



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

Compiled by: Hannah Hartley, Hydrogeologist

Bureau of Water
Jennifer Hughes, Bureau Chief

Water Monitoring, Assessment, and Protection Division
Joseph M. Koon, Director

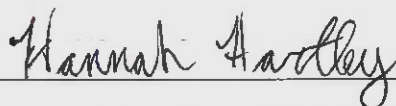
Water Quantity Permitting Section
Leigh Anne R. Monroe, Manager

Technical Document Number: **008-2023**

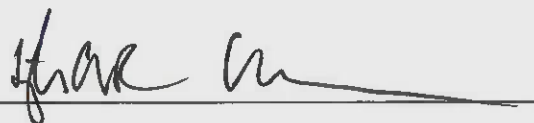
Bureau of Water
October 2023



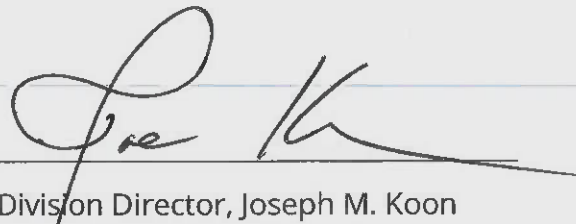
South Carolina Water Use Report 2022 Summary

A handwritten signature in black ink, appearing to read 'Hannah Hartley', written over a horizontal line.

Author and Editor, Hannah Hartley, *Hydrogeologist*

A handwritten signature in black ink, appearing to read 'Leigh Anne R. Monroe', written over a horizontal line.

Section Manager, Leigh Anne R. Monroe

A handwritten signature in black ink, appearing to read 'Joseph M. Koon', written over a horizontal line.

Division Director, Joseph M. Koon

PAGE INTENTIONALLY LEFT BLANK

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Consumptive water use – The amount of water withdrawn that is evaporated, transpired, incorporated into products or crops, consumed by humans or livestock, or otherwise removed from the immediate water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 or 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, or 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 2022, 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

<https://scdhec.gov/bow/groundwater-use-reporting>

<https://scdhec.gov/bow/surface-water-withdrawals>

Table of Contents

DEFINITIONS	I
FOREWORD	III
TABLE OF CONTENTS	IV
LIST OF FIGURES	VI
INTRODUCTION	1
PURPOSE AND METHODOLOGY	1
SOUTH CAROLINA CLIMATE	1
GEOGRAPHY AND PHYSIOGRAPHY	2
1. BLUE RIDGE	2
2. PIEDMONT	2
3. COASTAL PLAIN	2
GROUNDWATER RESOURCES	5
4. CRYSTALLINE ROCK AQUIFER SYSTEM OF THE BLUE RIDGE AND PIEDMONT	5
5. SURFICIAL AQUIFER SYSTEM	5
6. UPPER AND MIDDLE FLORIDAN AQUIFER	5
7. GORDON AQUIFER	5
8. CROUCH BRANCH AQUIFER	6
9. MCQUEEN BRANCH AQUIFER	6
10. CHARLESTON AQUIFER	6
11. GRAMLING AQUIFER	6
SURFACE WATER RESOURCES	7
12. BROAD RIVER BASIN	8
13. CATAWBA RIVER BASIN	8
14. EDISTO RIVER BASIN	8
15. PEE DEE RIVER BASIN	8
16. SALKEHATCHIE RIVER BASIN	8
17. SALUDA RIVER BASIN	8
18. SANTEE RIVER BASIN	9
19. SAVANNAH RIVER BASIN	9
SURFACE AND GROUNDWATER USE SUMMARY BY SOURCE, CATEGORY, AND COUNTY IN SOUTH CAROLINA, 2022	10
20. REPORTING WATER WITHDRAWERS	10
HISTORIC WATER USE BY BASIN	23

WATER USE CATEGORIES	49
21. AQUACULTURE	49
22. GOLF COURSES	51
23. HYDROELECTRIC POWER	53
24. INDUSTRY	54
25. AGRICULTURAL IRRIGATION	56
26. MINING.....	58
27. NUCLEAR POWER.....	60
28. OTHER USE.....	62
29. THERMOELECTRIC POWER.....	63
30. PUBLIC WATER SUPPLY	65
APPENDIX A: BIBLIOGRAPHY	67
APPENDIX B: SURFACE AND GROUNDWATER USE SUMMARY TABLE	68

List of Figures

Figure 1: Hydrogeologic and Physiographic Setting for Water Use in South Carolina	3
Figure 2: Generalized Hydrogeologic Cross-Section from the Fall Line through the Lower Coastal Plain in South Carolina (Gellici & Lautier, 2010)	4
Figure 3: Eight Major River Basins in South Carolina	7
Figure 4: Total Reported Water Use by County 2022	12
Figure 5: Total Reported Use 2022 by Type Use	13
Figure 6: Total Reported Water Use in 2022 by Month	13
Figure 7: Total Reported Water Use 2022 (No Power Production)	14
Figure 8: Total Reported Water Use by County 2022 (No Power Production)	15
Figure 9: Total Reported Water Use from 2012-2022 (No Power Production).....	16
Figure 10: Total Reported Use in 2022 by Type Use (No Power Production)	16
Figure 11: Total Reported Surface Water Use by County 2022	17
Figure 12: Total Reported Surface Water Use by County 2022 (No Power Production).....	18
Figure 13: Total Surface Water Monthly Reported Use, 2012 to 2022	19
Figure 14: Total Surface Water Monthly Reported Use, 2012 to 2022 (No Power Production)	19
Figure 15: Total Reported Surface Water Use by Type Use 2022 (No Power Production)	20
Figure 16: Total Reported Groundwater Use by County 2022	21
Figure 17: Total Groundwater Monthly Reported Use, 2012 to 2022	22
Figure 18: Reported Groundwater Use by Type 2022	22
Figure 19: Total Reported Surface Water Use by Basin 2022	23
Figure 20: Total Reported Surface Water Use by Basin 2022 (No Power Production).....	24
Figure 21: Total Historic Surface Water Reported Use in the Broad Basin, 2012-2022	25
Figure 22: Total Historic Surface Water Reported Use in the Broad Basin excluding power production, 2012-2022	25
Figure 23: Total Historic Surface Water Reported Monthly Use in the Broad Basin, 2012-2022	26
Figure 24: Total Historic Surface Water Reported Monthly Use in the Broad Basin excluding power production, 2012-2022	26
Figure 25: Total Historic Surface Water Reported Use in the Catawba Basin, 2012-2022	27
Figure 26: Total Historic Surface Water Reported Use in the Catawba Basin excluding power production, 2012-2022	27
Figure 27: Total Historic Surface Water Reported Monthly Use in the Catawba Basin, 2012-2022	28
Figure 28: Total Historic Surface Water Reported Monthly Use in the Catawba Basin excluding power production, 2012-2022	28

