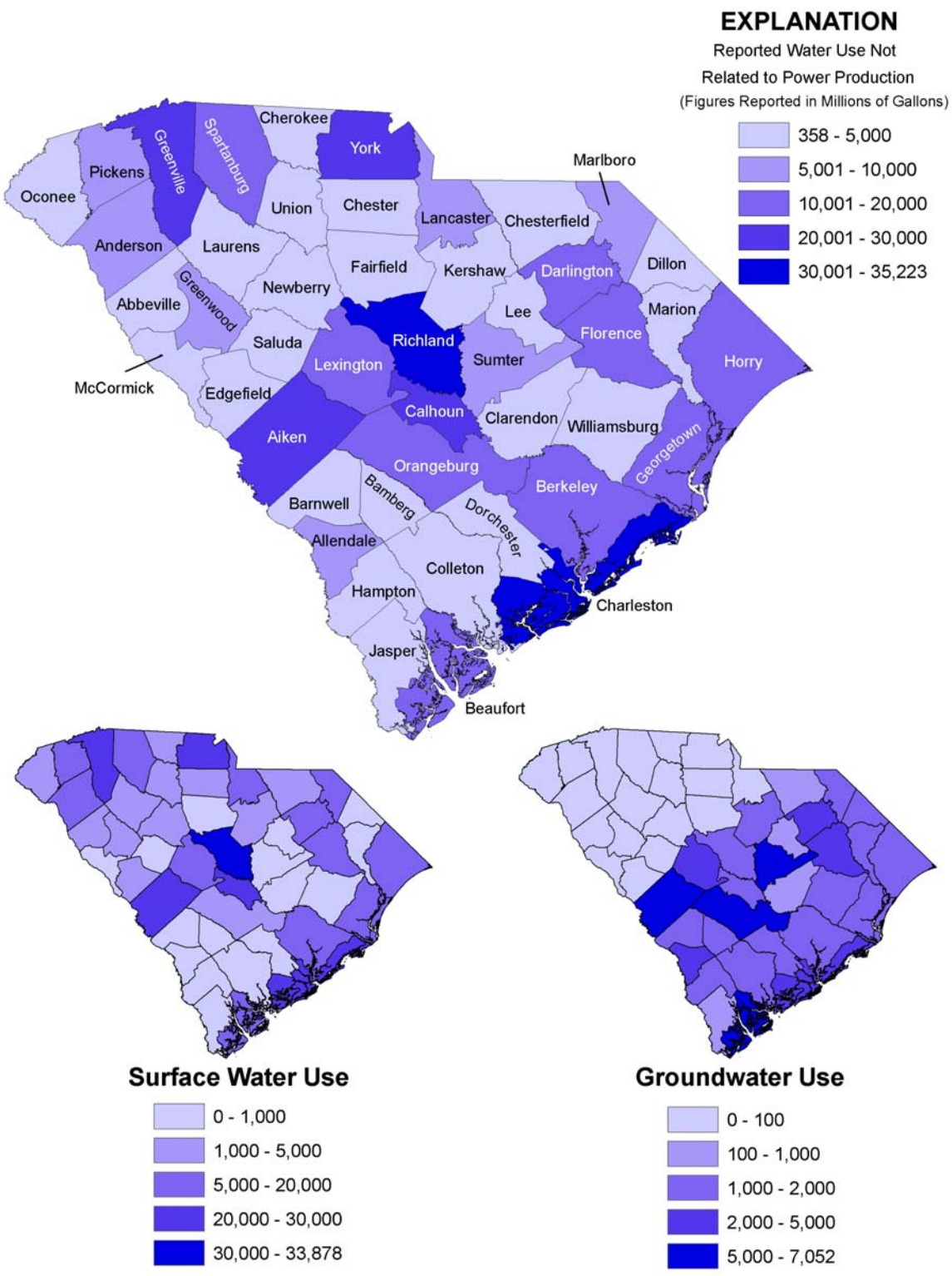


Figure 7: Distribution of Reported Water Usage Unrelated to Power Production, 2004. Figures in millions of gallons per year.

Water Supply

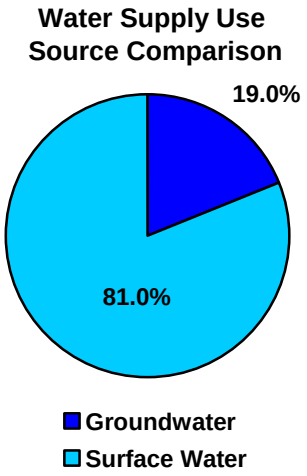
South Carolina has federally 1,551 defined public water systems, of which 685 are community water systems. The public water systems provide water to 3,450,928 citizens. Water withdrawal for public water supply from 223 reporting suppliers totaled 209.464 billion gallons, with 82 surface water sources accounting for 169.699 billion gallons and 745 groundwater sources accounting for 39.764 billion gallons.

County	Groundwater	Surface Water	County Total
Abbeville	2.798	1,017.236	1,020.034
Aiken	4,878.595	2,081.947	6,960.542
Allendale	408.135	NR	408.135
Anderson	NR	7,579.473	7,579.473
Bamberg	502.982	NR	502.982
Barnwell	1,085.024	NR	1,085.024
Beaufort	4,132.591	7,206.600	11,339.191
Berkeley	174.644	5,107.400	5,282.044
Calhoun	234.662	NR	234.662
Charleston	2,993.134	18,748.790	21,741.924
Cherokee	NR	3,536.200	3,536.200
Chester	NR	1,097.200	1,097.200
Chesterfield	618.460	1,028.890	1,647.350
Clarendon	729.432	NR	729.432
Colleton	809.169	NR	809.169
Darlington	2,505.969	NR	2,505.969
Dillon	1,706.404	NR	1,706.404
Dorchester	607.082	NR	607.082
Edgefield	NR	1,545.994	1,545.994
Fairfield	64.334	795.788	860.122
Florence	3,873.342	1,589.940	5,463.282
Georgetown	908.137	2,220.469	3,128.606
Greenville	38.137	23,801.700	23,839.837
Greenwood	27.127	4,900.928	4,928.055
Hampton	519.409	NR	519.409
Horry	951.496	14,045.400	14,996.896
Jasper	435.596	NR	435.596
Kershaw	674.355	1,818.655	2,493.010
Lancaster	NR	7,752.035	7,752.035
Laurens	NR	1,609.625	1,609.625
Lee	595.968	NR	595.968
Lexington	441.282	5,287.679	5,728.961
Marion	1,356.885	NR	1,356.885
Marlboro	983.436	NR	983.436
McCormick	NR	421.956	421.956
Newberry	30.956	2,270.162	2,301.118
Oconee	58.070	3,580.243	3,638.313
Orangeburg	675.943	3,007.440	3,683.383
Pickens	NR	3,982.405	3,982.405
Richland	334.976	23,259.800	23,594.776
Saluda	2.397	NR	2.397
Spartanburg	25.844	13,626.928	13,652.772
Sumter	5,675.104	NR	5,675.104
Union	NR	1,248.260	1,248.260
Williamsburg	689.090	NR	689.090
York	13.867	5,530.328	5,544.195

