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Bureau of Water

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Healthy People. Healthy Communities.

South Carolina Water Use Report
2021 Summary

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Consumptive water use – The amount of water withdrawn that is evaporated, transpired, incorporated into products or crops, consumed by humans or livestock, or otherwise removed from the immediate water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

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

Foreword

The South Carolina Department of Health and Environmental Control (DHEC) is tasked with the management of South Carolina's water resources under 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. These regulations require water users that withdraw three (3) million gallons or greater in any month to register with and report their use annually to the Water Quantity Permitting Section at DHEC.

The water use data is compiled in a database and evaluated to determine how water is utilized state-wide. This data is shared between local, state, and federal regulatory and scientific agencies to share knowledge and understanding of the resource and the current state of demand. This database is utilized within the Department for critical water management decisions and even water use conflict resolutions. Statistics presented in this report represent self-reported data from registered and permitted users within the Water Quantity Permitting Section.

Water use from private domestic wells, small surface water irrigation pond 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 2021, compliance of reporting sources was greater than 99%.

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 Quantity Permitting Section

SCDHEC Bureau of Water

2600 Bull Street

Columbia, SC 29201

www.dhec.sc.gov/Environment/WaterQuality/GroundUseReporting/

www.dhec.sc.gov/Environment/WaterQuality/SurfaceWaterWithdrawals/

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Introduction

South Carolina is fortunate to have an abundant and available fresh water supply, through surface water sources and groundwater aquifers. Growth and development in the state has led to increasing demand on water supplies. 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 DHEC's Water Quantity Permitting Section (Department). Registration and reporting are requirements of the Groundwater Use and Reporting Act [49-5-10], R. 61-113, Groundwater Use and Reporting, the South Carolina Surface Water Withdrawal, Permitting, Use and Reporting Act [49-4-10], and R.61-119, Surface Water Withdrawal, Permitting, and Reporting 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 summarize and present reported water use in South Carolina, broken down by county and use category, during calendar year 2021. The Department maintains and continually updates the water use and facility databases utilized in this report. Water use data are reported annually by registered and permitted users as required and mandated by state law. All water use volumes are reported in millions of gallons unless stated otherwise.

South Carolina Climate

The climate in South Carolina is affected by many factors, notably its location in the midlatitudes 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 (South Carolina Department of Natural Resources, 2018). These warm, moist currents collide with cooler, drier air masses to generate rainfall, and at times, severe thunderstorms (South Carolina Department of Natural Resources, 2018). 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 (South Carolina Department of Natural Resources, 2018). 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 (South Carolina Department of Natural Resources, 2018). 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 (South Carolina Department of Natural Resources, 2018). The vast majority of the state is classified as humid subtropical except in the Blue Ridge physiographic province, where it is humid continental (South Carolina Department of Natural Resources, 2018).

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 (South Carolina Department of Natural Resources, 2018). Measurable snowfall is rare, occurring one to three times a year with accumulations seldom remaining more than a day or two. In 2021 the average statewide temperature was 64.7°F. The average monthly rainfall for 2021 was 4.58 inches, with cumulative rainfall of 55 inches (NOAA National Centers for Environmental Information, 2021) (Southeast Regional Climate Center, 2021).

Geography and Physiography

South Carolina has unique geography and widely diverse ecology, covering nearly 31,189 square miles, with 1,078 square miles of inland and coastal waterways and 135 miles of coastline. The ecological diversity is due to climatic conditions and geology, dividing the state into three major physiographic regions: the Blue Ridge, the Piedmont, and the Coastal Plain (Figure 1). These 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 in the very northwest portion of Oconee and Pickens counties (Figure 1). It is distinguished from other areas of South Carolina by elevations between 1,000 and 3,300 feet above sea level and greater surface relief. Dissected mountains, rugged hills, and thick forests characterize the land surface. The surface water in the Blue Ridge takes the form of high gradient creeks and streams with man-made lakes, while groundwater occurs in the fractures of the bedrock and a thin veneer of soil and saprolite overlying the bedrock. The water quality of streams and groundwater is generally 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 up to the Fall Line, exclusive of those counties within the Blue Ridge province (Figure 1). Although like the Blue Ridge, the region demonstrates lower topographic relief, and therefore lower gradient streams, and 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, groundwater occurs in the fractures of the bedrock and overlying soil and saprolite, and is also of good quality, except in smaller areas of contamination.

Coastal Plain

The Coastal Plain physiographic province includes all counties, or portions of counties, extending from the Fall Line east to the Atlantic Ocean (Figure 1). Elevations of the exposed Coastal Plain range between 0 and 450 feet above sea level. Once below the Fall Line, rivers and streams assume a different character than those found in the Piedmont. Coastal Plain streams have a slower pace with quiet meandering river channels, typically with adjacent wetlands. 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 east of the Fall Line. A generalized cross-section for the Coastal Plain aquifers is presented in Figure 2, and a brief outline of the major aquifers in South Carolina follows.

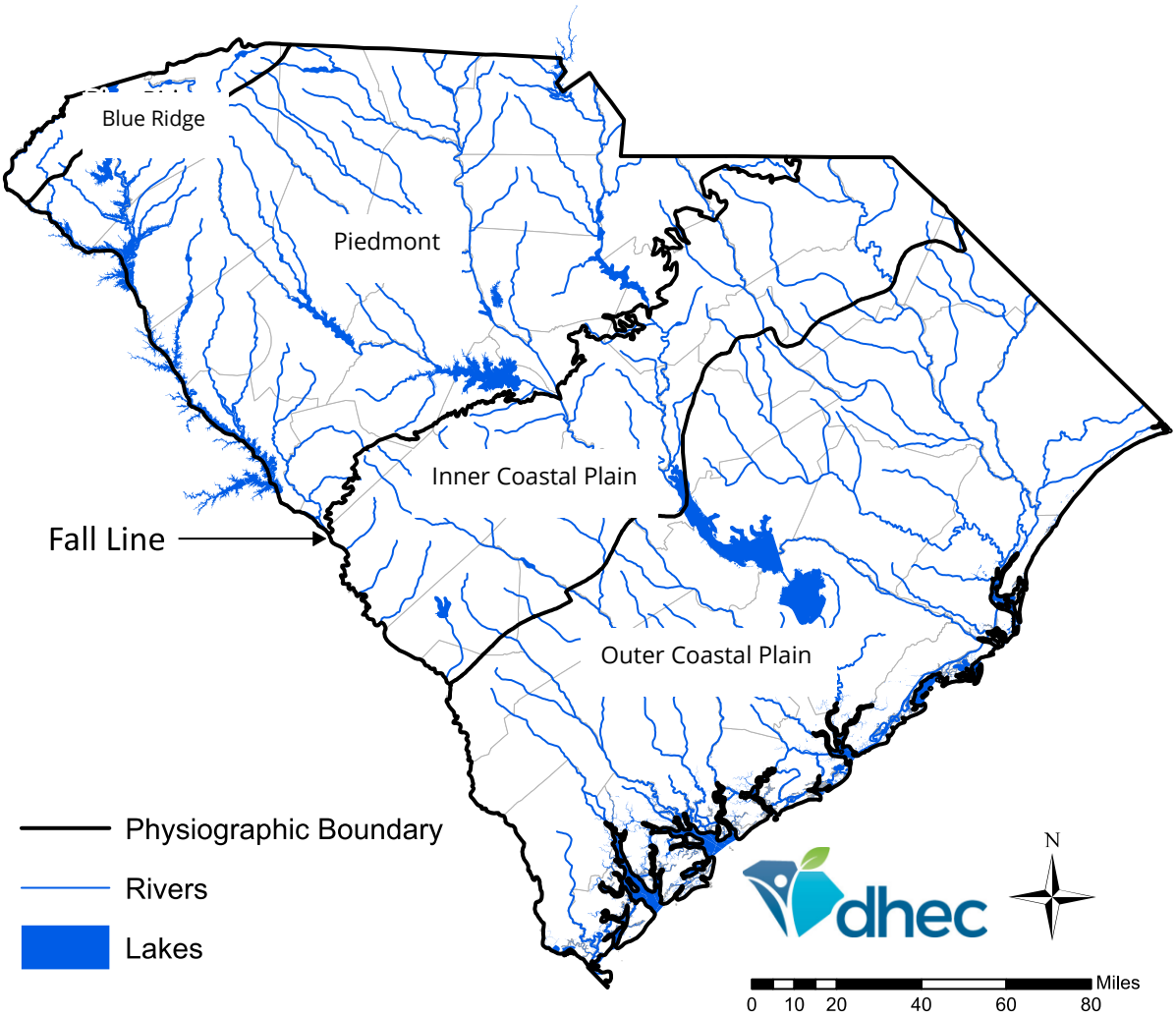

Figure 1: Hydrogeologic and Physiographic Setting for Water Use in South Carolina

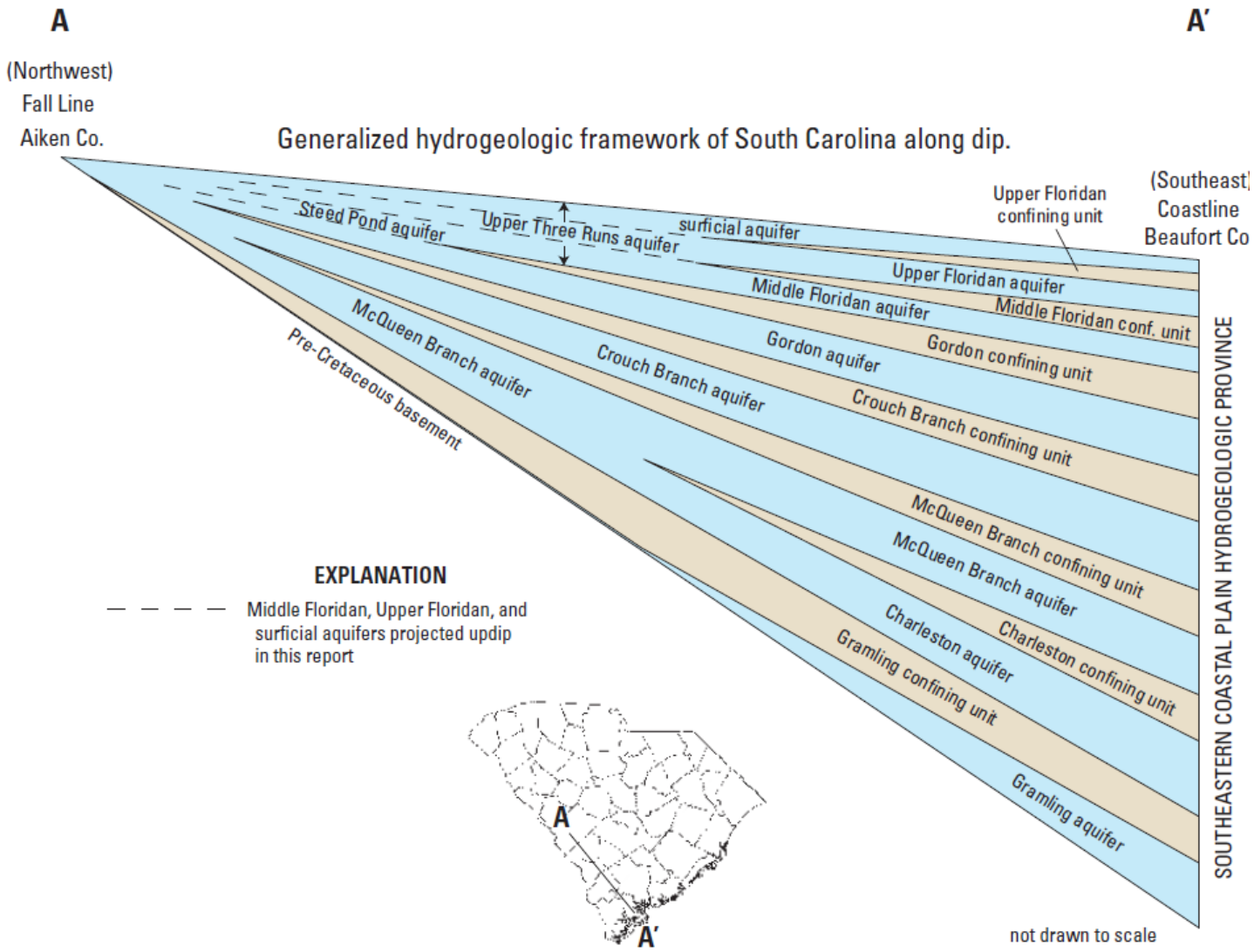

Figure 2: Generalized Hydrogeologic Cross-Section from the Fall Line through the Lower Coastal Plain in South Carolina (Gellici & Lautier, 2010)

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 (Gellici & Lautier, 2010). 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 (Gellici & Lautier, 2010).

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 (Gellici & Lautier, 2010). 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 (Gellici & Lautier, 2010). The Surficial sands are highly influenced by local precipitation and river stage and are prone to dramatic water level declines during times of drought. Transmissivity in the aquifer can vary regionally, within one area ranging from 80 to 1,200 ft^2/day and in another ranging from 190 to 270 ft^2/day (Gellici & Lautier, 2010).

Upper and Middle Floridan Aquifer

The Floridan Aquifer varies between having two distinct aquifers separated by confining units in the more eastern sections of the extent (the Middle and Upper Floridan), to behaving more like one interconnected aquifer that pinches out towards the Fall Line. In the southern half of the Coastal Plain, Tertiary aquifers consisting of sand, grade southeastward into an ever-thickening wedge of limestone (Gellici & Lautier, 2010). Development of this aquifer system is common in the Charleston, Dorchester, and Berkeley County area (Gellici & Lautier, 2010). 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 (Gellici & Lautier, 2010). The upper, highly permeable zone is the most developed, supplying the majority of residential wells in Beaufort and Jasper Counties, and is a source of water for public supply, irrigation, and industry in the Lowcountry (Gellici & Lautier, 2010). 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.

Gordon Aquifer

The Gordon Aquifer extends only from the southwestern region of the Coastal Plain below the Fall Line to the northwestern counties below the Fall Line in Georgia due to the Cape Fear Arch (Gellici & Lautier, 2010). In the up dip regions, the Gordon Aquifer is composed of unconsolidated sand and clayey sand with some gravel (Gellici & Lautier, 2010). As the unit goes downdip, the quartz sand grades into a more packstone and grainstone unit (Gellici & Lautier, 2010). The aquifer has a maximum thickness of just over 300 feet in Beaufort County. The average transmissivity is about 2,000 ft^2/day in

Beaufort County and in Barnwell County is around 4,900 ft^2/day (Gellici & Lautier, 2010). The yield is much better in the thicker parts of the unit, but it is still not as productive as some of the underlying units.

Crouch Branch Aquifer

The Crouch Branch Aquifer covers most of SC in the Coastal Plain but thins to almost absent in the northeastern Pee Dee region. In the more southern regions, it is fine grained, but the more eastern parts become sandy clay and calcareous clay (Gellici & Lautier, 2010). It is 500 feet at its maximum thickness in Berkeley and Williamsburg Counties but is relatively impermeable in this area. The Crouch Branch is utilized heavily in some areas due to its productivity in the west-central and up dip parts of the Coastal Plain, where there are more medium to coarse-grained sediments. Its transmissivity is about 11,000 ft^2/day in western Orangeburg County and in parts of Barnwell County, and as low as 2,400 ft^2/day in the Pee Dee region (Gellici & Lautier, 2010).

McQueen Branch Aquifer

The McQueen Branch Aquifer is present over most of the Coastal Plain, but is fine-grained in Beaufort, Colleton, and Jasper Counties, and therefore is not as productive as in other regions. It reaches a maximum thickness of 350 feet in Barnwell County. The Aquifer is generally described as poorly sorted, comprised of fine- to coarse-grained sand and clayey sand, with interstitial clay in the up dip regions (Gellici & Lautier, 2010). The McQueen Branch is one of the most productive, and therefore one of the most utilized, in the region. In Orangeburg County, transmissivity was measured to be 27,000 ft^2/day, and in Aiken County, close to the Savannah River Site (SRS), transmissivity ranges from 14,000 ft^2/day to 50,000 ft^2/day (Gellici & Lautier, 2010).

Charleston Aquifer

The Charleston Aquifer is not represented throughout the entire Coastal Plain. It overlies the Gramling Aquifer but thins out towards the central part of the state and comes together with the McQueen Branch Aquifer, then disappears. The Charleston is at its maximum thickness of around 300 feet in Jasper County. It is composed mainly of unconsolidated sand, clayey sand, and clay (Gellici & Lautier, 2010). The transmissivity values are calculated to be between 3,100 ft^2/day and 4,100 ft^2/day in Berkeley County and 1,500 f^2/day and 2,400 ft^2/day in Charleston County (Gellici & Lautier, 2010). The Charleston Aquifer is not utilized much along the coast due to the fine-grained nature but is developed more in Berkeley County.

Gramling Aquifer

The Gramling Aquifer exists primarily in the southern part of the Outer Coastal Plain and overlies the crystalline basement rocks. The maximum thickness was measured in Beaufort County at 1,000 feet. The Gramling Aquifer is mostly comprised of unconsolidated to semi-consolidated, interbedded, and laminated sand, clayey sand, silt, and clay (Gellici & Lautier, 2010). Silica-cemented beds present in the aquifer lead to lower permeability, and therefore, it is not very productive. It is only used on Hilton Head and Fripp Islands (Gellici & Lautier, 2010). The measured transmissivity is only 200 ft^2/day at Fripp Island, but up to 1,200 ft^2/day on Hilton Head Island (Gellici & Lautier, 2010).

Surface Water Resources

South Carolina's surface water resources are divided into eight (8) major river basins (Figure 3). The waters that make up these basins are crucial to public water supply, agricultural irrigation, industry, and power generation.

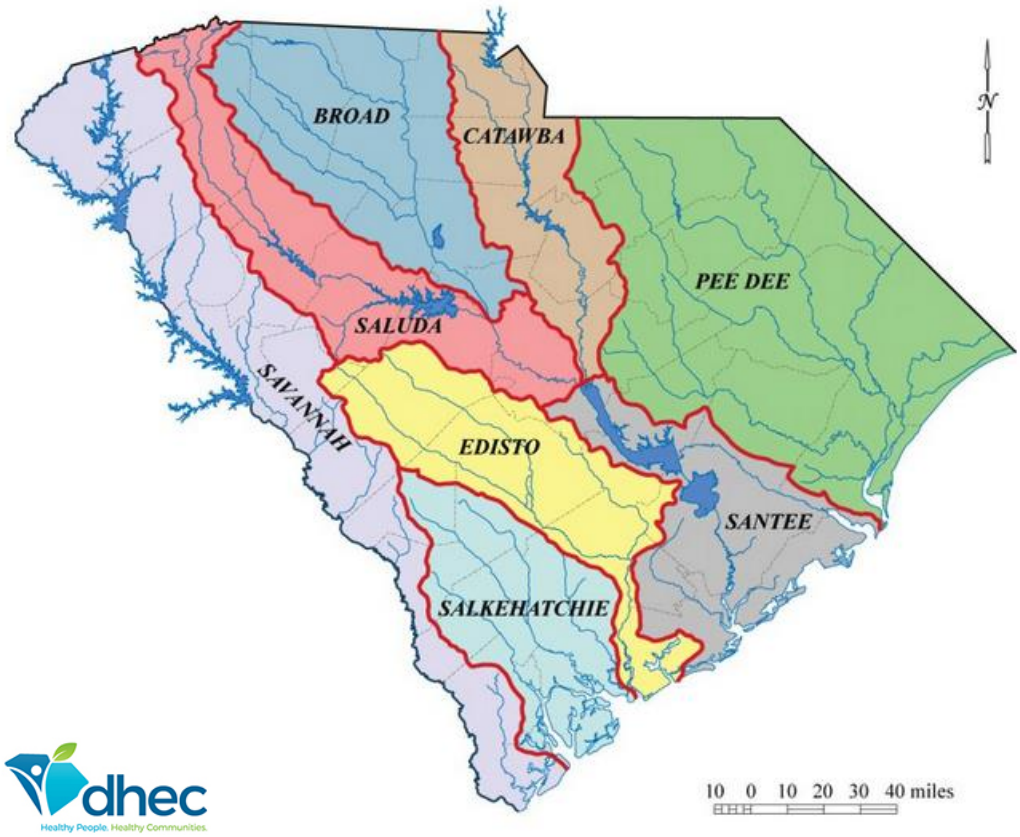

Figure 3: Eight Major River Basins in South Carolina

Broad River Basin

The Broad River Basin originates in the southern part North Carolina and is one of South Carolina's largest river basins at 3,989.6 square miles of the state. The majority of Cherokee, Union, Spartanburg, and Greenville Counties are drained by the Broad. Portions of Chester, Fairfield, Richland, and York Counties are also part of the basin. The Enoree, Pacolet, and Tyger Rivers are the major tributaries that drain into and define the Broad Basin. The Broad River joins the Saluda River at the end of the basin to form the Congaree River, which flows into the Saluda and Santee Basins.

Catawba River Basin

The Catawba River Basin, or Catawba-Wateree Basin, originates in North Carolina and enters South Carolina in York County. It is the smallest basin in the state, only encompassing 2,324 square miles. It drains York, Lancaster, Fairfield, Chester, Kershaw, and parts of Richland and Sumter Counties. The Catawba Basin hosts Lake Wylie, Fishing Creek Reservoir, Lake Wateree, the Catawba and Wateree Rivers, and other associated tributaries (such as Rocky Creek, Fishing Creek, and Beaver Creek). The Catawba River basin terminates at the confluence of the Congaree River, which flows southeasterly into the Santee River Basin.

Edisto River Basin

The Edisto River Basin is one of the three basins in South Carolina that fully originates in the state. It is 3,151 square miles, which 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 (main tributaries) that join to form the Edisto River. The basin ends in Charleston County and pours into the Atlantic Ocean in an estuarine environment. This basin has many important wetland regions and ecological diversity, with no dam structures to hinder flow through these areas.

Pee Dee River Basin

The Pee Dee River Basin originates in North Carolina and is the largest of South Carolina's watersheds at 7,847.7 square miles. It drains all or portions of Chesterfield, Darlington, Dillon, Georgetown, Horry, Kershaw, Lancaster, Lee, Marion, Marlboro, and Williamsburg Counties. The Pee Dee River Basin includes the Pee Dee, Lynches, Waccamaw, and Sampit Rivers and their watersheds. The basin ends in Georgetown County just below the Grand Strand region, becoming the Waccamaw River after joining with the Pee Dee River in the Waccamaw National Wildlife Refuge.

Salkehatchie River Basin

The Salkehatchie River Basin is the second of three basins located entirely in South Carolina and is completely in the Coastal Plain. It is the second smallest basin in the state, at only 2,788 square miles. The basin drains portions of Bamberg, Barnwell, Beaufort, Colleton, Hampton, and Jasper Counties. The Coosawhatchie, Salkehatchie, and Little Salkehatchie Rivers drain the basin to form tide-dominated channels at the coast.

Saluda River Basin

The Saluda River Basin originates in the Blue Ridge province and drains the central portion of the Piedmont region of South Carolina. The Saluda River Basin covers 3,212 square miles and includes most of Greenville and Pickens Counties, and portions of Abbeville, Greenwood, Laurens, Lexington, Richland, and Saluda Counties. There are several major tributaries that make up the Saluda Basin, including the Saluda, Reedy, and Little Rivers. The Saluda River joins with the Broad River in Richland

County to form the Congaree River, which then combines with the Catawba River further southeast to form the Santee River and Santee River Basin.

Santee River Basin

The Santee River Basin originates at the base of the Saluda and Catawba River Basins and encompasses 3,006 square miles. It includes the two largest reservoirs in the state: Lake Marion and Lake Moultrie, both of which were originally built to generate power for the state. The two reservoirs are connected via a 6.5 mile long Diversion Canal for power production and navigation. The Santee River Basin drains Berkeley, Calhoun, Charleston, Clarendon, Dorchester, and small parts of Georgetown and Sumter Counties via the Cooper, Santee, and Ashley Rivers.

Savannah River Basin

The Savannah River Basin is mostly shared with Georgia and is one of the most regulated in the state due to the dams for reservoir storage and power production. These reservoirs include Lake Keowee, Lake Hartwell, Richard B. Russell Lake, and Strom Thurmond Lake. The basin on the South Carolina side is 4,958 square miles, and covers portions of Abbeville, Aiken, Allendale, Anderson, Edgefield, Greenwood, Hampton, McCormick, Oconee, and Pickens Counties. Some of the tributaries that drain into the Savannah Basin are the Chattooga, Seneca, Little River, Stevens Creek, Rocky, and Tugaloo Rivers. The Savannah is a major basin for much of South Carolina and drains into the Atlantic by the city of Savannah, Georgia and by Jasper County, South Carolina.

Surface and Groundwater Use Summary by Source, Category, and County in South Carolina, 2021

The following section outlines all reported water use for the State of South Carolina for the calendar year 2021. Water use is summarized by category (Appendix A). Where appropriate, the spatial distribution 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 reporting year 2021, South Carolina had 1,209 water withdrawers who submitted water use from 3,722 sources (3,210 groundwater and 512 surface water).

Table 1: Reporting Withdrawers and Type Use for Reporting Year 2021

Water Use Category	Facilities	Groundwater Sources	Surface Water Sources
Aquaculture	5	6	5
Golf Course	160	245	95
Hydroelectric	36	-	40
Industrial	87	239	38
Irrigation	653	1851	210
Mining	12	12	11
Other	1	2	-
Nuclear Power	4	13	9
Thermoelectric	14	12	16
Public Water Supply	237	830	88
Total	**1,209**	**3,210**	**512**

Table 2: Total Reported Water Use by Type and Source (in Millions of Gallons)

Water Use Category	Groundwater	Percentage	Surface Water	Percentage	Total	Percentage
Aquaculture	156.9	0.15%	370.1	0.00%	526.9	0.00%
Golf Course	2707.7	2.63%	3315.8	0.01%	6023.6	0.03%
Hydroelectric	0	0.00%	20898346.9	91.02%	20898346.96	90.62%
Industrial	9179.9	8.92%	140508.9	0.61%	149688.8	0.65%
Irrigation	42342.4	41.13%	9005.2	0.04%	51347.6	0.22%
Mining	449.2	0.44%	1093.6	0.00%	1542.8	0.01%
Other	22.8	0.02%	0	6.54%	0	0.00%
Nuclear Power	387.0	0.38%	1502631.5	0.85%	1502631.5	6.52%
Thermoelectric	2057.9	2.00%	194310.9	0.91%	194310.9	0.84%
Public Water Supply	45641.7	44.34%	209667.7	0.91%	209667.7	0.91%
Total	**102945.5**	**100.00%**	**22959250.8**	**100.00%**	**23062196.3**	**100.00%**

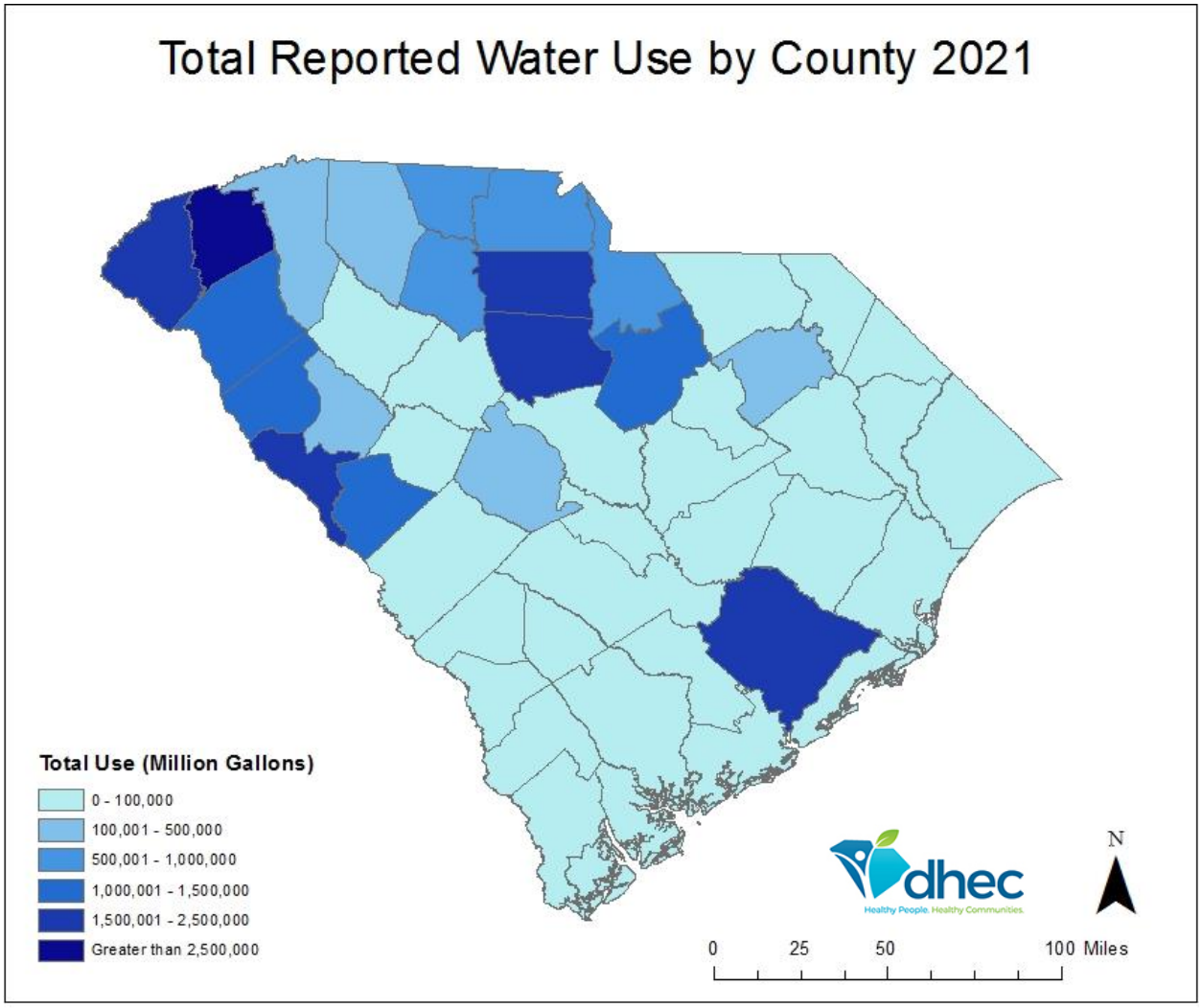

Figure 4: Total Reported Water Use by County

[1] Map legend range differs per map figure

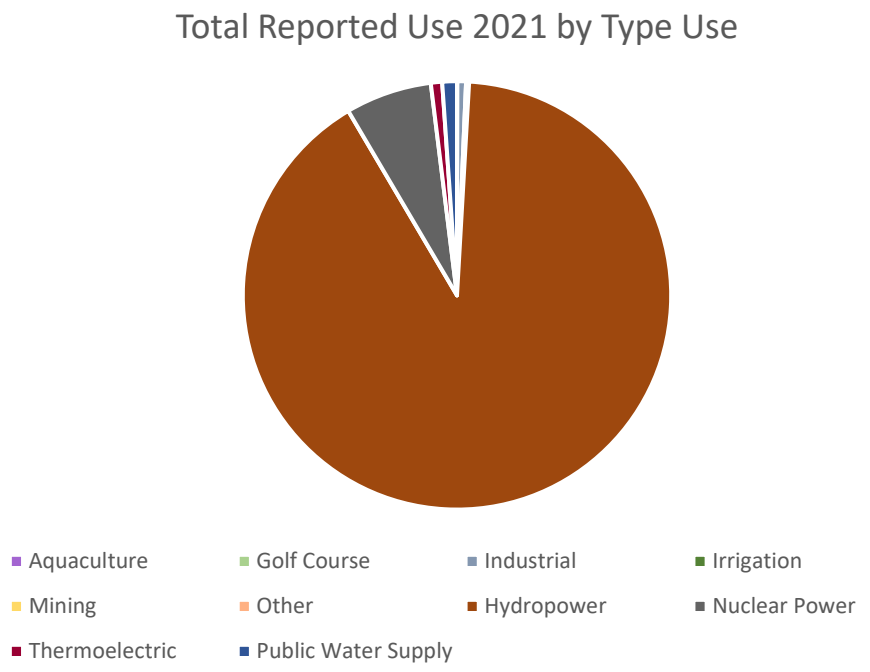

Figure 5: Total Reported Use 2021 by Type

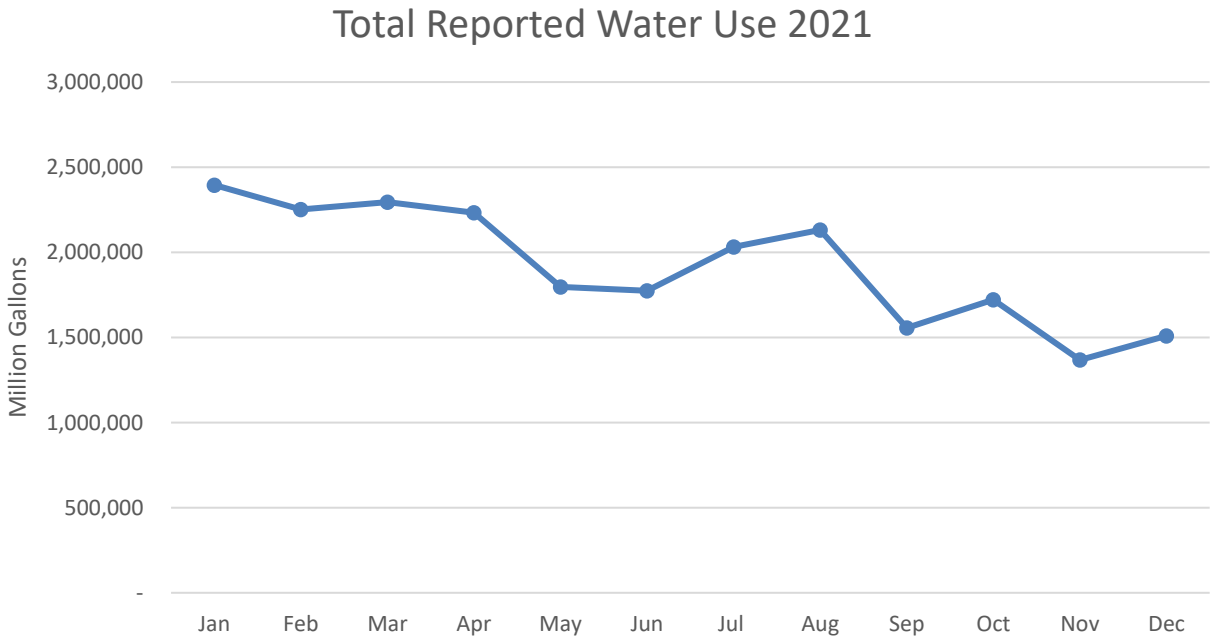

Figure 6: Total Reported Water Use in 2021 by Month

Table 3: Total Reported Water Use by Type and Source (No Power Production)

Water Use Category	Groundwater	Percentage	Surface Water	Percentage	Total	Percentage
Aquaculture	156.9	0.16%	370.1	0.10%	526.9	0.11%
Golf Course	2707.7	2.69%	3315.8	0.91%	6023.6	1.30%
Industrial	9179.9	9.13%	140508.9	38.61%	149688.8	32.23%
Irrigation	42342.4	42.13%	9005.2	2.47%	51347.6	11.06%
Mining	449.2	0.45%	1093.6	0.30%	1542.8	0.33%
Other	22.8	0.02%	0	0.00%	22.8	0.00%
Public Water Supply	45641.7	45.41%	209667.8	57.61%	255309.4	54.97%
Total	**100500.6**	**100.00%**	**363961.4**	**100.00%**	**464461.9**	**100.00%**

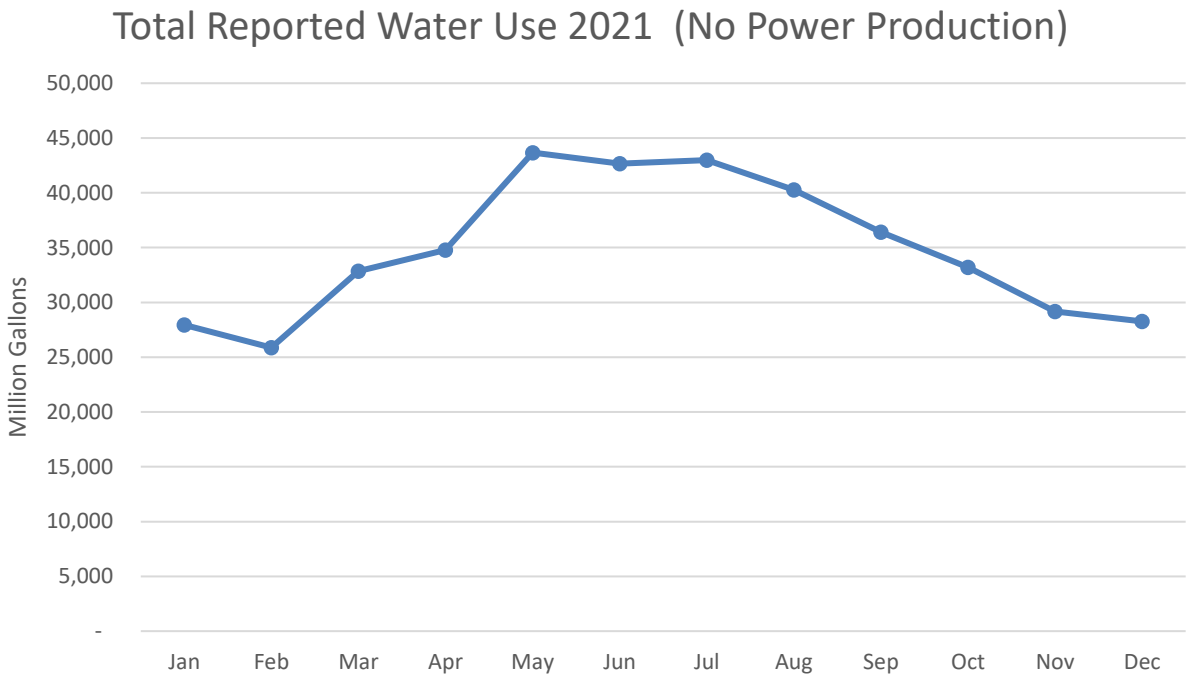

Figure 7: Total Reported Water Use by County 2021 (No Power Production)

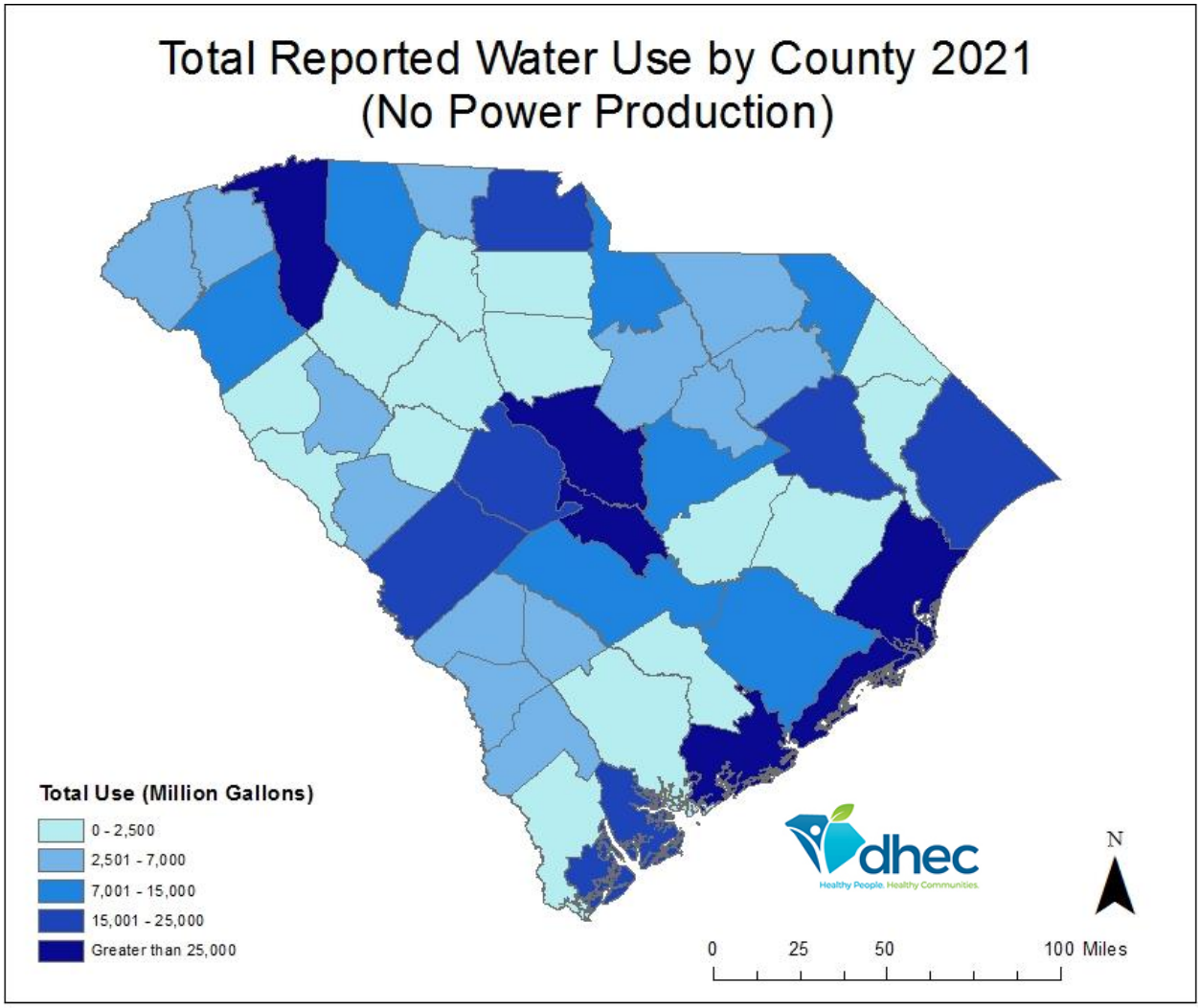

Figure 8: Total Reported Water Use by Month 2021 (No Power Production)