Figure 29: Total Historic Surface Water Reported Use in the Edisto Basin, 2012-2022	29
Figure 30: Total Historic Surface Water Reported Use in the Edisto Basin excluding power production, 2012-2022	29
Figure 31: Total Historic Surface Water Reported Monthly Use in the Edisto Basin, 2012-2022	30
Figure 32: Total Historic Surface Water Reported Monthly Use in the Edisto Basin with no power production users 2012-2022.....	30
Figure 33: Total Historic Surface Water Reported Use in the Pee Dee Basin, 2012-2022	31
Figure 34: Total Historic Surface Water Reported Use in the Pee Dee Basin excluding power production, 2012-2022	31
Figure 35: Total Historic Surface Water Reported Monthly Use in the Pee Dee Basin, 2012-2022.....	32
Figure 36: Total Historic Surface Water Reported Monthly Use in the Pee Dee Basin excluding power production, 2012-2022	32
Figure 37: Total Historic Surface Water Reported Use in the Salkehatchie Basin, 2012-2022	33
Figure 38: Total Historic Surface Water Monthly Reported Use in the Salkehatchie Basin, 2012-2022	33
Figure 39: Total Historic Surface Water Reported Use in the Saluda Basin, 2012-2022.....	34
Figure 40: Total Historic Surface Water Reported Use in the Saluda Basin excluding power production, 2012-2022	34
Figure 41: Total Historic Surface Water Monthly Reported Use in the Saluda Basin, 2012-2022	35
Figure 42: Total Historic Surface Water Monthly Reported Use in the Saluda Basin excluding power production, 2012-2022	35
Figure 43: Total Historic Surface Water Reported Use in the Santee Basin, 2012-2022.....	36
Figure 44: Total Historic Surface Water Reported Use in the Santee Basin excluding power production, 2012-2022 *2013 had the addition of Golf Course and Mining users in the basin	36
Figure 45: Total Historic Surface Water Reported Monthly Use in the Santee Basin, 2012-2022	37
Figure 46: Total Historic Surface Water Monthly Reported Use in the Santee Basin excluding power production, 2012-2022	37
Figure 47: Total Historic Surface Water Reported Use the Savannah Basin, 2012-2022 *2015 to present saw an increased use for hydroelectric power users, including the installation of 3 new power plants	38
Figure 48: Total Historic Surface Water Reported Use in the Savannah Basin excluding power production, 2012-2022	38
Figure 49: Total Historic Surface Water Monthly Reported Use in the Savannah Basin, 2012-2022....	39
Figure 50: Total Historic Surface Water Monthly Reported Use in the Savannah Basin excluding power production users, 2012-2022	39
Figure 51: Total Reported Groundwater Use by Basin 2022	40
Figure 52: Total Historic Groundwater Reported Use in the Broad Basin, 2012-2022	41

Figure 53: Total Historic Groundwater Monthly Reported Use in the Broad Basin, 2012-2022.....	41
Figure 54: Total Historic Groundwater Reported Use in the Catawba Basin, 2012-2022.....	42
Figure 55: Total Historic Groundwater Monthly Reported Use in the Catawba Basin, 2012-2022	42
Figure 56: Total Historic Groundwater Reported Use in the Edisto Basin, 2012-2022	43
Figure 57: Total Historic Groundwater Monthly Reported Use in the Edisto Basin, 2012-2022.....	43
Figure 58: Total Historic Groundwater Reported Use in the Pee Dee Basin, 2012-2022	44
Figure 59: Total Historic Groundwater Monthly Reported Use in the Pee Dee Basin, 2012-2022.....	44
Figure 60: Total Historic Groundwater Reported Use in the Salkehatchie Basin, 2012-2022.....	45
Figure 61: Total Historic Groundwater Monthly Reported Use in the Salkehatchie Basin, 2012-2022	45
Figure 62: Total Historic Groundwater Reported Use Over Time in the Saluda Basin, 2012-2022.....	46
Figure 63: Total Historic Groundwater Monthly Reported Use in the Saluda Basin, 2012-2022	46
Figure 64: Total Historic Groundwater Reported Use in the Santee Basin, 2012-2022.....	47
Figure 65: Total Historic Groundwater Monthly Reported Use in the Santee Basin, 2012-2022	47
Figure 66: Total Historic Groundwater Reported Use in the Savannah Basin, 2012-2022.....	48
Figure 67: Total Historic Groundwater Monthly Reported Use in the Savannah Basin, 2012-2022	48
Figure 68: Total Reported Groundwater Use for Aquaculture by County, 2022.....	49
Figure 69: Reported Groundwater for Aquaculture Use by Month, 2012-2022	49
Figure 70: Total Reported Surface Water Use for Aquaculture by County, 2022	50
Figure 71: Reported Surface Water for Aquaculture Use by Month, 2012-2022	50
Figure 72: Reported Groundwater Use for Golf Courses by County, 2022	51
Figure 73: Reported Groundwater for Golf Course Use by Month, 2012-2022	51
Figure 74: Total Reported Surface Water Use for Golf Courses by County, 2022	52
Figure 75: Reported Surface Water for Golf Course Use by Month, 2012-2022.....	52
Figure 76: Reported Surface Water Use for Hydroelectric Power by County, 2022. *No Groundwater usage for Hydroelectric use category.....	53
Figure 77: Reported Surface Water for Hydroelectric Power Use by Month, 2012-2022	53
Figure 78: Reported Groundwater Use for Industrial Processes by County, 2022	54
Figure 79: Reported Groundwater for Industrial Processes by Month, 2012-2022	54
Figure 80: Reported Surface Water Use for Industrial Processes by County, 2022	55
Figure 81: Reported Surface Water for Industrial Processes by Month, 2012-2022	55
Figure 82: Reported Groundwater Use for Agricultural Irrigation by County, 2022	56
Figure 83: Reported Groundwater for Agricultural Irrigation by Month, 2012-2022	56
Figure 84: Reported Surface Water Use for Agricultural Irrigation by County, 2022	57

Figure 85: Reported Surface Water for Agricultural Irrigation by Month, 2012-2022.....	57
Figure 86: Reported Groundwater Use for Mining Operations by County, 2022	58
Figure 87: Reported Groundwater for Mining Operations by Month, 2012-2022.....	58
Figure 88: Reported Surface Water Use for Mining Operations by County, 2022	59
Figure 89: Reported Surface Water for Mining Operations by Month, 2012-2022	59
Figure 90: Reported Groundwater Use for Nuclear Power Production by County, 2022	60
Figure 91: Reported Groundwater for Nuclear Power Use by Month, 2012-2022	60
Figure 92: Reported Surface Water Use for Nuclear Power Production by County, 2022	61
Figure 93: Reported Surface Water for Nuclear Power Use by Month, 2012-2022.....	61
Figure 94: Reported Groundwater Use for Other Use by County, 2022. *No Surface Water usage in the Other water category	62
Figure 95: Reported Groundwater for Other Use by Month, 2012-2022.....	62
Figure 96: Reported Groundwater Use for Thermal Power Production by County, 2022.....	63
Figure 97: Reported Groundwater for Thermal Power Use by Month, 2012-2022	63
Figure 98: Reported Surface Water Use for Thermal Power Production by County, 2022	64
Figure 99: Reported Surface Water for Thermal Power Use by Month, 2012-2022.....	64
Figure 100: Reported Groundwater Use for Public Water Supply by County, 2022.....	65
Figure 101: Reported Groundwater for Public Water Supply Use by Month, 2012-2022	65
Figure 102: Reported Surface Water Use for Public Water Supply by County, 2022	66
Figure 103: Reported Surface Water for Public Water Supply Use by Month, 2012-2022	66

Introduction

South Carolina is fortunate to have an abundance of available freshwater resources, through surface water bodies 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. Additionally, 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 2022. The Department maintains and continually updates the water use and facility databases utilized in this report. Water use data is 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 of South Carolina is influenced by several factors, such as its location in the midlatitudes, proximity to the Appalachian Mountains, and 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 toward the Atlantic Coastal Plain (South Carolina Department of Natural Resources, 2018). These warm, moist currents collide with more cool, dry air masses to generate rainfall, and at times, severe thunderstorms (South Carolina Department of Natural Resources, 2018). In contrast, the Appalachian region in the northwestern portion of the state experiences cooler temperatures, owing in part to upward lifting of air masses and subsequent cooling effects 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). Much of the state is classified as humid subtropical (Köppen-Geiger classification), except in the Blue Ridge physiographic province, where it is humid continental (South Carolina Department of Natural Resources, 2018).

Average temperatures vary 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 2022, the average statewide temperature was 64.7°F (Southeast Regional Climate Center, 2022), and the annual rainfall for 2022 was 45.43 inches (Southeast Regional Climate Center, 2022).