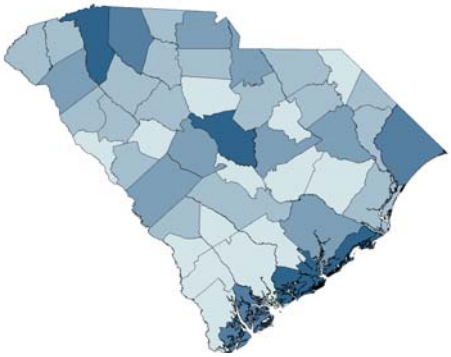
NR = None Reported

	Groundwater	Surface Water
Source Total:	39,764.832	169,699.471

Total Water Supply Use (millions of gallons):	**209,464.303**



Average daily use for any reporting water supply facility (223 total) in 2004 equaled 488,541 gallons of groundwater and 2,084,888 gallons of surface water per day.



Distribution of reported water supply water use in South Carolina, 2004. Darker shades indicate the highest use areas.

Industrial Use

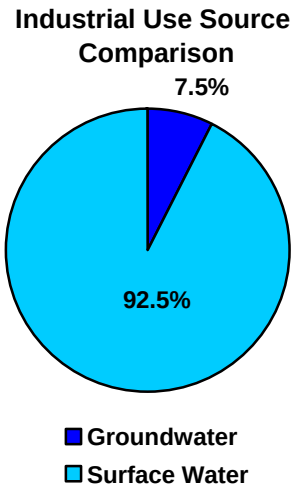
Water withdrawal for industrial use from 94 reporting industries totaled 157.309 billion gallons, with 55 surface water sources accounting for 145.514 billion gallons and 209 groundwater sources accounting for 11.794 billion gallons. Water use at industrial facilities is predominantly cooling water (contact and non-contact) with return to surface water systems through permitted NPDES discharges.

County	*Groundwater*	*Surface Water*	*County Total*
Aiken	1,450.483	19,383.065	20,833.548
Allendale	890.420	NR	890.420
Anderson	NR	57.300	57.300
Beaufort	143.902	NR	143.902
Berkeley	1,100.794	3,774.825	4,875.619
Calhoun	138.448	28,274.894	28,413.342
Charleston	33.722	9,624.900	9,658.622
Cherokee	NR	483.126	483.126
Chester	1.432	91.173	92.605
Darlington	1,896.045	7,768.653	9,664.698
Dorchester	916.381	174.455	1,090.836
Florence	798.964	7,202.600	8,001.564
Georgetown	110.301	11,288.732	11,399.033
Greenville	47.702	NR	47.702
Greenwood	NR	49.850	49.850
Hampton	393.200	NR	393.200
Horry	165.340	2.749	168.089
Kershaw	417.738	923.742	1,341.480
Lancaster	NR	1,010.530	1,010.530
Lexington	414.221	10,197.980	10,612.201
Marlboro	230.453	7,743.082	7,973.535
Oconee	NR	674.440	674.440
Orangeburg	701.127	154.767	855.894
Pickens	NR	3,044.110	3,044.110
Richland	677.192	10,263.504	10,940.696
Spartanburg	15.113	NR	15.113
Sumter	315.873	NR	315.873
Union	2.530	516.200	518.730
Williamsburg	929.368	NR	929.368
York	3.694	22,809.904	22,813.598

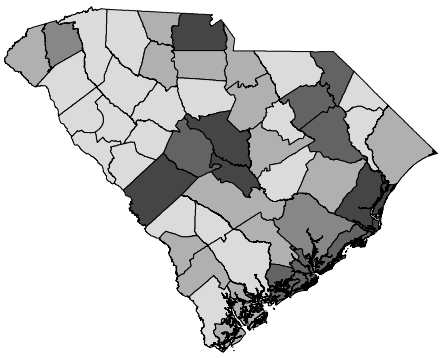
NR = None Reported

	Groundwater	*Surface Water*
Source Total:	11,794.443	145,514.581

Total Industrial Use (millions of gallons):	**157,309.024**



Average use for any reporting industrial facility (94 total) in 2004 equaled 343,761 gallons of groundwater and 4,241,171 gallons of surface water per day.



Distribution of reported industrial water use in South Carolina, 2004. Darker shades indicate the highest use areas.

Irrigation Use

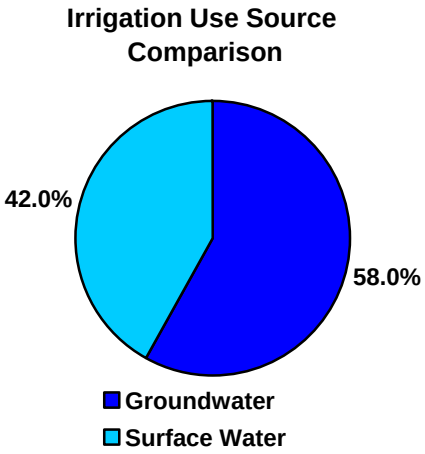
Water withdrawal for irrigation use from 210 reporting entities totaled 24.119 billion gallons, with 226 surface water sources accounting for 10.127 billion gallons and 413 groundwater sources accounting for 13.992 billion gallons.

County	Groundwater	Surface Water	County Total
Aiken	484.652	1,020.000	1,504.652
Allendale	3,325.401	432.680	3,758.081
Bamberg	512.490	645.928	1,158.418
Barnwell	134.763	77.915	212.678
Beaufort	720.401	20.700	741.101
Berkeley	0.240	1093.194	1,093.434
Calhoun	853.542	141.543	995.085
Charleston	12.852	35.491	48.343
Chesterfield	238.797	NR	238.797
Clarendon	182.026	152.086	334.112
Colleton	929.700	265.000	1,194.700
Darlington	0.995	158.163	159.158
Dillon	34.900	NR	34.900
Edgefield	21.000	506.840	527.840
Florence	105.208	12.000	117.208
Georgetown	19.743	1,670.289	1,690.032
Greenville	NR	24.750	24.750
Greenwood	1.200	NR	1.200
Hampton	876.001	16.000	892.001
Horry	179.111	283.847	462.958
Jasper	270.970	NR	270.970
Lee	98.439	8.000	106.439
Lexington	1622.548	496.570	2,119.118
Marion	28.400	22.000	50.400
Marlboro	191.894	88.190	280.084
McCormick	NR	NR	NR
Newberry	60.700	125.700	186.400
Oconee	NR	282.850	282.850
Orangeburg	2,282.848	1,497.681	3,780.529
Pickens	NR	NR	NR
Richland	7.088	0.300	7.388
Saluda	NR	355.870	355.870
Spartanburg	NR	100.124	100.124
Sumter	796.649	586.850	1,383.499
Williamsburg	NR	4.300	4.300
York	NR	2.450	2.450