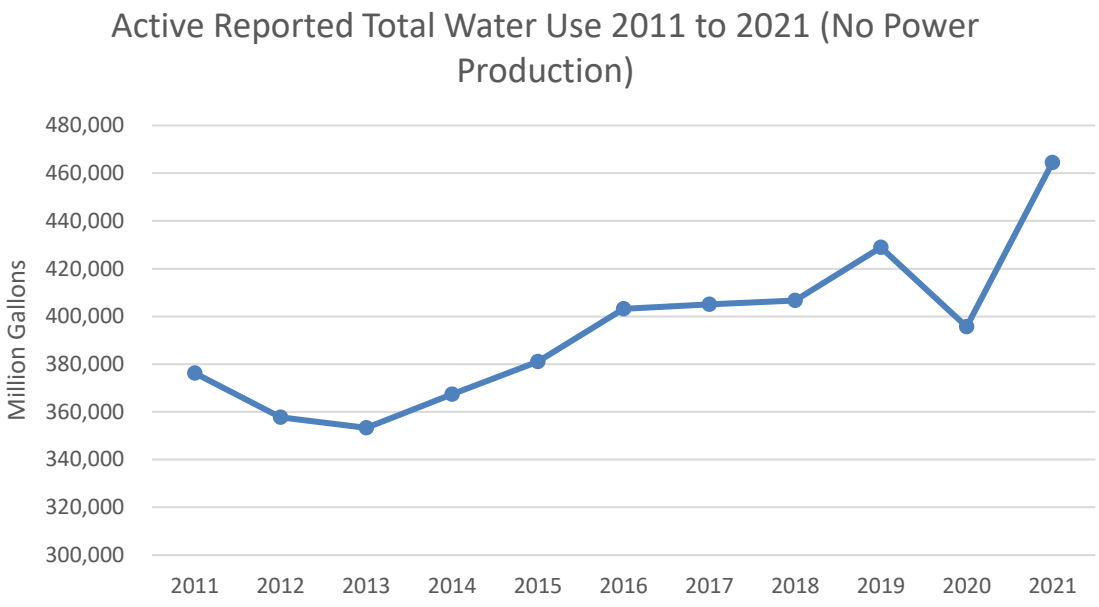

Figure 9: Total Reported Water Use from 2011-2021 (No Power Production)

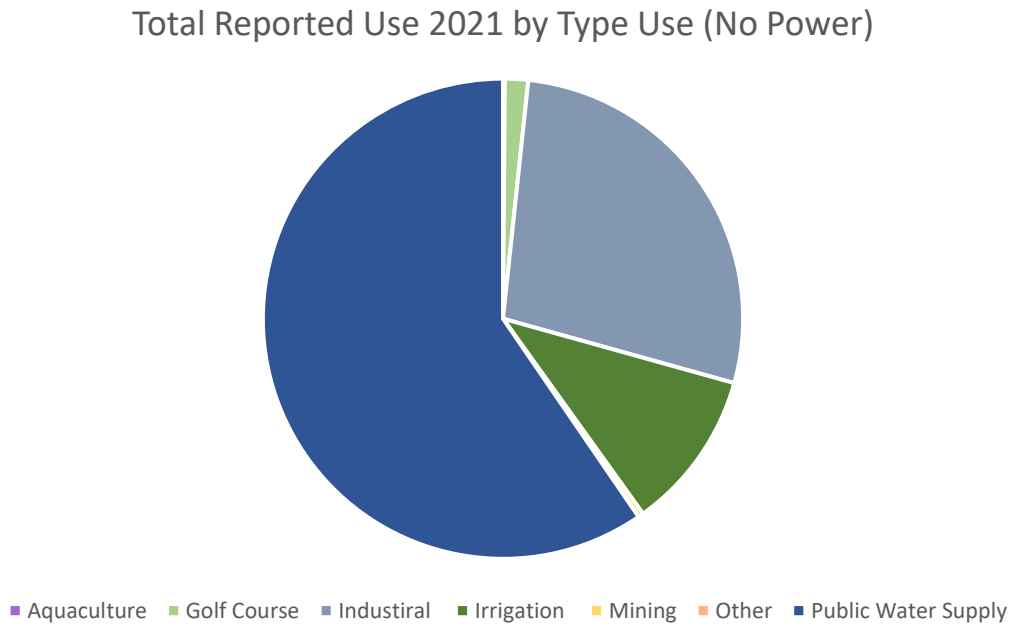

Figure 10: Total Reported Use in 2021 by Type (No Power Production)

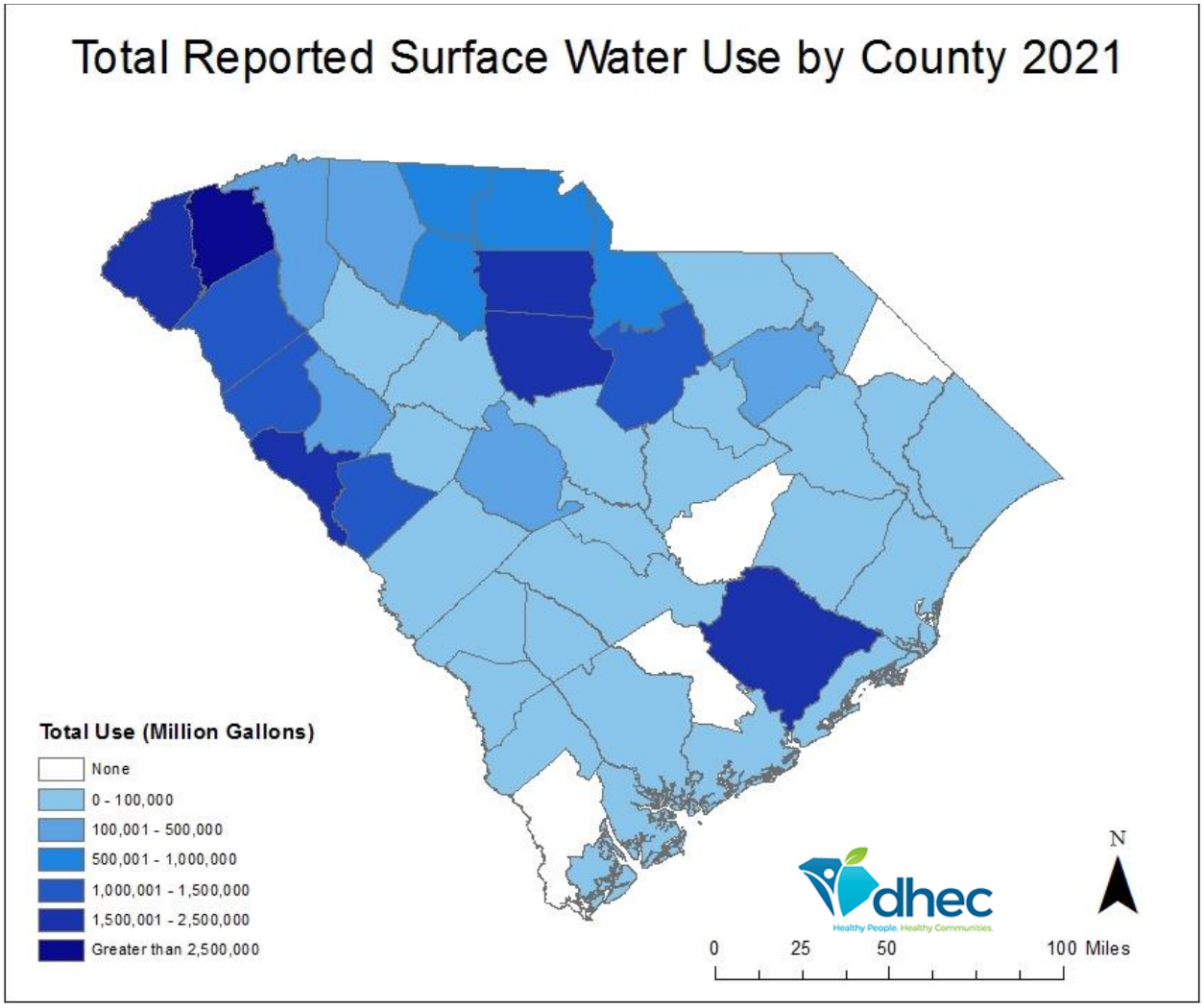

Figure 11: Total Reported Surface Water Use by County 2021

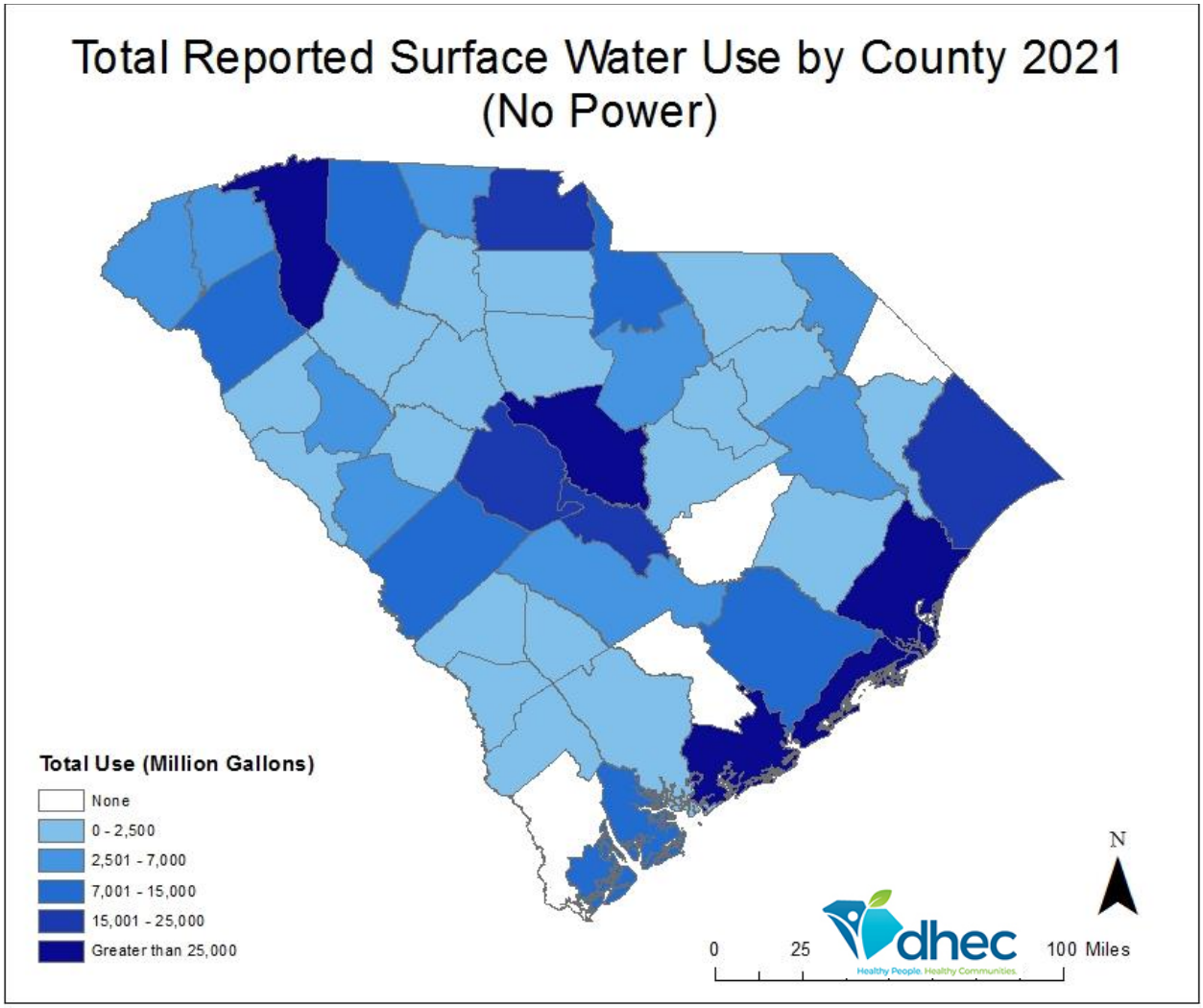

Figure 12: Total Reported Surface Water Use by County 2021 (No Power Production)

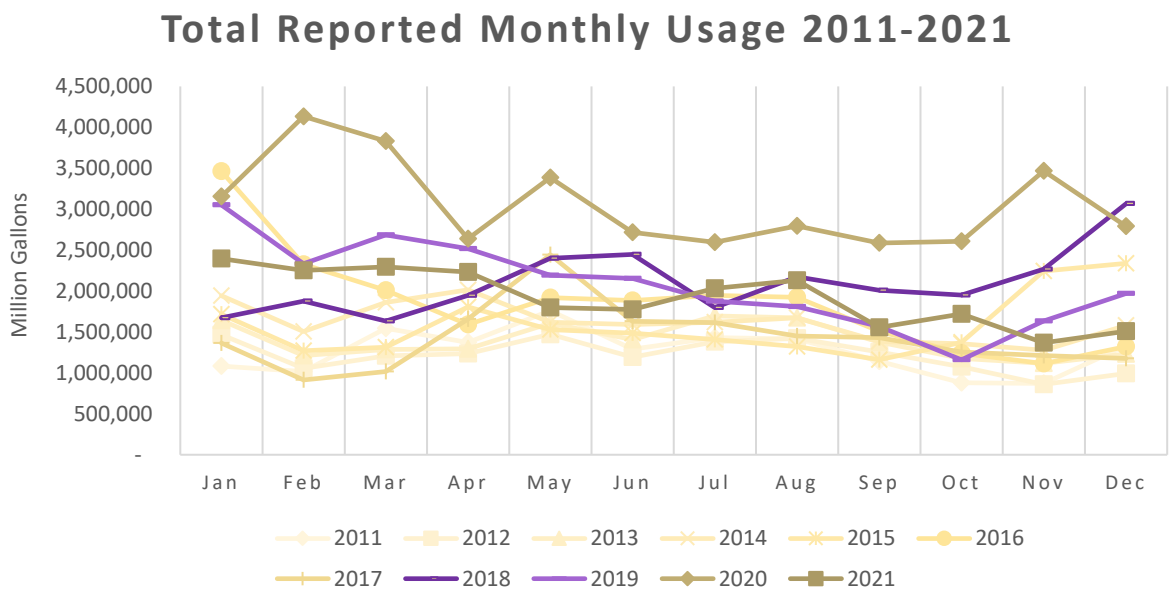

Figure 13: Total Surface Water Monthly Reported Use, 2011 to 2021

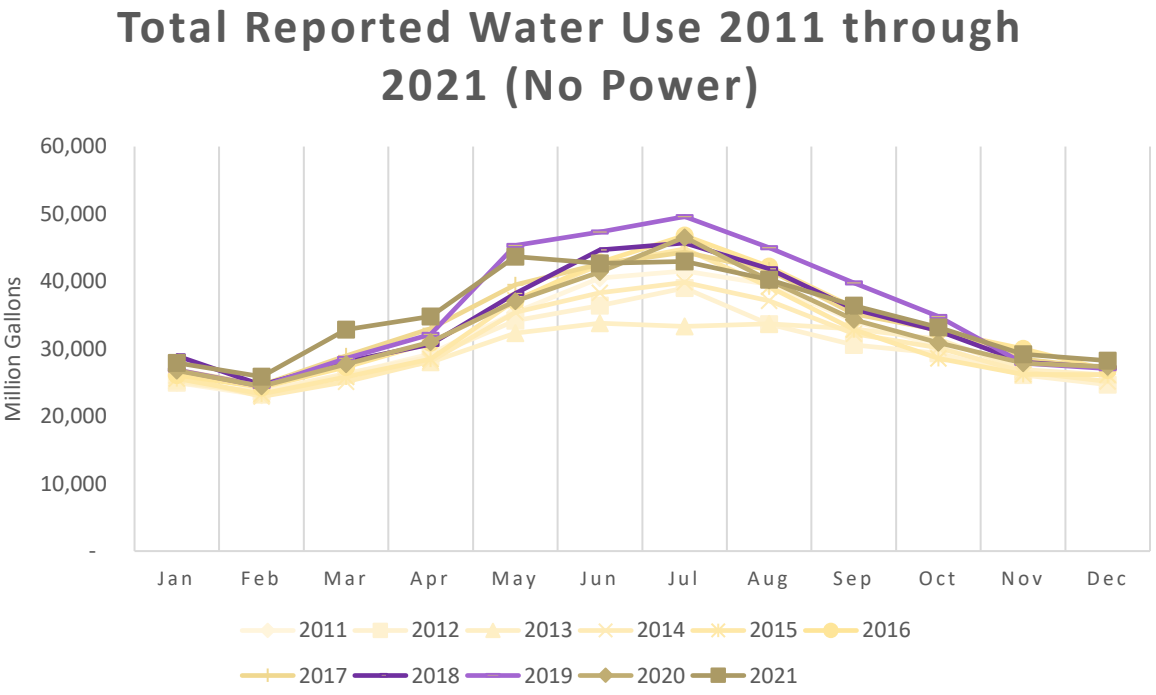

Figure 14: Total Surface Water Monthly Reported Use, 2011 to 2021 (No Power Production)

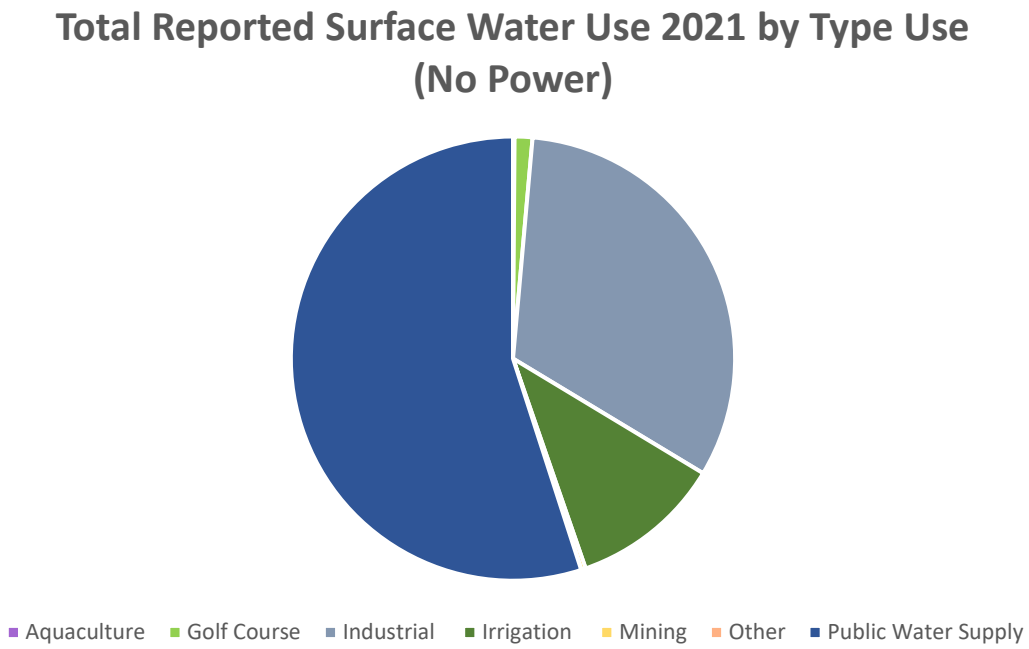

Figure 15: Total Reported Surface Water Use by Basin 2021

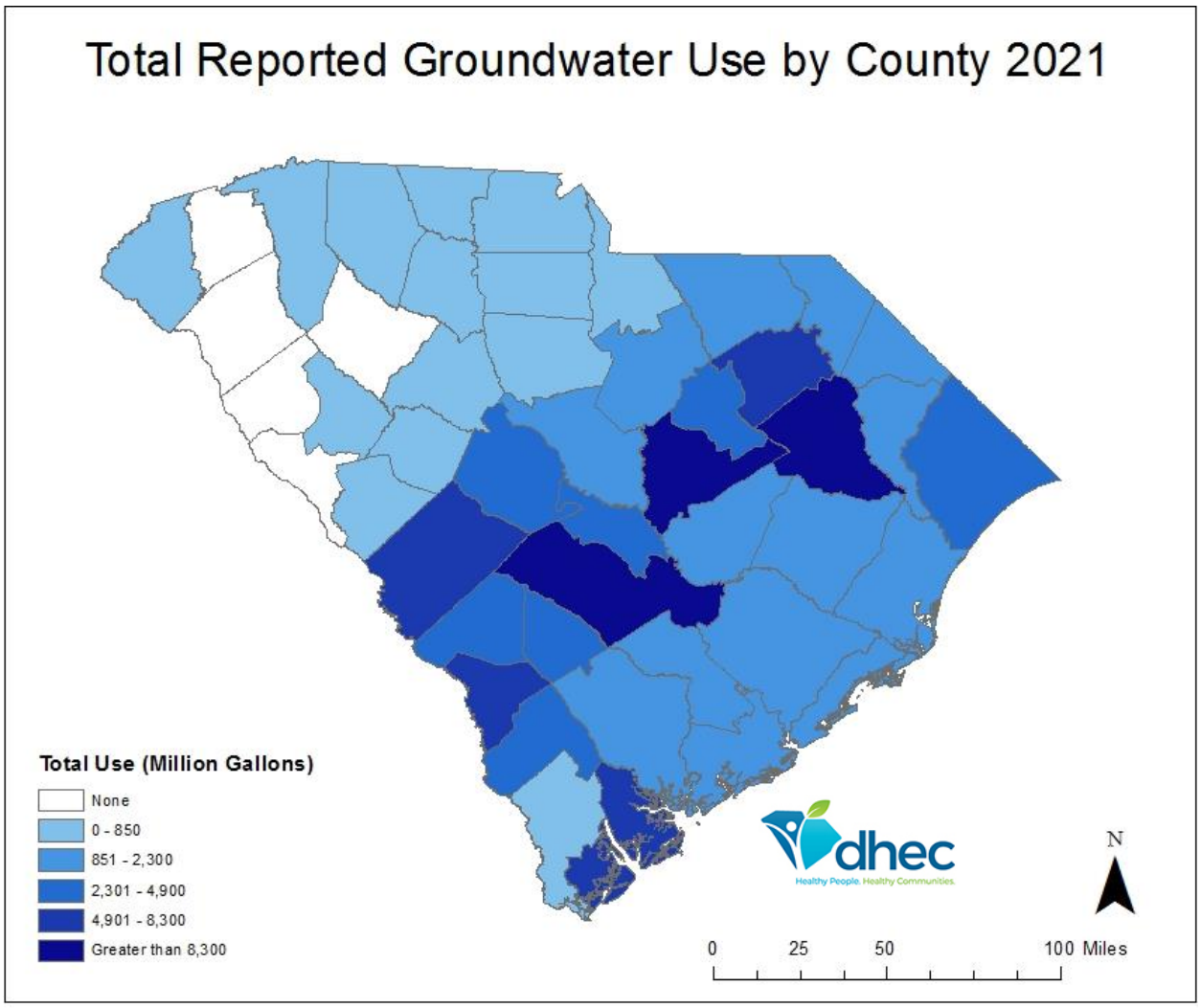

Figure 16: Total Reported Groundwater Use by County 2021

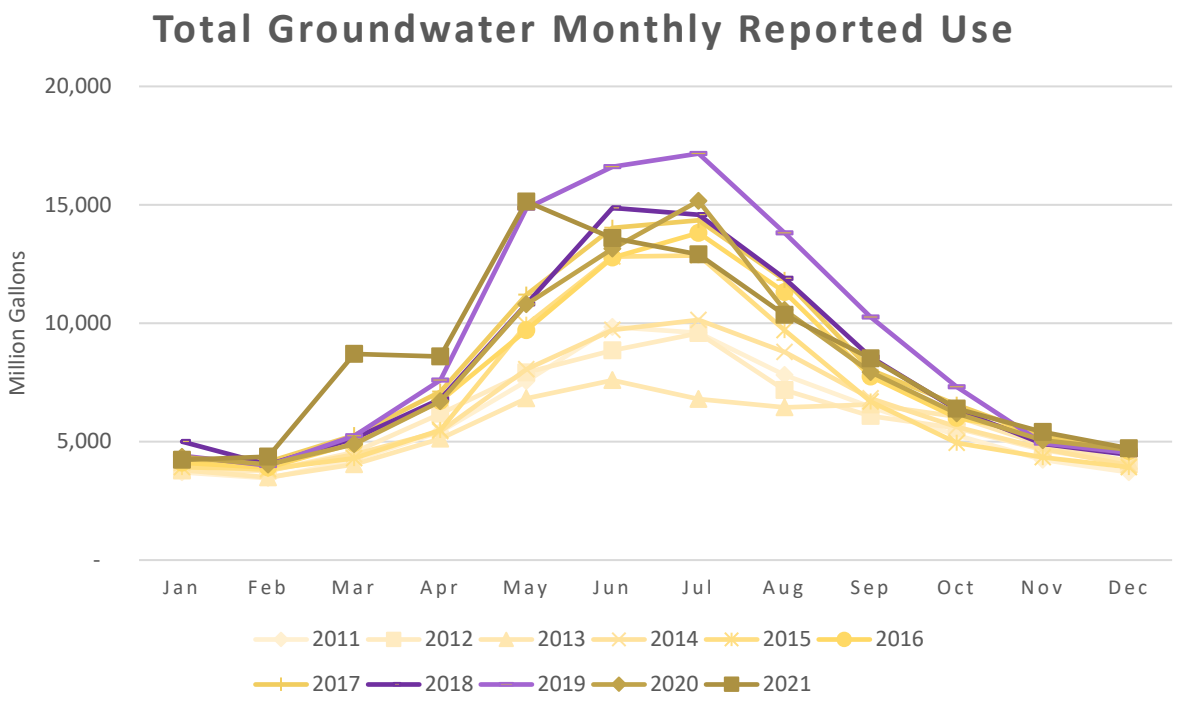

Figure 17: Total Groundwater Monthly Reported Use, 2011 to 2021

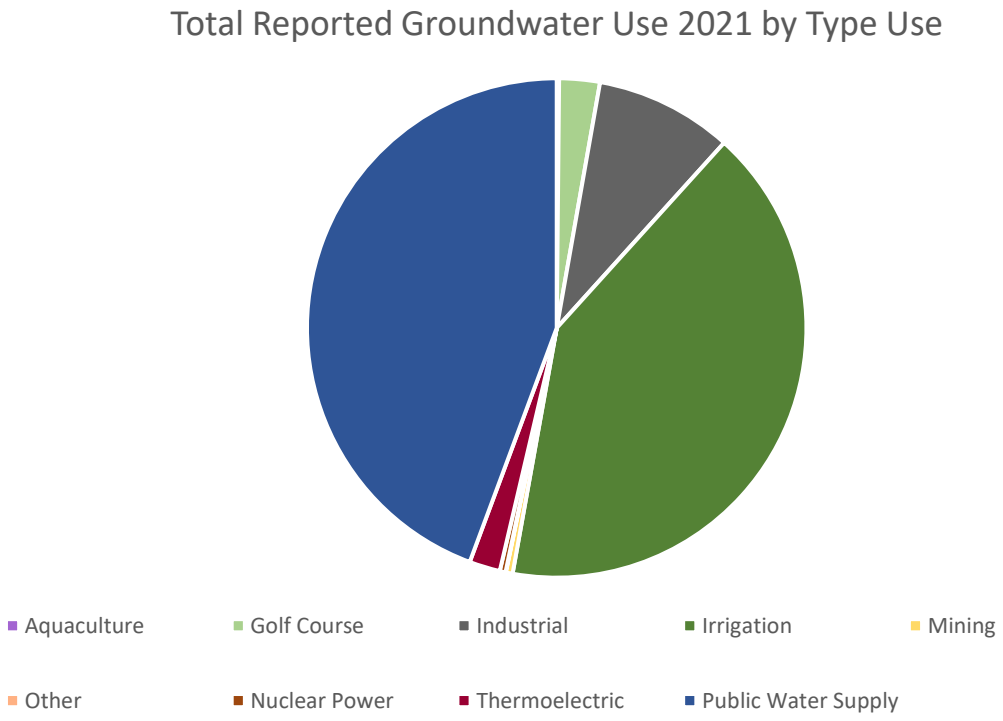

Figure 18: Reported Groundwater Use by Type in 2021

Historic Water Use by Basin[2]

Historical reported water use data was presented by basin to show how groundwater and surface water are used across basin boundaries. During this review, a decrease was shown in reported water use between 2012 and 2013 in several basins. Upon separating out the inactive users from the currently active users, the dip was determined to be due to the passing of the Surface Water Act. The Act went into effect January 1, 2011, and the following regulation came into effect June 22, 2012. The Department sent letters to all entities reporting surface water use informing them of the new requirements for reporting and exemptions in September 2012. This notification resulted in many users submitting letters of exemption from participating in the surface water program. The reported water use took a dip in the reported 2013 use based on these users going inactive.

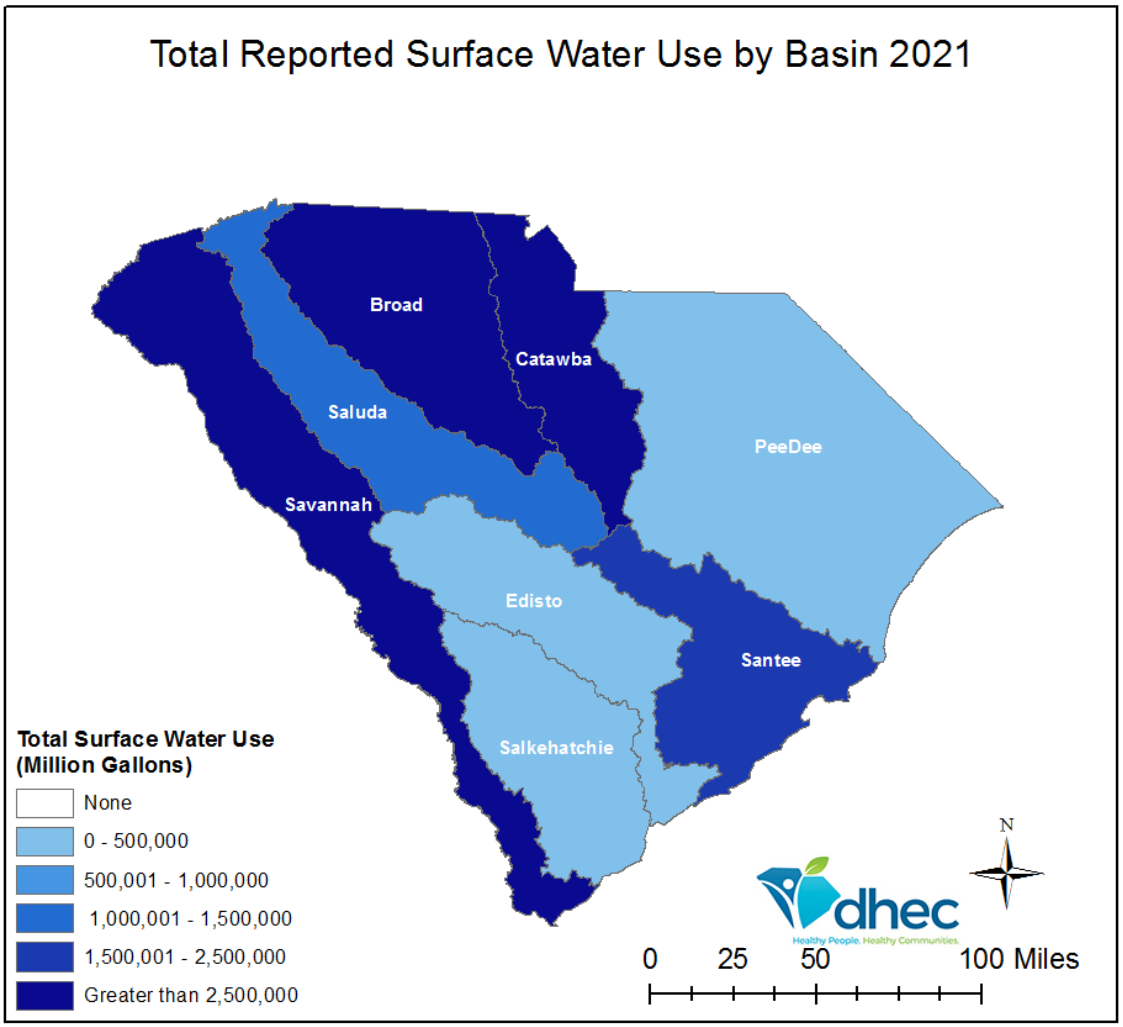

Figure 19: Total Reported Surface Water Use by Basin 2021

[2] Map legend range differs per map figure

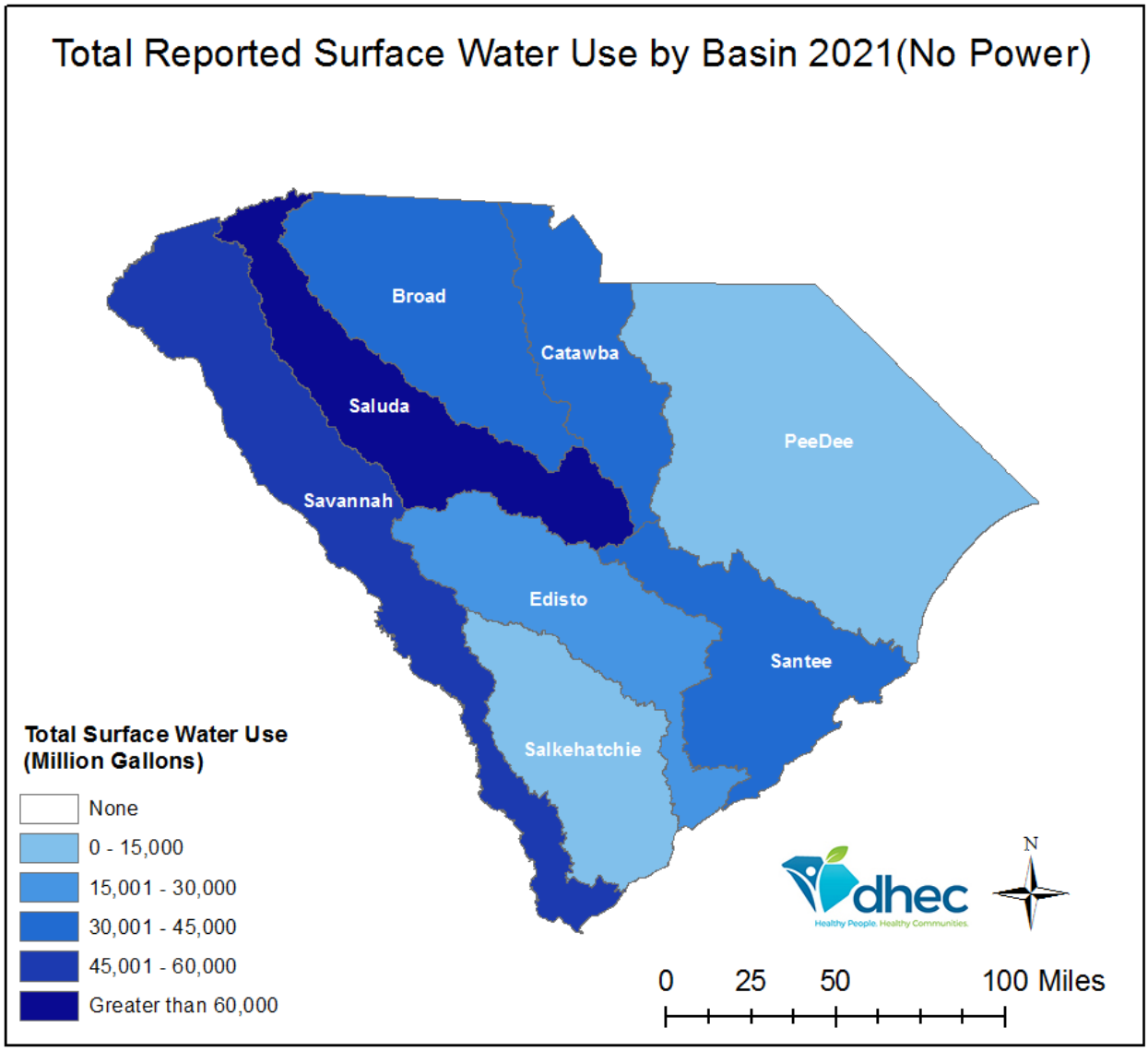

Figure 20: Total Reported Surface Water Use by Basin 2021 (No Power Production)

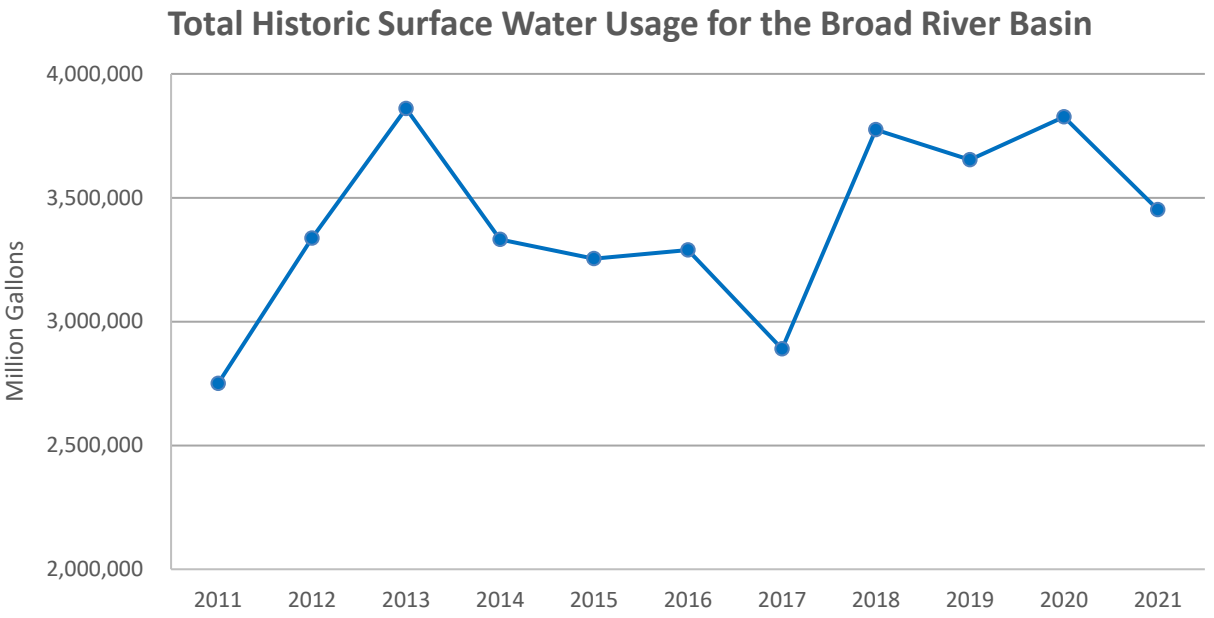

Figure 21: Total Historic Surface Water Reported Use in the Broad Basin, 2011-2021