Geography and Physiography

South Carolina has distinctive 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 exists in the northwestern portion of the state, particularly in Oconee and Pickens Counties (Figure 1). The Blue Ridge 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, streams, and rivers, as well as man-made lakes, while groundwater occurs in the fractures of crystalline bedrock, with a thin veneer of soil and saprolite overlying the bedrock. The water quality of streams and groundwater is recurrently 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). Unlike 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. Like the Blue Ridge, groundwater occurs in the fractures of the bedrock and overlying soil and saprolite, and of good quality, except in smaller areas of contamination.

Coastal Plain

The Coastal Plain physiographic province includes all counties, or portions of counties, extending east of the Fall Line to the Atlantic Ocean (Figure 1). Elevations of the exposed Coastal Plain range between 0 and 450 feet above sea level. Below the Fall Line, rivers and streams behave differently than those found in the Piedmont. Coastal Plain rivers and streams have a slower pace, meandering morphology and adjacent wetlands. The 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. Much of South Carolina's water resources are contained as groundwater in the Coastal Plain and are reliant on groundwater for irrigation, industrial uses, and public water supply. 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.

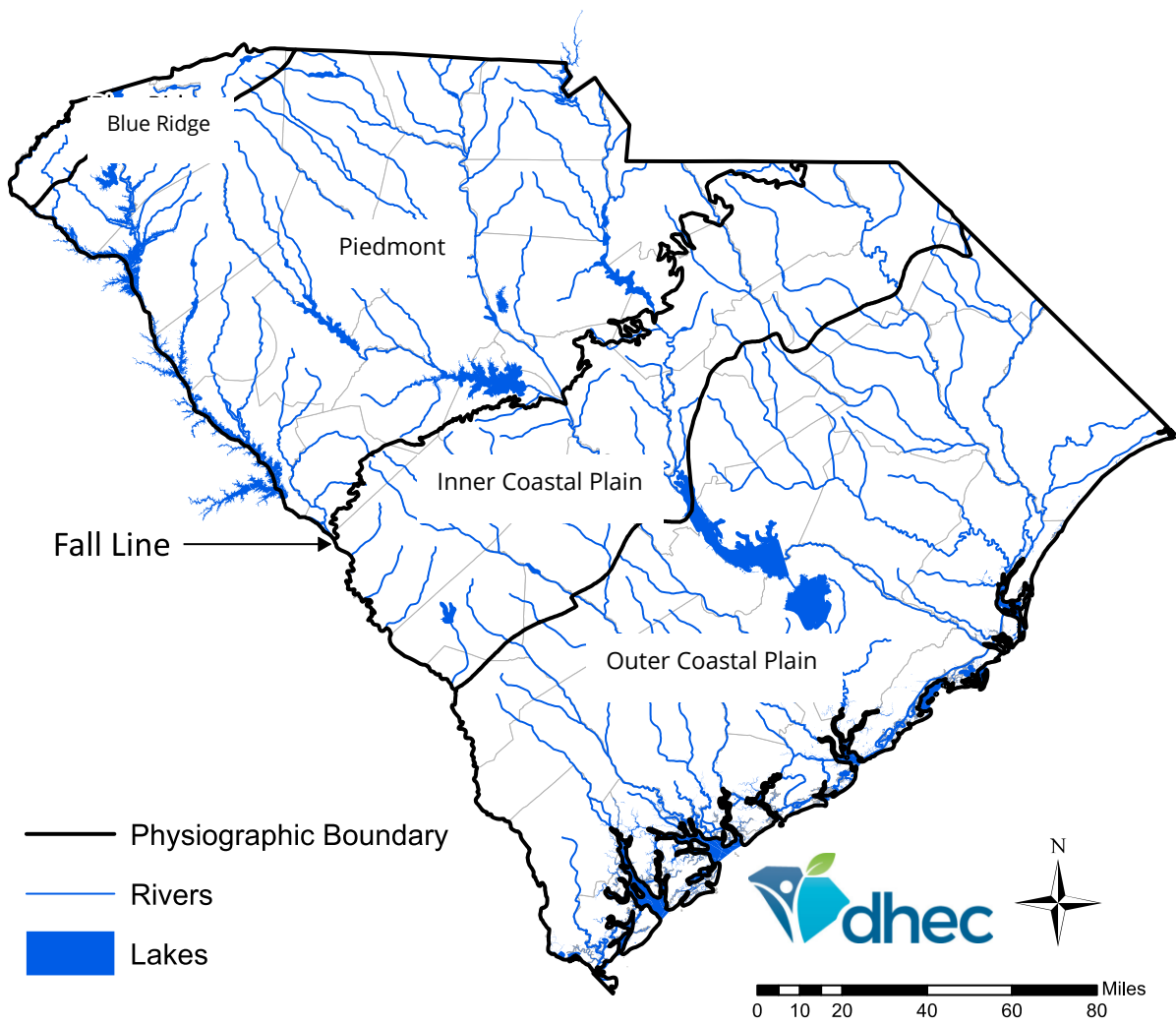


Figure 1: Hydrogeologic and Physiographic Setting for Water Use in South Carolina