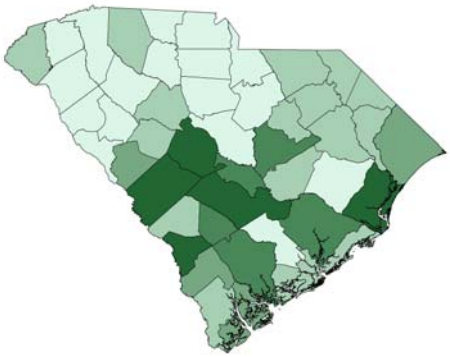
NR = None Reported

	Groundwater	Surface Water
Source Total:	13,992.558	10,127.311

Total Irrigation Use (millions of gallons):	**24,119.869**



Average use for any reporting irrigator (210 total) in 2004 equaled 190,717 gallons of groundwater and 138,035 gallons of surface water per day.



Distribution of reported irrigation water use in South Carolina, 2004. Darker shades indicate the highest use areas.

Golf Course Use

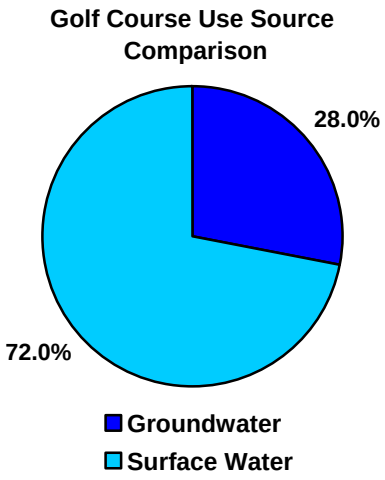
Water withdrawal from 254 reporting courses for golf course irrigation totaled 13.230 billion gallons, with 284 surface water sources accounting for 9.531 billion gallons and 291 groundwater sources accounting for 3.699 billion gallons.

County	Groundwater	Surface Water	County Total
Aiken	29.900	179.523	209.423
Anderson	NR	107.177	107.177
Barnwell	NR	59.178	59.178
Beaufort	1571.158	2150.114	3721.272
Berkeley	11.648	12.555	24.203
Calhoun	38.200	48.800	87.000
Charleston	766.056	226.615	992.671
Chester	18.000	14.000	32.000
Chesterfield	NR	222.230	222.230
Clarendon	24.950	30.820	55.770
Colleton	54.803	1.085	55.888
Darlington	10.600	95.849	106.449
Dorchester	29.000	NR	29.000
Edgefield	75.850	43.500	119.350
Florence	137.536	32.721	170.257
Georgetown	0.900	915.344	916.244
Greenville	3.674	255.429	259.103
Greenwood	6.980	47.645	54.625
Hampton	30.067	NR	30.067
Horry	607.426	3296.873	3904.299
Kershaw	47.561	57.470	105.031
Lancaster	1.224	2.700	3.924
Laurens	NR	54.612	54.612
Lexington	36.780	204.818	241.598
Marion	7.277	26.158	33.435
McCormick	NR	39.568	39.568
Newberry	NR	10.000	10.000
Oconee	NR	103.235	103.235
Orangeburg	20.105	93.528	113.633
Pickens	NR	406.088	406.088
Richland	22.239	341.138	363.377
Spartanburg	5.686	120.252	125.938
Sumter	82.703	200.493	283.196
Union	NR	8.750	8.750
York	58.780	123.091	181.871

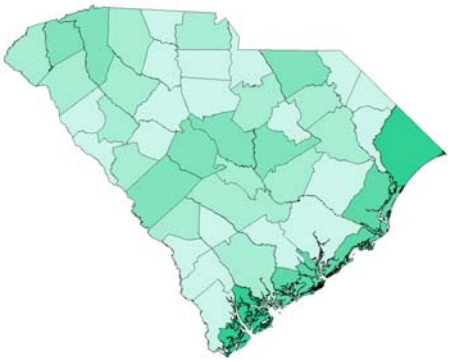
NR = None Reported

	Groundwater	Surface Water
Source Total:	3,699.103	9,531.359

Total Golf Course Use (million gallons):	**13,230.462**



Average daily use for any reporting golf course (254 total) in 2004 equaled 39,433 gallons of groundwater and 101,604 gallons of surface water per day.



Distribution of reported golf course water use in South Carolina, 2004. Darker shades indicate the highest use areas.

Mining Use

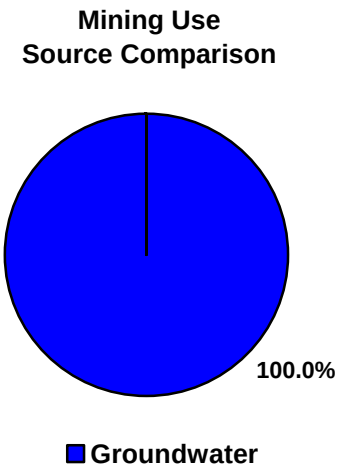
Water withdrawal associated with mining activities at 13 reporting facilities totaled 2.456 billion gallons, with groundwater accounting for all reported use.

County	*Groundwater*	*Surface Water*	*County Total*
Aiken	29.160	NR	29.160
Berkeley	2.654	NR	2.654
Lexington	464.850	NR	464.850
Orangeburg	1711.087	NR	1711.087
Richland	235.872	NR	235.872
York	13.000	NR	13.000

NR = None Reported

	Groundwater	*Surface Water*
Source Total:	2456.623	NR

Total Irrigation Use (million gallons):	**2456.623**



Aquaculture Use

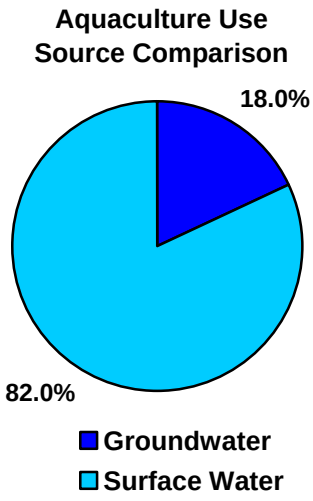
Water withdrawal from 10 reporting aquaculture-farming facilities totaled 1.320 billion gallons, with 12 surface water sources accounting for 1.312 billion gallons and 8 groundwater sources accounting for 238.249 million gallons.