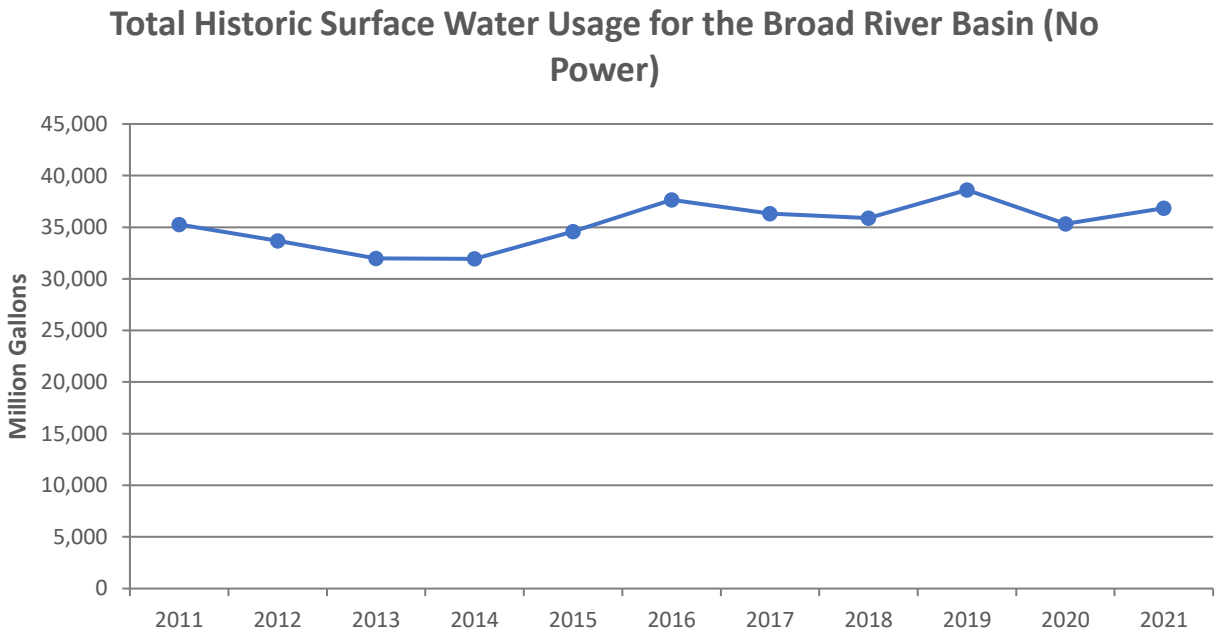

Figure 22: Total Historic Surface Water Reported Use in the Broad Basin excluding power production, 2011-2021

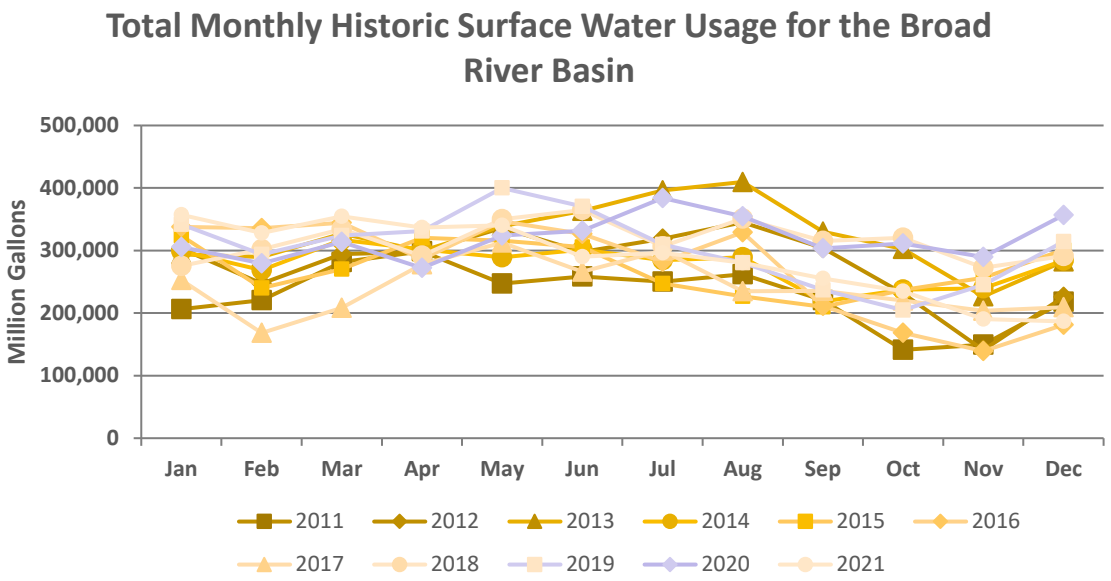

Figure 23: Total Historic Surface Water Reported Monthly Use in the Broad Basin, 2011-2021

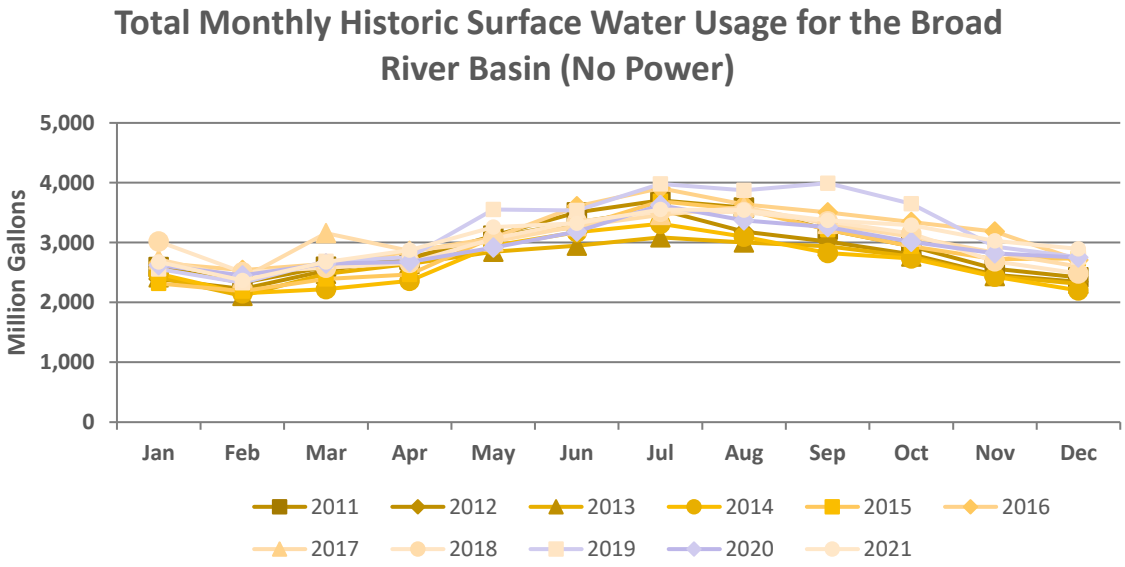

Figure 24: Total Historic Surface Water Reported Monthly Use in the Broad Basin with no power production users, 2011-2021

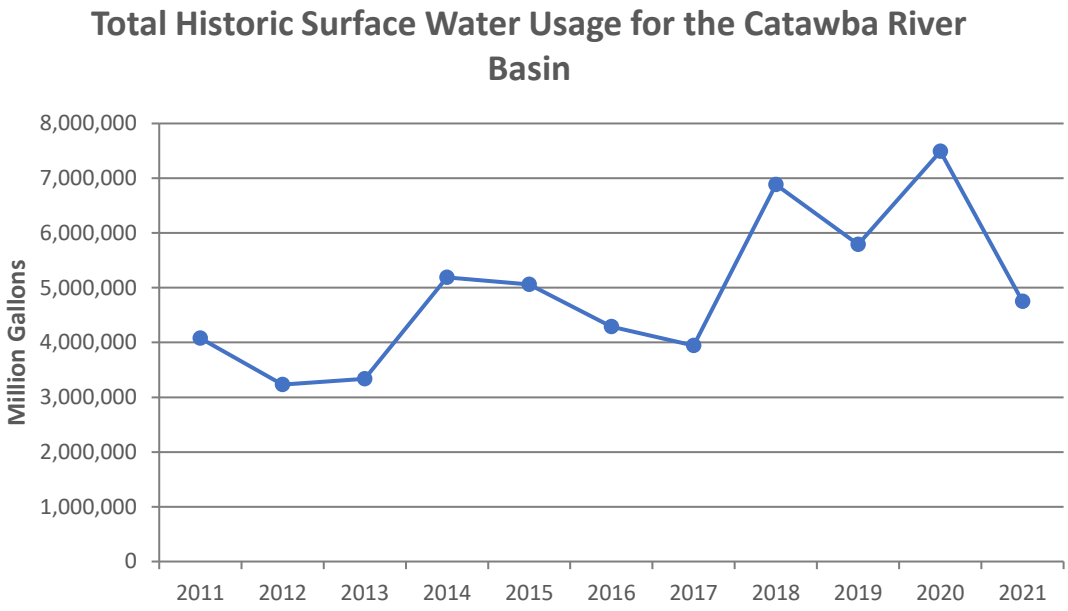

Figure 25: Total Historic Surface Water Reported Use in the Catawba Basin, 2011-2021

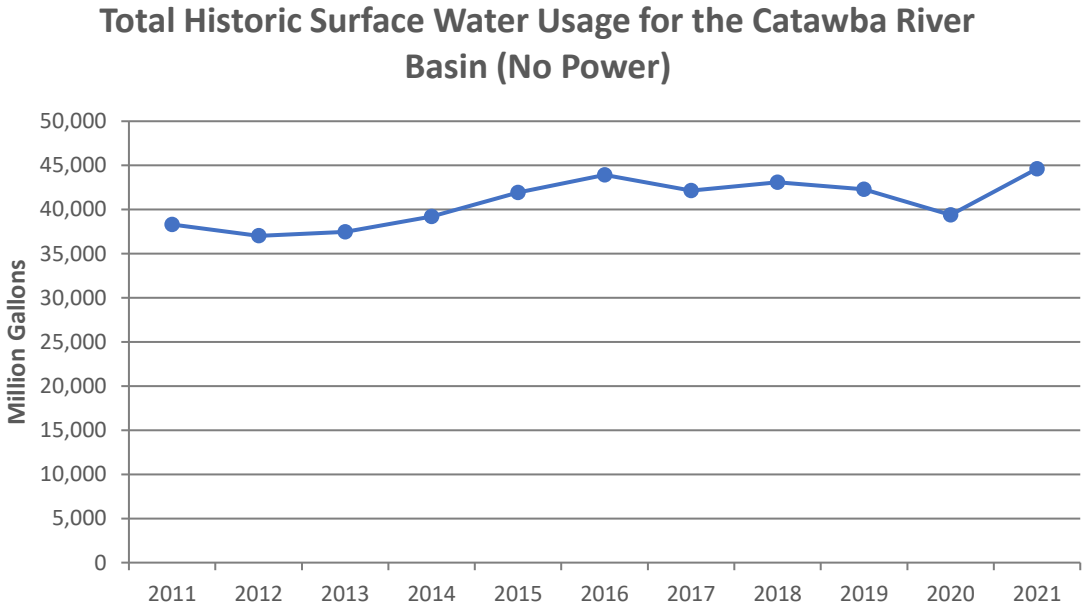

Figure 26: Total Historic Surface Water Reported Use in the Catawba Basin excluding power production, 2011-2021

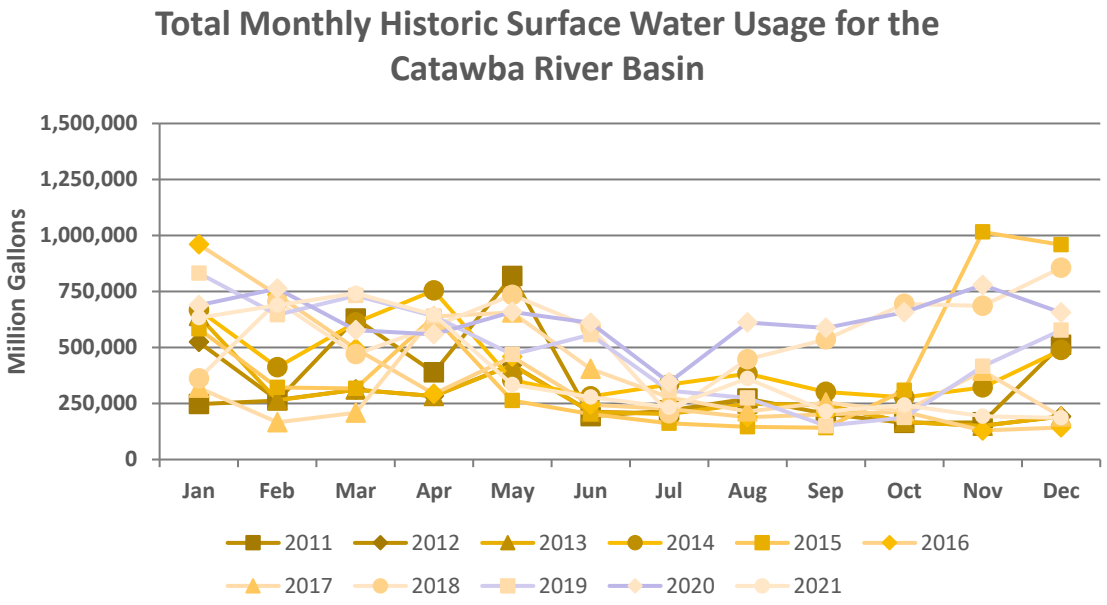

Figure 27: Total Historic Groundwater Reported Monthly Use in the Catawba Basin, 2011-2021

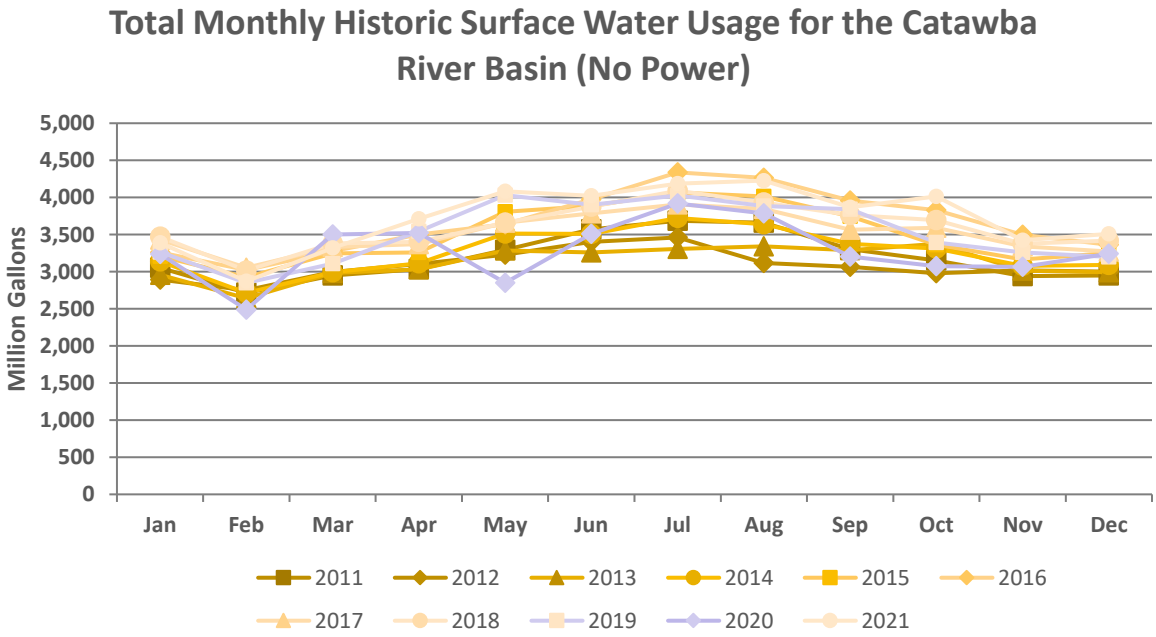

Figure 28: Total Historic Groundwater Reported Monthly Use in the Catawba Basin with no power production users, 2011-2021

The Edisto River Basin saw a significant loss of water in 2012 due to users requesting exemptions made available in the 2011 Surface Water Act.

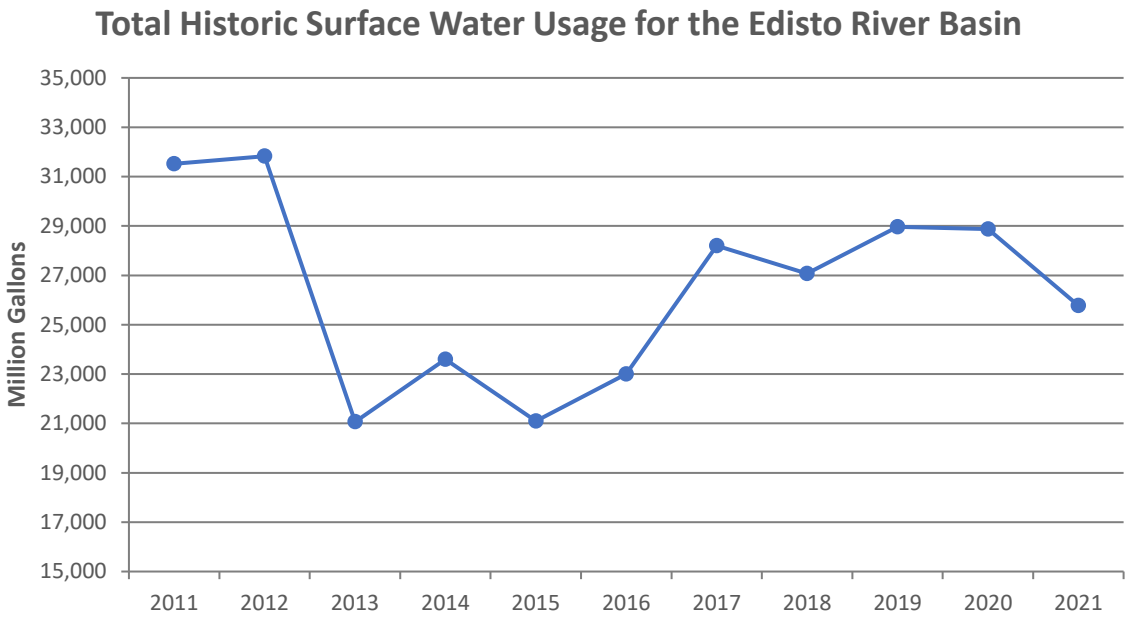

Figure 29: Total Historic Surface Water Reported Use in the Edisto Basin, 2011-2021

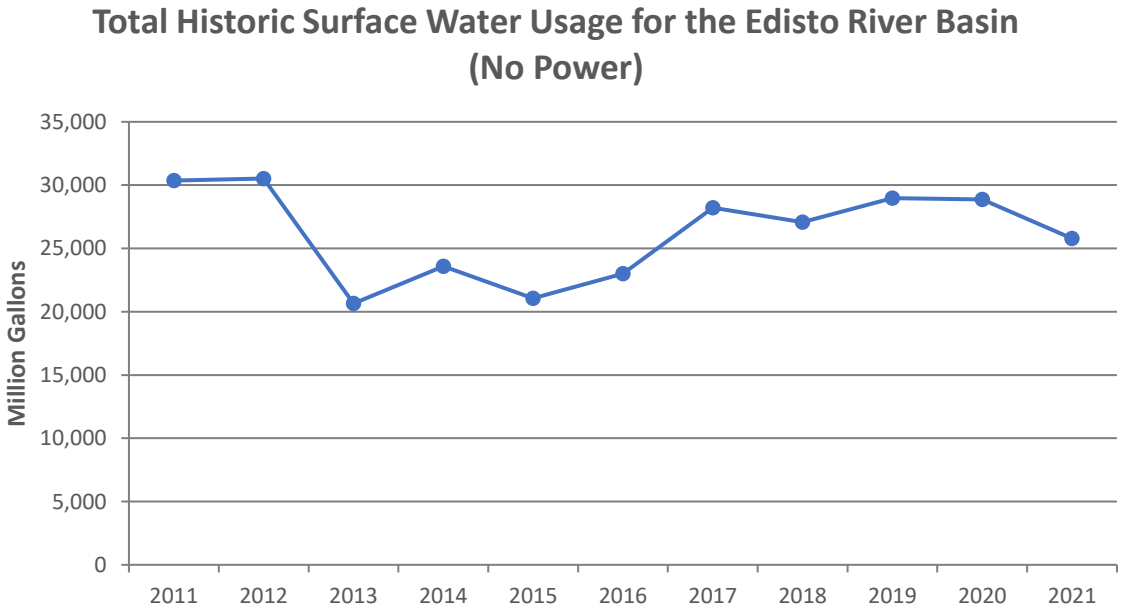

Figure 30: Total Historic Surface Water Reported Use in the Edisto Basin excluding power production, 2011-2021

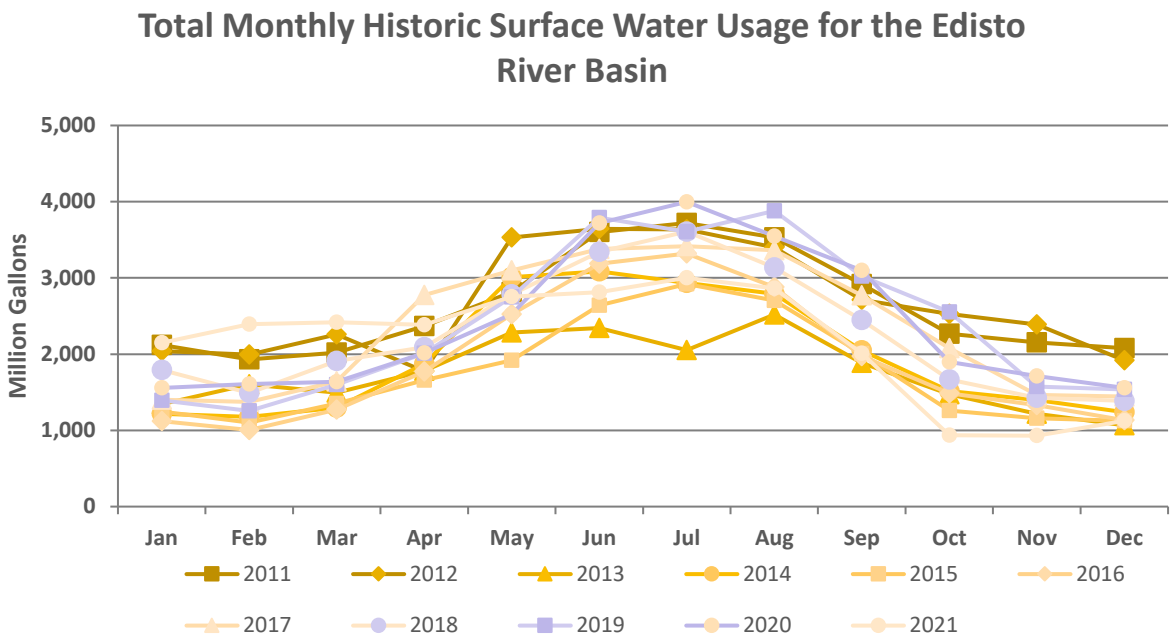

Figure 31: Total Historic Surface Water Reported Monthly Use in the Edisto Basin, 2011-2021

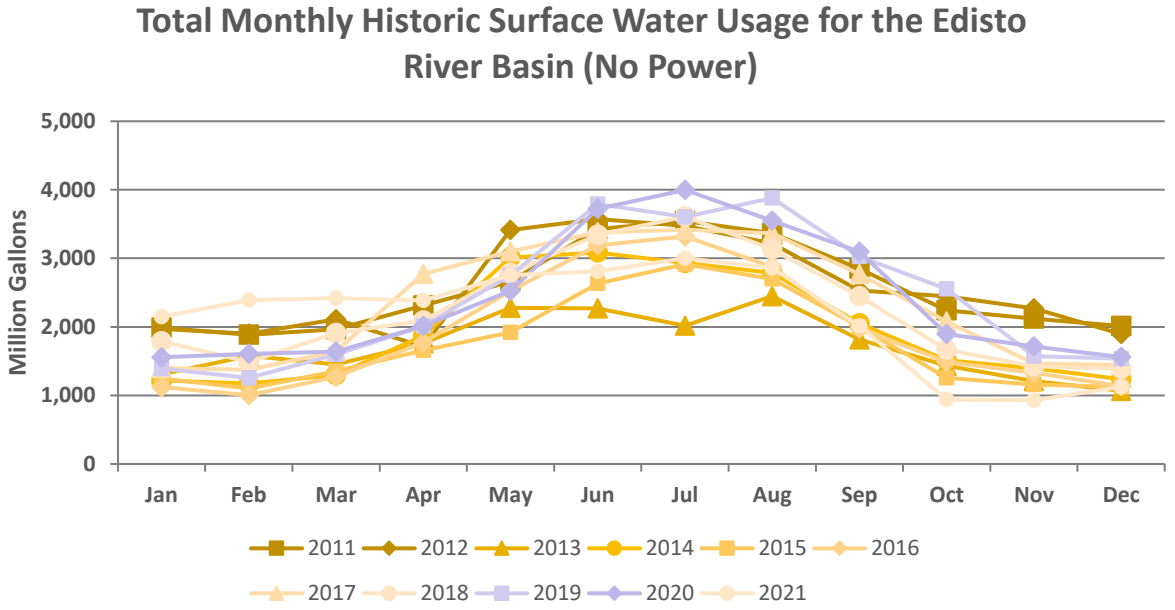

Figure 32: Total Historic Surface Water Reported Monthly Use in the Edisto Basin with no power production users 2011-2021

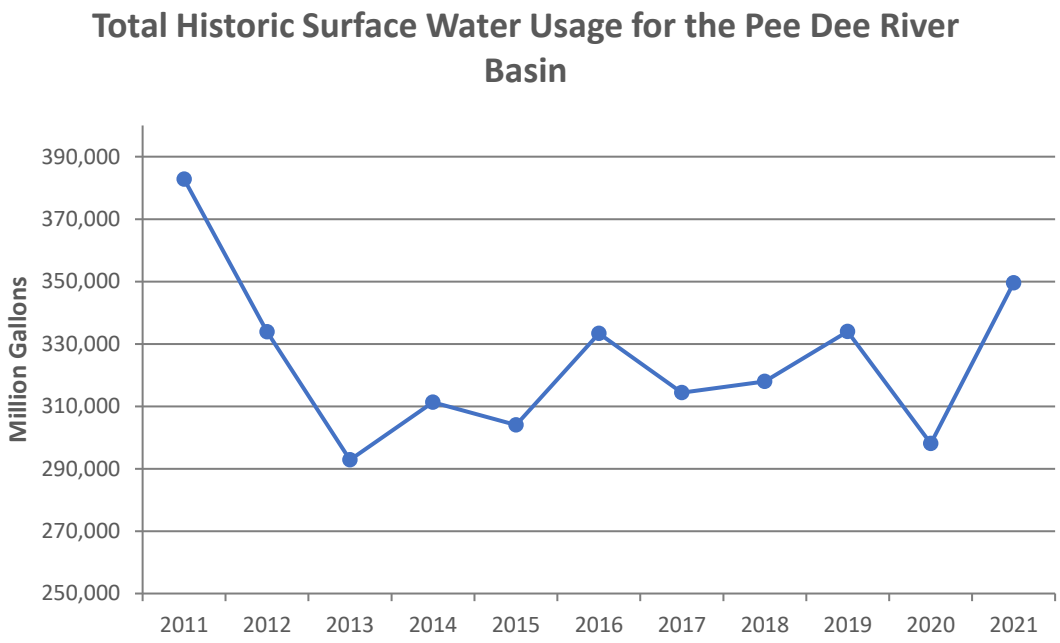

Figure 33: Total Historic Surface Water Reported Use in the Pee Dee Basin excluding non-active users, 2011-2021

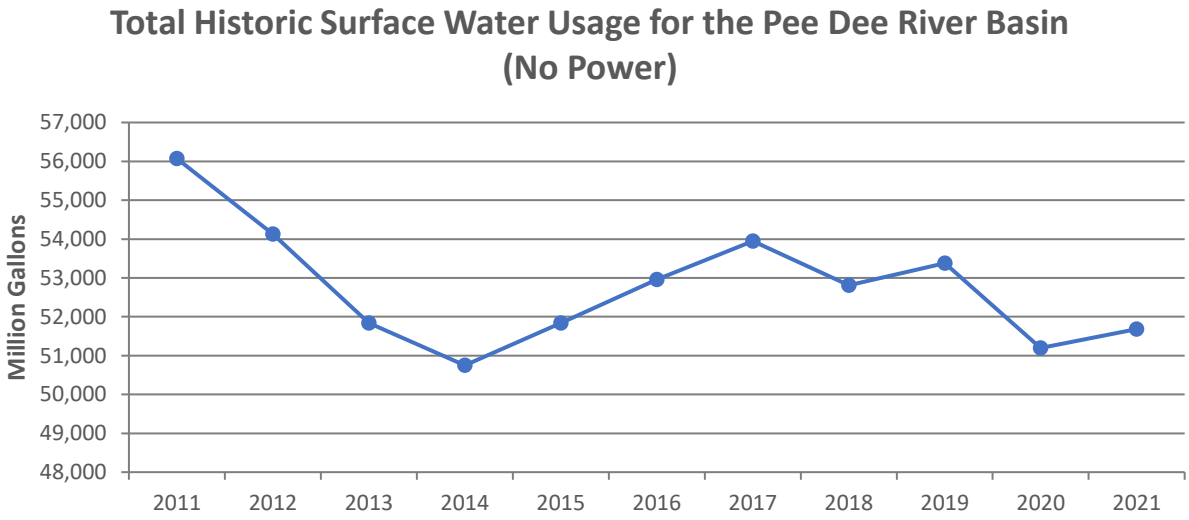

Figure 34: Total Historic Surface Water Reported Use in the Pee Dee Basin excluding power production, 2011-2021

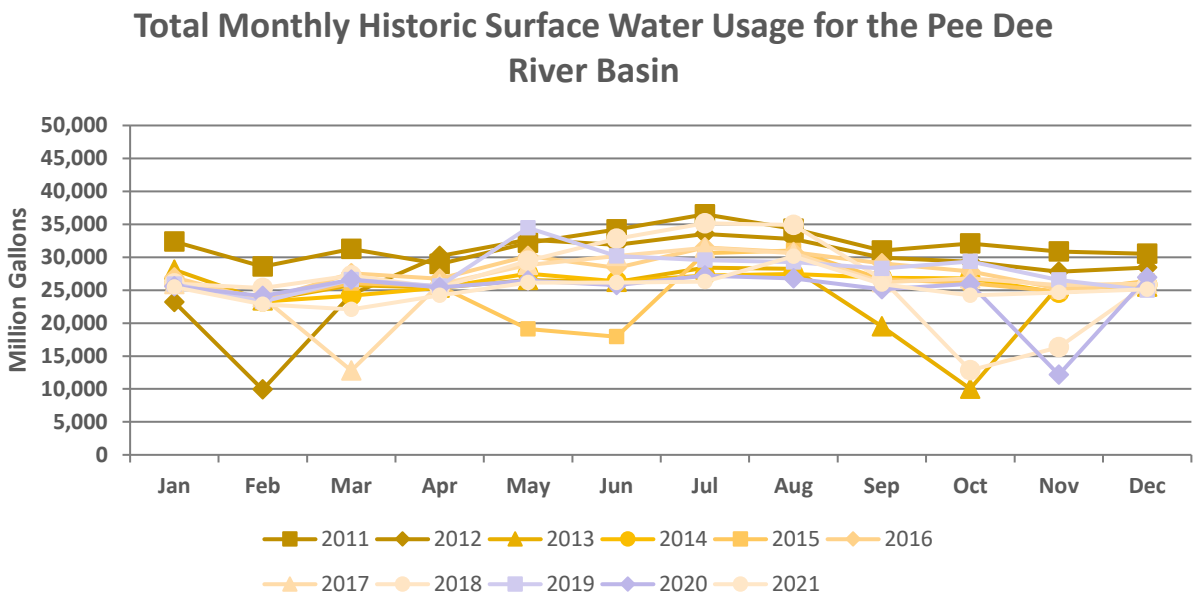

Figure 35: Total Historic Surface Water Reported Monthly Use in the Pee Dee Basin, excluding non-active users, 2011-2021

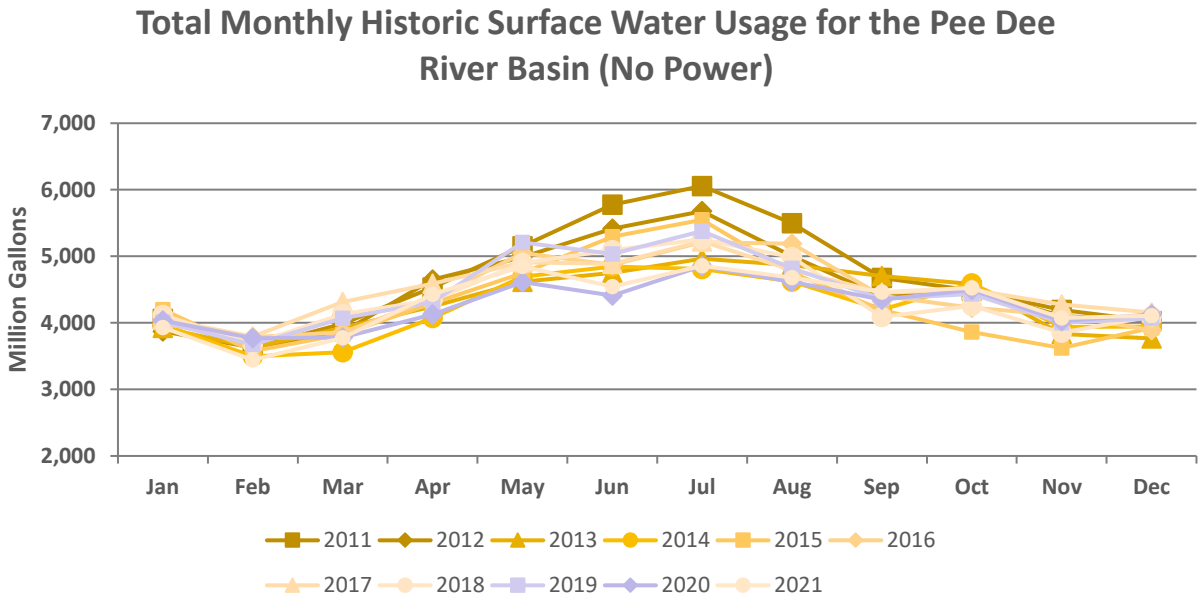

Figure 36: Total Historic Surface Water Reported Monthly Use in the Pee Dee Basin with no power production users, 2011-2021

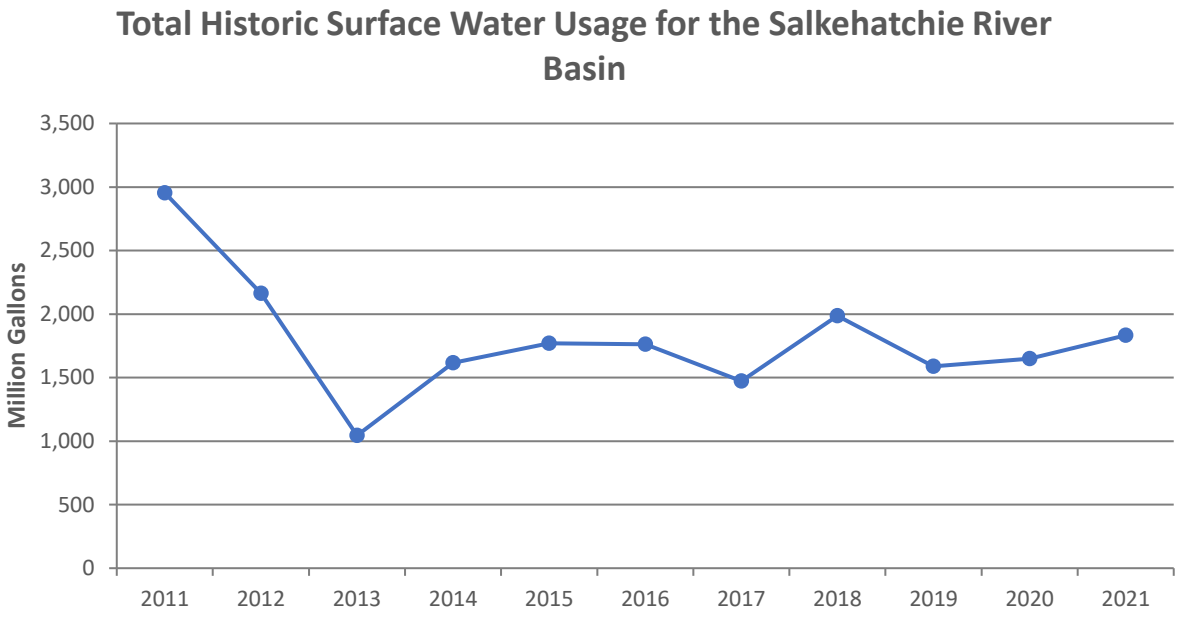

Figure 37: Total Historic Surface Water Reported Use in the Salkehatchie Basin excluding power production, 2011-2021

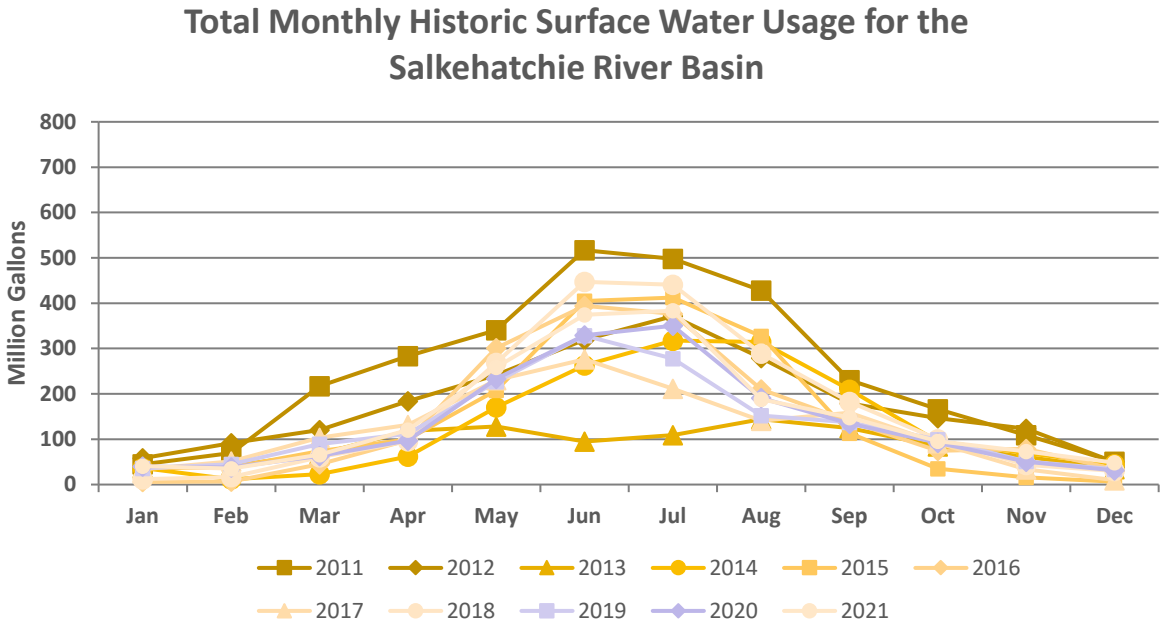

Figure 38: Total Historic Surface Water Monthly Reported Use in the Salkehatchie Basin with no power production users, 2011-2021

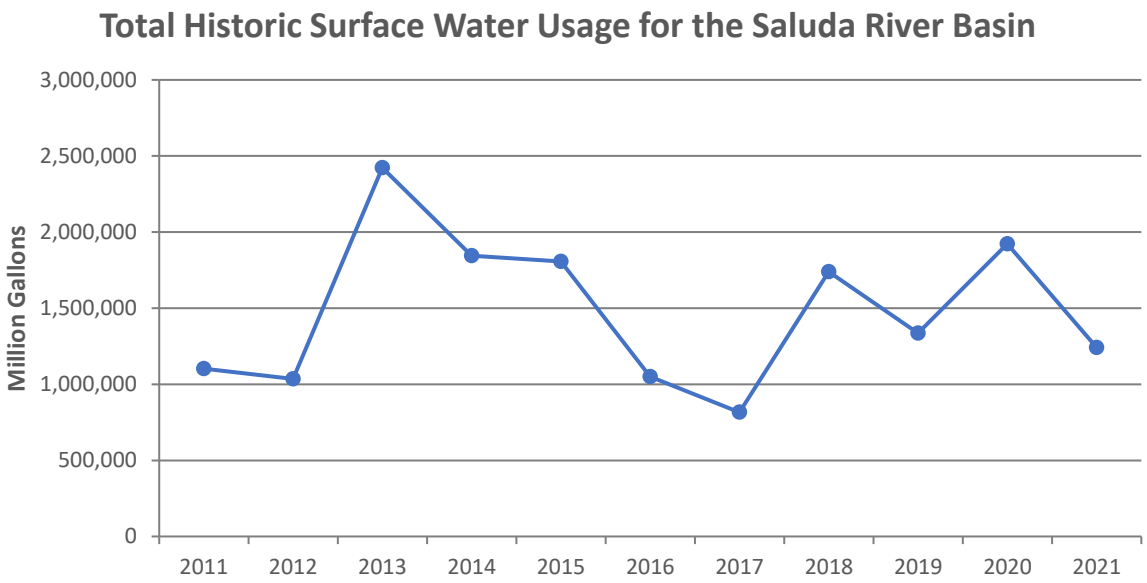

Figure 39: Total Historic Surface Water Reported Use in the Saluda Basin, 2011-2021