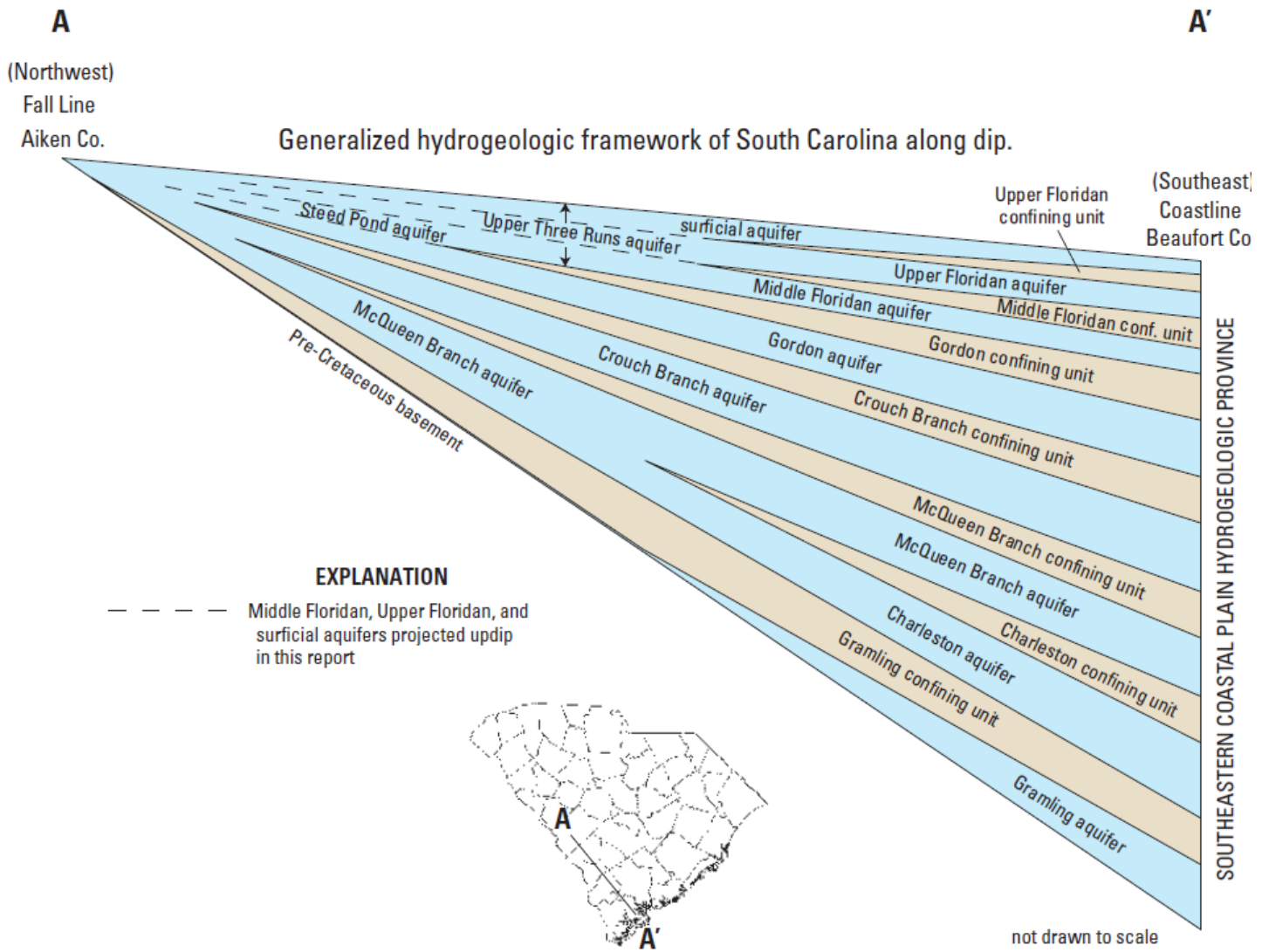


Figure 2: Generalized Hydrogeologic Cross-Section from the Fall Line through the Lower Coastal Plain in South Carolina (Gellici & Lautier, 2010)

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 South Carolina's major groundwater resources.

Crystalline Rock Aquifer System of the Blue Ridge and Piedmont

Blue Ridge geology is typically characterized by clayey saprolite, ranging in depth from several feet to tens of feet, overlying crystalline metamorphic 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). Piedmont geology is similar to the Blue Ridge, but the decreased relief allows for greater thickness of saprolite development. In general, wells in the Blue Ridge and Piedmont regions yield less 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 comprising the surficial aquifer are among the youngest of the Coastal Plain sediments and found exclusively in the Lower Coastal Plain (Gellici & Lautier, 2010). The surficial aquifer 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 prone to dramatic water level declines during times of drought. Transmissivity in the aquifer varies regionally, from 80 to 1,200 ft²/day, and from 190 to 270 ft²/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 are common in the Charleston, Dorchester, and Berkeley County areas (Gellici & Lautier, 2010). Southwest of the Combahee and Salkehatchie Rivers, upper sections of the limestone become increasingly permeable, owed to abundant voids created from dissolved marine fossils, and can store and supply tremendous amounts of water (Gellici & Lautier, 2010). The upper, highly permeable zone is the most developed, supplying most 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). The 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 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 just over 300 feet in Beaufort County. The average transmissivity is about 2,000 ft²/day in Beaufort

County, and 4,900 ft²/day in Barnwell County (Gellici & Lautier, 2010). The yield is higher in the thicker parts of the unit, but still not as productive as some of the underlying units.

Crouch Branch Aquifer

The Crouch Branch aquifer is present most of the Coastal Plain, except in the northeastern Pee Dee region. In the southern regions, the aquifer is fine grained, and in the eastern parts become sandy clay and calcareous clay (Gellici & Lautier, 2010). The Crouch Branch aquifer reaches a maximum thickness of 500 feet in Berkeley and Williamsburg Counties and is relatively impermeable in this area. The aquifer is utilized heavily in the west-central and up-dip parts of the Coastal Plain, due to its permeability, where there are more medium to coarse-grained sediments. The Crouch Branch aquifer has a transmissivity that ranges from 2,400 ft²/day in the Pee Dee region, to 11,000 ft²/day in western Orangeburg County and parts of Barnwell County (Gellici & Lautier, 2010).

McQueen Branch Aquifer

The McQueen Branch aquifer is present in the majority of the Coastal Plain. The aquifer is fine-grained in Beaufort, Colleton, and Jasper Counties, and therefore not as productive as in other regions. The aquifer reaches a maximum thickness of 350 feet in Barnwell County. The McQueen Branch aquifer is generally described as poorly sorted, composed of fine-grained to coarse-grained sand and clayey sand, with interstitial clay in the up-dip regions (Gellici & Lautier, 2010). The aquifer is one of the most productive aquifers in the region, and therefore one of the most utilized. The transmissivity was measured to be 27,000 ft²/day in Orangeburg County, and in Aiken County, close to the Savannah River Site (SRS), transmissivity ranges from 14,000 ft²/day to 50,000 ft²/day (Gellici & Lautier, 2010).

Charleston Aquifer

The Charleston aquifer is not present throughout the entirety of the Coastal Plain. The aquifer overlies the Gramling aquifer and thins out towards the central part of the state, coming together with the McQueen Branch aquifer, resulting in the discontinuation of the formation. The Charleston aquifer has a maximum thickness of around 300 feet in Jasper County. The aquifer is composed mainly of unconsolidated sand, clayey sand, and clay (Gellici & Lautier, 2010). The transmissivity measured to be between 3,100 ft²/day to 4,100 ft²/day in Berkeley County, and 1,500 ft²/day to 2,400 ft²/day in Charleston County (Gellici & Lautier, 2010). The Charleston aquifer is not heavily utilized along the coast due to the fine-grained nature but is utilized in Berkeley County.

Gramling Aquifer

The Gramling aquifer is primarily within 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 composed 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, decreasing its productivity. The aquifer is only used on Hilton Head and Fripp Islands (Gellici & Lautier, 2010). The measured transmissivity is 200 ft²/day at Fripp Island, and up to 1,200 ft²/day in Hilton Head Island (Gellici & Lautier, 2010).

Surface Water Resources

South Carolina's surface water resources are divided into eight 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 of North Carolina and is one of South Carolina's largest river basins, encompassing an area 3,989.6 square miles. The majority of Cherokee, Union, Spartanburg, and Greenville Counties are drained by the Broad River. 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 River Basin region. 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. The Catawba River is the smallest basin in the state, encompassing 2,324 square miles. The river drains York, Lancaster, Fairfield, Chester, Kershaw, and parts of Richland and Sumter Counties. The Catawba River 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 three basins in South Carolina that fully originates in the state. The basin 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 discharges 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. The basin 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 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 within the Coastal Plain. The Salkahatchie River is the second smallest basin in the state, encompassing 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 along the coast.

Saluda River Basin

The Saluda River Basin originates in the Blue Ridge province of South Carolina and drains the central portion of the Piedmont region. 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 numerous major tributaries that make up the Saluda Basin,

including the Saluda, Reedy, and Little Rivers. The Saluda River and the Broad River form the Congaree River in Richland County, which then forms 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. The basin 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 shared with Georgia and one of the most regulated basins 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 within South Carolina 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 draining into the Savannah Basin are the Chattooga, Seneca, Little River, Stevens Creek, Rocky, and Tugaloo Rivers. The Savannah is a major river basin for a large portion of South Carolina and drains into the Atlantic Ocean through the city of Savannah, Georgia and Jasper County, South Carolina.

Surface and Groundwater Use Summary by Source, Category, and County in South Carolina, 2022

The following section outlines all reported water use for the State of South Carolina for the calendar year 2022. Water use is summarized by category (see “Definitions”). 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 2022, South Carolina had 1,307 water withdrawers who submitted water use from 3,743 sources (3,234 groundwater and 509 surface water).