County	*Groundwater*	*Surface Water*	*County Total*
Beaufort	5.984	78.234	84.218
Berkeley	2.961	94.492	97.453
Charleston	NR	895.620	895.620
Dillon	33.700	NR	33.700
Hampton	128.304	NR	128.304
Richland	67.300	13.900	81.200
Spartanburg	NR	35.136	35.136

NR = None Reported

	Groundwater	*Surface Water*
Source Total:	238.249	1082.246

Total Aquaculture Use (million gallons):	**1320.495**



Other Use

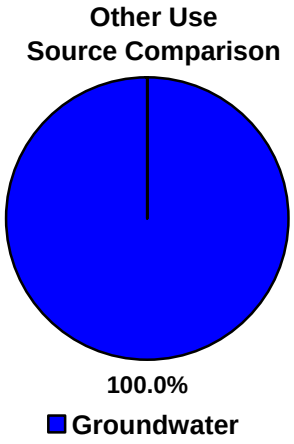
Water withdrawal for other, non-specific use from 2 reporting facilities totaled 85.505 million gallons, with groundwater accounting for all reported use.

County	*Groundwater*	*Surface Water*	*County Total*
Beaufort	41.430	NR	41.430
Horry	44.075	NR	44.075

NR = None Reported

	Groundwater	*Surface Water*
Source Total:	85.505	NR

Total Other Use (million gallons):	**85.505**



Appendix A: Surface and Groundwater Use Summary Tables

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

County	County Total	Hydroelectric	Thermoelectric	Aquaculture	Golf Course	Industry	Irrigation	Mining	Water Supply
Abbeville	29,636.236	28,619.000	NR	NR	NR	NR	NR	NR	1,017.236
Aiken	69,408.535	NR	46,744.000	NR	179.523	19,383.065	1,020.000	NR	2,081.947
Allendale	432.680	NR	NR	NR	NR	NR	432.680	NR	NR
Anderson	45,435.419	274.193	37,417.276	NR	107.177	57.300	NR	NR	7,579.473
Bamberg	645.928	NR	NR	NR	NR	NR	645.928	NR	NR
Barnwell	137.093	NR	NR	NR	59.178	NR	77.915	NR	NR
Beaufort	9,455.648	NR	NR	78.234	2,150.114	NR	20.700	NR	7,206.600
Berkeley	1,391,572.486	1,213,836.312	167,653.708	94.492	12.555	3,774.825	1,093.194	NR	5,107.400
Calhoun	28,465.237	NR	NR	NR	48.800	28,274.894	141.543	NR	NR
Charleston	29,531.416	NR	NR	895.620	226.615	9,624.900	35.491	NR	18,748.790
Cherokee	459,132.326	455,113.000	NR	NR	NR	483.126	NR	NR	3,536.200
Chester	2,172,431.373	2,171,229.000	NR	NR	14.000	91.173	NR	NR	1,097.200
Chesterfield	1,251.120	NR	NR	NR	222.230	NR	NR	NR	1,028.890
Clarendon	182.906	NR	NR	NR	30.820	NR	152.086	NR	NR
Colleton	1,884.225	NR	1,616.455	NR	1.085	NR	265.000	1.685	NR
Darlington	293,162.665	NR	285,140.000	NR	95.849	7,768.653	158.163	NR	NR
Dorchester	174.455	NR	NR	NR	NR	174.455	NR	NR	NR
Edgefield	1,001,905.644	999,809.310	NR	NR	43.500	NR	506.840	NR	1,545.994
Fairfield	3,273,235.626	3,025,896.060	246,543.778	NR	NR	NR	NR	NR	795.788
Florence	8,837.261	NR	NR	NR	32.721	7,202.600	12.000	NR	1,589.940
Georgetown	20,782.144	NR	4,687.310	NR	915.344	11,288.732	1,670.289	NR	2,220.469
Greenville	164,932.879	140,851.000	NR	NR	255.429	NR	24.750	NR	23,801.700
Greenwood	322,131.560	317,017.000	116.137	NR	47.645	49.850	NR	NR	4,900.928
Hampton	16.000	NR	NR	NR	NR	NR	16.000	NR	NR
Horry	56,297.099	NR	38,448.870	NR	3,296.873	2.749	283.847	219.360	14,045.400
Jasper	0.000	NR	NR	NR	NR	NR	NR	NR	NR
Kershaw	1,210,066.867	1,207,267.000	NR	NR	57.470	923.742	NR	NR	1,818.655
Lancaster	1,102,559.265	1,093,794.000	NR	NR	2.700	1,010.530	NR	NR	7,752.035
Laurens	1,813.637	149.400	NR	NR	54.612	NR	NR	NR	1,609.625
Lee	8.000	NR	NR	NR	NR	NR	8.000	NR	NR
Lexington	264,846.802	201,784.930	46,310.870	NR	204.818	10,197.980	496.570	563.955	5,287.679
Marion	48.158	NR	NR	NR	26.158	NR	22.000	NR	NR
Marlboro	7,831.272	NR	NR	NR	NR	7,743.082	88.190	NR	NR
McCormick	461.524	NR	NR	NR	39.568	NR	NR	NR	421.956
Newberry	2,405.862	NR	NR	NR	10.000	NR	125.700	NR	2,270.162
Oconee	2,152,551.968	12.200	2,147,899.000	NR	103.235	674.440	282.850	NR	3,580.243
Orangeburg	4,753.744	NR	0.328	NR	93.528	154.767	1,497.681	NR	3,007.440
Pickens	2,619,190.603	2,611,758.000	NR	NR	406.088	3,044.110	NR	NR	3,982.405
Richland	676,941.322	473,338.480	169,724.200	13.900	341.138	10,263.504	0.300	NR	23,259.800
Saluda	355.870	NR	NR	NR	NR	NR	355.870	NR	NR
Spartanburg	27,734.856	13,852.416	NR	35.136	120.252	NR	100.124	NR	13,626.928
Sumter	787.343	NR	NR	NR	200.493	NR	586.850	NR	NR
Union	318,082.246	316,309.036	NR	NR	8.750	516.200	NR	NR	1,248.260
Williamsburg	4.300	NR	NR	NR	NR	NR	4.300	NR	NR
York	998,316.773	932,089.000	37,762.000	NR	123.091	22,809.904	2.450	NR	5,530.328
Grand Total:	**18,769,838.373**	**15,202,999.337**	**3,230,063.932**	**1,117.382**	**9,531.359**	**145,514.581**	**10,127.311**	**785.000**	**169,699.471**

NR = None Reported

Groundwater Use Summary Table (Figures in Millions of Gallons)