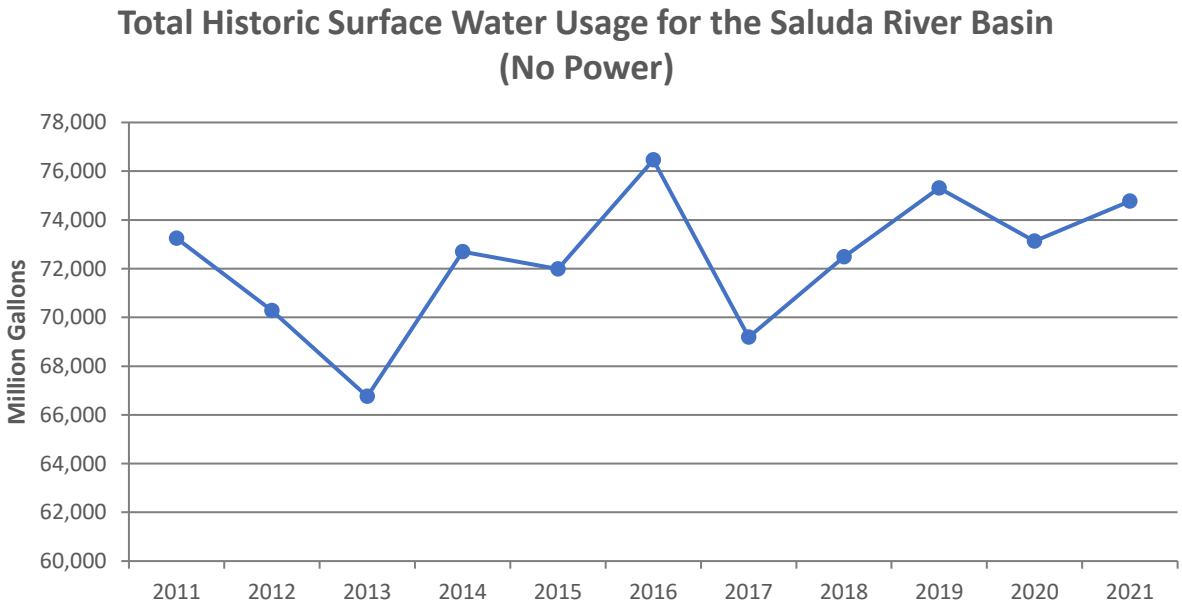

Figure 40: Total Historic Surface Water Reported Use in the Saluda Basin excluding power production, 2011-2021

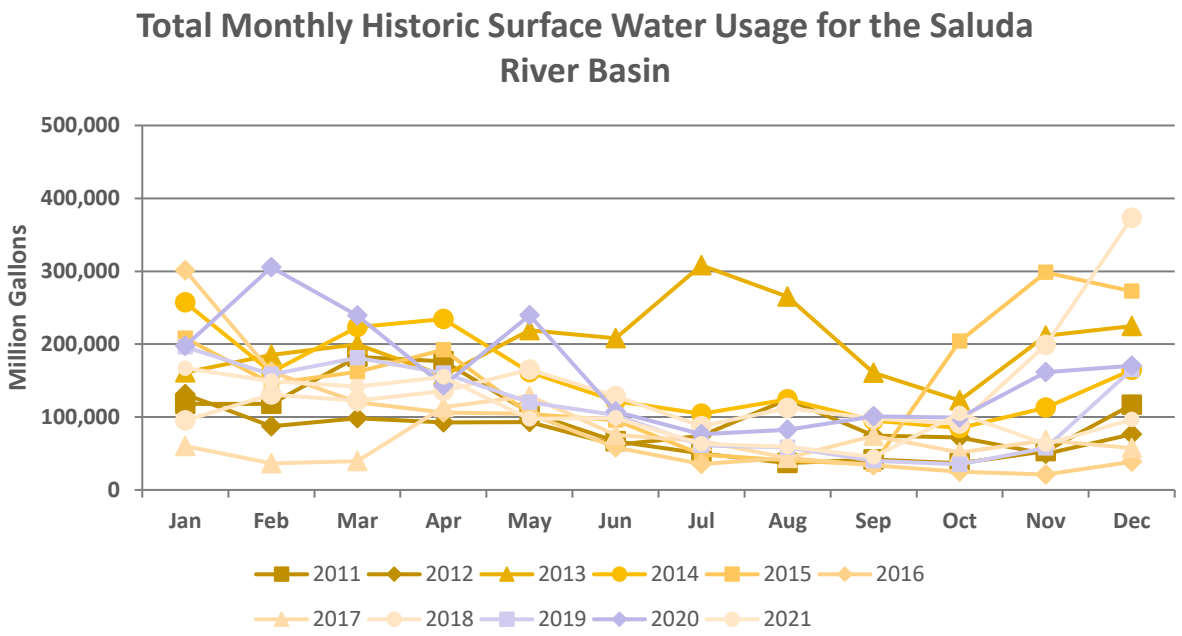

Figure 41: Total Historic Surface Water Monthly Reported Use in the Saluda Basin, 2011-2021

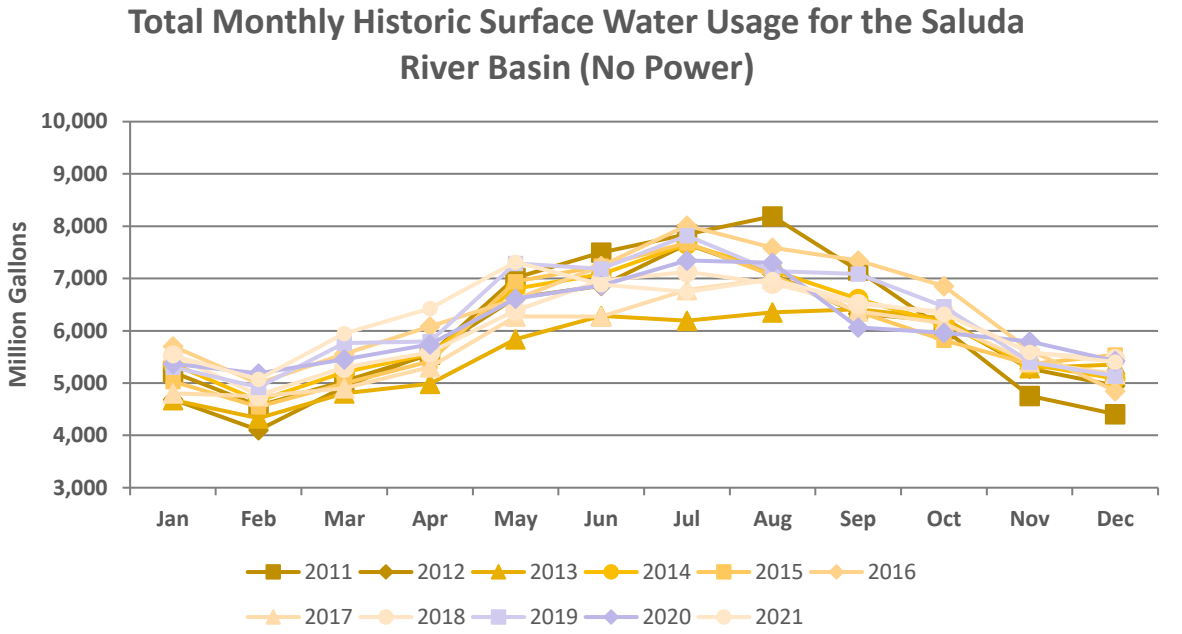

Figure 42: Total Historic Surface Water Monthly Reported Use in the Saluda Basin with no power production users, 2011-2021

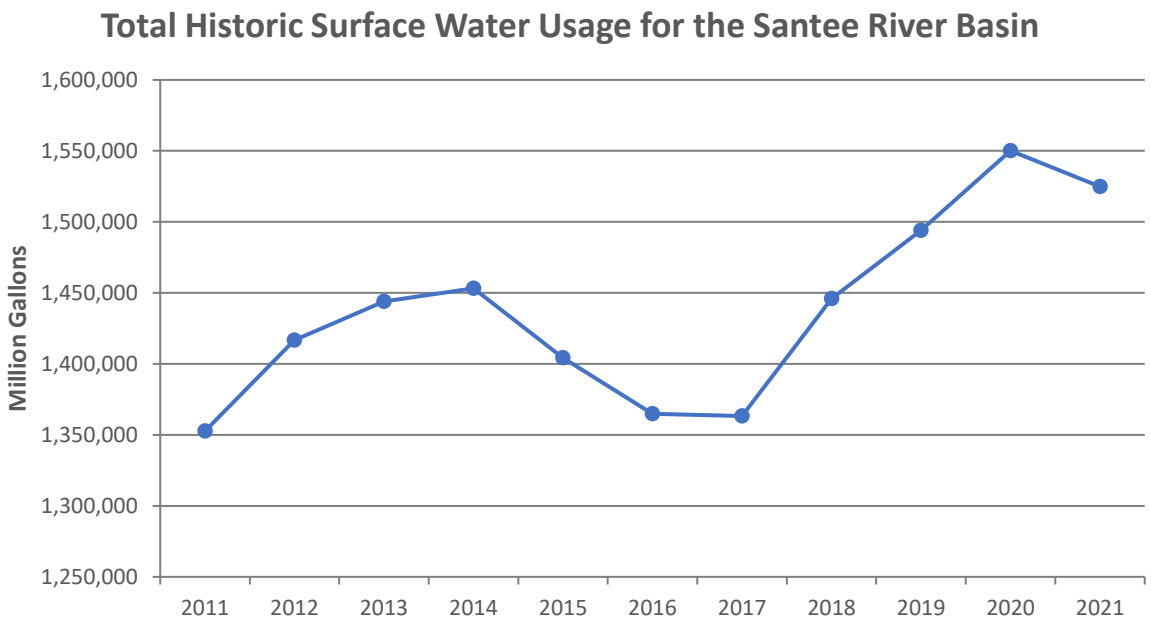

Figure 43: Total Historic Surface Water Reported Use in the Santee Basin, 2011-2021

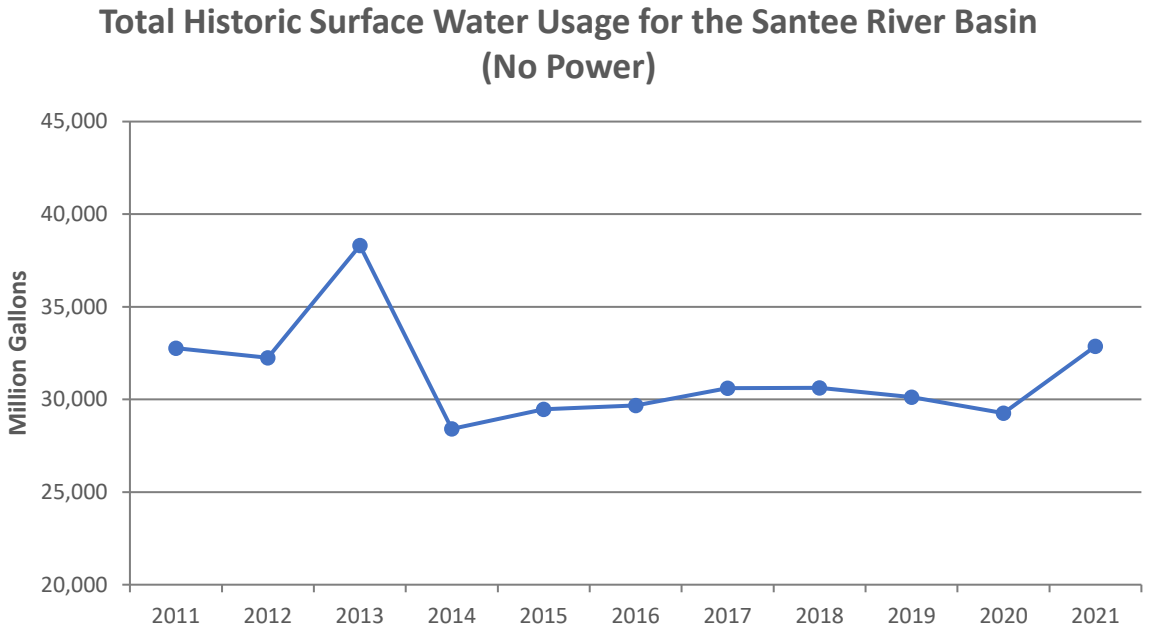

Figure 44: Total Historic Surface Water Reported Use in the Santee Basin excluding power production, 2011-2021
**2013 had the addition of Golf Course and Mining users in the basin*

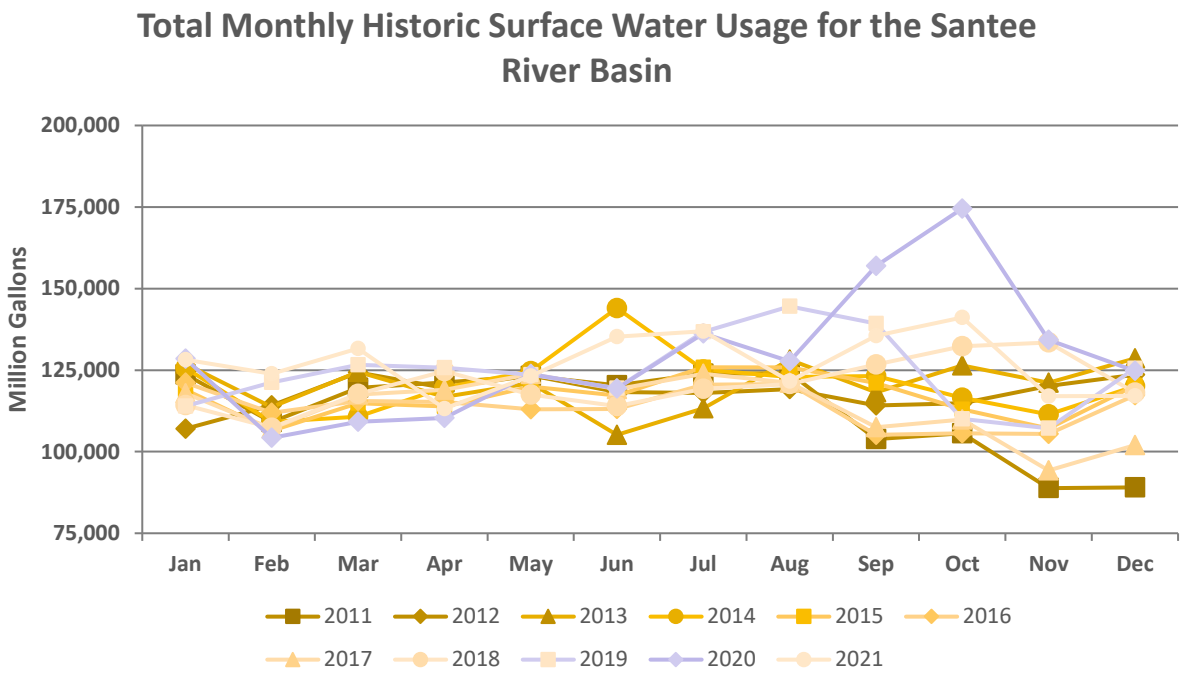

Figure 45: Total Historic Surface Water Reported Monthly Use in the Savannah Basin, 2011-2021

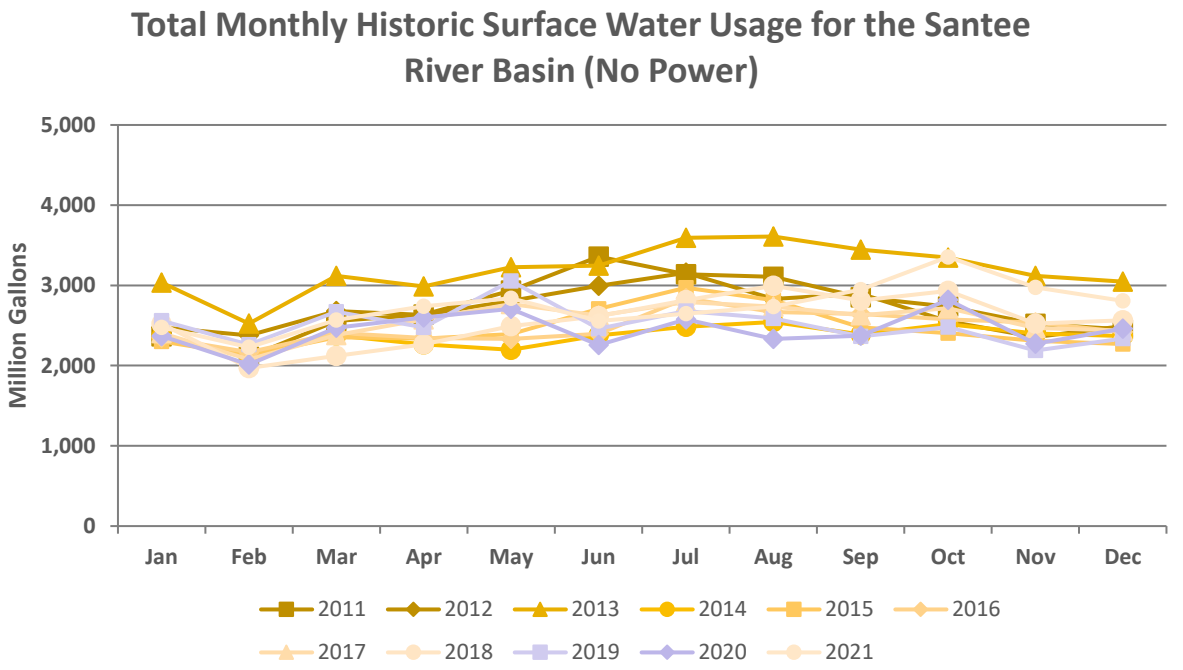

Figure 46: Total Historic Surface Water Monthly Reported Use in the Santee Basin with no power production users, 2011-2021

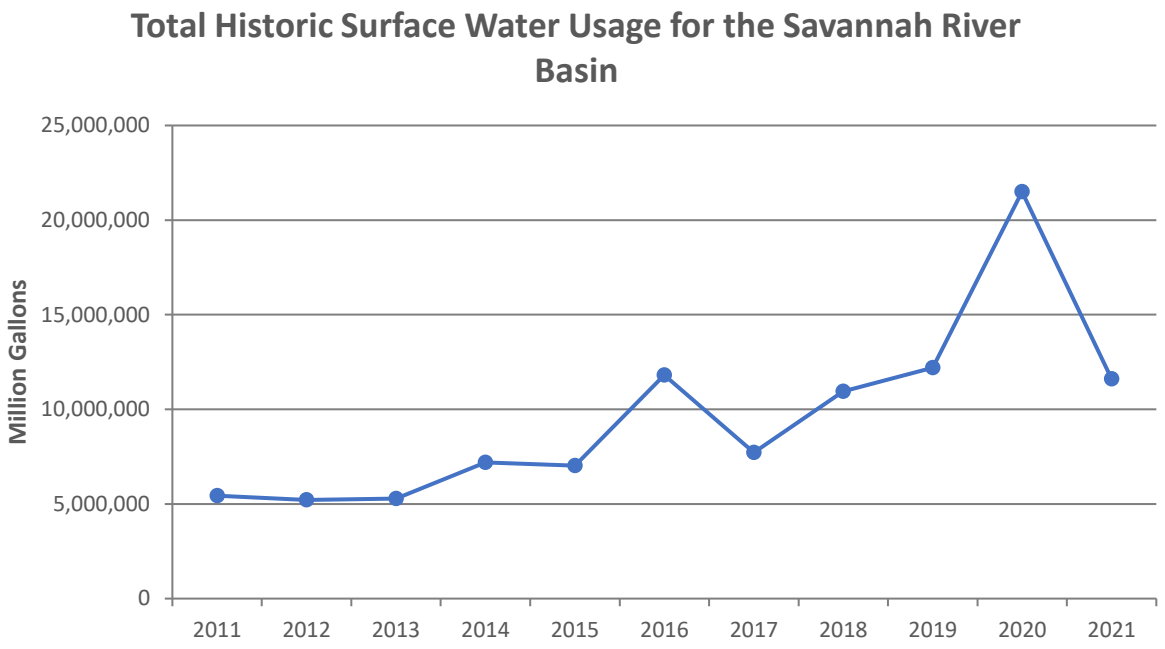

*Figure 47: Total Historic Surface Water Reported Use Over Time in the Savannah Basin, 2011-2021 *2015 to present saw an increase use for hydroelectric power users, including the installation of 3 new power plants*

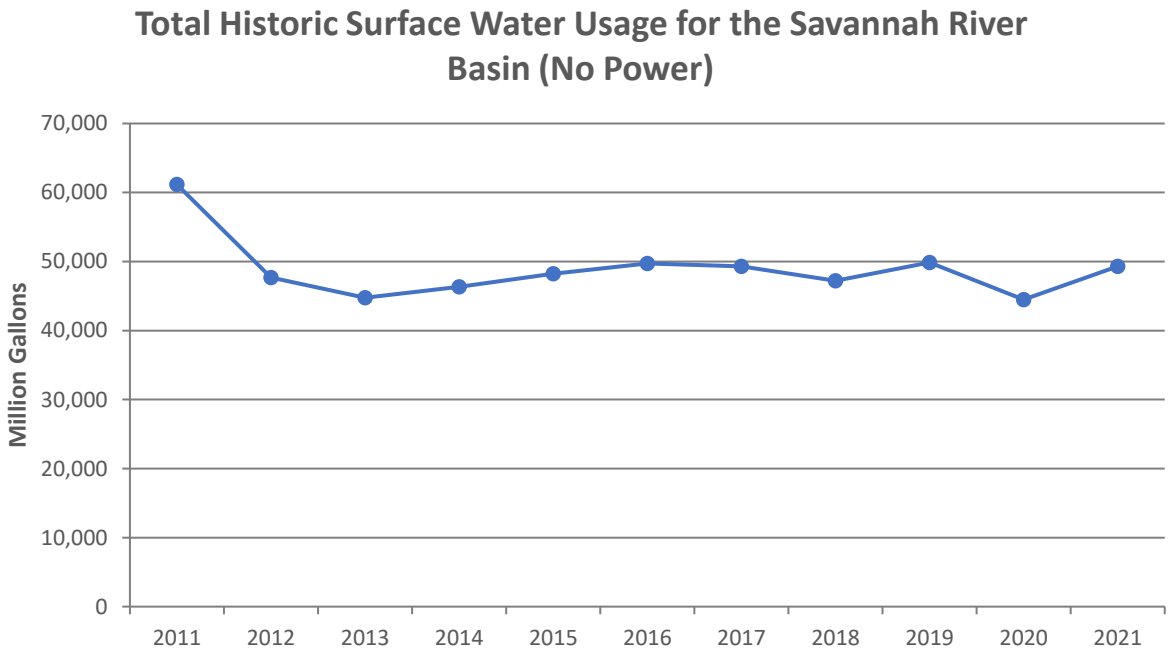

Figure 48: Total Historic Surface Water Reported Use Over Time in the Savannah Basin excluding power production, 2011-2021

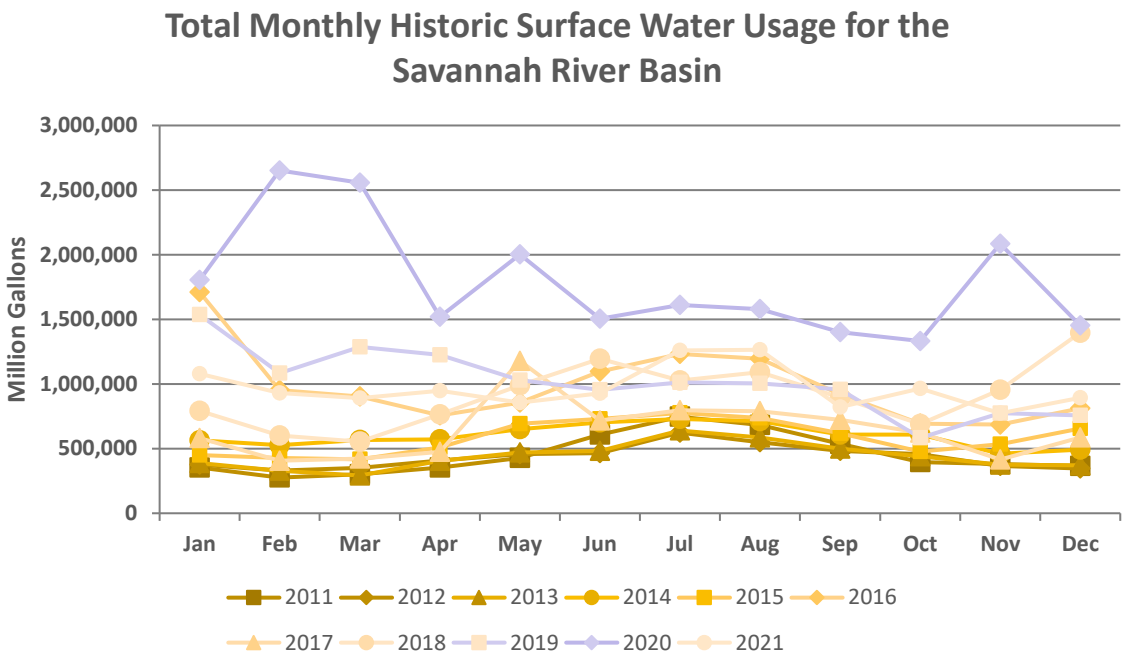

Figure 49: Total Historic Surface Water Monthly Reported Use in the Savannah Basin, 2011-2021

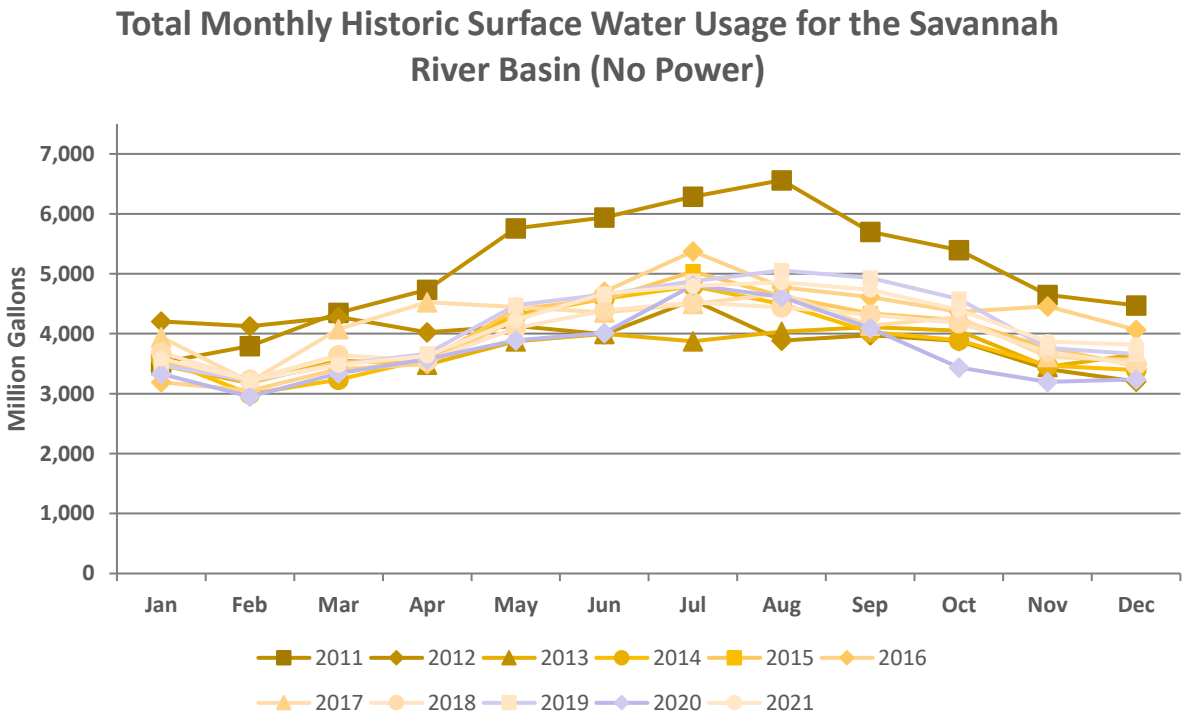

Figure 50: Total Historic Surface Water Monthly Reported Use in the Savannah Basin with no power production users, 2011-2021

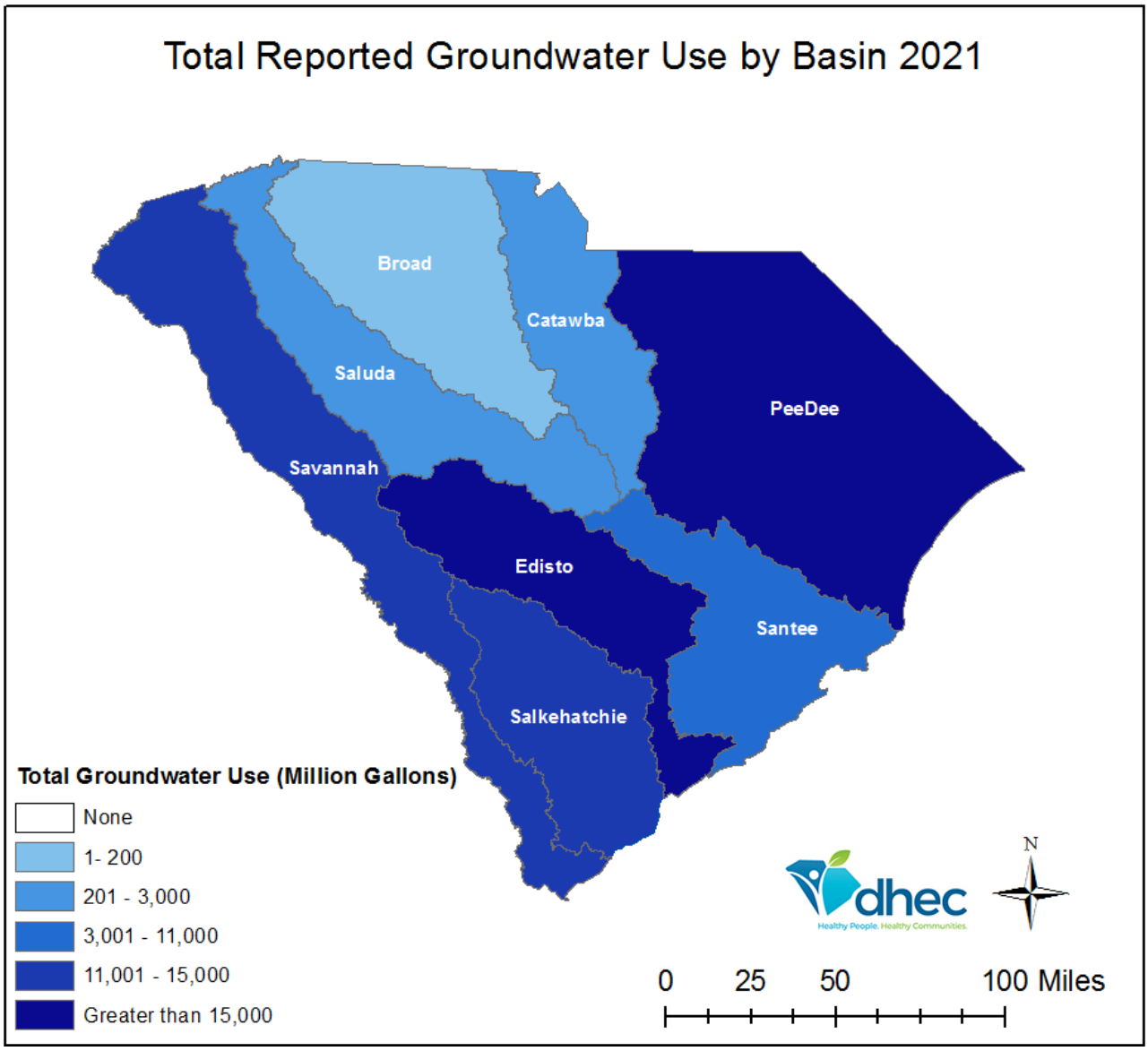

Figure 51: Total Reported Groundwater Use by Basin 2021

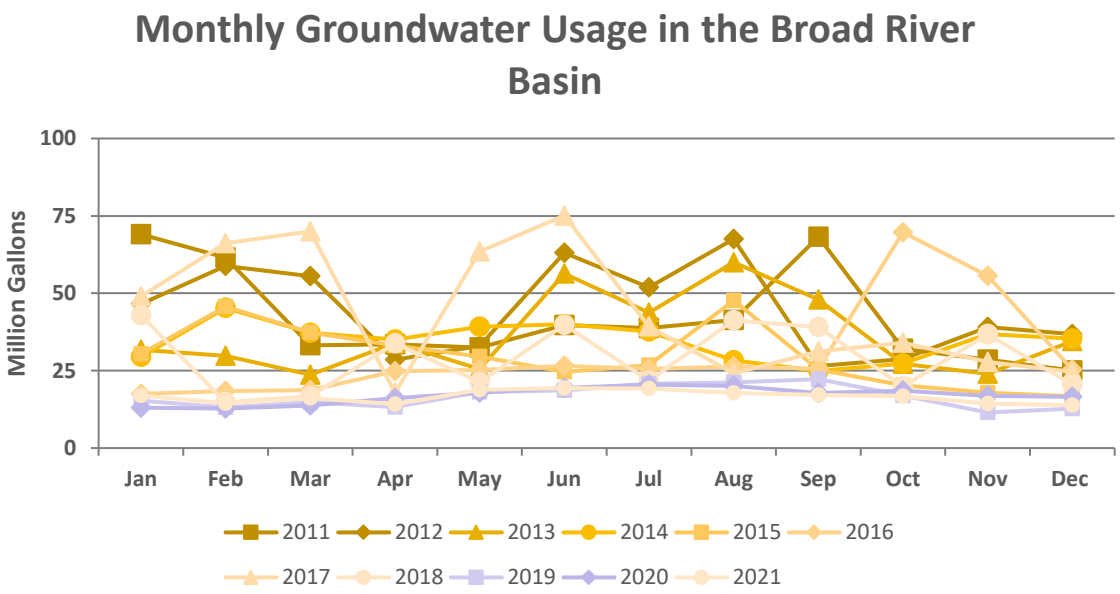

Figure 52: Total Historic Groundwater Monthly Reported Use in the Broad Basin, 2011-2021

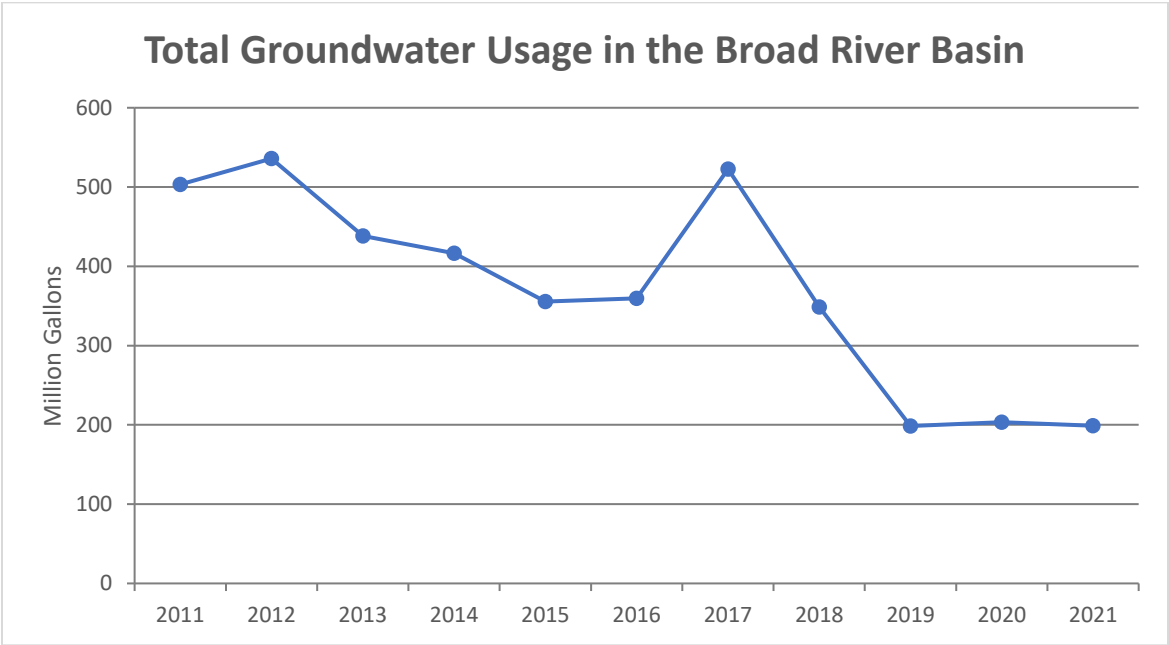

Figure 53: Total Historic Groundwater Reported Use Over Time in the Broad Basin 2011-2021

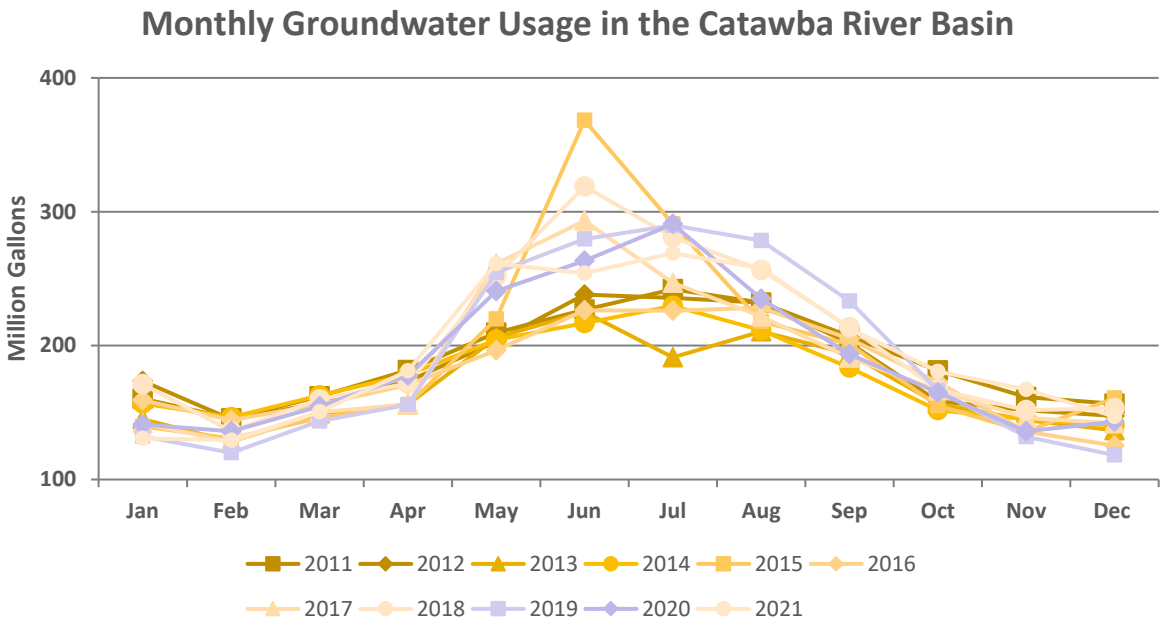

Figure 54: Total Historic Groundwater Monthly Reported Use in the Catawba Basin, 2011-2021