Table 1: Reporting Withdrawers and Type Use for Reporting Year 2022

Water Use Category	Facilities	Groundwater Sources	Surface Water Sources
Agricultural Irrigation	710	1,880	208
Aquaculture	7	6	5
Golf Course Irrigation	176	241	95
Industrial	94	239	38
Mining	12	12	11
Nuclear Power	5	13	9
Other	2	3	-
Thermoelectric	16	13	16
Water Supply	249	827	87
Hydroelectric	36	-	40
Grand Total	1,307	3,234	509

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

Water Use Category	Groundwater	Percentage (GW)	Surface Water	Percentage (SW)	Total Use	Percentage (Total)
Agricultural Irrigation	45,465.5692	43.84%	8,345.571532	0.04%	53,764.47573	0.25%
Aquaculture	103.38	0.1%	390.8	0%	494.18	0%
Golf Course Irrigation	2,746.66148	2.65%	3,352.304312	0.02%	6,098.965788	0.03%
Industrial	9,385.77917	9.05%	97,938.8418	0.46%	107,324.621	0.5%
Mining	561.082	0.54%	1,827.332	0.01%	2,388.414	0.01%
Nuclear Power	384.003	0.37%	1,533,863.33	7.23%	1,534,247.333	7.19%
Other	26.86	0.03%	0	0%	26.86	0%
Thermoelectric	1,321.1122	1.27%	190,618.167	0.9%	191,939.2792	0.9%
Water Supply	43,722.9846	42.16%	212,969.777	1%	256,692.7616	1.2%
Hydroelectric	0	0%	19,179,451.07	90.35%	19,179,451.07	89.91%
Grand Total	103,717.432	100%	21,228,757.19	100%	21,330,722.84	100%

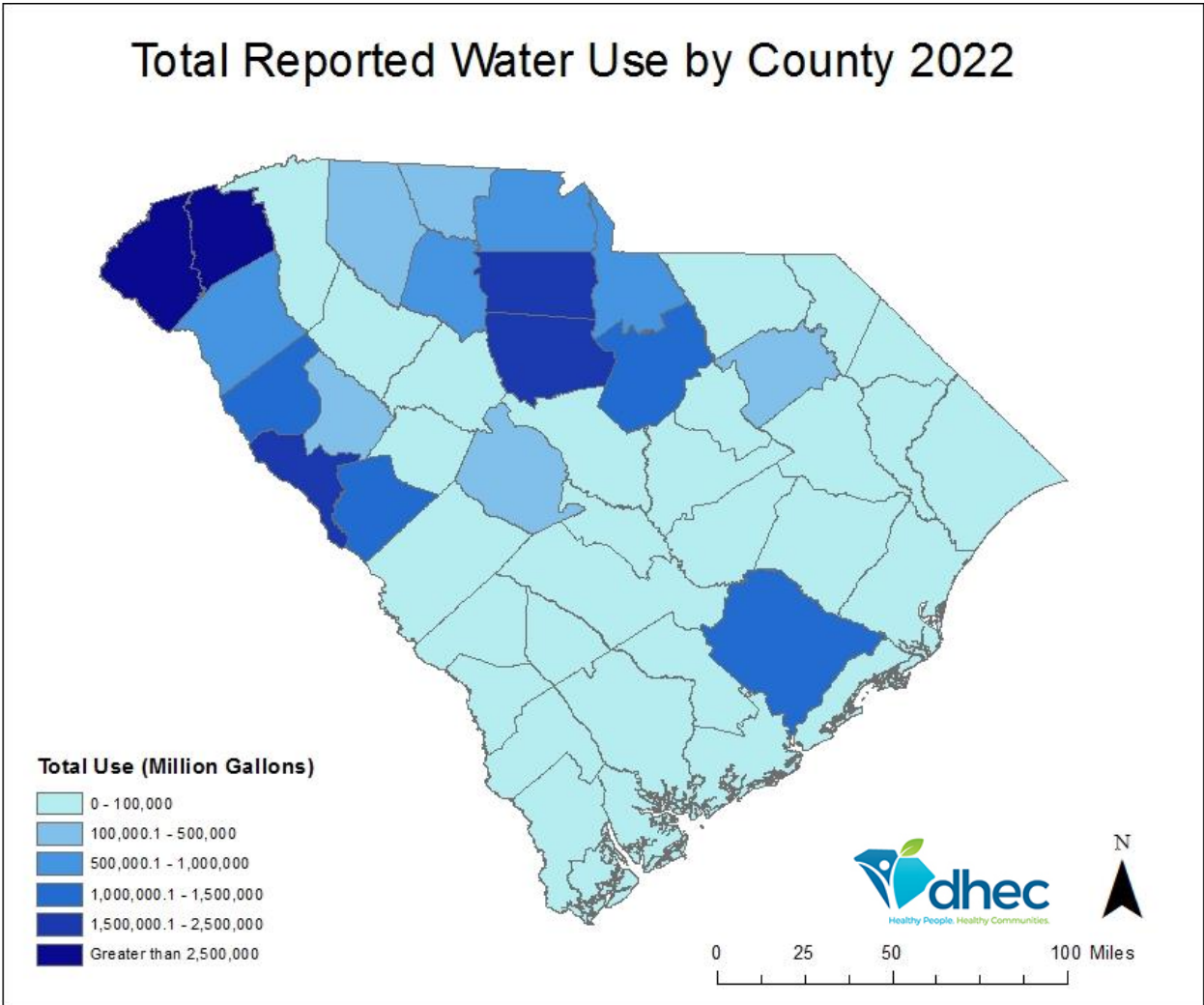


Figure 4: Total Reported Water Use by County 2022

¹ Map legend range differs per map figure.