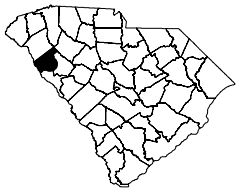
County	County Total	Hydroelectric	Thermoelectric	Aquaculture	Golf Course	Industry	Irrigation	Mining	Other	Water Supply
Abbeville	2.798	NR	NR	NR	NR	NR	NR	NR	NR	2.798
Aiken	6,872.790	NR	NR	NR	29.900	1,450.483	484.652	29.160	NR	4,878.595
Allendale	4,623.956	NR	NR	NR	NR	890.420	3,325.401	NR	NR	408.135
Bamberg	1,015.472	NR	NR	NR	NR	NR	512.490	NR	NR	502.982
Barnwell	1,219.787	NR	NR	NR	NR	NR	134.763	NR	NR	1,085.024
Beaufort	6,615.466	NR	NR	5.984	1,571.158	143.902	720.401	NR	41.430	4,132.591
Berkeley	1,306.157	1.181	12.035	2.961	11.648	1,100.794	0.240	2.654	NR	174.644
Calhoun	1,264.852	NR	NR	NR	38.200	138.448	853.542	NR	NR	234.662
Charleston	3,805.764	NR	NR	NR	766.056	33.722	12.852	NR	NR	2,993.134
Cherokee	1.326	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chester	19.432	NR	NR	NR	18.000	1.432	NR	NR	NR	NR
Chesterfield	857.257	NR	NR	NR	NR	NR	238.797	NR	NR	618.460
Clarendon	936.408	NR	NR	NR	24.950	NR	182.026	NR	NR	729.432
Colleton	1,795.500	NR	1.828	NR	54.803	NR	929.700	NR	NR	809.169
Darlington	4,777.118	NR	363.509	NR	10.600	1,896.045	0.995	NR	NR	2,505.969
Dillon	1,775.004	NR	NR	33.700	NR	NR	34.900	NR	NR	1,706.404
Dorchester	1,552.463	NR	NR	NR	29.000	916.381	NR	NR	NR	607.082
Edgefield	96.850	NR	NR	NR	75.850	NR	21.000	NR	NR	NR
Fairfield	64.334	NR	NR	NR	NR	NR	NR	NR	NR	64.334
Florence	4,915.050	NR	NR	NR	137.536	798.964	105.208	NR	NR	3,873.342
Georgetown	1,039.081	NR	NR	NR	0.900	110.301	19.743	NR	NR	908.137
Greenville	89.513	NR	NR	NR	3.674	47.702	NR	NR	NR	38.137
Greenwood	35.307	NR	NR	NR	6.980	NR	1.200	NR	NR	27.127
Hampton	1,946.981	NR	NR	128.304	30.067	393.200	876.001	NR	NR	519.409
Horry	1,947.448	NR	NR	NR	607.426	165.340	179.111	NR	44.075	951.496
Jasper	706.566	NR	NR	NR	NR	NR	270.970	NR	NR	435.596
Kershaw	1,139.654	NR	NR	NR	47.561	417.738	NR	NR	NR	674.355
Lancaster	1.224	NR	NR	NR	1.224	NR	NR	NR	NR	NR
Lee	694.407	NR	NR	NR	NR	NR	98.439	NR	NR	595.968
Lexington	2,979.681	NR	NR	NR	36.780	414.221	1,622.548	464.850	NR	441.282
Marion	1,392.562	NR	NR	NR	7.277	NR	28.400	NR	NR	1,356.885
Marlboro	1,405.783	NR	NR	NR	NR	230.453	191.894	NR	NR	983.436
Newberry	91.656	NR	NR	NR	NR	NR	60.700	NR	NR	30.956
Oconee	58.070	NR	NR	NR	NR	NR	NR	NR	NR	58.070
Orangeburg	7,052.551	NR	1,661.441	NR	20.105	701.127	2,282.848	1,711.087	NR	675.943
Richland	1,344.667	NR	NR	67.300	22.239	677.192	7.088	235.872	NR	334.976
Saluda	2.397	NR	NR	NR	NR	NR	NR	NR	NR	2.397
Spartanburg	46.643	NR	NR	NR	5.686	15.113	NR	NR	NR	25.844
Sumter	6,870.329	NR	NR	NR	82.703	315.873	796.649	NR	NR	5,675.104
Union	2.530	NR	NR	NR	NR	2.530	NR	NR	NR	NR
Williamsburg	1,618.458	NR	NR	NR	NR	929.368	NR	NR	NR	689.090
York	89.341	NR	NR	NR	58.780	3.694	NR	13.000	NR	13.867
Grand Total:	**74,072.633**	**1.181**	**2,038.813**	**238.249**	**3,699.103**	**11,794.443**	**13,992.558**	**2,456.623**	**85.505**	**39,764.832**

NR = None Reported

Appendix B: Surface and Groundwater Use Summary by County in South Carolina, 2004

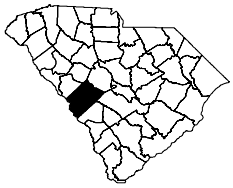
The following tables list reported surface water and groundwater withdrawals for the 2004 calendar year by county. Water usage data are shown by water use category and, in the case of power generation, includes surface water use that is typically considered non-consumptive. As presented throughout this report, all water use figures presented are in millions of gallons.

Abbeville County



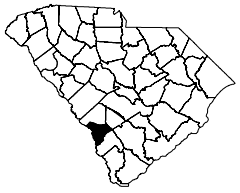
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	28619.000
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	NR
Water Supply:	2.798	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**2.798**	Water Supply:	1017.236
		Total:	**29636.236**

Aiken County



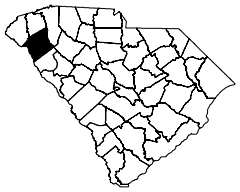
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	29.900	Golf Course:	179.523
Industrial:	1450.483	Hydroelectric:	NR
Irrigation:	484.652	Industrial:	19383.065
Mining:	29.160	Irrigation:	1020.000
Water Supply:	4878.595	Mining:	NR
Other:	NR	Thermal Power:	46744.000
Total:	**6872.790**	Water Supply:	2081.947
		Total:	**69408.535**

Allendale County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	890.420	Hydroelectric:	NR
Irrigation:	3325.401	Industrial:	NR
Mining:	NR	Irrigation:	432.68
Water Supply:	408.135	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**4623.956**	Water Supply:	NR
		Total:	**432.68**

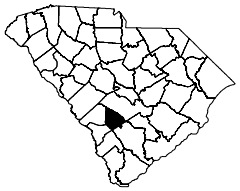
Anderson County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	107.177
Industrial:	NR	Hydroelectric:	274.193
Irrigation:	NR	Industrial:	57.300
Mining:	NR	Irrigation:	NR
Water Supply:	NR	Mining:	NR
Other:	NR	Thermal Power:	37417.276
Total:	**NR**	Water Supply:	7579.473
		Total:	**45435.419**

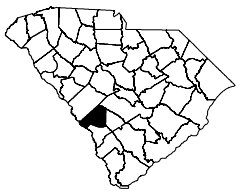
NR = None Reported

Bamberg County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	NR
Irrigation:	512.490	Industrial:	NR
Mining:	NR	Irrigation:	645.928
Water Supply:	502.982	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1015.472**	Water Supply:	NR
		Total:	**645.928**