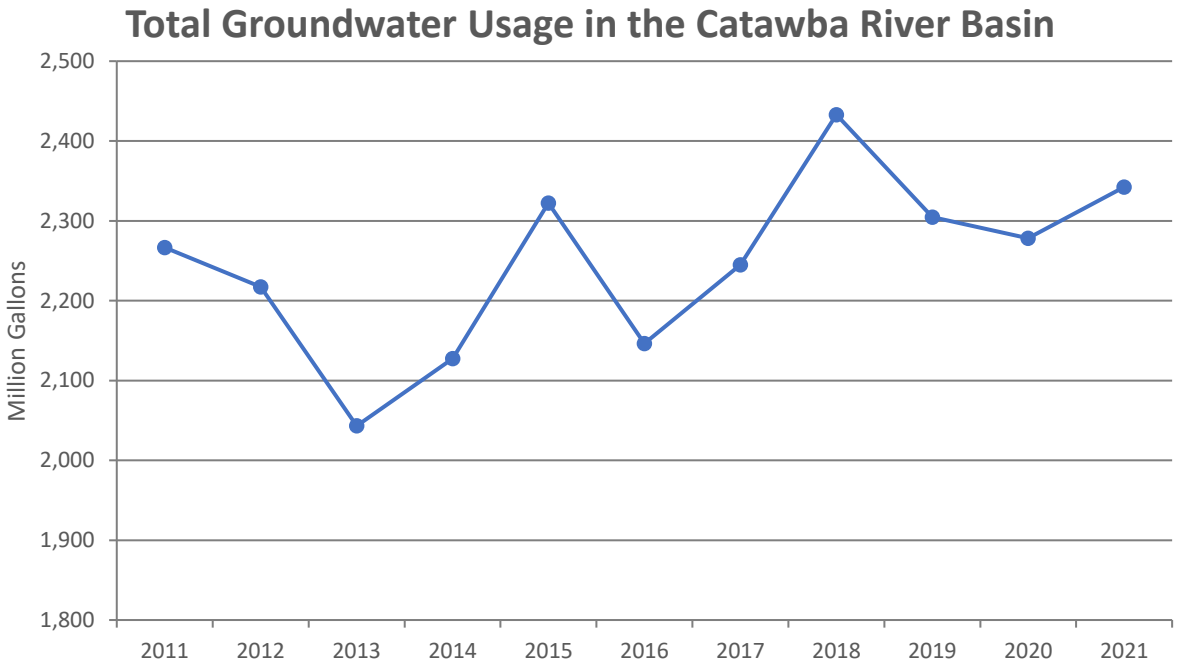

Figure 55: Total Historic Groundwater Reported Use Over Time in the Catawba Basin 2011-2021

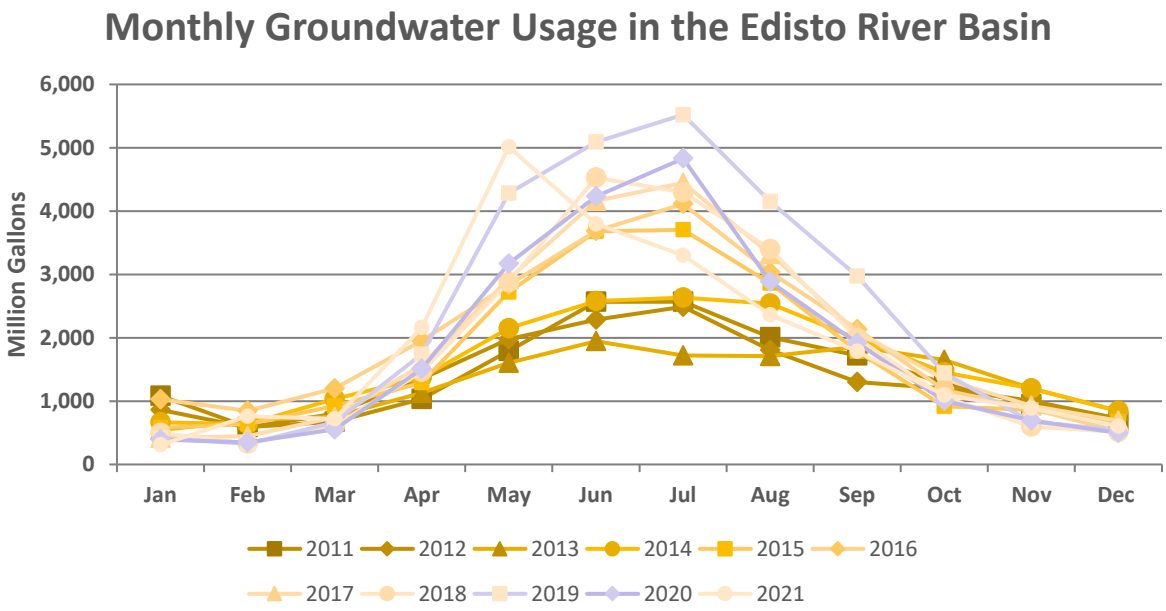

Figure 56: Total Historic Groundwater Monthly Reported Use in the Edisto Basin, 2011-2021

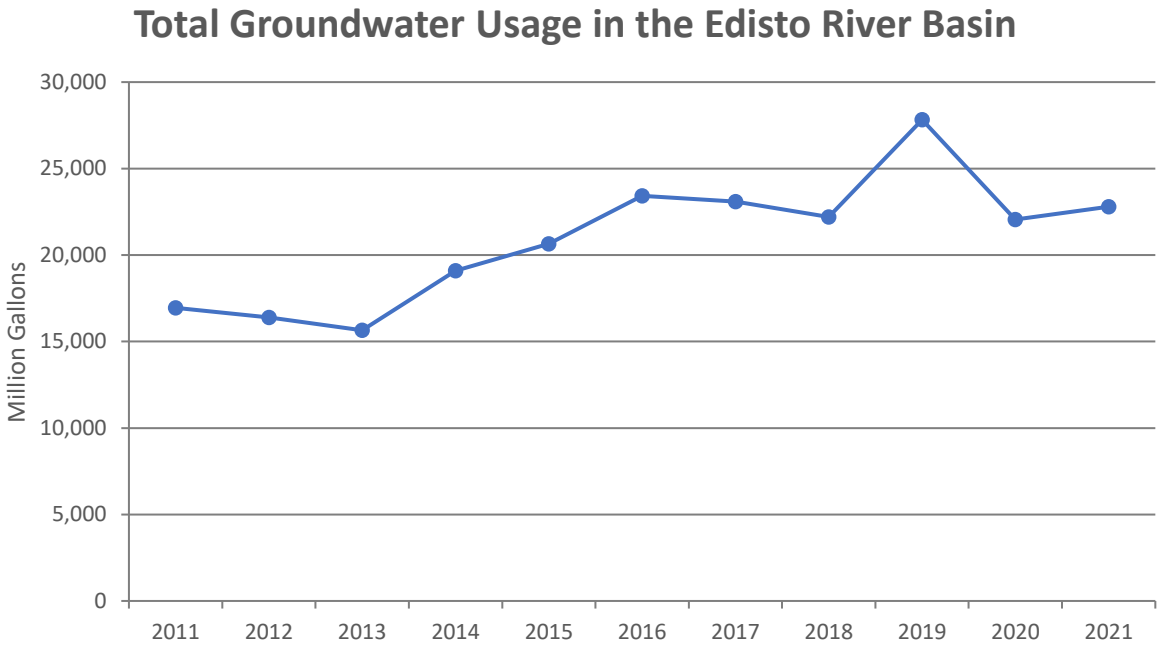

Figure 57: Total Historic Groundwater Reported Use Over Time in the Edisto Basin 2011-2021

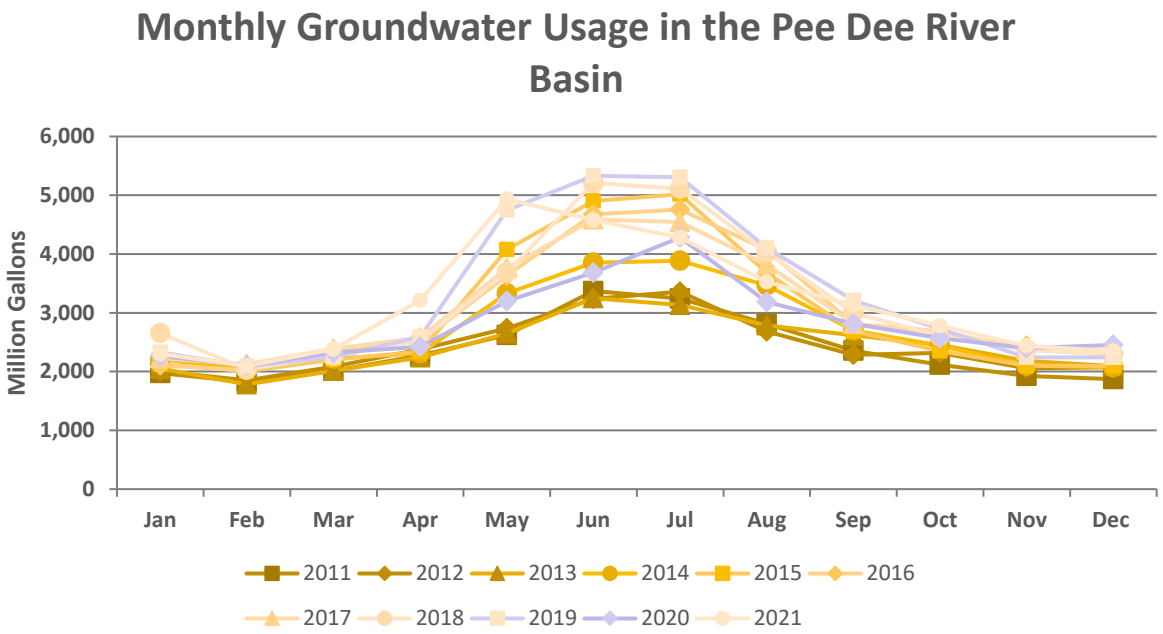

Figure 58: Total Historic Groundwater Monthly Reported Use in the Pee Dee Basin, 2011-2021

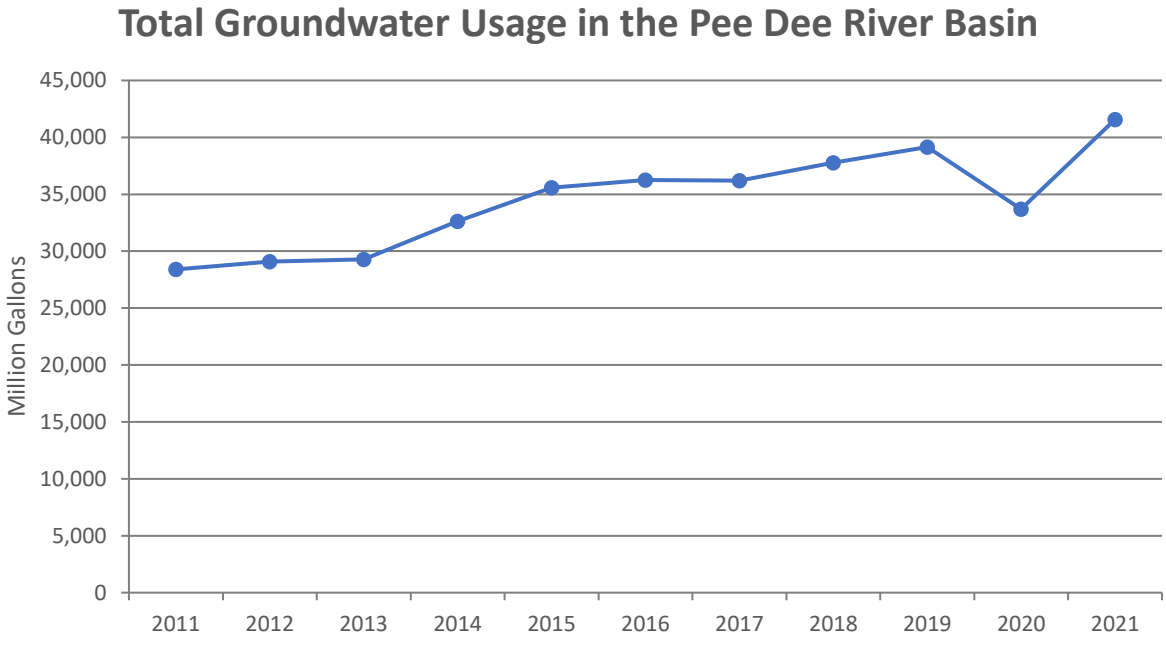

Figure 59: Total Historic Groundwater Reported Use Over Time in the Pee Dee Basin 2011-2021

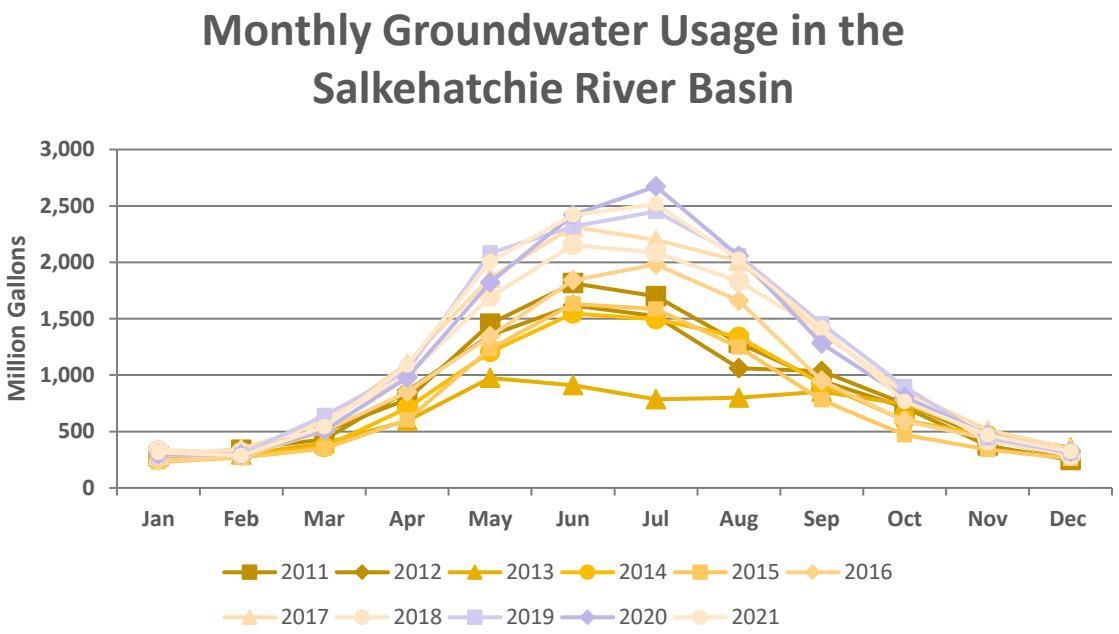

Figure 60: Total Historic Groundwater Monthly Reported Use in the Salkehatchie Basin, 2011-2021

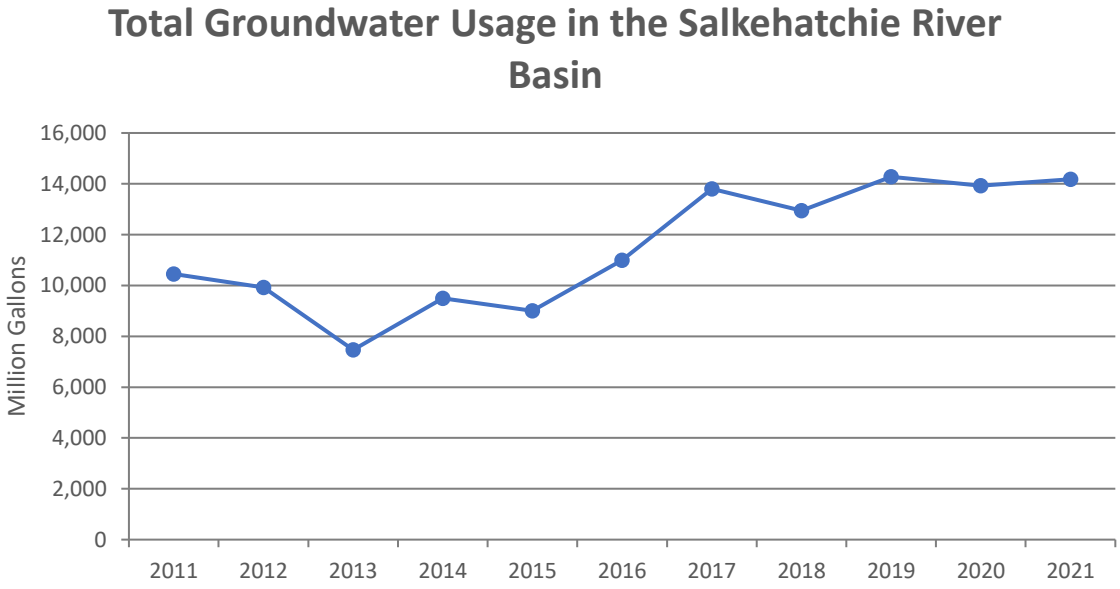

Figure 61: Total Historic Groundwater Reported Use Over Time in the Salkehatchie Basin 2011-2021

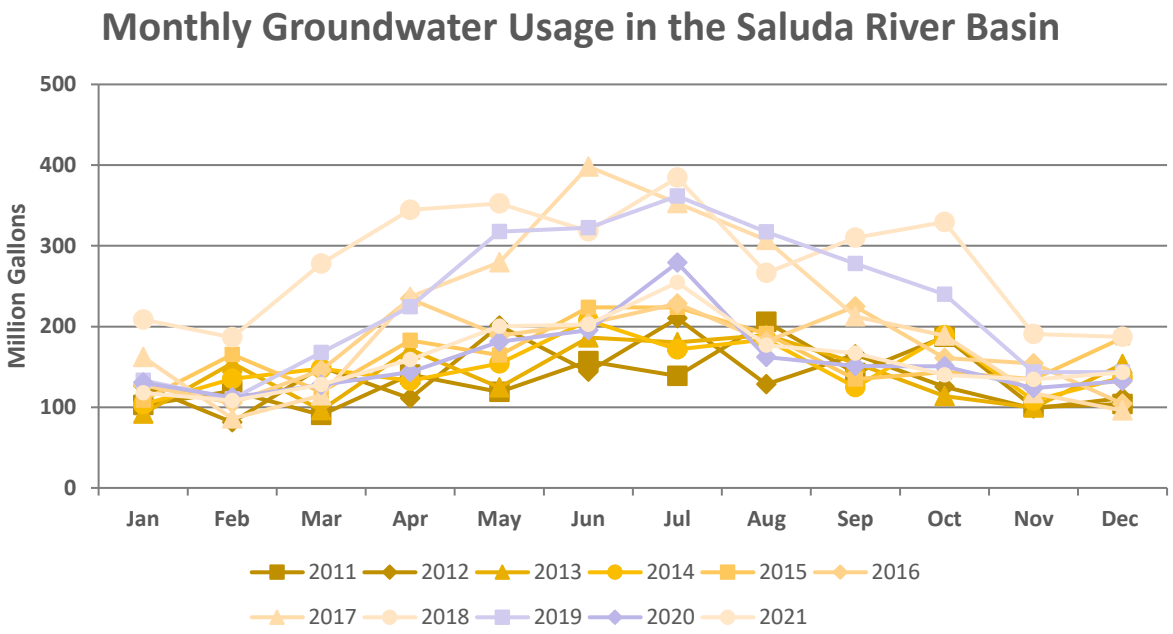

Figure 62: Total Historic Groundwater Monthly Reported Use in the Saluda Basin, 2011-2021

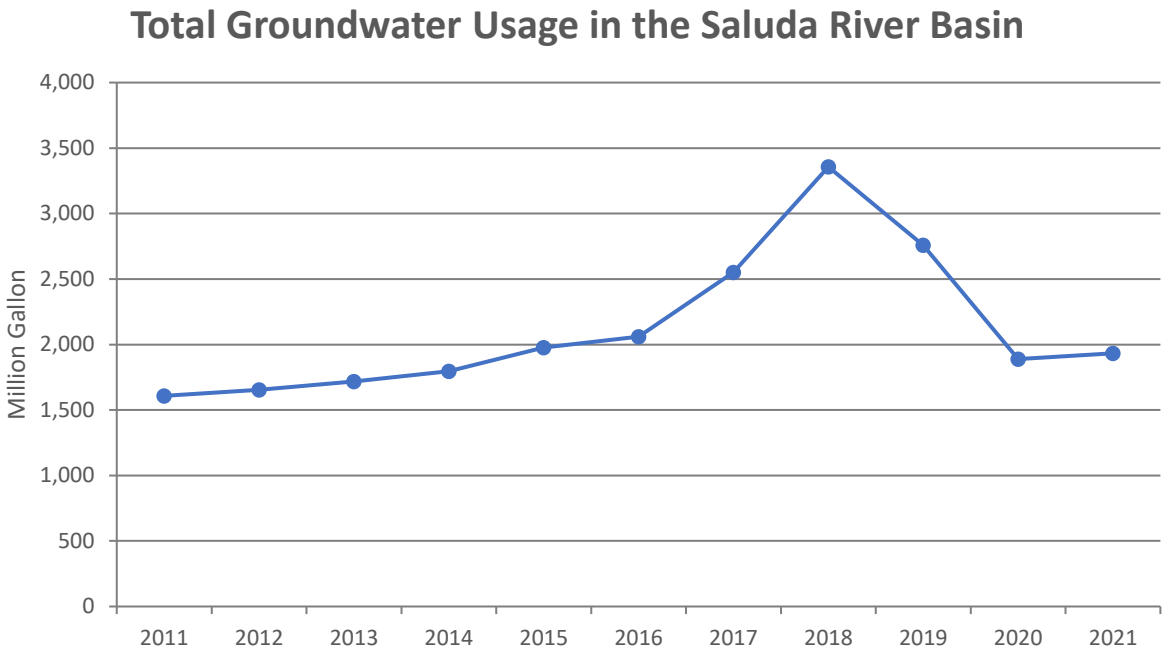

Figure 63:Total Historic Groundwater Reported Use Over Time in the Saluda Basin 2011-2021

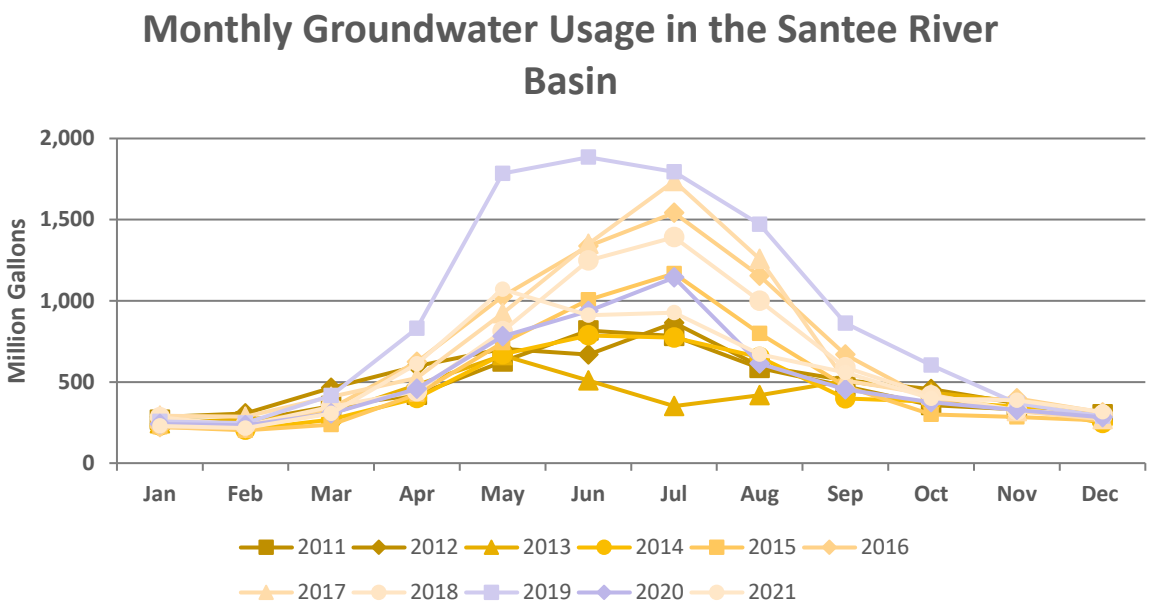

Figure 64: Total Historic Groundwater Monthly Reported Use in the Santee Basin, 2011-2021

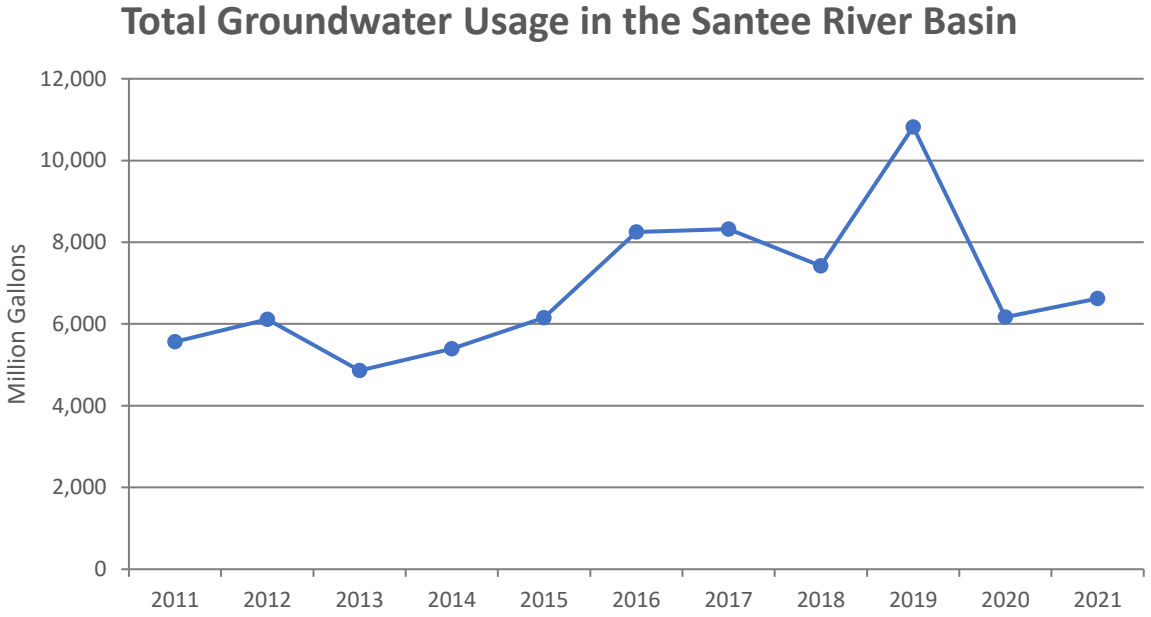

Figure 65: Total Historic Groundwater Reported Use Over Time in the Santee Basin 2011-2021

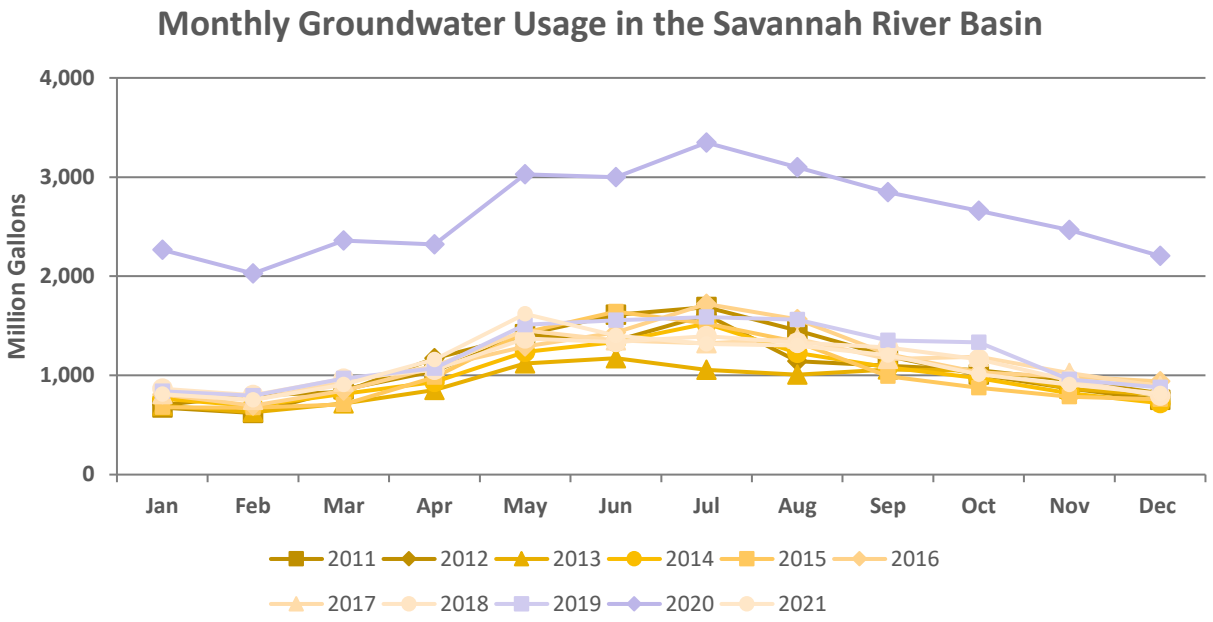

Figure 66: Total Historic Groundwater Monthly Reported Use in the Savannah Basin, 2011-2021

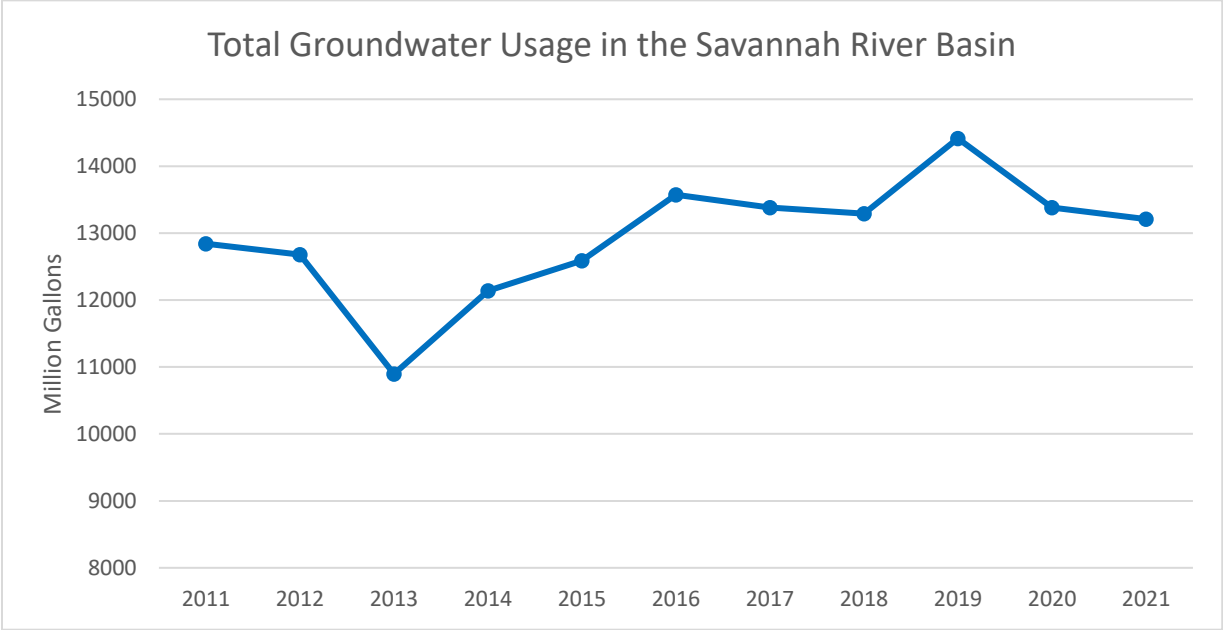

Figure 67: Total Historic Groundwater Reported Use Over Time in the Savannah Basin 2011-2021

Water Use Categories[3]