Total Reported Water Use 2022 by Type Use

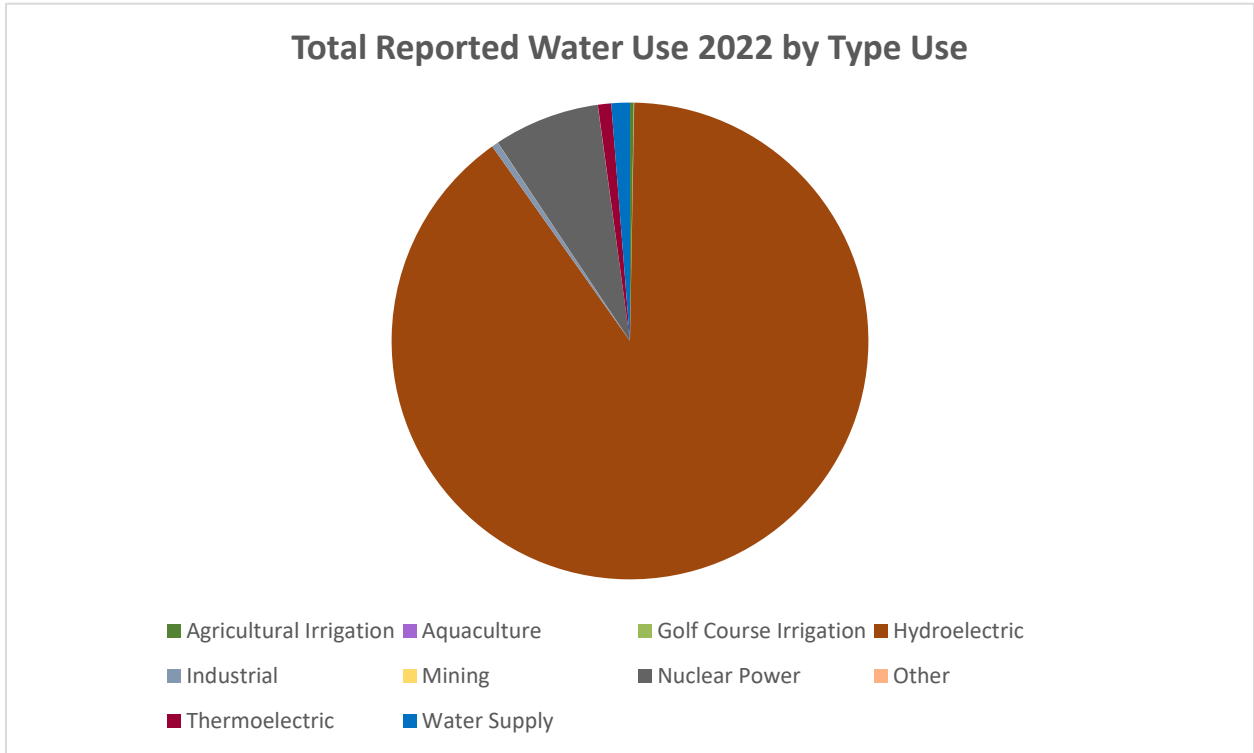


Figure 5: Total Reported Use 2022 by Type Use

Total Reported Water Use 2022

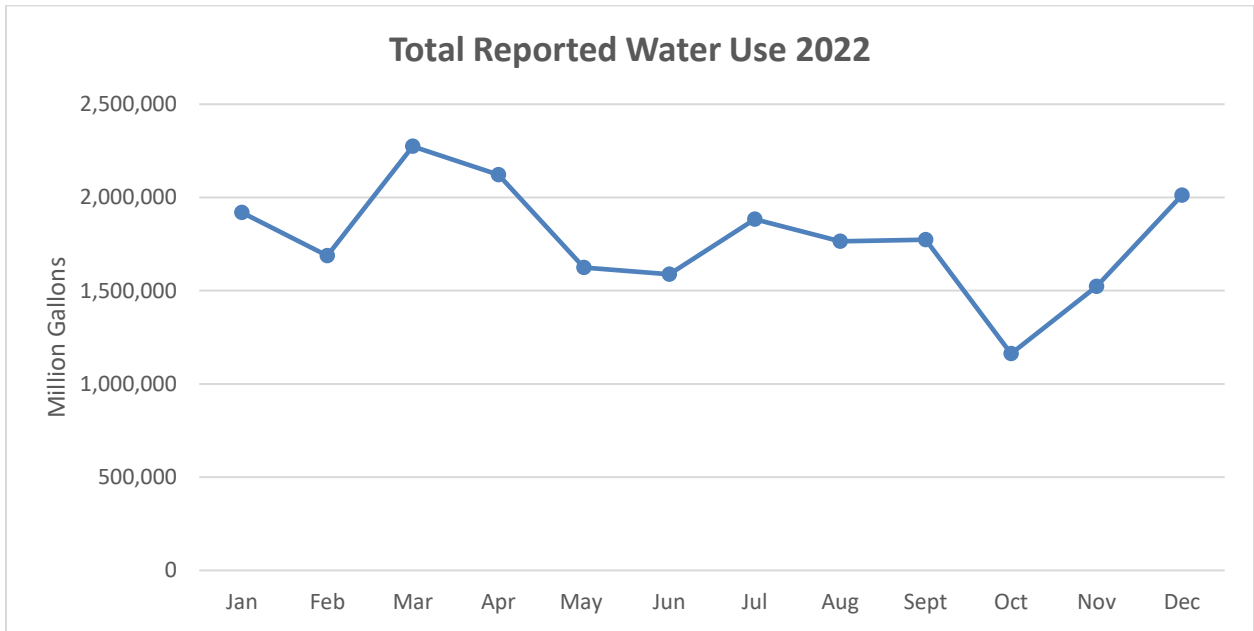


Figure 6: Total Reported Water Use in 2022 by Month

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

Water Use Category	Groundwater	Percentage (GW)	Surface Water	Percentage (SW)	Total	Percentage (Total)
Agricultural Irrigation	45,465.5692	44.57%	8,345.571532	2.57%	53,764.47573	12.6%
Aquaculture	103.38	0.1%	390.8	0.12%	494.18	0.12%
Golf Course Irrigation	2,746.66148	2.69%	3,352.304312	1.03%	6,098.965788	1.43%
Industrial	9,385.77917	9.2%	97,938.8418	30.15%	107,324.621	25.15%
Mining	561.082	0.55%	1,827.332	0.56%	2,388.414	0.56%
Other	26.86	0.03%	0	0%	26.86	0.01%
Water Supply	43,722.9846	42.86%	212,969.777	65.56%	256,692.7616	60.14%
Grand Total	102,012.316	100%	324,824.6266	100%	426,790.2781	100%

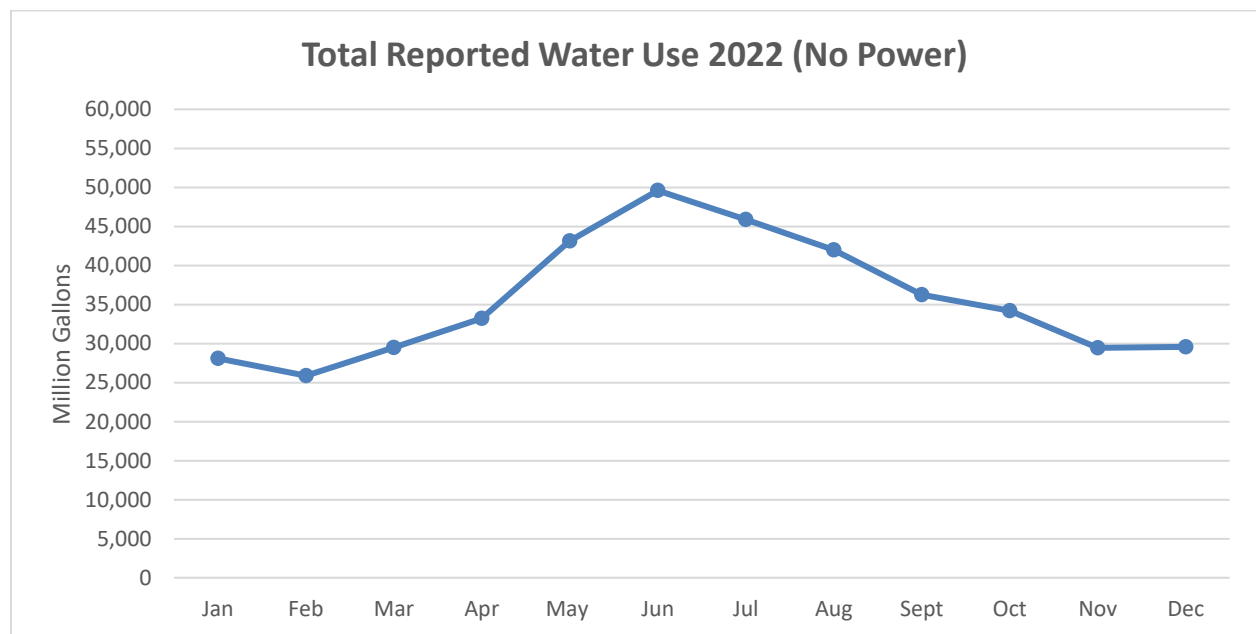


Figure 7: Total Reported Water Use 2022 (No Power Production)

Total Reported Water Use by County 2022 (No Power Production)