Barnwell County

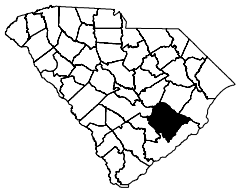


Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	NR
Irrigation:	134.763	Industrial:	59.178
Mining:	NR	Irrigation:	77.915
Water Supply:	1085.024	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1219.787**	Water Supply:	NR
		Total:	**137.093**

Beaufort County

Groundwater Use		Surface Water Use	
Aquaculture:	5.984	Aquaculture:	78.234
Golf Course:	1571.158	Golf Course:	2150.114
Industrial:	143.902	Hydroelectric:	NR
Irrigation:	702.401	Industrial:	NR
Mining:	NR	Irrigation:	20.700
Water Supply:	4132.591	Mining:	NR
Other:	41.430	Thermal Power:	NR
Total:	**6615.166**	Water Supply:	7206.600
		Total:	**9455.648**

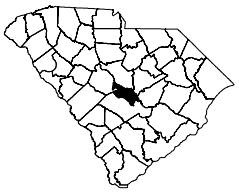
Berkeley County



Groundwater Use		Surface Water Use	
Aquaculture:	2.916	Aquaculture:	94.492
Golf Course:	11.648	Golf Course:	12.555
Industrial:	1100.794	Hydroelectric:	1213836.312
Irrigation:	0.240	Industrial:	3774.825
Mining:	02.654	Irrigation:	1093.194
Water Supply:	174.644	Mining:	NR
Hydroelectric:	1.181	Thermal Power:	167653.708
Thermal Power:	12.035	Water Supply:	5107.400
Total:	**1306.157**	**Total:**	**1391572.486**

NR = None Reported

Calhoun County

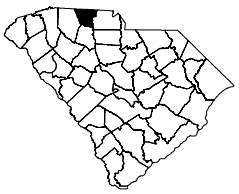


Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	38.200	Golf Course:	48.800
Industrial:	138.448	Hydroelectric:	NR
Irrigation:	853.542	Industrial:	28274.894
Mining:	NR	Irrigation:	141.543
Water Supply:	234.662	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1264.852**	Water Supply:	NR
		Total:	**28465.237**

Charleston County

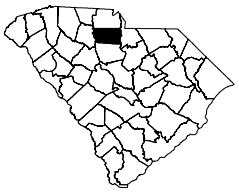
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	895.620
Golf Course:	766.056	Golf Course:	226.615
Industrial:	33.722	Hydroelectric:	NR
Irrigation:	12.852	Industrial:	9624.900
Mining:	NR	Irrigation:	35.491
Water Supply:	2993.134	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**3805.764**	Water Supply:	18748.790
		Total:	**29531.416**

Cherokee County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	455113.000
Irrigation:	NR	Industrial:	483.126
Mining:	NR	Irrigation:	NR
Water Supply:	NR	Mining:	NR
Thermal Power	1.326	Thermal Power:	NR
Total:	**1.326**	Water Supply:	3536.200
		Total:	**459132.326**

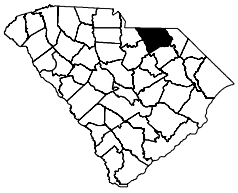
Chester County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	18.000	Golf Course:	14.000
Industrial:	1.432	Hydroelectric:	2171229.000
Irrigation:	NR	Industrial:	91.173
Mining:	NR	Irrigation:	NR
Water Supply:	NR	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	19.432	Water Supply:	1097.200
		Total:	**2172461.373**

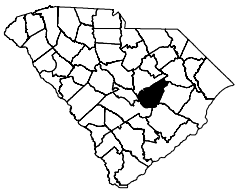
NR = None Reported

Chesterfield County



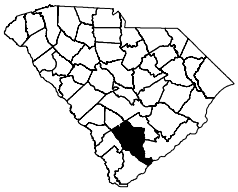
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	222.230
Industrial:	NR	Hydroelectric:	NR
Irrigation:	238.797	Industrial:	NR
Mining:	NR	Irrigation:	NR
Water Supply:	618..460	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	857.257	Water Supply:	1028.890
		Total:	**1251.120**

Clarendon County



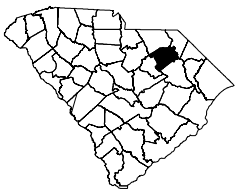
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	24.950	Golf Course:	30.820
Industrial:	NR	Hydroelectric:	NR
Irrigation:	182.026	Industrial:	NR
Mining:	NR	Irrigation:	152.086
Water Supply:	729.432	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	936.408	Water Supply:	NR
		Total:	182.906

Colleton County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	54.803	Golf Course:	1.085
Industrial:	NR	Hydroelectric:	NR
Irrigation:	929.700	Industrial:	NR
Mining:	NR	Irrigation:	265.000
Water Supply:	809.169	Mining:	1.685
Thermal Power	1.828	Thermal Power:	1616.455
Other:	NR	Water Supply:	NR
Total:	1795.500	**Total:**	**1884.225**

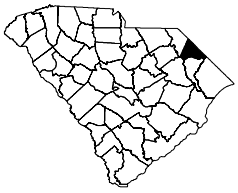
Darlington County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	10.600	Golf Course:	95.849
Industrial:	1896.045	Hydroelectric:	NR
Irrigation:	0.995	Industrial:	7768.653
Mining:	NR	Irrigation:	158.163
Nuclear Power:	363.509	Mining:	NR
Water Supply:	2505.969	Nuclear Power:	285140.000
Other:	0	Water Supply:	NR
Total:	**4777.118**	**Total:**	**293162.665**

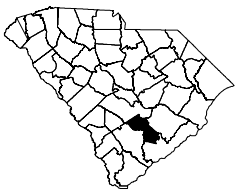
NR = None Reported

Dillon County



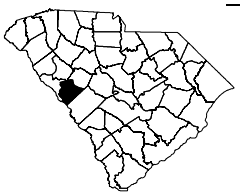
Groundwater Use		Surface Water Use	
Aquaculture:	33.700	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	NR
Irrigation:	34.900	Industrial:	NR
Mining:	NR	Irrigation:	NR
Water Supply:	1706.404	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1775.004**	Water Supply:	NR
		Total:	**NR**

Dorchester County



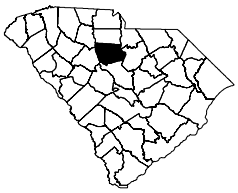
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	29.000	Golf Course:	NR
Industrial:	916.381	Hydroelectric:	NR
Irrigation:	NR	Industrial:	174.455
Mining:	NR	Irrigation:	NR
Water Supply:	607.082	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1552.463**	Water Supply:	NR
		Total:	**174.455**