Aquaculture

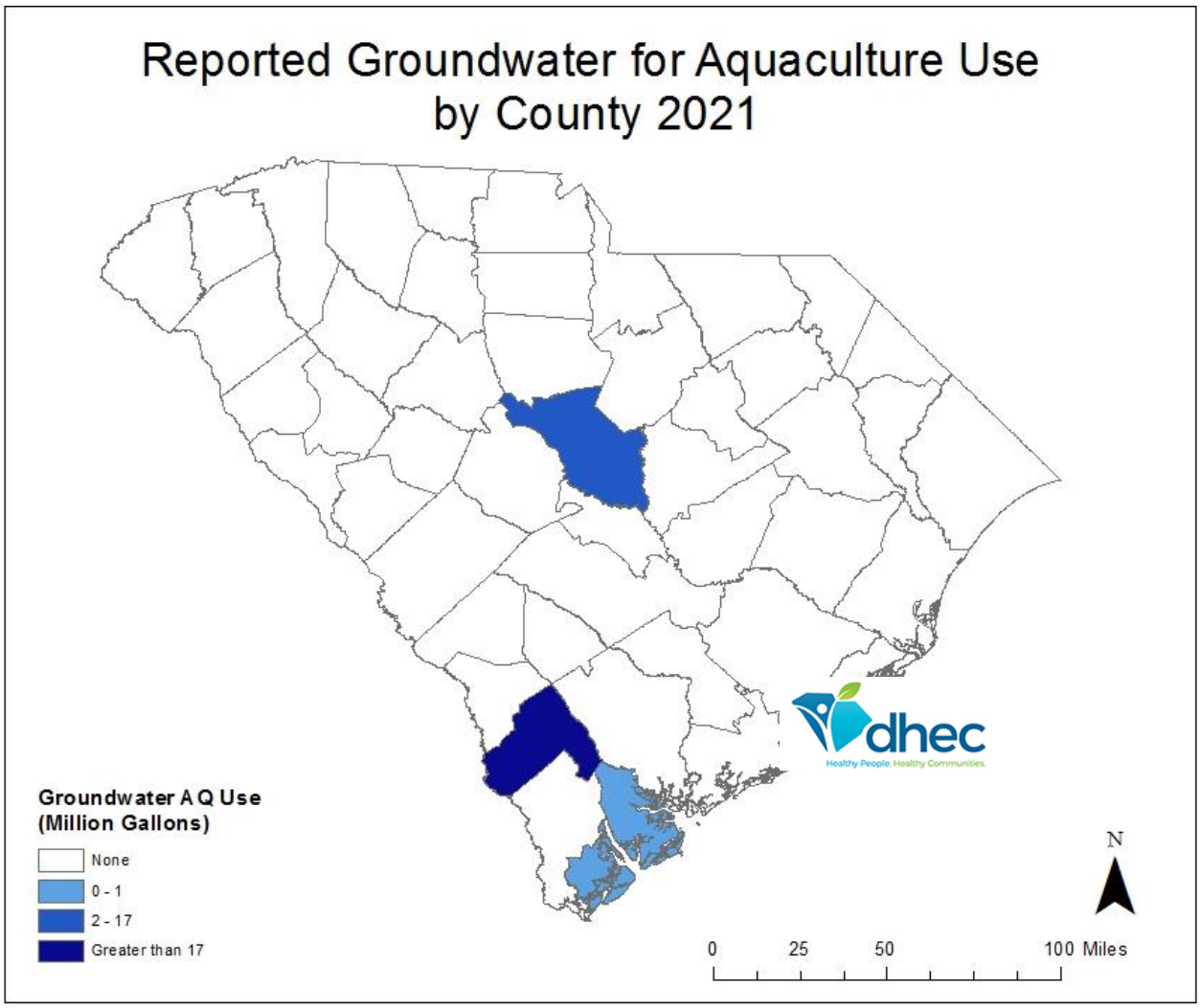

Figure 68: Total Reported Groundwater Use for Aquaculture by County 2021

[3] Map legend range differs per map figure

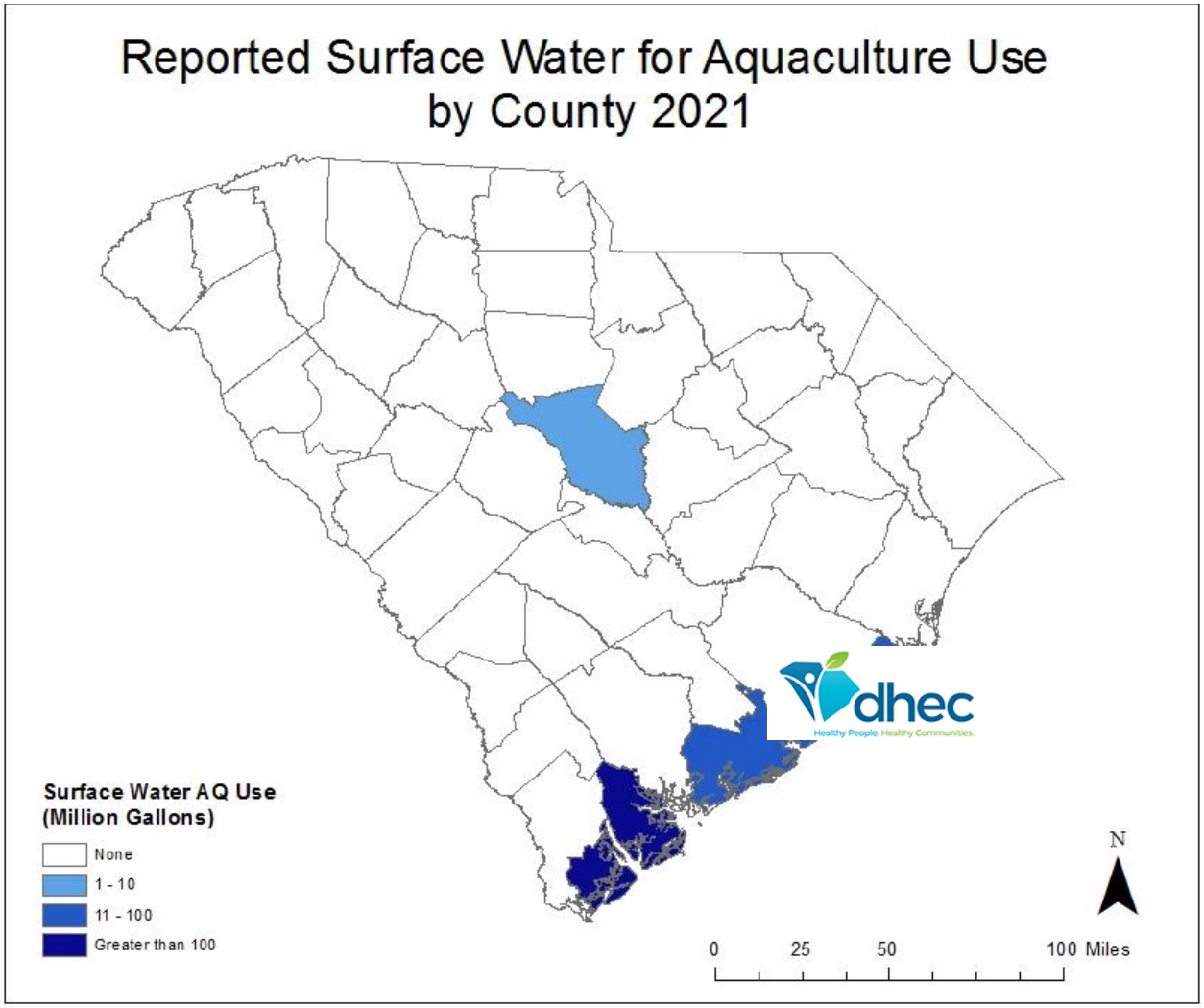

Figure 69: Total Reported Surface Water Use for Aquaculture by County 2021

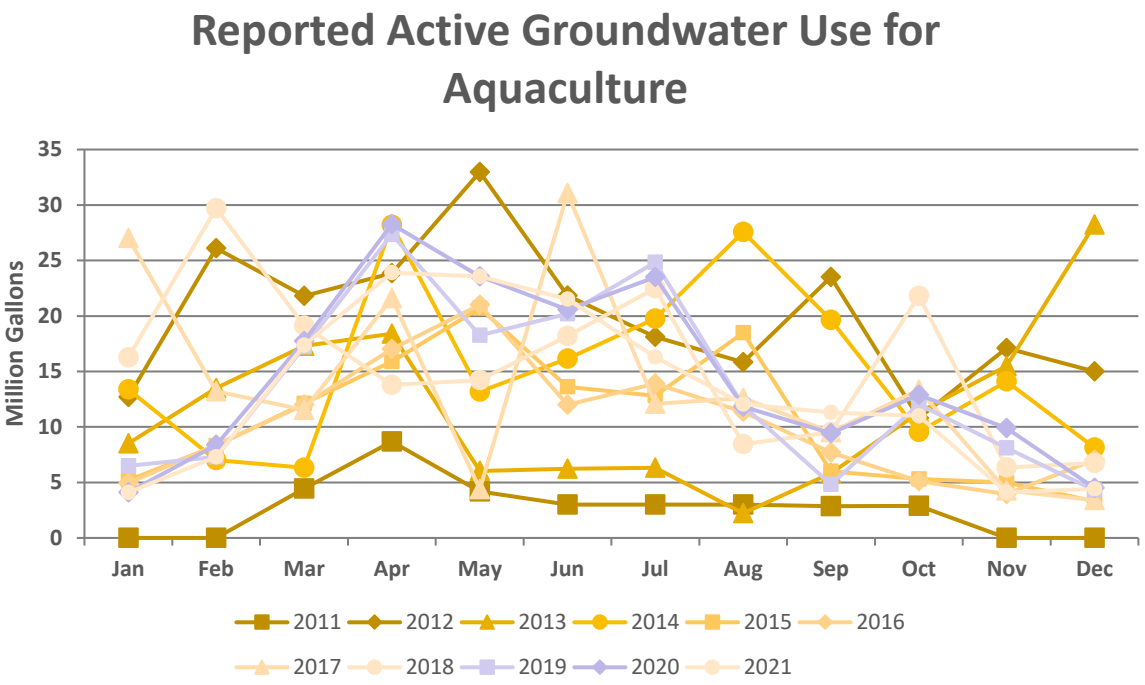

Figure 70: Reported Groundwater Use for Aquaculture by Month, 2011-2021

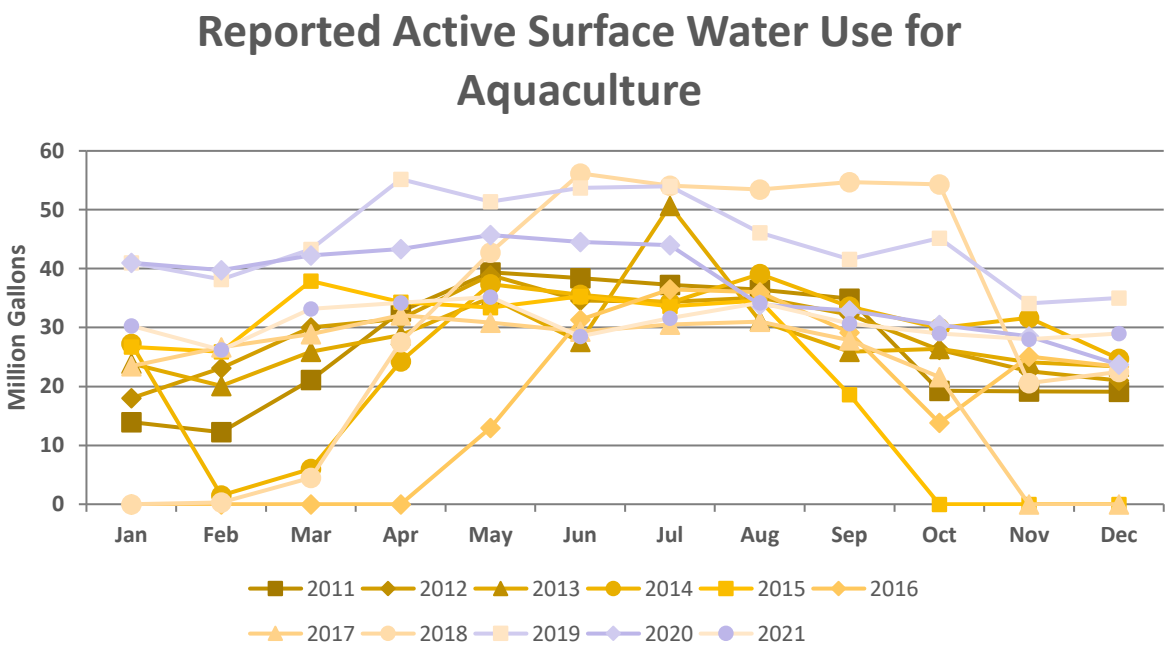

Figure 71: Reported Surface Water Use for Aquaculture by Month, 2011-2021

Golf Courses

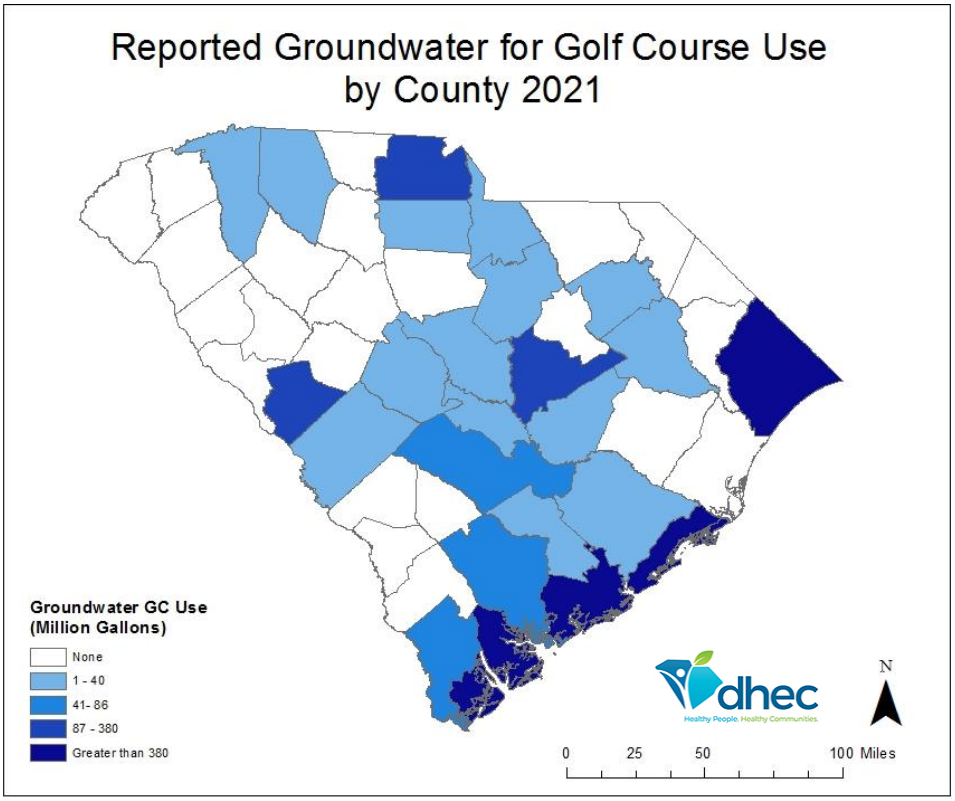

Figure 72: Total Reported Groundwater Use for Golf Courses by County 2021

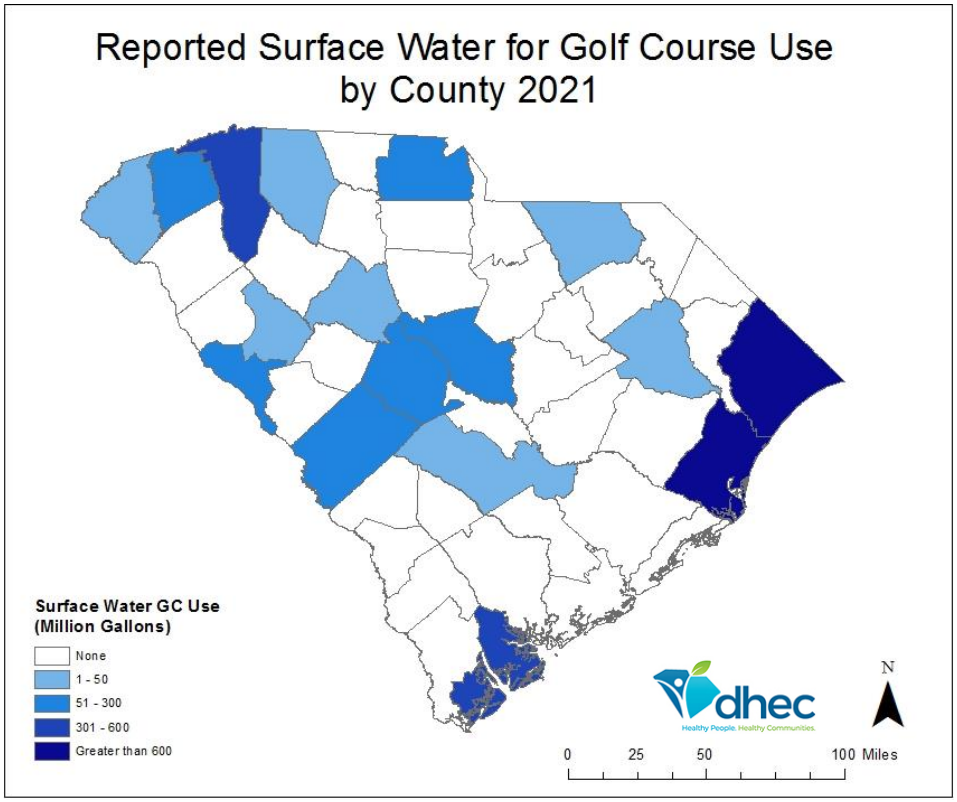

Figure 73: Total Reported Surface Water Use for Golf Courses by County 2021

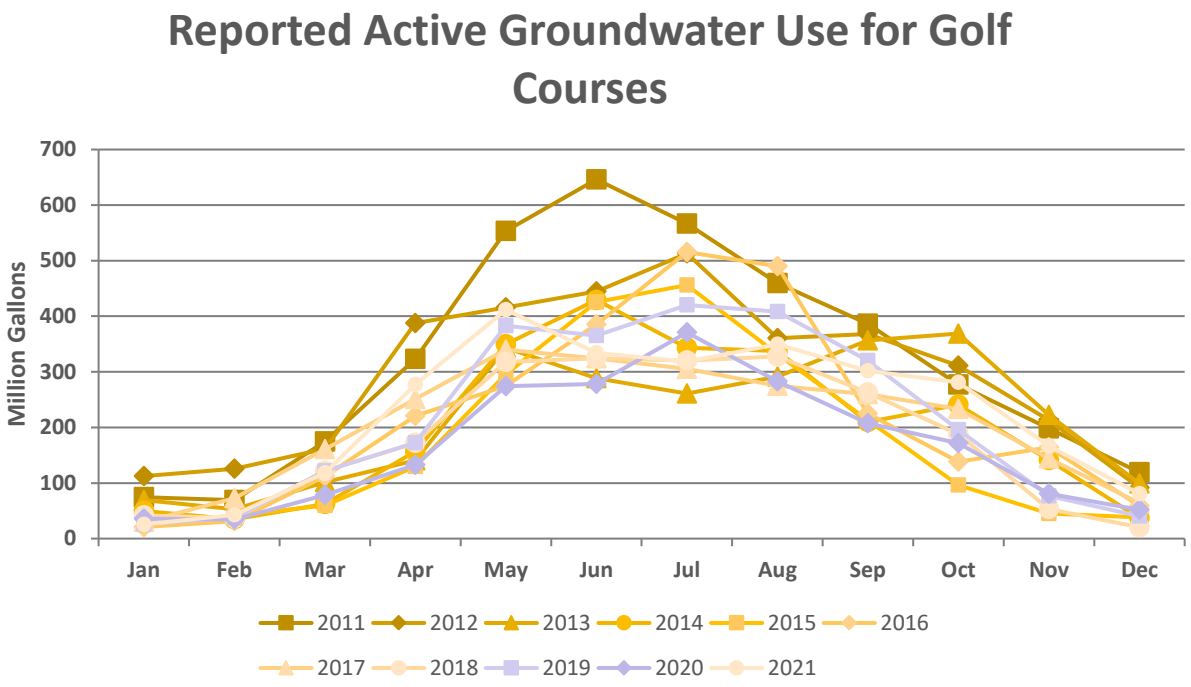

Figure 74: Reported Groundwater Use for Golf Courses by Month, 2011-2021

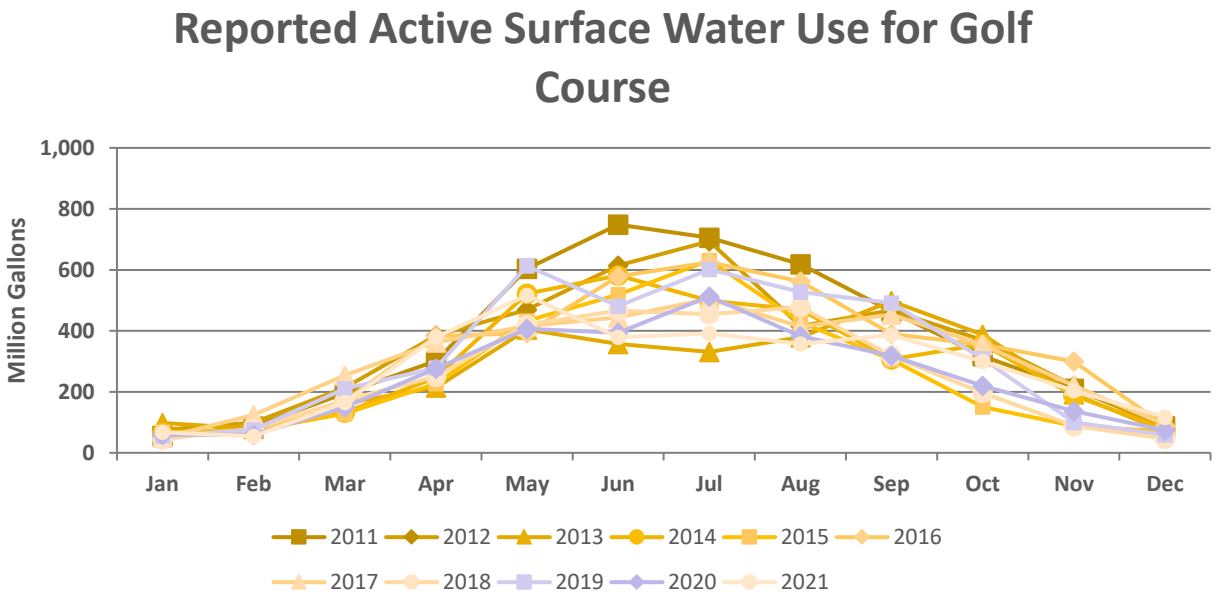

Figure 75: Reported Surface Water Use for Golf Courses by Month, 2011-2021

Hydroelectric Power

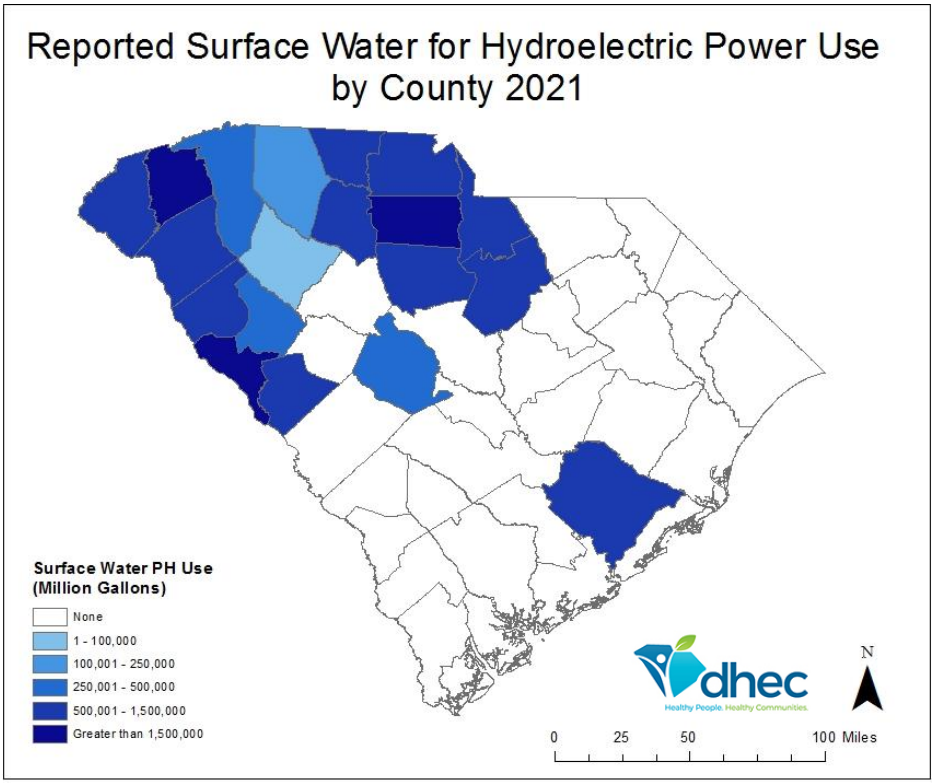

Figure 76: Reported Surface Water Use for Hydroelectric Power by County for 2021. *No Groundwater usage for Hydroelectric use category

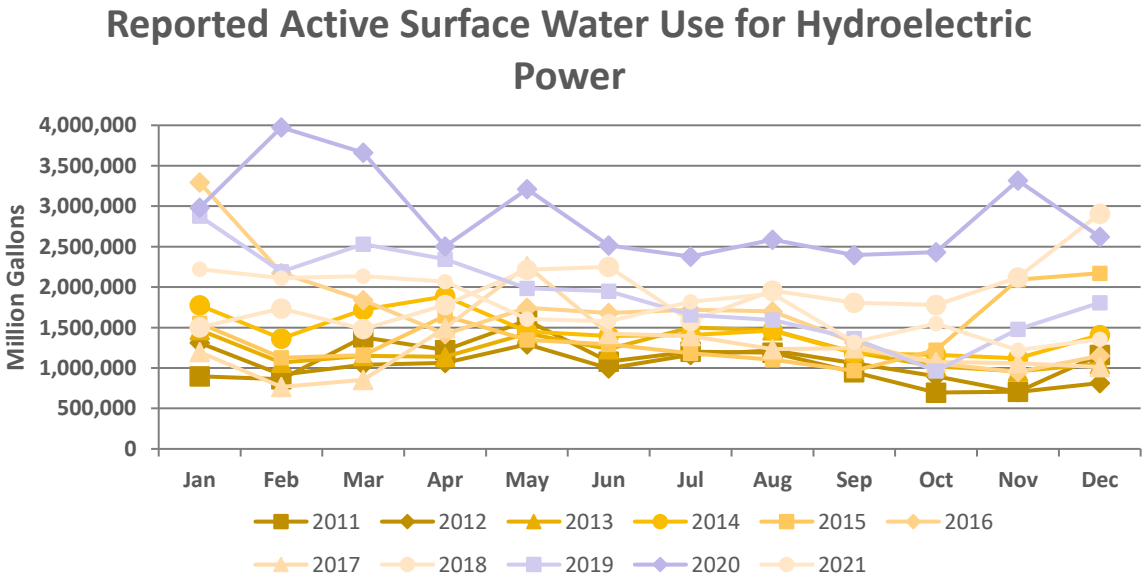

Figure 77: Reported Surface Water Use for Hydroelectric Power by Month, 2011-2021

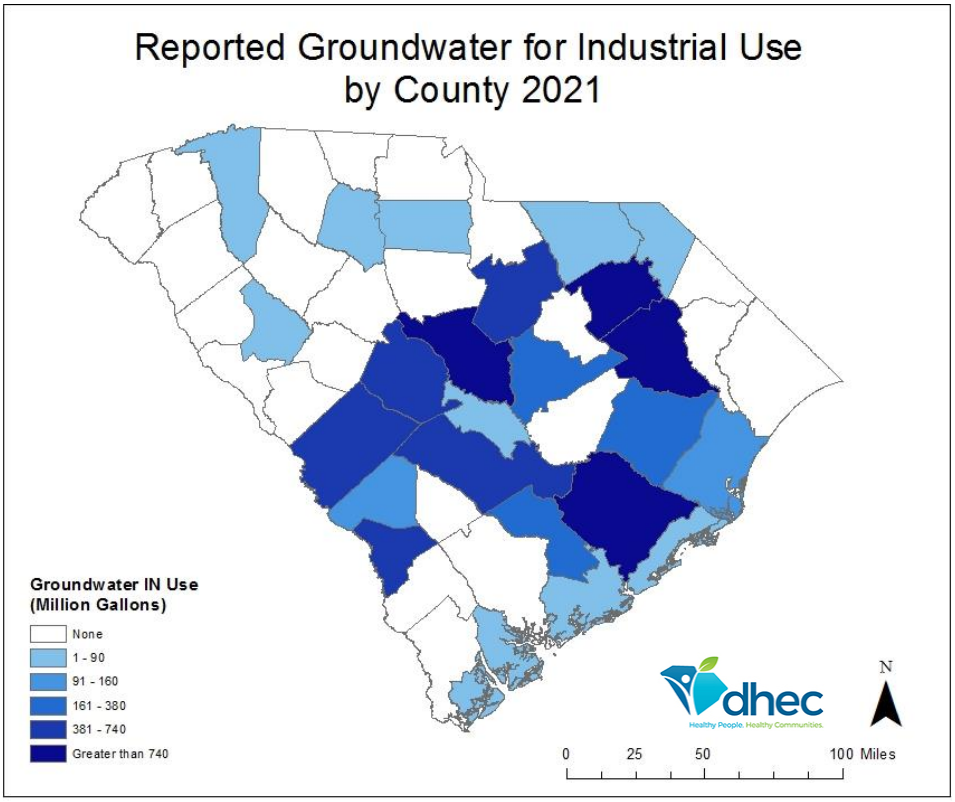

Figure 78: Reported Groundwater Use for Industrial Processes by County, 2021

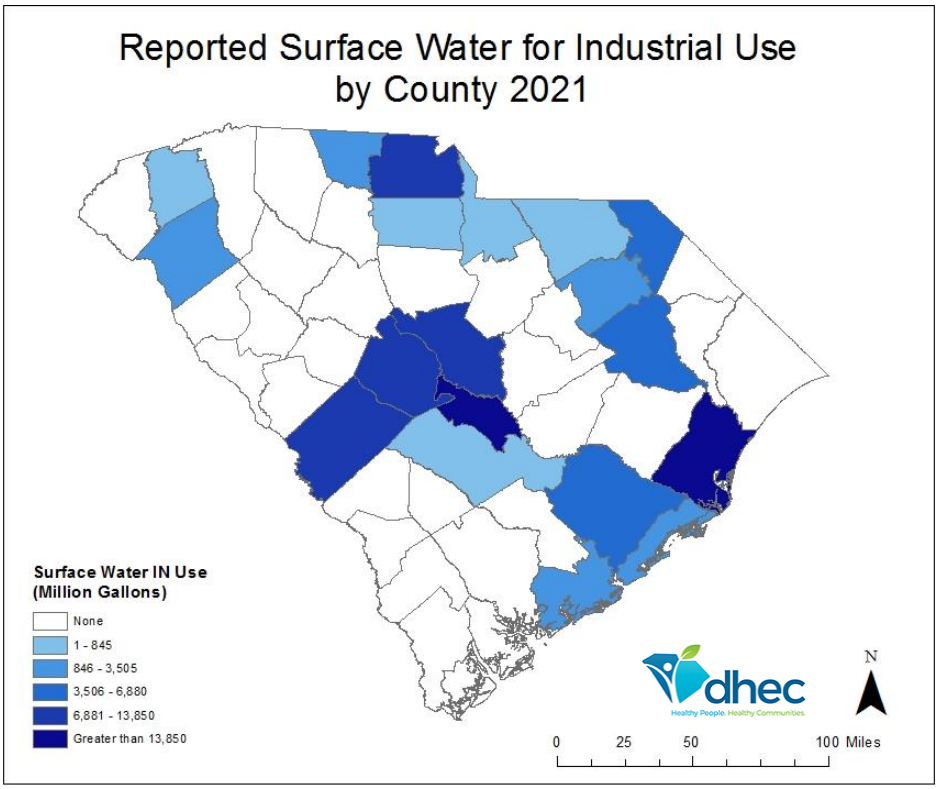

Figure 79: Reported Surface Water Use for Industrial Processes by County, 2021

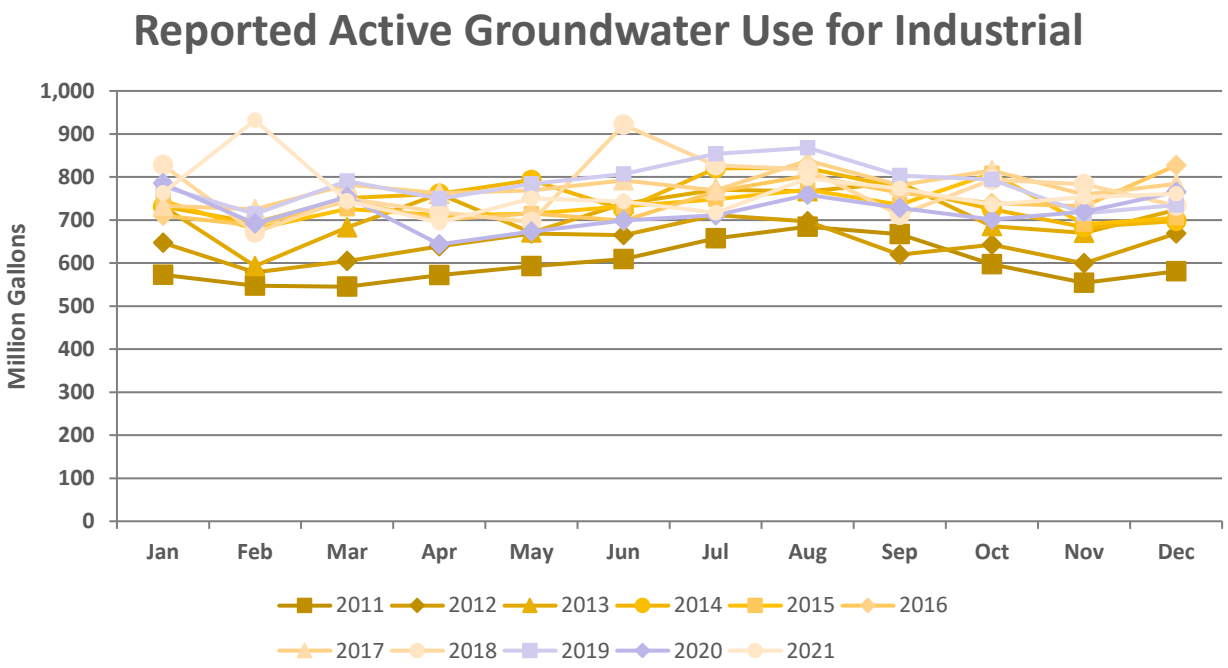

Figure 80: Reported Groundwater Use for Industrial Processes by Month, 2011-2021

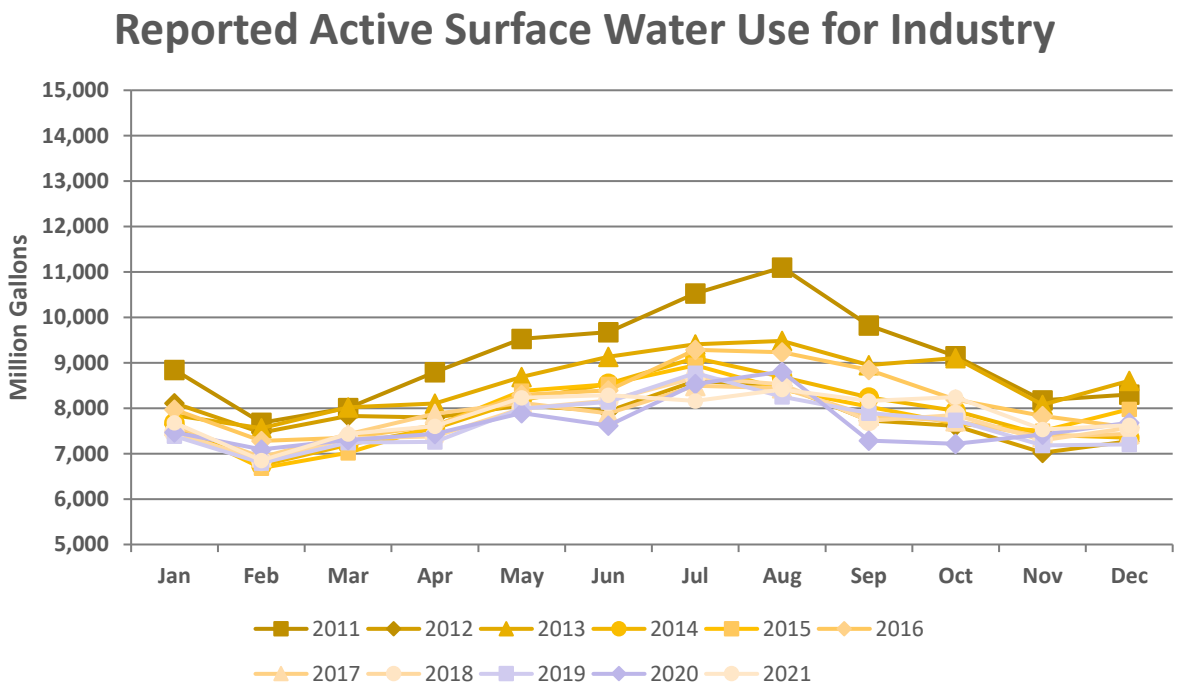

Figure 81: Reported Surface Water Use for Industrial Processes by Month, 2011-2021

Agricultural Irrigation

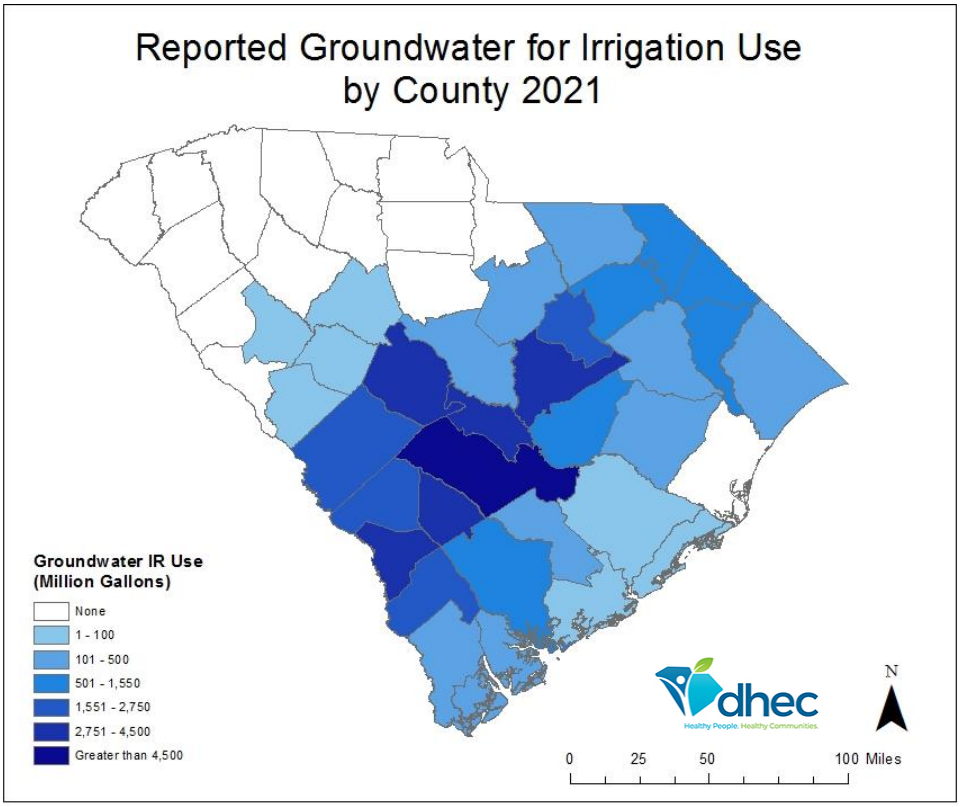

Figure 82: Reported Groundwater Use for Agricultural Irrigation by County for 2021

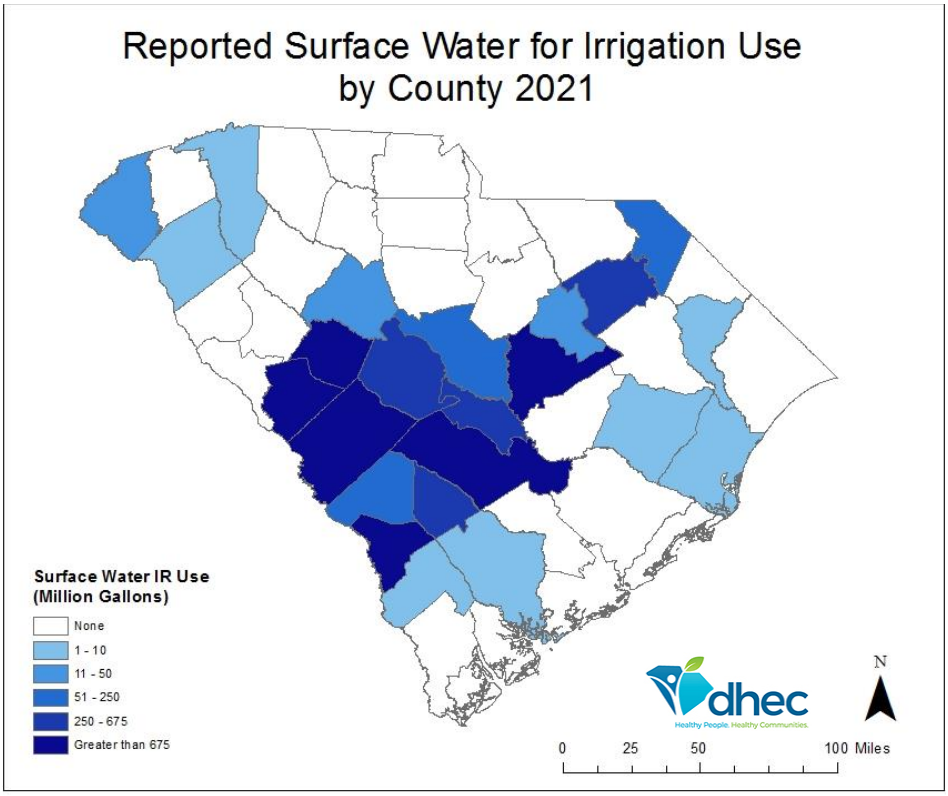

Figure 83: Reported Surface Water Use for Agricultural Irrigation by County for 2021

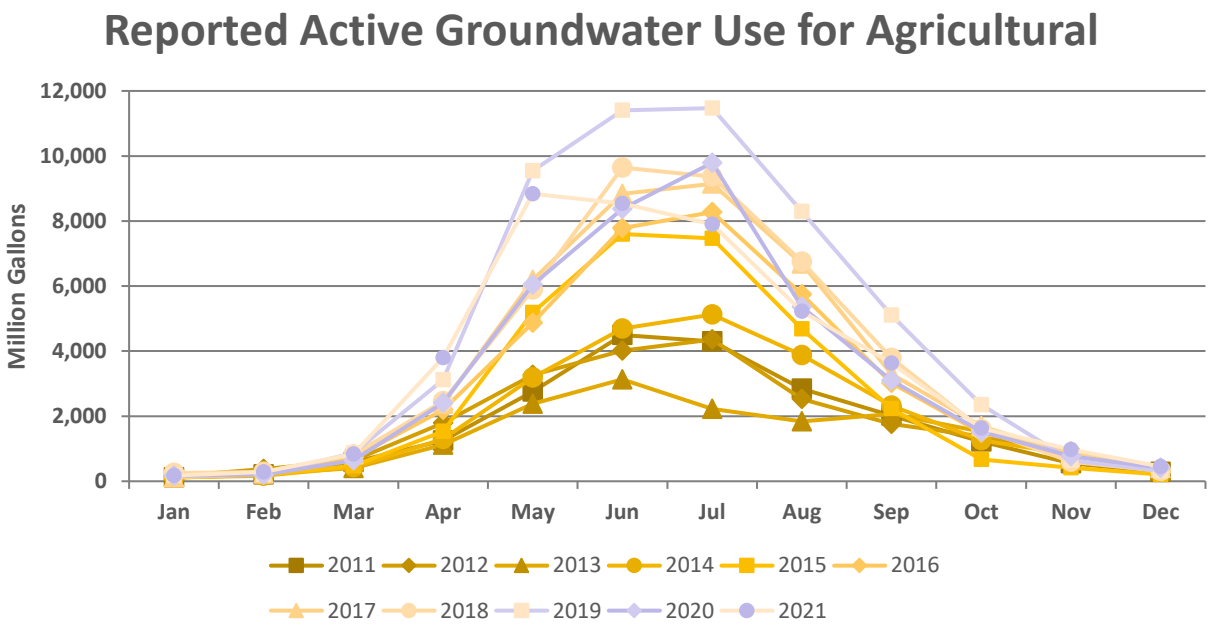

Figure 84: Reported Groundwater Use for Agricultural Irrigation by Month, 2011-2021

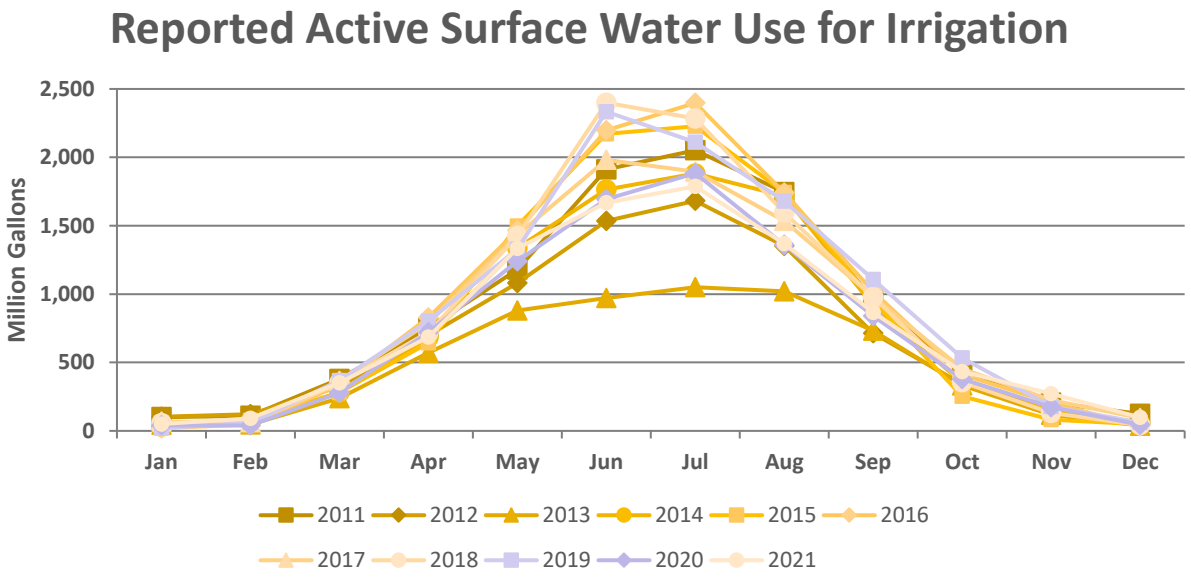

Figure 85: Reported Surface Water Use for Agricultural Irrigation by Month, 2011-2021