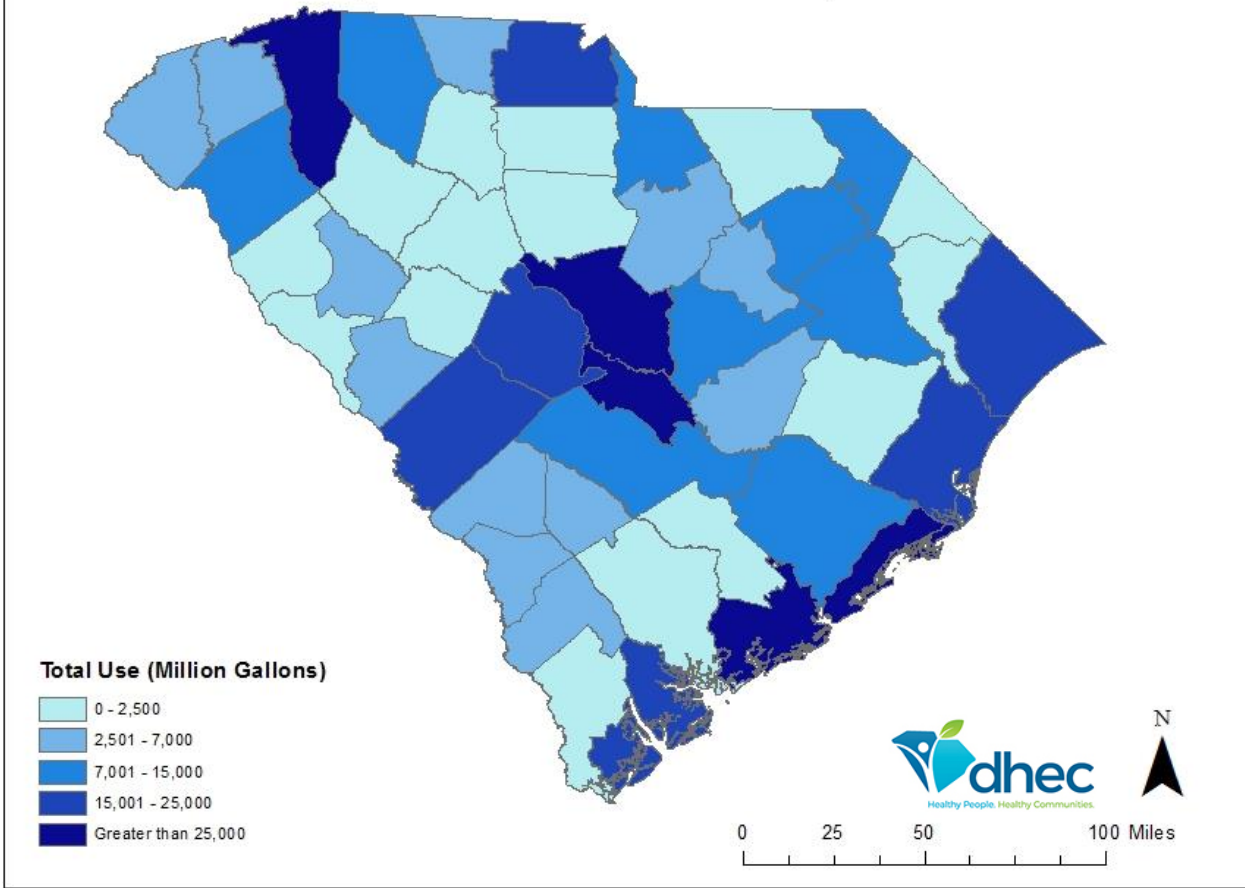


Figure 8: Total Reported Water Use by County 2022 (No Power Production)

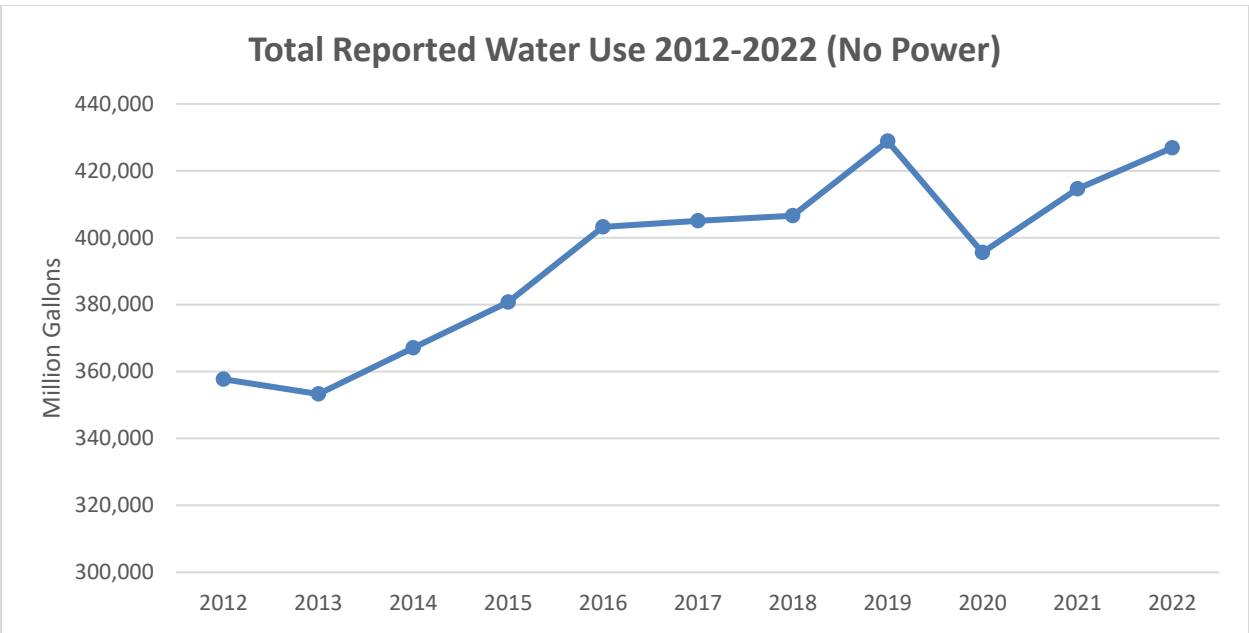


Figure 9: Total Reported Water Use from 2012-2022 (No Power Production)

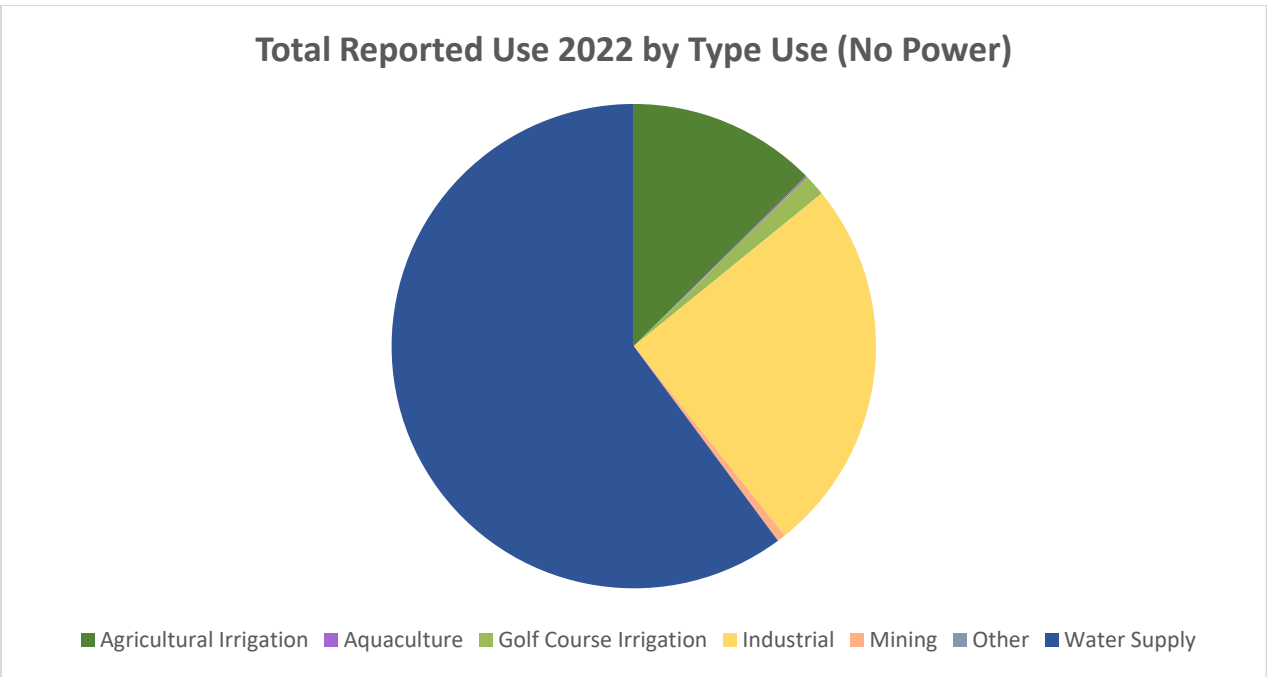


Figure 10: Total Reported Use in 2022 by Type Use (No Power Production)