Edgefield County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	75.850	Golf Course:	43.500
Industrial:	NR	Hydroelectric:	999809.310
Irrigation:	21.000	Industrial:	NR
Mining:	NR	Irrigation:	506.840
Water Supply:	NR	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**96.850**	Water Supply:	1545.994
		Total:	**1001905.644**

Fairfield County



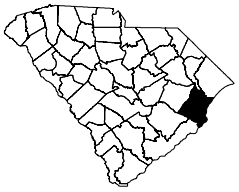
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	3025896.060
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	NR
Water Supply:	64.334	Mining:	NR
Other:	NR	Nuclear Power:	246543.778
Total:	64.334	Water Supply:	795.788
		Total:	**3273235.626**

NR = None Reported

Florence County

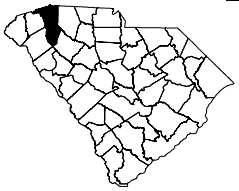
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	137.536	Golf Course:	32.721
Industrial:	798.964	Hydroelectric:	NR
Irrigation:	105.208	Industrial:	7202.600
Mining:	NR	Irrigation:	12.00
Water Supply:	3873.342	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**4915.050**	Water Supply:	1589.940
		Total:	**8837.261**

Georgetown County



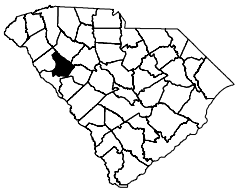
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	0.900	Golf Course:	915.344
Industrial:	110.301	Hydroelectric:	NR
Irrigation:	19.743	Industrial:	11288.732
Mining:	NR	Irrigation:	1670.289
Water Supply:	908.137	Mining:	NR
Other:	NR	Thermal Power:	4687.31
Total:	**1039.081**	Water Supply:	2220.469
		Total:	**20782.144**

Greenville County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	3.674	Golf Course:	255.429
Industrial:	47.702	Hydroelectric:	140851.000
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	24.750
Water Supply:	38.137	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**89.513**	Water Supply:	23801.700
		Total:	**164932.879**

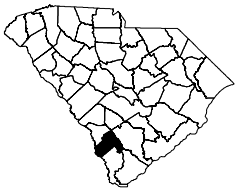
Greenwood County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	6.980	Golf Course:	47.645
Industrial:	NR	Hydroelectric:	317017.000
Irrigation:	1.200	Industrial:	49.850
Mining:	NR	Irrigation:	NR
Water Supply:	27.127	Mining:	NR
Other:	NR	Thermal Power:	116.137
Total:	**35.307**	Water Supply:	4900.928
		Total:	**3221131.560**

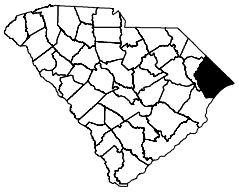
NR = None Reported

Hampton County



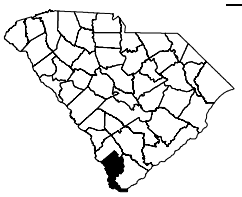
Groundwater Use		Surface Water Use	
Aquaculture:	128.304	Aquaculture:	NR
Golf Course:	30.067	Golf Course:	NR
Industrial:	383.200	Hydroelectric:	NR
Irrigation:	876.001	Industrial:	NR
Mining:	NR	Irrigation:	16.000
Water Supply:	519.409	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1946.981**	Water Supply:	NR
		Total:	**16.000**

Horry County



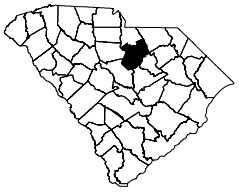
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	607.426	Golf Course:	3296.873
Industrial:	165.340	Hydroelectric:	NR
Irrigation:	179.111	Industrial:	2.749
Mining:	NR	Irrigation:	283.847
Water Supply:	951.496	Mining:	219.360
Other:	44.075	Thermal Power:	38448.870
Total:	**1947.448**	Water Supply:	14045.400
		Total:	**56297.009**

Jasper County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	NR
Irrigation:	270.970	Industrial:	NR
Mining:	NR	Irrigation:	NR
Water Supply:	435.596	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**706.566**	Water Supply:	NR
		Total:	**NR**

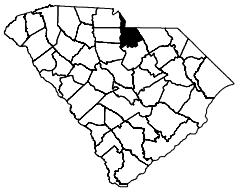
Kershaw County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	47.561	Golf Course:	57.470
Industrial:	417.738	Hydroelectric:	1207267.000
Irrigation:	NR	Industrial:	923.742
Mining:	NR	Irrigation:	NR
Water Supply:	674.355	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1139.654**	Water Supply:	1818.655
		Total:	**1210066.867**

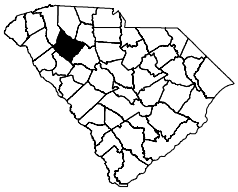
NR = None Reported

Lancaster County



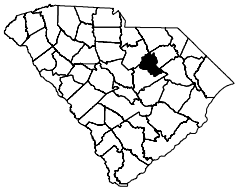
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	1.244	Golf Course:	54.612
Industrial:	NR	Hydroelectric:	1093794.000
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	NR
Water Supply:	NR	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1.244**	Water Supply:	1609.625
		Total:	**1102559.265**

Laurens County



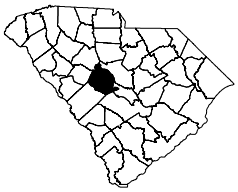
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	54.612
Industrial:	NR	Hydroelectric:	149.400
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	NR
Water Supply:	NR	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**NR**	Water Supply:	1609.625
		Total:	**1813.637**

Lee County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	NR
Irrigation:	98.439	Industrial:	NR
Mining:	NR	Irrigation:	8.000
Water Supply:	595.968	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**694.407**	Water Supply:	NR
		Total:	**8.000**

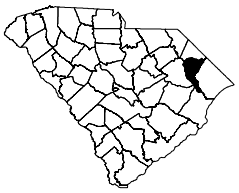
Lexington County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	36.780	Golf Course:	204.818
Industrial:	414.221	Hydroelectric:	201784.930
Irrigation:	1622.548	Industrial:	10197.980
Mining:	464.850	Irrigation:	496.570
Water Supply:	441.282	Mining:	563.955
Other:	NR	Thermal Power:	46310.870
Total:	**2979.681**	Water Supply:	5287.679
		Total:	**264846.802**

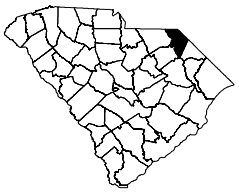
NR = None Reported

Marion County



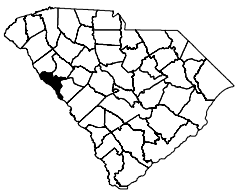
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	7.277	Golf Course:	26.158
Industrial:	NR	Hydroelectric:	NR
Irrigation:	28.400	Industrial:	NR
Mining:	NR	Irrigation:	22.000
Water Supply:	1356.885	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1392.562**	Water Supply:	NR
		Total:	**48.158**