Mining

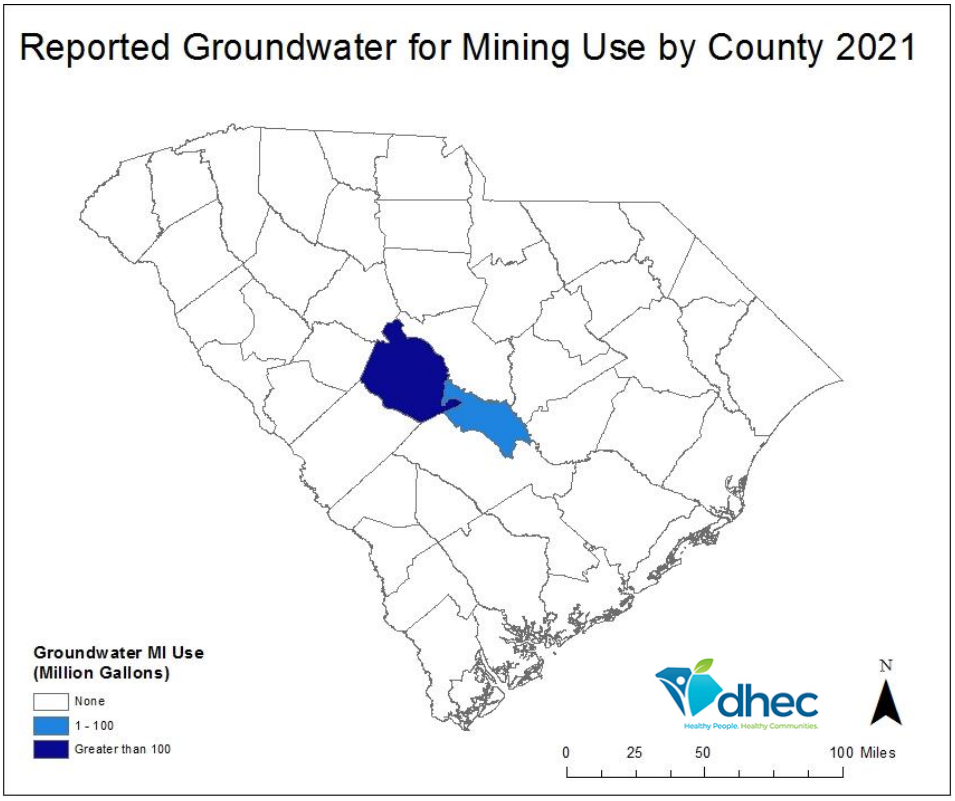

Figure 86: Reported Groundwater Use for Mining Operations by County in 2021

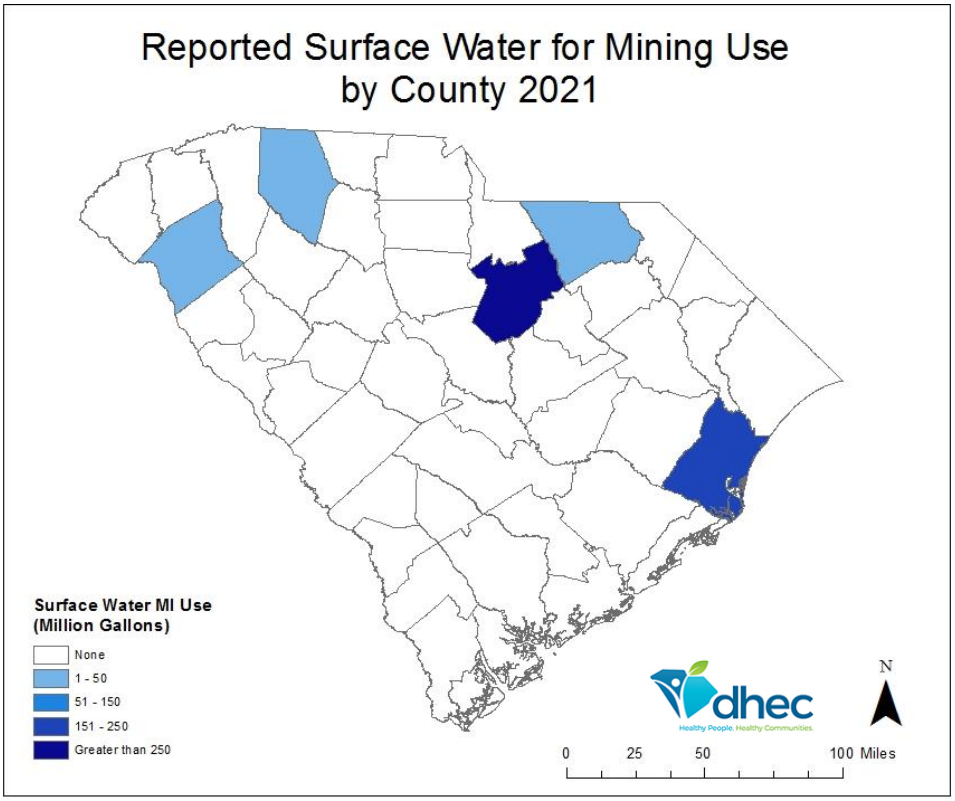

Figure 87: Reported Surface Water Use for Mining Operations by County in 2021

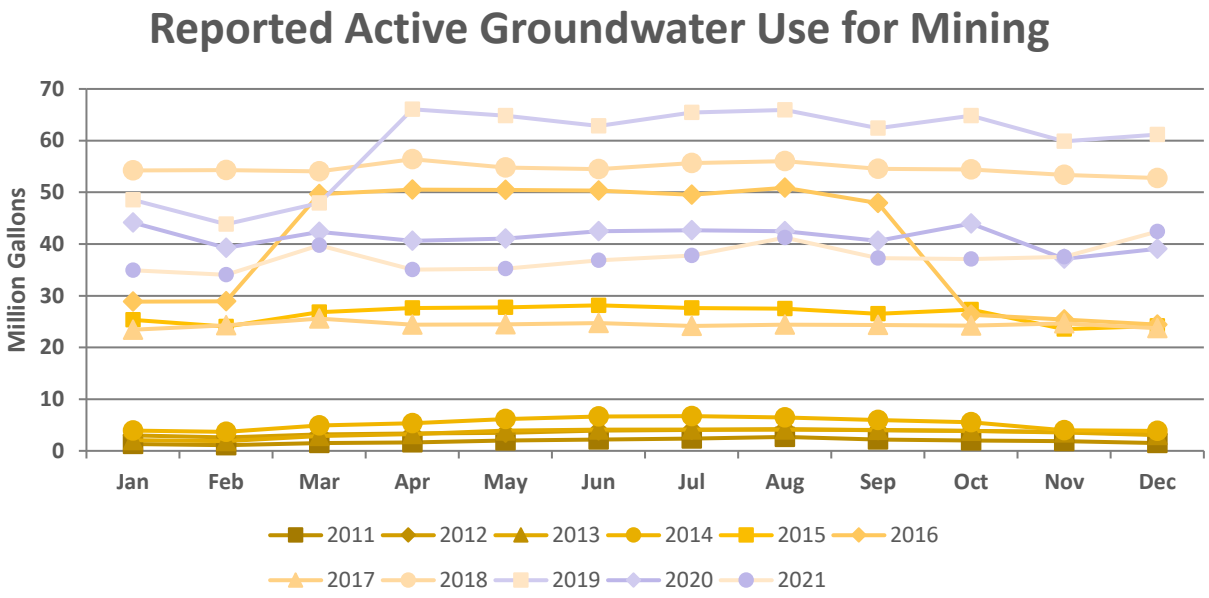

Figure 88: Reported Groundwater Use for Mining Operations by Month, 2011-2021

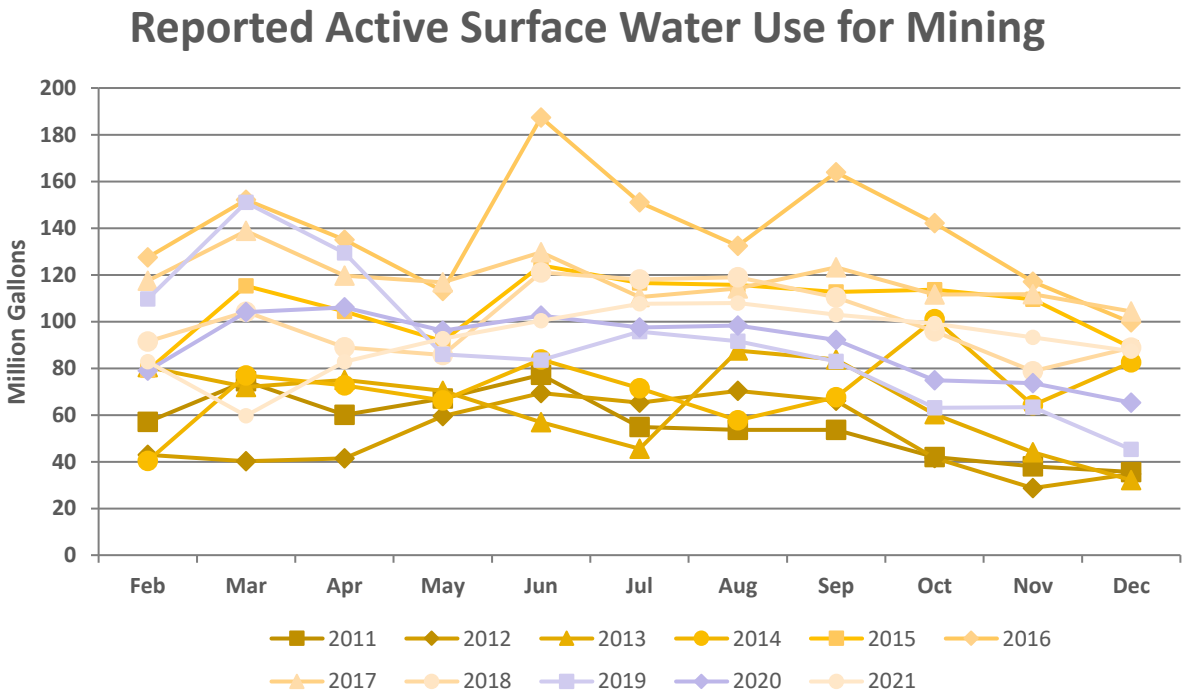

Figure 89: Reported Surface Water Use for Mining Operations by Month, 2011-2021

Nuclear Power

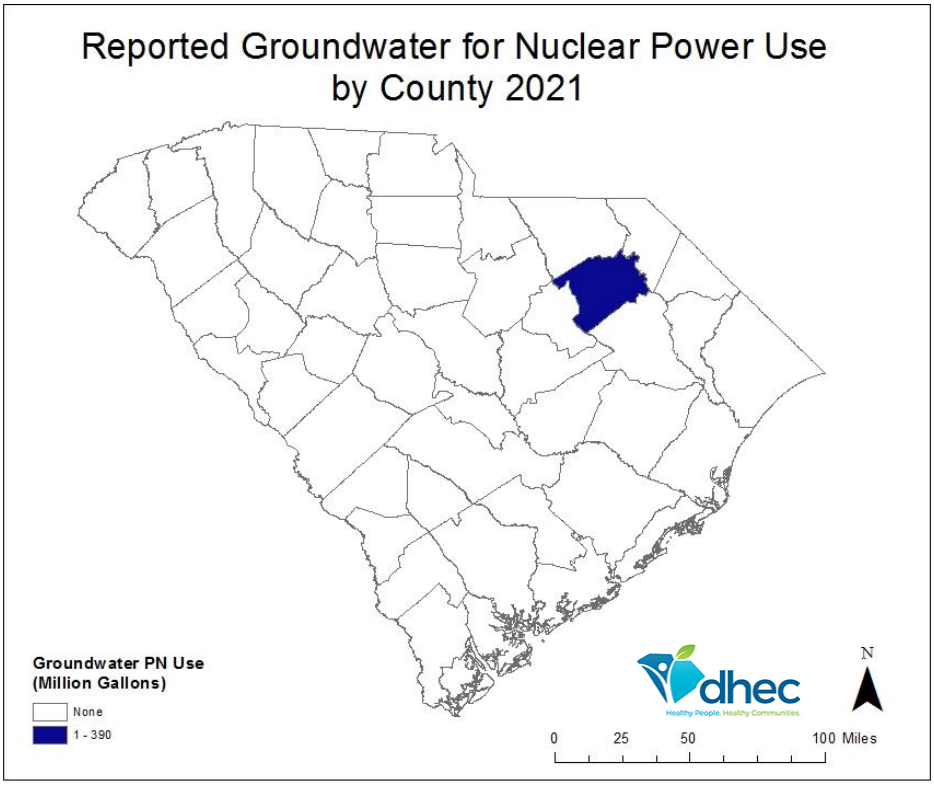

Figure 90: Reported Groundwater Use for Nuclear Power Production by County for 2021

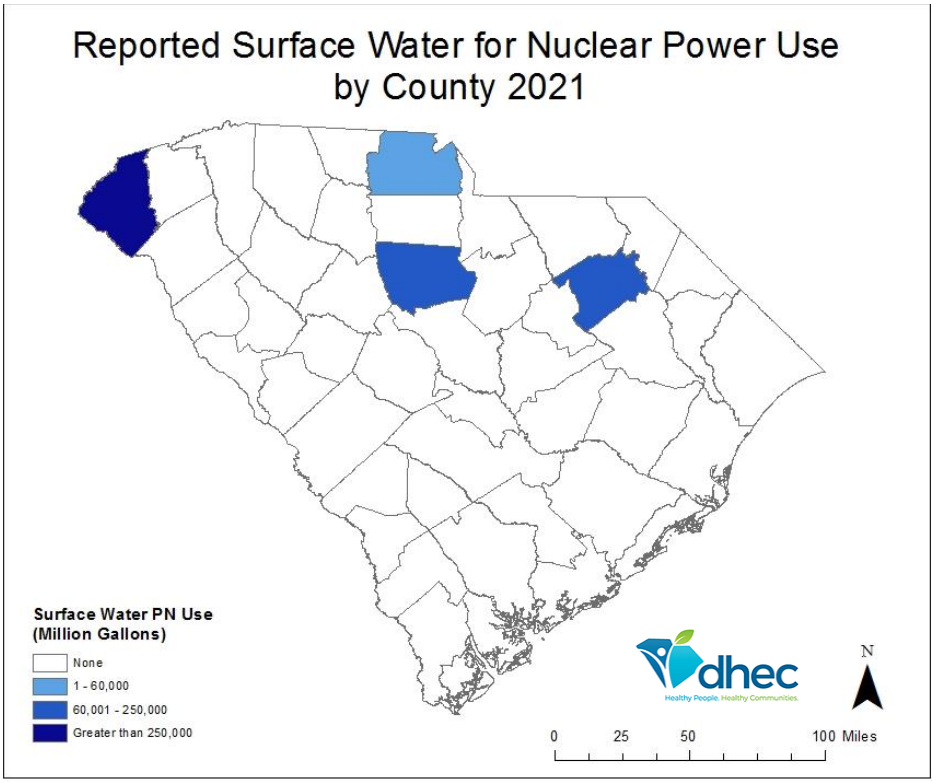

Figure 91: Reported Surface Water Use for Nuclear Power Production by County for 2021

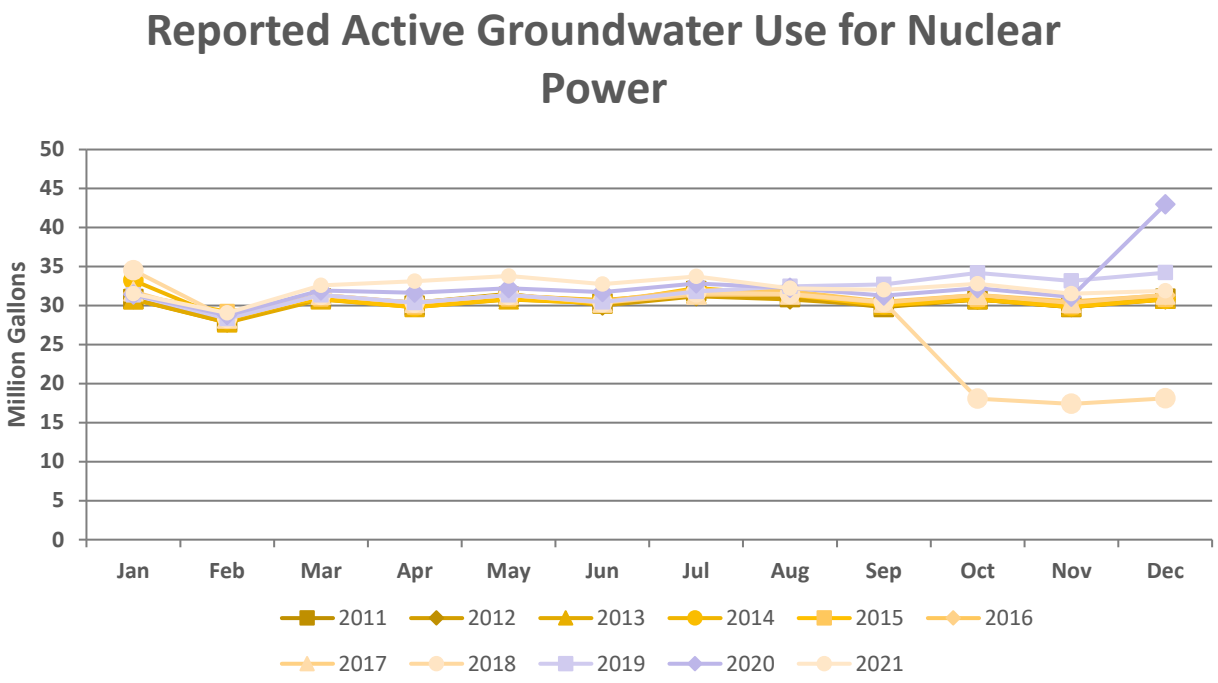

Figure 92: Reported Groundwater Use for Nuclear Power Production by Month, 2011-2021

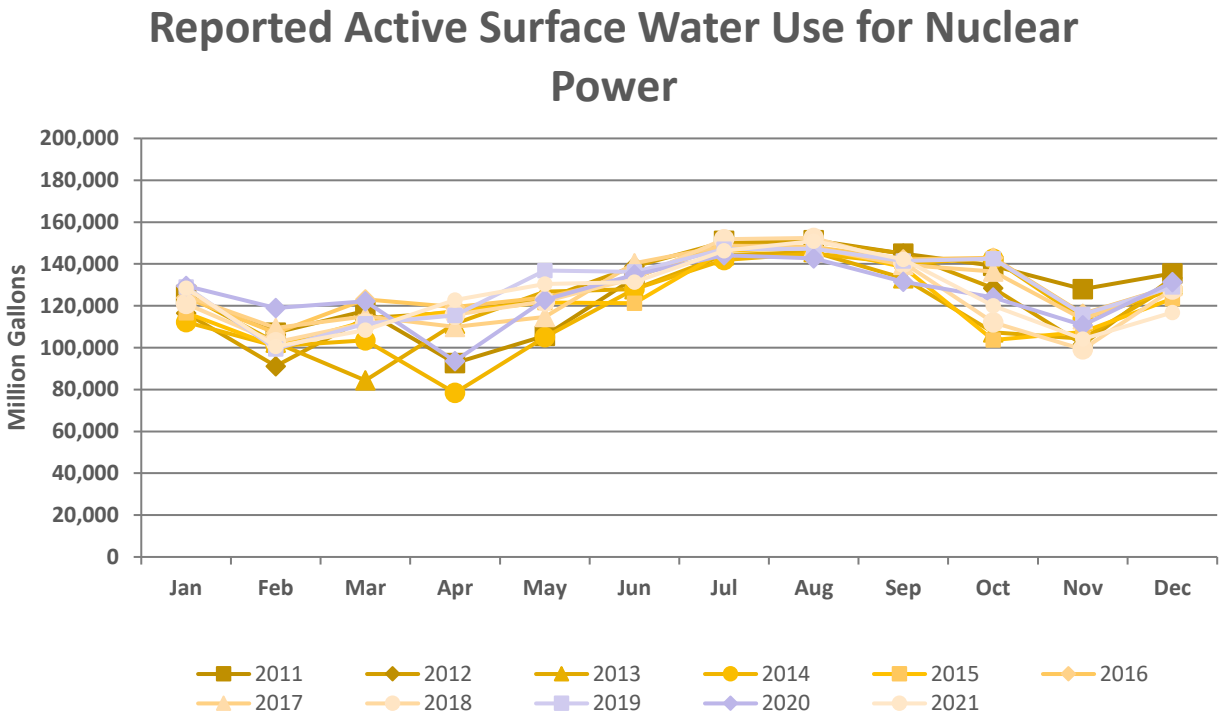

Figure 93: Reported Surface Water Use for Nuclear Power Production by Month, 2011-2021

Other Use

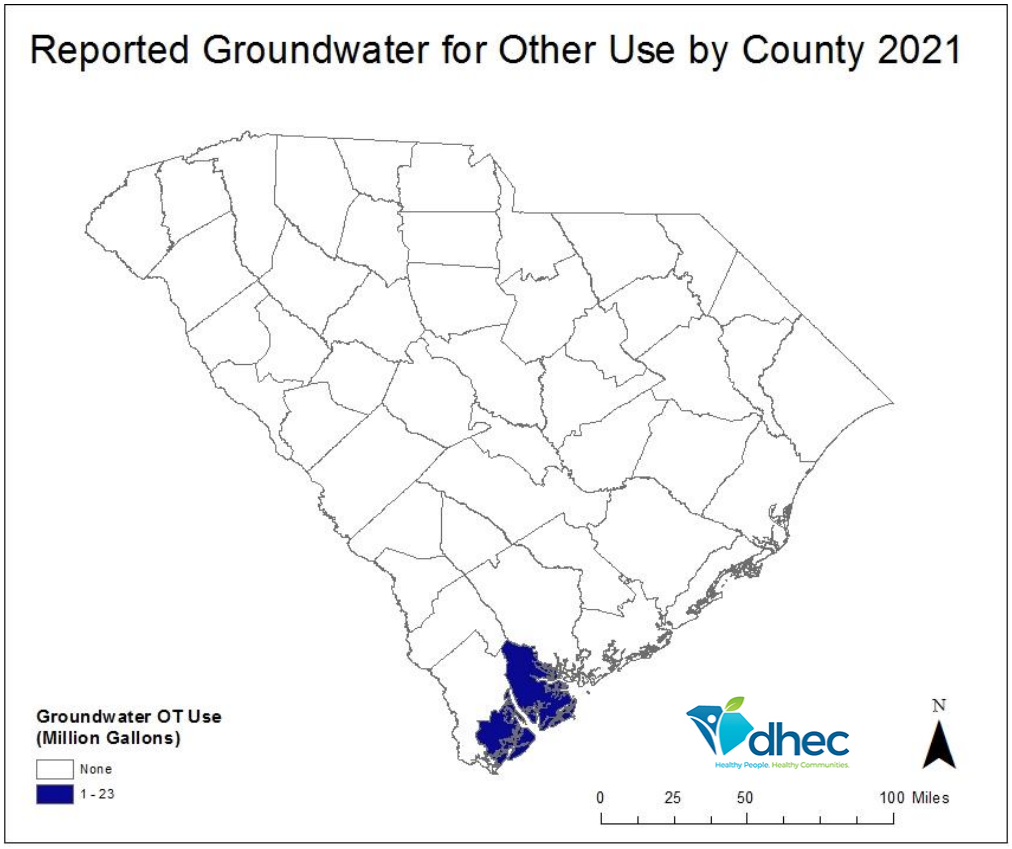

*Figure 94: Reported Groundwater Use for Other Use by County 2021. *No Surface Water usage in the Other water category*

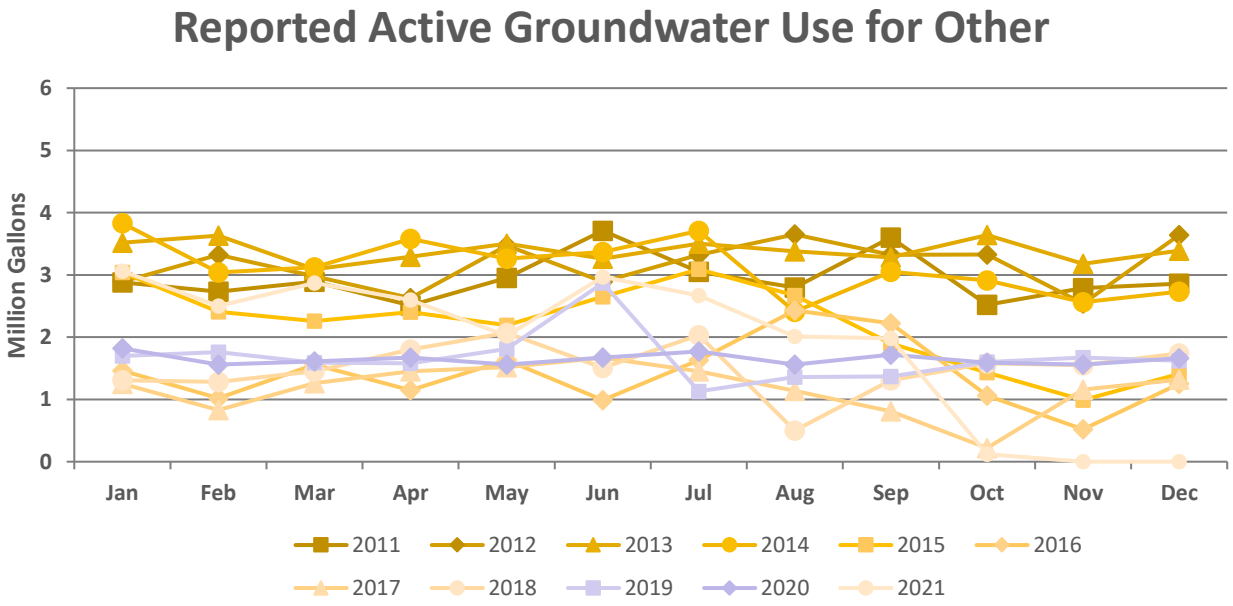

Figure 95: Reported Groundwater Use for Other Use by Month, 2011-2021

Thermoelectric Power

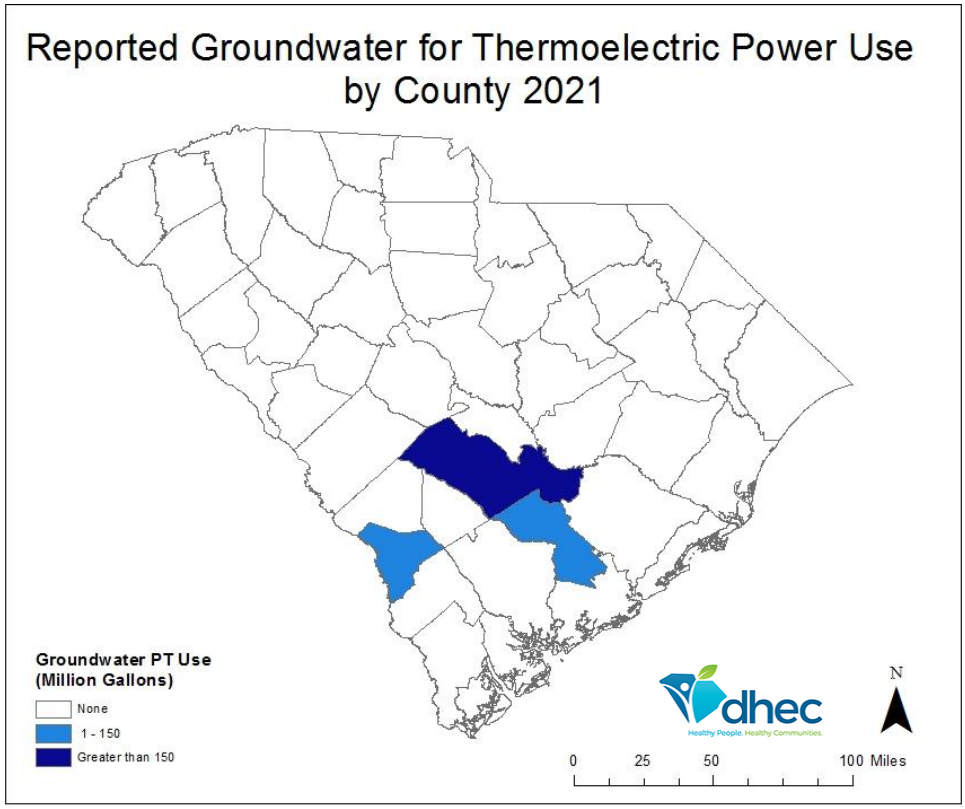

Figure 96: Reported Groundwater Use for Thermal Power Production by County for 2021

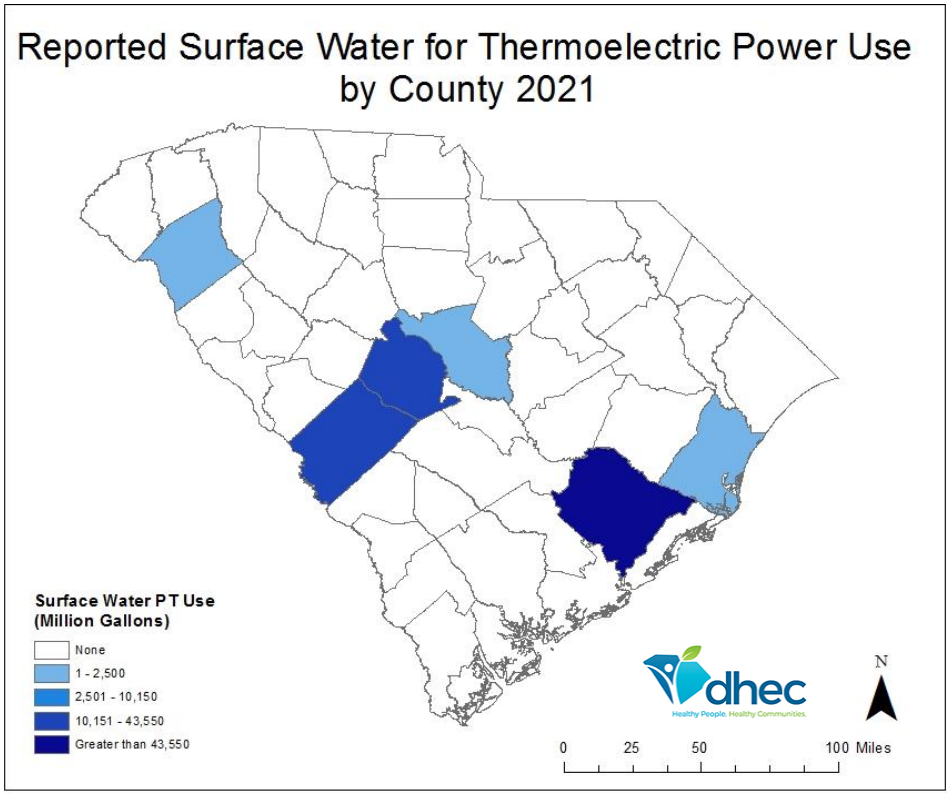

Figure 97: Reported Surface Water Use for Thermal Power Production by County for 2021

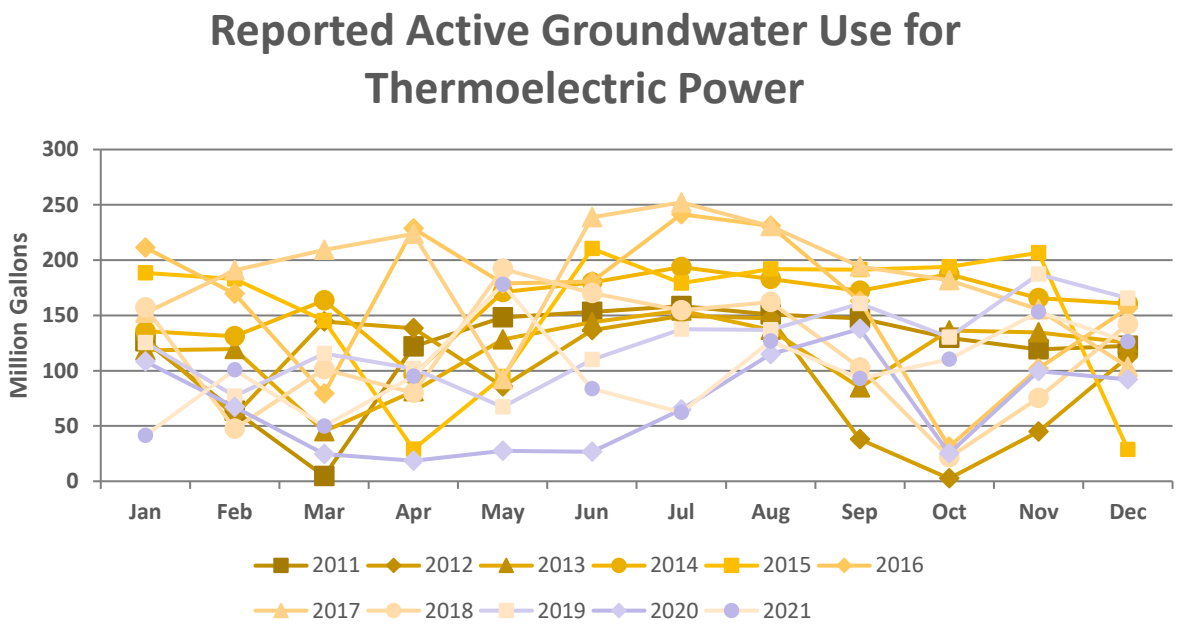

Figure 98: Reported Groundwater Use for Thermal Power Production by Month, 2011-2021

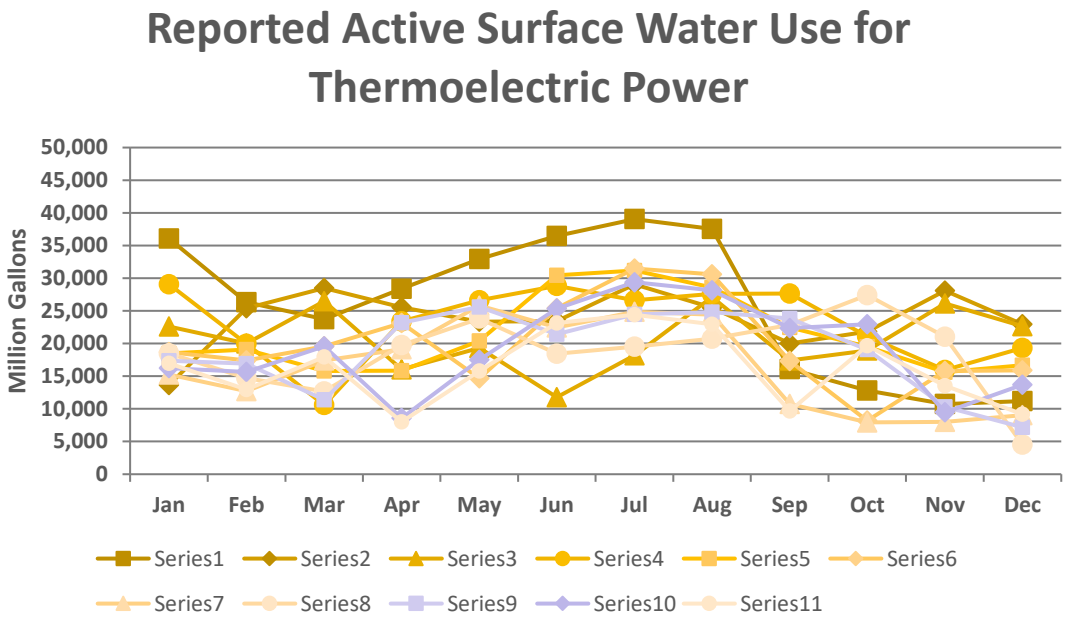

Figure 99: Reported Surface Water Use for Thermal Power Production by Month, 2011-2021

Public Water Supply

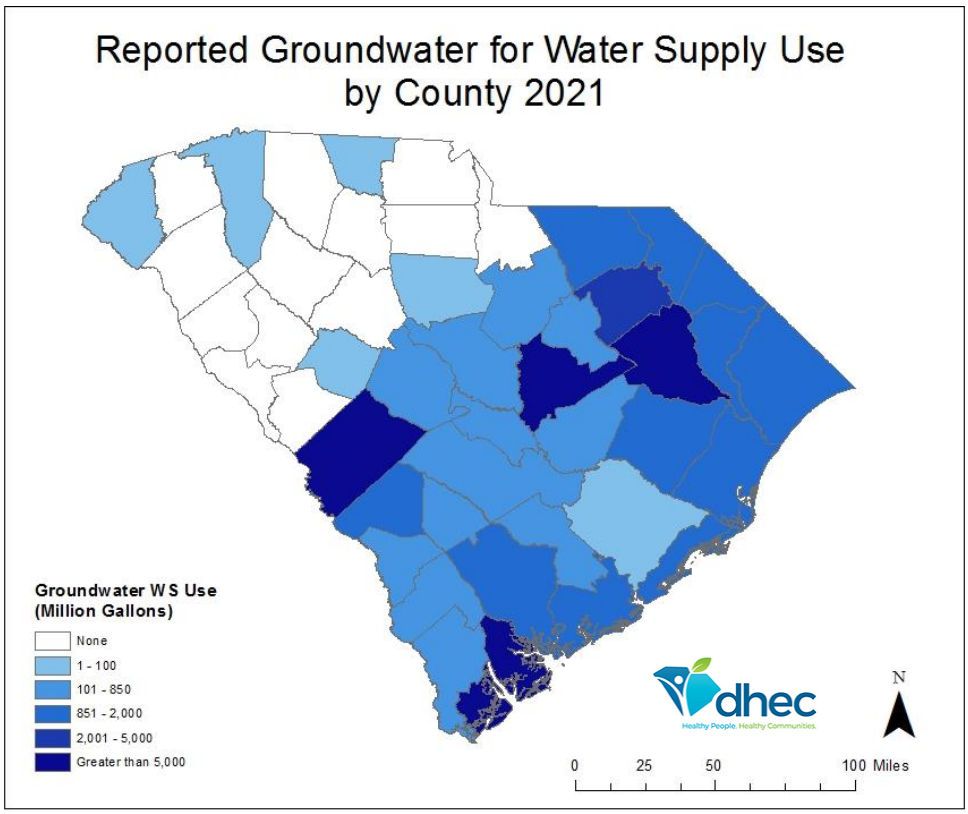

Figure 100: Reported Groundwater Use for Public Water Supply by County 2021

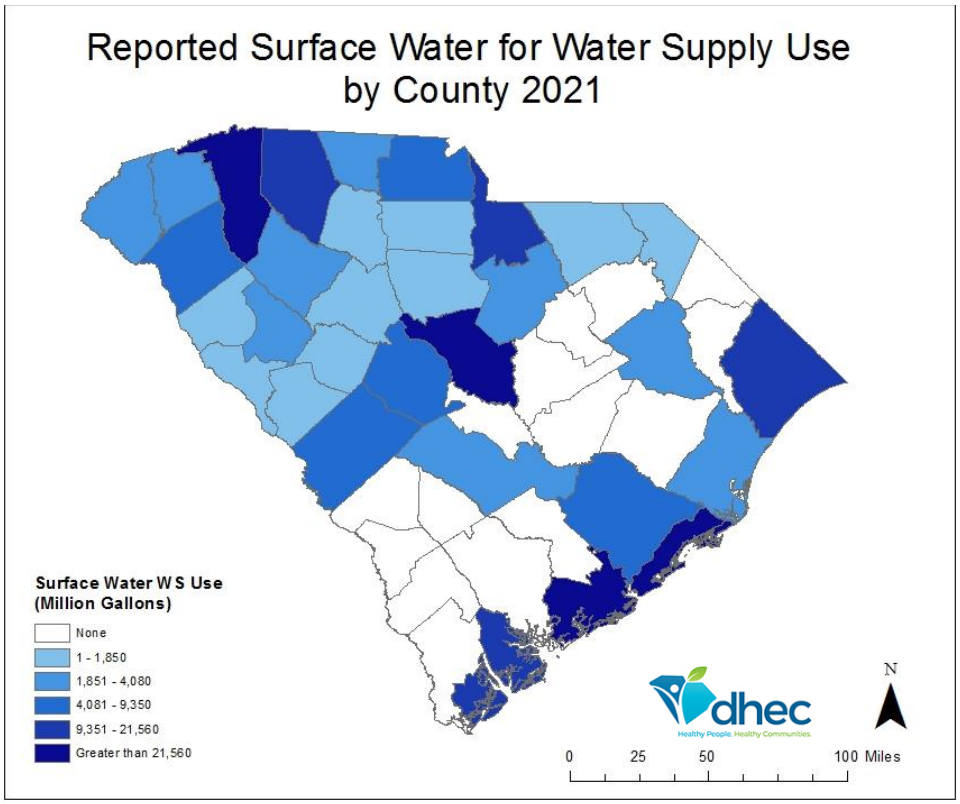

Figure 101: Reported Surface Water Use for Public Water Supply by County for 2021

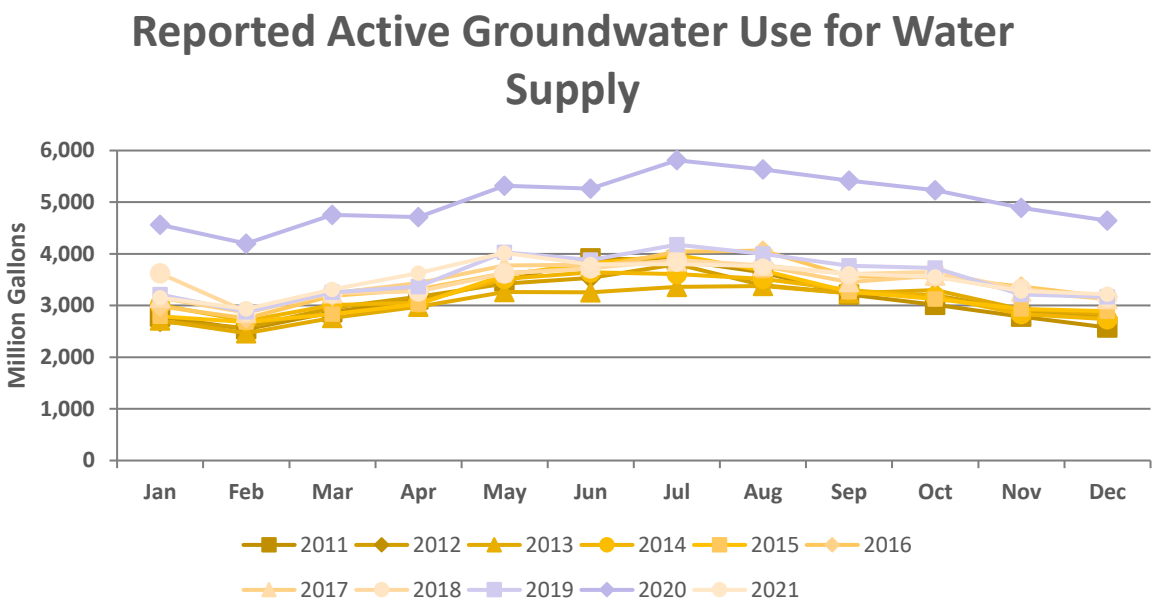

Figure 102: Reported Groundwater Use for Public Water Supply by Month, 2011-2021

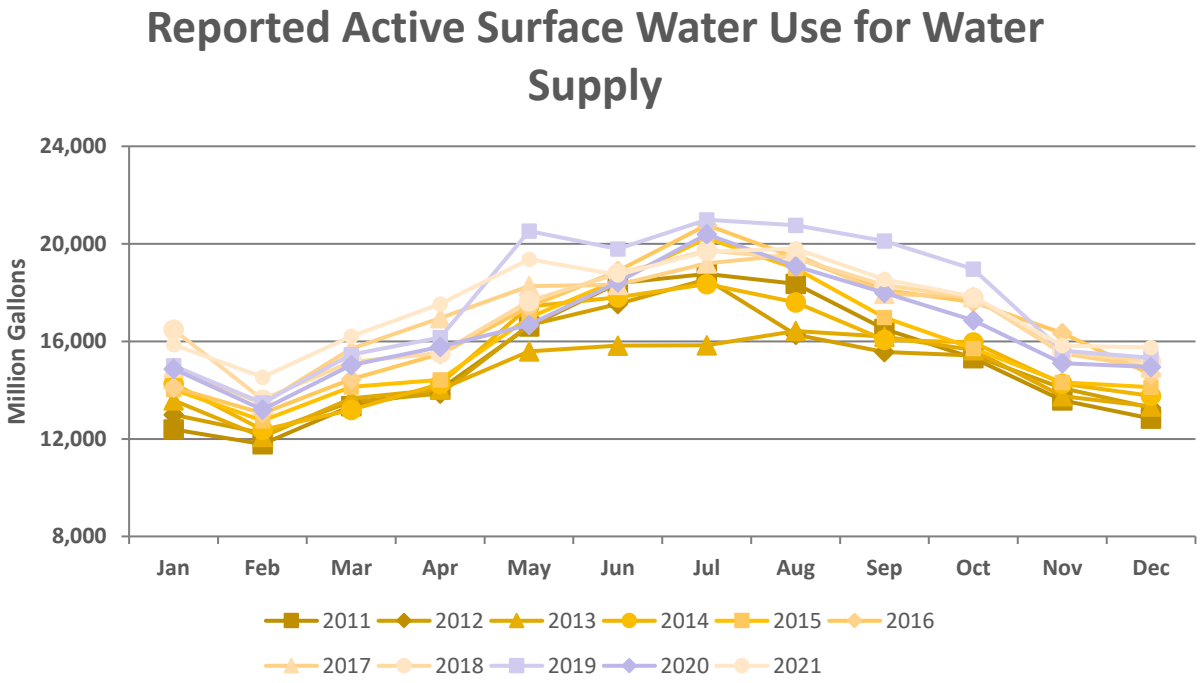

Figure 103: Reported Surface Water Use for Public Water Supply by Month, 2011-2021