Marlboro County



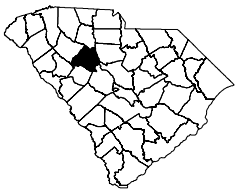
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	230.453	Hydroelectric:	NR
Irrigation:	191.894	Industrial:	7743.082
Mining:	NR	Irrigation:	88.190
Water Supply:	983.436	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**1405.783**	Water Supply:	NR
		Total::	**7831.272**

McCormick County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	39.568
Industrial:	NR	Hydroelectric:	NR
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	NR
Water Supply:	NR	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**NR**	Water Supply:	421.956
		Total:	**461.524**

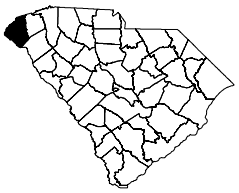
Newberry County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	10.000
Industrial:	NR	Hydroelectric:	NR
Irrigation:	60.700	Industrial:	NR
Mining:	NR	Irrigation:	125.700
Water Supply:	30.956	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**91.656**	Water Supply:	2270.162
		Total:	**2405.862**

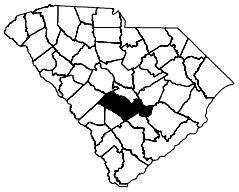
NR = None Reported

Oconee County



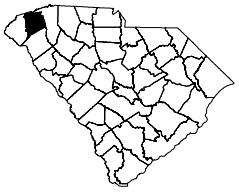
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	103.235
Industrial:	NR	Hydroelectric:	12.200
Irrigation:	NR	Industrial:	674.440
Mining:	NR	Irrigation:	282.85
Water Supply:	58.070	Mining:	NR
Other:	NR	Nuclear Power:	2147899.000
Total:	**58.070**	Water Supply:	3580.243
		Total:	**2152551.968**

Orangeburg County



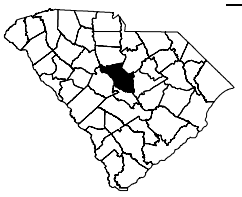
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	20.105	Golf Course:	93.528
Industrial:	701.127	Hydroelectric:	NR
Irrigation:	2282.848	Industrial:	154.767
Mining:	1711.087	Irrigation:	1497.681
Thermal Power:	1661.441	Mining:	NR
Water Supply:	675.943	Thermal Power:	0.328
Other:	NR	Water Supply:	3007.440
Total:	**7052.551**	**Total:**	**4753.744**

Pickens County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	406.088
Industrial:	NR	Hydroelectric:	2611758.000
Irrigation:	NR	Industrial:	3044.110
Mining:	NR	Irrigation:	NR
Water Supply:	NR	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**NR**	Water Supply:	3982.405
		Total:	**2619190.603**

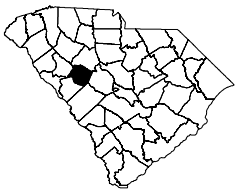
Richland County



Groundwater Use		Surface Water Use	
Aquaculture:	67.300	Aquaculture:	13.900
Golf Course:	22.239	Golf Course:	341.138
Industrial:	677.192	Hydroelectric:	473338.480
Irrigation:	7.088	Industrial:	10263.504
Mining:	235.872	Irrigation:	0.300
Water Supply:	334.976	Mining:	NR
Other:	NR	Thermal Power:	169724.200
Total:	**1344.667**	Water Supply:	23259.800
		Total:	**676941.322**

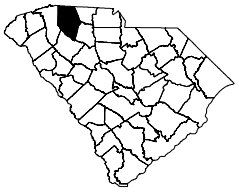
NR = None Reported

Saluda County



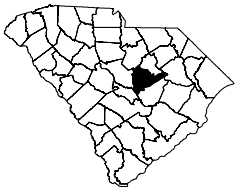
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	NR	Hydroelectric:	NR
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	355.870
Water Supply:	2.397	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**2.397**	Water Supply:	NR
		Total:	355.870

Spartanburg County



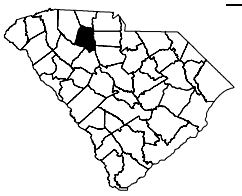
Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	35.136
Golf Course:	5.686	Golf Course:	120.252
Industrial:	15.113	Hydroelectric:	13852.416
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	100.124
Water Supply:	25.844	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**46.643**	Water Supply:	13626.928
		Other:	**27734.856**

Sumter County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	82.703	Golf Course:	200.496
Industrial:	315.873	Hydroelectric:	NR
Irrigation:	796.649	Industrial:	NR
Mining:	NR	Irrigation:	586.850
Water Supply:	5675.104	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**6870.329**	Water Supply:	NR
		Total:	**787.343**

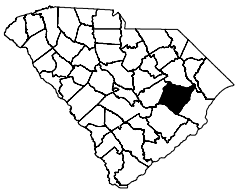
Union County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	8.750
Industrial:	2.530	Hydroelectric:	316309.036
Irrigation:	NR	Industrial:	516.200
Mining:	NR	Irrigation:	NR
Water Supply:	NR	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	**NR**	Water Supply:	1248.260
		Total:	**318082.246**

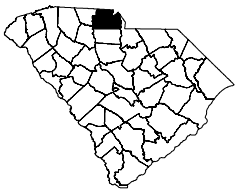
NR = None Reported

Williamsburg County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	NR	Golf Course:	NR
Industrial:	929.368	Hydroelectric:	NR
Irrigation:	NR	Industrial:	NR
Mining:	NR	Irrigation:	4.300
Water Supply:	689.090	Mining:	NR
Other:	NR	Thermal Power:	NR
Total:	1618.458	Water Supply:	NR
		Total:	**4.300**

York County



Groundwater Use		Surface Water Use	
Aquaculture:	NR	Aquaculture:	NR
Golf Course:	58.780	Golf Course:	123.091
Industrial:	3.694	Hydroelectric:	932089.000
Irrigation:	NR	Industrial:	22809.904
Mining:	13.00	Irrigation:	2.450
Water Supply:	13.867	Mining:	NR
Other:	NR	Nuclear Power:	37762.000
Total:	**89.341**	Water Supply:	5530.328
		Total:	**998316.773**

NR = None Reported

Appendix C: 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

Appendix D: Glossary

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.

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.

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 –

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 withdrawal over time; as in gallons per minute (gpm), gallons per day (gpd) and gallons per year (gpy).

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 the natural hydrological system for use, including, but not limited to, water supply, industrial use, commercial use, domestic use, irrigation, livestock, power generation