Appendix A: Bibliography

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Appendix B: Surface and Groundwater Use Summary Table

*Use in Millions of Gallons

±Source Type: G is Groundwater and S is Surface Water

County	Source	Use Type	Jan	Feb	Mar	Apr	May
ABBEVILLE	G	Water Supply	0	0	0	0	0
ABBEVILLE	S	Hydroelectric	353390	572257	583775	277026	409590
ABBEVILLE	S	Water Supply	67	63	67	44	59
AIKEN	G	Golf Course	0	0	0	0	1
AIKEN	G	Industry	54.4217	49.6975	52.7962	50.5309	50.9619
AIKEN	G	Irrigation	11.552	23.7167	56.08981	241.7637	462.1083
AIKEN	G	Water Supply	378.3998	353.6873	387.285	400.7887	464.2222
AIKEN	S	Golf Course	0.09	0.04	9.532	19.742	33.479
AIKEN	S	Industry	562	497	580	589	587
AIKEN	S	Irrigation	20.763	5.956	31.833	167.136	146.234
AIKEN	S	Thermoelectric	535.4	1313	3174.9	2835.4	1911.2
AIKEN	S	Water Supply	110.731	98.862	133.167	171.448	235.684
ALLENDALE	G	Industry	64.523	60.847	58.899	43.117	47.904
ALLENDALE	G	Irrigation	0.964	3.2	55.04038	190.957	460.1331
ALLENDALE	G	Thermoelectric	11.7031	11.0629	12.1122	9.1331	12.8123
ALLENDALE	G	Water Supply	36.158	35.527	38.93	36.574	37.197
ALLENDALE	S	Irrigation	0	0	8.5	19.8	116.2
ANDERSON	G	Industry	0	0	0	0	0
ANDERSON	S	Hydroelectric	266806	502977	429952	270432	378487
ANDERSON	S	Industry	180.4	165.8	190.1	184.1	159.3
ANDERSON	S	Irrigation	0	0	0	0	0
ANDERSON	S	Mining	3.74	3.38	3.06	3.1	3.71
ANDERSON	S	Thermoelectric	177.932	472.79	183.564	153.063	220.767
ANDERSON	S	Water Supply	609.49	590.27	615.55	607.58	643.77
BAMBERG	G	Irrigation	21.18	26.06	89.73	249.7952	483.789
BAMBERG	G	Water Supply	27.6173	26.7412	26.9107	25.372	26.2923
BAMBERG	S	Irrigation	3.8	4.6	11.2	38.025	50.995
BARNWELL	G	Industry	8.928	8.352	8.94	8.64	8.928
BARNWELL	G	Irrigation	0.0117	1.3712	7.040346	124.648	309.4235
BARNWELL	G	Water Supply	89.793	83.82	78.752	93.622	101.549
BARNWELL	S	Irrigation	0	0	0	9	18.8
BEAUFORT	G	Aquaculture	0	0	0.025	0.087	0.242
BEAUFORT	G	Golf Course	16.3386	21.3101	44.1471	69.0681	135.0107
BEAUFORT	G	Industry	1.621	1.628	1.453	0.18	0.816
BEAUFORT	G	Irrigation	0.02	0.369	22.55	51.506	147.971
BEAUFORT	G	Other	1.82	1.56	1.61	1.67	1.56
BEAUFORT	G	Water Supply	394.298	353.838	420.3288	472.4901	545.7145
BEAUFORT	S	Aquaculture	29	27.1	29	28	28
BEAUFORT	S	Golf Course	8.861	9.953	31.592	43.112	76.529
BEAUFORT	S	Water Supply	777.647	579.417	702.889	951.143	1073.953
BERKELEY	G	Golf Course	0.123	0.058	1.045	1.003	2.266
BERKELEY	G	Industry	96.5767	90.6312	98.3585	75.4452	78.8794
BERKELEY	G	Irrigation	0	0	0	0	7
BERKELEY	G	Water Supply	3.92	2.808	3.121	3.381	3.364
BERKELEY	S	Hydroelectric	3.92	2.808	3.121	3.381	3.364
BERKELEY	S	Industry	276.884	297.207	312.801	265.745	253.258

BERKELEY	S	Irrigation	0	0	0	0	0
BERKELEY	S	Thermoelectric	13330.61	13309.46	11329.87	1387.025	14479.82
BERKELEY	S	Water Supply	608.78	559.98	644.14	656.66	867.38
BERKELEY	S	Hydropower	112753.8	88930.26	95395.78	106402.2	106643.3
CALHOUN	G	Golf Course	0	0	0	0	0.72
CALHOUN	G	Industry	0.001	0	0	0.18	0
CALHOUN	G	Irrigation	1.3	2.3	20.855	211.3502	660.0423
CALHOUN	G	Mining	6.896	6.228	6.896	6.67	6.896
CALHOUN	G	Water Supply	32.081	30.187	32.144	35.137	35.317
CALHOUN	S	Industry	1560	1512	1460	1520	1845
CALHOUN	S	Irrigation	0	0.5	0.4	10.99	23.52824
CHARLESTON	G	Golf Course	0	0	0	0	0.72
CHARLESTON	G	Industry	0.001	0	0	0.18	0
CHARLESTON	G	Irrigation	1.3	2.3	20.855	211.3502	660.0423
CHARLESTON	G	Mining	6.896	6.228	6.896	6.67	6.896
CHARLESTON	G	Water Supply	32.081	30.187	32.144	35.137	35.317
CHARLESTON	S	Aquaculture	12	12	12	12	12
CHARLESTON	S	Industry	0	0	0	98	0
CHARLESTON	S	Irrigation	0	0	0	0	0
CHARLESTON	S	Water Supply	2691	2445	2698	2747	2868
CHEROKEE	G	Thermoelectric	0	0	0	0	0
CHEROKEE	G	Water Supply	0.075	0	0	0.075	0
CHEROKEE	S	Hydroelectric	75289	56609	53626	54353	65988
CHEROKEE	S	Industry	1.782	1.695	1.89	1.64	1.454
CHEROKEE	S	Water Supply	74.93	74.43	78.81	71.81	69.87
CHESTER	G	Golf Course	0	0	0	0	0
CHESTER	G	Industry	0.334	0.328	0.169	0.136	0.233
CHESTER	S	Hydroelectric	260657	274382	220414	224354	218523
CHESTER	S	Industry	1.782	1.695	1.89	1.64	1.454
CHESTER	S	Water Supply	74.93	74.43	78.81	71.81	69.87
CHESTERFIELD	G	Industry	0	0	0.2822	0.0995	0.0391
CHESTERFIELD	G	Irrigation	2.245	4.11	13.854	20.262	21.624
CHESTERFIELD	G	Water Supply	90.9753	76.4869	89.5364	87.4534	89.7618
CHESTERFIELD	S	Golf Course	0.19	1.32	1.11	2	4.03
CHESTERFIELD	S	Industry	12.64	0	29.23	4.94	0
CHESTERFIELD	S	Irrigation	0	0	0	0	0
CHESTERFIELD	S	Mining	0.47	0.36	0.61	0.72	1.12
CHESTERFIELD	S	Water Supply	58.64	52.907	63.54	59.608	68.375
CLARENDON	G	Aquaculture	0	0	0	0	0
CLARENDON	G	Golf Course	0	0.75	0.5	0.5	1.5
CLARENDON	G	Irrigation	0	0	5.934	68.945	212.577
CLARENDON	G	Water Supply	56.627	52.441	57.194	57.307	62.945
COLLETON	G	Golf Course	0	0	3.6	6	9.4
COLLETON	G	Irrigation	3	4	67.52	109.5	163.431
COLLETON	G	Water Supply	55.364	53.64	62.884	61.299	68.226
COLLETON	S	Irrigation	0	0	0	0	0
COLLETON	S	Thermoelectric	0	0	0	0	0

DARLINGTON	G	Golf Course	0	0	0.2	0.5	6.3
DARLINGTON	G	Industry	150.079	126.69	141.736	117.571	109.733
DARLINGTON	G	Irrigation	0	0.01	1.1	3.31	14.7994
DARLINGTON	G	Nuclear	31.394	28.753	31.917	31.638	32.21
DARLINGTON	G	Water Supply	189.217	180.472	200.309	198.1	208.206
DARLINGTON	S	Industry	174.08	151.53	181.9	159.32	174.84
DARLINGTON	S	Irrigation	0	0	2.57	5.28	5.69
DARLINGTON	S	Nuclear	21457.82	20273.9	22730.04	21153.98	21672.58
DILLON	G	Irrigation	0	0	0	42.984	60.16
DILLON	G	Water Supply	130.196	120.531	133.94	131.766	131.342
DORCHESTER	G	Golf Course	0	0	1	2	3.44
DORCHESTER	G	Industry	30.2366	25.619	28.0747	29.813	30.5695
DORCHESTER	G	Irrigation	0.4	0.4	0.4	1.4	78.75
DORCHESTER	G	Thermoelectric	11.715	10.6851	12.1467	8.2361	12.2466
DORCHESTER	G	Water Supply	38.1255	36.7754	41.5981	42.5286	47.6204
EDGEFIELD	G	Golf Course	0	0	0	4.1	10.1
EDGEFIELD	G	Irrigation	0	3	3	5.16	6.16
EDGEFIELD	S	Irrigation	0	11.5	68.3	146.5	232.5
EDGEFIELD	S	Hydropower	115131.1	146701.1	169768.6	122334.4	120058
EDGEFIELD	S	Water Supply	103.922	98.199	120.084	134.498	156.799
FAIRFIELD	G	Water Supply	3.996	4.514	4.948	5.2626	5.926
FAIRFIELD	S	Hydroelectric	96151.05	92065.17	110129.9	94649.73	109368.1
FAIRFIELD	S	Nuclear	22914.1	21435.51	22914.09	8202.29	17838.81
FAIRFIELD	S	Water Supply	60.7	76.3	58.8	58.2	66.8
FLORENCE	G	Golf Course	0	0	0	0	1.6
FLORENCE	G	Industry	107.516	106.496	107.094	92.672	97.7185
FLORENCE	G	Irrigation	0	0	1.75	6	8.59
FLORENCE	G	Water Supply	353.599	336.499	379.129	383.564	373.711
FLORENCE	S	Golf Course	0.13	0.2	0.36	1.27	1.72
FLORENCE	S	Industry	392.1	375.5	393	409.9	414.3
FLORENCE	S	Water Supply	119.615	139.366	123.935	104.941	149.203
GEORGETOWN	G	Golf Course	0	0	0	0	2.1
GEORGETOWN	G	Industry	9.05	8.52	8.85	9.78	8.94
GEORGETOWN	G	Water Supply	87.175	84.299	91.846	99.627	108.839
GEORGETOWN	S	Golf Course	30.6952	30.1396	29.929	48.769	59.663
GEORGETOWN	S	Industry	1179.392	1089.445	962.412	1146.087	1151.048
GEORGETOWN	S	Irrigation	0	0	0	0	0
GEORGETOWN	S	Mining	22.1	18.9	21.7	19.9	20.1
GEORGETOWN	S	Thermoelectric	74.2	87.6	87	126.5	165.6
GEORGETOWN	S	Water Supply	151.682	166.154	155.297	175.097	206.451
GREENVILLE	G	Golf Course	0.008	0.009	0.004	0.009	0.008
GREENVILLE	G	Industry	7.21	7.06	7.111	7.25	8.41
GREENVILLE	G	Water Supply	2.2622	2.0786	2.554	3.1577	3.3378
GREENVILLE	S	Golf Course	0.71	2.026	7.059	27.274	26.1719
GREENVILLE	S	Irrigation	0	0	0	3	3
GREENVILLE	S	Hydropower	25327	27313	27407	25695	29254
GREENVILLE	S	Water Supply	1908.986	1753.251	1932.99	2056.062	2178.489

GREENWOOD	G	Industry	0	0	0	0.848	0.864
GREENWOOD	G	Irrigation	0.019	0.018	0.054	0.074	0.084
GREENWOOD	S	Golf Course	0	0.1	0.4	0.4	0.5
GREENWOOD	S	Hydroelectric	79845.49	109900.7	78418.91	53859.71	90604.44
GREENWOOD	S	Water Supply	271.918	252.98	272.72	276.58	282.54
HAMPTON	G	Aquaculture	4.1	6.2	16.5	26.5	21.4
HAMPTON	G	Industry	0	0	0	0	0
HAMPTON	G	Irrigation	12	8.8	26.55	146.7948	407.2378
HAMPTON	G	Water Supply	39.904	37.824	39.27	39.115	38.028
HAMPTON	S	Irrigation	0	0	0	0	0
HORRY	G	Golf Course	1.568	0.45	9.166	14.354	26.149
HORRY	G	Irrigation	13.34936	6.553	7.18	5.583	7.874396
HORRY	G	Water Supply	131.394	134.808	182.639	176.297	188.594
HORRY	S	Golf Course	14.018	6.248	40.673	66.3	115.106
HORRY	S	Water Supply	1314.241	1229.257	1289.041	1321.023	1601.09
JASPER	G	Golf Course	5.788	1.6	2.34	2.803	15.543
JASPER	G	Irrigation	0.25575	0.5454	8.0449	33.4609	70.2219
JASPER	G	Water Supply	27.831	27.232	24.244	25.488	26.371
KERSHAW	G	Golf Course	0	0	0	0	0
KERSHAW	G	Industry	62.0788	53.8366	60.3404	46.8026	55.521
KERSHAW	G	Irrigation	0	0	3.9	7.7	11.34
KERSHAW	G	Water Supply	53.67	50.08	57.67	64.79	70.15
KERSHAW	S	Irrigation	0	0	0	0	0
KERSHAW	S	Mining	52.19	56.07	78.12	80.49	69.28
KERSHAW	S	Hydropower	226253	247111	168975	129668	219408
KERSHAW	S	Water Supply	201.07	181.201	185.844	197.41	208.718
LANCASTER	G	Industry	2.76	0	2.76	1.32	1.08
LANCASTER	S	Hydropower	136492	125540	109807	112791	117350
LANCASTER	S	Water Supply	523.9	492.3	609.24	633.94	633.25
LAURENS	S	Golf Course	0	0	0	0	0
LAURENS	S	Hydroelectric	20921	16317	8581	10204	6839
LAURENS	S	Water Supply	142.252	129.741	139.985	140.387	149.855
LEE	G	Irrigation	30.7271	29.379	21.7	36.857	207.442
LEE	G	Water Supply	43.9	41.8	46	43.9	48.6
LEE	S	Irrigation	0	0	0	0	0
LEXINGTON	G	Golf Course	0.3	0.12	0.35	1.4	1.75
LEXINGTON	G	Industry	36.9102	25.2692	28.4809	24.4366	30.2043
LEXINGTON	G	Irrigation	19.525	9.627	52.455	180.8645	414.1791
LEXINGTON	G	Mining	37.24953	33.00894	35.43132	33.93031	34.15582
LEXINGTON	G	Water Supply	41.459	42.59	44.575	50.63	57.963
LEXINGTON	S	Golf Course	0.251	0.638	1.503	3.774	5.564
LEXINGTON	S	Industry	616.771	727.322	702.169	536.581	839.834
LEXINGTON	S	Irrigation	1	0.08	6.94	16.1	111.23
LEXINGTON	S	Mining	0	0	0	0	0
LEXINGTON	S	Hydropower	46503.2	133418.9	100381.4	31116.11	92368.95
LEXINGTON	S	Thermoelectric	1940.13	324.43	4609.13	3866.06	538.49
LEXINGTON	S	Water Supply	496.31	453.36	513.46	574.37	650.28

MARION	G	Irrigation	0.1	0	0	1.55	15.15
MARION	G	Water Supply	94.256	90.137	89.318	91.335	91.789
MARION	S	Irrigation	0	0	0	0.25	0
MARLBORO	G	Industry	4.93	4.92	6.29	4.37	4.78
MARLBORO	G	Irrigation	0	0	4.7	10.9	37.8
MARLBORO	G	Water Supply	97.383	89.689	93.532	87.795	88.939
MARLBORO	S	Industry	531	479	447	536	538
MARLBORO	S	Irrigation	0	0	0	0	2.71
MARLBORO	S	Mining	0	0	0	0	0
MARLBORO	S	Water Supply	16.38	15.13	15.631	15.255	15.822
MCCORMICK	S	Golf Course	0.034	0.082	0.834	4.933	6.405
MCCORMICK	S	Hydroelectric	705744	1010629	1040922	529863	591949
MCCORMICK	S	Water Supply	26.3	24	25.8	36.3	26.3
NEWBERRY	G	Irrigation	3	3	3	3	3
NEWBERRY	G	Water Supply	0	0	0	0	0
NEWBERRY	S	Golf Course	0	0	0.5	0.9	1.87
NEWBERRY	S	Irrigation	1.2	1.2	1.44	1.44	2.44
NEWBERRY	S	Water Supply	147.195	133.22	143.066	140.121	147.043
OCONEE	G	Water Supply	2.92	2.62	3.12	3.38	3.54
OCONEE	S	Golf Course	0	0.003	0.173	2.484	1.382
OCONEE	S	Irrigation	1	1	1.5	1.6	2.6005
OCONEE	S	Hydropower	95344	117593	31284	84369	107478
OCONEE	S	Nuclear	81564.01	73665.06	73135	60975.01	79521.02
OCONEE	S	Water Supply	316.431	287.432	300.35	324.506	342.882
ORANGEBURG	G	Golf Course	0	0	0.482	2.89	10.72
ORANGEBURG	G	Industry	34.658	15.94	34.315	24.187	35.907
ORANGEBURG	G	Irrigation	46.37372	58.60516	136.7155	554.0272	1273.874
ORANGEBURG	G	Thermoelectric	84.9	45.284	0.46	1.18	2.399
ORANGEBURG	G	Water Supply	29.347	30.699	48.431	36.902	34.391
ORANGEBURG	S	Golf Course	0	0	0	3.9	1.46
ORANGEBURG	S	Industry	3.51	3.06	3.39	3.36	3.57
ORANGEBURG	S	Irrigation	11.5	11	20.6	79.12	164.552
ORANGEBURG	S	Thermoelectric	0	0	0	0	0
ORANGEBURG	S	Water Supply	231.654	214.431	211.722	219.591	242.55
PICKENS	S	Golf Course	0.184211	2.324279	13.97012	18.87134	17.022
PICKENS	S	Industry	43.298	39.251	44.698	28.933	31.711
PICKENS	S	Hydropower	204762	239896	240817	184436	326192
PICKENS	S	Water Supply	319.348	299.482	312.248	344.863	357.295
RICHLAND	G	Aquaculture	0	2.16	1.2	1.68	1.92
RICHLAND	G	Golf Course	0.452	0.452	0.806	2.286	4.661
RICHLAND	G	Industry	65.426	62.746	65.707	63.994	60.859
RICHLAND	G	Irrigation	0.2	0	2.5	4.7	66.8
RICHLAND	G	Water Supply	37.006	38.091	36.387	39.909	40.098
RICHLAND	S	Aquaculture	0	0.652	1.278	3.326	5.706
RICHLAND	S	Golf Course	2.938	4.675	7.024	20.528	41.027
RICHLAND	S	Industry	903.236	817.14	883.857	864.104	906.779
RICHLAND	S	Irrigation	0	3.3	11	10.4	11.7

RICHLAND	S	Hydropower	0	0	0	0	0
RICHLAND	S	Thermoelectric	186.55	160.82	182.62	212.45	197.94
RICHLAND	S	Water Supply	1576.32	1482.76	1603.45	1690.98	1905.86
SALUDA	G	Irrigation	0	0	0	0	0
SALUDA	G	Water Supply	0.352	1.021	0.778	0.856	1.194
SALUDA	S	Irrigation	0	0	55	129	238
SALUDA	S	Water Supply	71.94	66.59	72.74	74.62	76.18
SPARTANBURG	G	Golf Course	0.002	0.0015	0.0025	0.0016	0.0012
SPARTANBURG	G	Water Supply	0	0	0	0	0
SPARTANBURG	S	Golf Course	1	1	3	6	6
SPARTANBURG	S	Mining	0.24	0.24	0.56	1.84	1.84
SPARTANBURG	S	Hydropower	19267	12846	16607	14179	13147
SPARTANBURG	S	Water Supply	1016.267	953.962	1028.379	1052.781	1095.712
SUMTER	G	Golf Course	0	0	0.75	1.419	5.75
SUMTER	G	Industry	16.109	14.749	15.576	14.483	11.795
SUMTER	G	Irrigation	6.127	4.817	13.548	73.878	396.419
SUMTER	G	Water Supply	474.5544	429.482	431.0512	426.0809	459.2593
SUMTER	S	Irrigation	0	0	60.3	82.2	110.3
UNION	G	Industry	0.177	0.158	0.182	0.183	0.196
UNION	S	Industry	21.9	19.2	20.2	14.5	18.6
UNION	S	Hydropower	84753.61	90677.65	103624.7	93550.96	110303.4
UNION	S	Water Supply	96.5	89.7	94.6	85.9	89.2
WILLIAMSBURG	G	Industry	30.28	24.07	25.56	25.24	26.37
WILLIAMSBURG	G	Irrigation	0	4	14	19	30
WILLIAMSBURG	G	Water Supply	59.775	57.685	59.23	55.747	61.691
WILLIAMSBURG	S	Irrigation	0	0	0	2	2
YORK	G	Golf Course	0.25	0.5	0.75	3.25	7
YORK	G	Industry	0	0	0	0	0
YORK	G	Water Supply	0	0	0	0	0
YORK	S	Golf Course	0.001192	0.000795	0.55	2.591	6.482
YORK	S	Industry	952	877.3	1027.3	1013.7	896.2
YORK	S	Hydropower	57653	109260	70611	85480	95807
YORK	S	Nuclear	3558	3542	3403	3278.01	3906.01
YORK	S	Water Supply	565.039	19.382	611.567	631.816	20.7742

Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	0	0	0	0
274120	328034	334748	303641	267281	435435	220391
56	71	76	73	76	62	66
2	3	1	1	0	0	0
46.6401	46.7634	54.8107	33.0608	45.8014	57.0916	55.6231
581.5279	526.3983	205.126	109.2973	73.26157	72.31951	8.345356
465.0295	517.5861	515.4619	447.125	448.3492	392.9358	354.8197
31.584	38.162	24.166	20.14	15.092	5.033	0.9
554	613	583	555	566	581	609
195.217	199.664	110.403	124.926	58.891	33.838	8.441
3067.7	5149.9	3689.4	1620.4	2907.1	2871.1	2080.9
256.884	291.662	262.943	237.484	202.463	162.999	145.387
51.648	51.807	56.03	49.477	53.679	46.545	52.2
781.8305	818.9947	637.2711	400.286	191.241	13.506	1.799
12.8623	13.5822	12.9624	12.2923	12.3022	8.0817	11.2723
37.781	40.284	40.433	39.073	42.499	39.455	42.172
222.1	205	63	27	7	2	0
0	0	0	0	0	0	0
193393	184984	228495	239167	250081	437427	214864
128.7	155.1	181.2	180.1	188.5	179.2	178.3
0	1.5	4.8	2	0	0	0
3.53	4.03	3.38	3.49	3.38	3.38	3.28
2108.404	2976.345	2965.664	325.581	216.666	201.748	147.458
699.75	801.25	742.07	710.06	688.98	623.32	617.31
574.896	766.817	544.221	246.9722	105.96	87.99	22.66
26.1687	28.7218	26.75358	28.20728	25.08548	25.04668	25.22468
67.18	102.16	81.22	53.05	27.77	10.2	1.7
8.64	8.928	8.928	8.64	8.78	9.227	8.94
515.9446	610.9102	416.6448	180.3686	43.24497	16.74754	0.027948
103.099	121.776	113.451	115.314	120.297	94.261	95.248
25.3	38.6	34.3	19	5	0	0
0.154	0.082	0.01	0.011	0.203	0.019	0.002
103.846	152.77	103.4758	82.8622	87.6876	43.3213	32.8639
1.569	1.706	1.655	1.562	1.436	1.235	1.276
128.937	45.024	36.731	26.452	9.302	1.315	0.02
1.67	1.77	1.56	1.72	1.59	1.56	1.66
513.0206	605.621	567.3169	462.689	473.0879	399.8755	362.0221
28	27.1	29	28	29	27.1	23.4
48.539	62.073	54.271	39.245	33.343	14.519	6.952
965.806	1192.362	1131.099	787.251	443.763	385.156	351.814
2.808	3.522	2.025	1.154	0.926	1.036	0.32
98.0808	87.7492	101.6433	100.0213	90.4593	95.846	95.767
3	0	0	0	0	0	0
3.239	3.642	5.733	4.599	2.919	2.838	2.915
3.239	3.642	5.733	4.599	2.919	2.838	2.915
239.869	254.094	315.421	329.185	338.958	303.86	314.526

0	0	0	0	0	0	0
15296.89	16143.07	15943.51	15149.42	14550	2983.494	6036.425
801.78	885.68	803.92	778.08	735.96	523.96	671.42
101846	117524	109468.1	139420.3	157170.1	129071.5	116279.8
0	0.72	0	0	0	0	0
0.41	0.17	2.22	2.6	1.82	0.12	0.17
983.4626	1375.974	569.0573	206.9264	45.5179	12.1928	8.5212
6.67	6.896	6.896	6.67	6.896	6.67	6.896
33.654	35.293	35.815	32.825	33.065	33.197	33.378
1864	1973	2055	1716	1617	1593	1604
45.05962	75.07115	42.96795	36.76877	12.04	0	0
0	0.72	0	0	0	0	0
0.41	0.17	2.22	2.6	1.82	0.12	0.17
983.4626	1375.974	569.0573	206.9264	45.5179	12.1928	8.5212
6.67	6.896	6.896	6.67	6.896	6.67	6.896
33.654	35.293	35.815	32.825	33.065	33.197	33.378
12	12	0	0	0	0	0
0	106	0	0	0	0	0
0	0	0	0	0	0	0
3372	3632	3342	3380	3045	2725	2672
0	0	0	0	0	0	0
0	0.075	0	0	0.09	0	0
55022	42702	74593	66445	69272	67311	78431
3.266	9.634	4.104	4.022	1.522	1.394	1.371
76.81	85.64	85.39	83.8	84.84	76.79	80.49
0	6	0	0	0	0	0
1.354	0.484	0.158	0.37	0.766	1.485	1.835
191327	134184	224543	198216	203184	234643	218266
3.266	9.634	4.104	4.022	1.522	1.394	1.371
76.81	85.64	85.39	83.8	84.84	76.79	80.49
0	0.076	0.0293	0.0368	0.0783	0.161	0.0377
57.134	52.692	13.711	23.619	18.723	4.293	9.999
93.7351	106.1073	96.3577	99.0643	86.3807	95.1369	94.3947
8.85	4.96	7.34	4.75	5.55	2.37	0.91
0	2.04	0	7.48	0	0	0
0	0	0	0	0	0	0
1.01	1.33	1.26	0.68	0.54	0.54	0.32
68.24	69.84	71.77	69.693	69.951	60.422	62.211
0	0	0	0	0	0	0
1.75	1.25	0.5	0.5	1.25	0	0
279.615	323.017	86.49	29.344	38	37.4	18
59.16	63.417	54.952	60.166	57.527	53.866	56.214
5.3	10.3	6.6	4.9	7.1	9	3.6
196.56	195.994	177.488	142.5	89.202	53	9.5
87.972	84.841	79.51	78.384	79.503	69.611	75.134
2	2	0	0	0	0	0
0	0	0	0	0	0	0

6.2	6.2	5.3	0.5	0.2	0	0
123.553	109.883	156.435	131.568	117.639	158.97	137.921
64.9495	165.222	43.408	36.644	6.05	0.2	0.1
31.741	32.844	32.244	31.283	32.199	31.098	42.953
214.196	234.549	233.198	233.527	228.285	212.969	210.913
139.98	178.51	168.24	159.91	135.3	145.94	169.41
19.76	59.69	41.37	62.1	9.74	0	0
21249.48	22190.48	22029.22	20667.4	21316.42	7930.36	22382.56
75.278	97.676	67.166	45.2	21.2	17.5	7.3
130.222	144.895	154.135	144.374	138.433	124.9	133.152
3	4.728	3	1	1	0	0
34.027	36.6329	28.8571	30.3987	25.8779	26.7807	32.2288
135.9	100.86	41.05	28.7	6.8	0.4	0.4
12.2253	13.6149	13.3265	9.8347	4.1761	11.6634	10.5633
49.1144	49.7053	44.2119	34.0889	41.6167	37.5044	38.578
12.2	14.6	13.4	9.5	7	0	0
7.88	8.88	8.16	8.16	4	3.84	3.008
294	319.2	308.65	181.2	90.4	44.4	0
97527.46	87528.56	98950.09	95389.16	96992.53	117560	124693.3
153.624	176.029	156.27	167.843	138.744	177.364	110.82
5.194	5.342	6.416	5.712	5.407	5.485	5.1
134850.5	193659.2	120173.6	114607.8	115975.2	101775.8	109164.4
22174.78	22198.86	20649.07	14788.86	19218.28	22174.78	22915
106.5	59.4	58	54	73	160	86.9
2.3	1.8	2.3	0.9	0.2	0	0
101.075	107.735	94.202	123.641	121.375	102.702	114.13
15.03	20.88	5.4	1.3	1	0	0
358.684	426.381	453.426	462.338	441.391	372.163	387.942
2.5	3.2	3.33	1	0.55	0.44	0.72
413.3	463.7	479.9	520	570.2	372.4	496.9
153.521	141.694	130.655	117.437	120.971	140.748	138.627
1.3	1.5	1	0	3	0	0
8.91	9.35	9.55	9.08	10.58	8.64	9.91
116.77	123.408	115.009	97.169	98.223	86.0158	90.645
60.307	69.963	48.881	51.794	59.552	51.039	44.6446
1117.859	1257.856	1245.689	1141.647	1193.841	1159.475	1200.241
0	0	0	0	0.00009	0.01161	0
22.1	20.1	22.3	20.7	22	22.3	22.1
103.5	155.4	124.6	108.4	155.9	208.5	396.7
183.01	200.318	195.997	190.651	190.402	183.919	166.862
0.009	0.006	0.005	0.005	0.005	0.005	0.013
7.48	8.16	7.15	6.59	6.95	6.77	7.19
4.2144	4.9388	4.6599	4.494	5.7452	4.4273	3.697
42.193	61.995	39.607	31.891	18.521	9.232	6.769
4	8	8	7	2	0	0
28314	18640	20433	20525	23686	26698	24510
2422.118	2840.607	2701.696	2500.161	2388.951	2132.695	2130.356

0.84	0.868	0.868	0.84	0.868	0.84	0
0.091	0.068	0.061	0.062	0.025	0.024	0.018
1.2	1.5	2.1	1.8	0.2	0	0.1
40784.38	29124.35	29476.39	32647.6	41253.45	58437.62	51220.46
291.56	317.62	303.32	292.92	283.1	253.06	261.52
19.2	19.1	11.1	7.5	11.5	9.4	4.5
0	0	0	0	0	0	0
570.9731	718.0572	415.7243	183.711	115.848	41.84	17.67
32.601	46.522	41.763	30.878	46.613	37.198	26.929
0	0	0	0	0	0	0
28.261	39.919	39.119	19.907	22.472	8.621	2.337
17.40658	22.66457	21.88748	3.287	4.176614	6.169	10.99
196.657	204.104	186.8	181.688	188.869	188.476	169.55
87.331	103.031	81.05	65.22	34.426	32.738	4.868
1521.716	1626.104	1524.292	1407.201	1552.999	1342.501	1287.599
7.106	16.171	12.894	12.35	2.97	2.385	4.066
87.5619	105.9459	90.8269	53.7649	31.2159	4.5814	5.8314
25.203	27.679	23.279	22.254	22.143	20.119	21.507
0.5	0	0.75	0.5	0.5	0	0
55.9928	53.5579	55.3237	59.9033	55.4674	46.7218	47.848
22.85586	36.82056	14.84	8.13	3.8	0	0
69.35	82.28	76.52	72.24	67.46	57.37	65.17
0	0	0	0	0	0	0
73.96	70.38	68.71	66.04	48.34	46.72	39.27
166868	71610	145697	150101	190401	237077	175809
200.423	231.063	223.449	205.738	202.068	188.386	185.91
0	0	2.52	2.07	0.99	1.98	1.17
112194	70673	117648	107757	126713	130071	136240
835.9	795.7	738.54	675.9	720.58	630.52	620
0	2.2	3.24	2.2	0	0	0
9404	3856	3949	3534	5498	7776	7003
158.262	177.293	171.933	160.801	164.094	152.529	160.116
348.222	398.442	148.73	56.953	60.6465	78.749	102.337
48.8	54.2	51.8	49.9	50.4	47.4	45
11	16	3	2	0	0	0
3.2	1.5	1	3.5	1.15	0.45	0.6
26.7686	33.5678	27.1042	22.4595	31.791	25.9788	37.37162
503.1941	497.5793	224.5571	365.544	360.243	180.8658	81.86
35.77812	35.76061	35.56068	33.98113	37.05509	30.4711	32.1544
59.483	63.242	55.203	58.9782	49.828	42.549	43.242
7.41	8.611	9.336	5.055	1.942	1.216	0.451
960.678	1007.923	1248.434	628.079	639.97	959.878	721.207
58.88	65.36	34.42	34.92	46	11.12	3.13
0	0	0	0	0	0	0
9149.43	3316.37	3794.24	22455.84	2779.18	45218.98	66856.6
4529.2	4687.1	5175.26	5008.32	5008.76	3068.34	4768.46
673.62	708.68	665.02	646.9	603.38	535.73	516.33

16	60.7	6.6	12.9	5.7	0.3	1.4
95.658	101.217	99.56	99.625	94.593	87.435	95.139
1.8	0	0	0	0.5	0	0
5.87	6.58	6.62	6.02	5.34	6.6364	14.5294
59.47	109.612	81.095	47.288	7.3	0	0
90.954	118.977	102.91	94.3069	91.2477	98.409	105.299
488	503	514	480	510	496	524
4.104	15.718	1.3	2.168	0	0	0
0	0	0	0	0	0	0
15.982	15.863	16.945	15.485	14.587	13.694	14.252
10.29	17.517	8.229	7.579	4.52	1.227	0.127
369755	286634	324352	397018	354987	793119	398700
34.7	40.7	33.3	34.6	29.8	31.5	31.2
3	3	3	3	3	3	3
0	0	0	0	0	0	0
3.74	4.85	1.99	2.43	1.51	0.47	0
3.72	4.28	5.86	1.92	1.92	1.2	1.2
144.327	155.124	156.676	150.688	155.439	144.299	147.8
3.53	4.05	4.01	3.06	2.48	1.84	1.73
2.873	4.845	0.668	2.497	0.854	0.512	0.036
3.701	3.801	3.801	3.601	2.5	2.5	1.5
136293	148910	158918	101673	118499	109437	122087
87708	94817	94817.03	91758	80225.01	77277.02	82767
369.513	418.551	388.976	356.182	344.596	314.656	313.514
10	18.54	8.08	0.89	2.323	0.58	0
32.63	37.812	37.13	37.99	27.72	22.61	36.052
1707.787	1986.905	1249.692	738.6917	240.7671	117.9982	96.26816
1.617	37.79	88.524	115.61	8.77	79.79	70.212
37.923	36.676	33.932	31.921	30.639	30.354	27.755
0	0	1.17	0.45	0	0	0
3.46	3.85	3.81	4.08	4.03	3.3	5.04
335.166	376.45	347.45	163.19	40.85	13.38	15.3
0	0	0	0	0	0	0
245.717	276.518	266.206	255.376	244.403	242.035	251.044
34.86289	45.32227	28.00581	23.24281	10.48835	1.469382	1.024363
27.315	39.098	31.384	37.227	33.494	28.77	26.311
349229	479433	343827	181173	176167	125480	297940
398.56	353.516	283.512	260.477	251.836	227.087	226.025
1.2	4.32	0.72	1.92	1.2	0.48	0
7.421	7.921	6.271	5.121	2.791	1.506	0.582
50.433	63.05	63.155	57.447	54.86	57.293	68.002
67.6	102.3	24.5	5.1	7.4	1.5	1.5
42.983	43.605	42.882	45.707	42.666	36.951	37.548
4.558	4.9	4.89	4.89	1.467	1.428	0.3
28.099	55.866	42.032	39.557	22.481	10.023	1.969
810.532	1033.393	1069.068	987.725	878.228	896.044	897.966
11.7	11.9	11.5	11	30.2	30.6	12.9

0	0	0	0	0	0	0
233.51	275.93	245.46	161.06	118.17	157.69	243.11
1930.05	2167.72	2095.78	1956.63	1828.88	1639.61	1678.06
0	4.1208	3.587	2.82	0	0	0
0.609	0.09	0	0	0	0	0
288	272	217	100	44	24	0
78.68	84.54	79.49	80.41	78.09	69.13	73.9
0.0054	0.0034	0.0054	0.0054	0.0028	0.0029	0.0017
0	0	0	0	0	0	0
10.8	10.6	12.15	7.97	4	3	2
1.92	1.68	2.6	1.28	0.64	0.64	0.32
13852	9887	14875	13594	16206	15025	19349
1204.504	1341.306	1227.347	1151.744	1148.048	1029.335	1036.892
6.7	6.95	3.2969	6.184	2.14	1.374	0.1
13.191	12.732	11.057	10.34	10.595	12.756	12.962
521.378	585.415	199.305	114.852	34.117	15.958	7.021
473.8798	506.7006	489.5099	466.7998	480.6737	448.4386	455.8028
107.8	118	54.3	23	0	0	0
0.188	0.183	0.198	0.185	0.194	0.19	0.198
17.6	19.3	17.4	15.8	18.3	7.1	6
98484.61	108134.1	116904.2	87266.87	83799.83	76528.39	119881.5
96.8	106	104.9	100.1	84.6	82	88.4
25.79	29.597	31.542	32.097	26.091	26.236	27.378
33	34	8	4	0	0	0
59.231	65.526	66.864	59.862	62.937	62.525	62.364
2	3	1	0	0	0	0
19.25	17.6	13.3	8.25	6.75	2.5	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
9.726	12	9.198	7.873	3.691	2.912	0.883
766.6	840.1	806.1	446.4	434.2	610.7	850.9
131832	58473	114816	123675	131018	171030	118402
3663	4961	5138	4217.04	3262	3268.02	3263
706.075	801.472	772.419	718.036	693.581	602.547	568.747