Total Reported Surface Water Use by County 2022

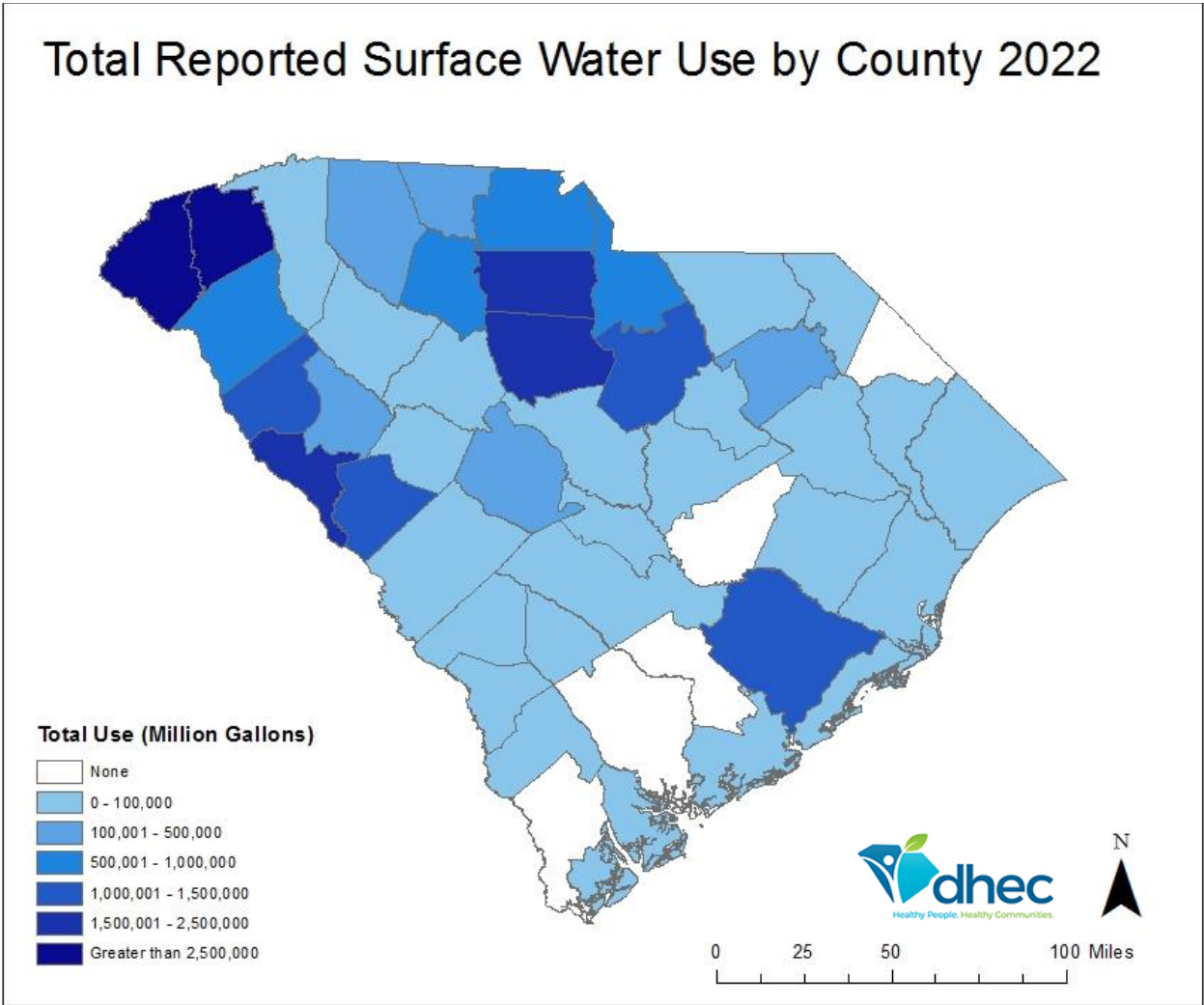


Figure 11: Total Reported Surface Water Use by County 2022

Total Reported Surface Water Use by County 2022 (No Power Production)

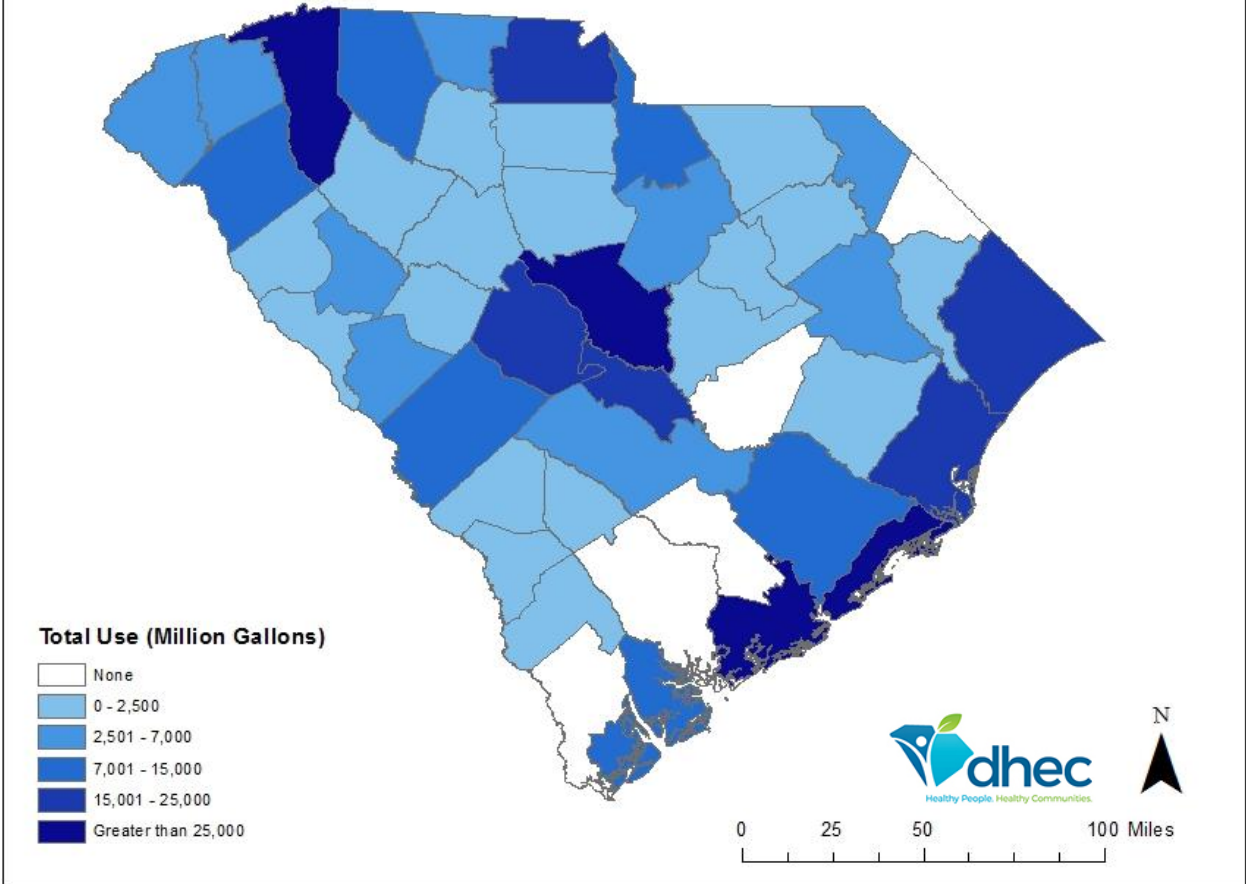


Figure 12: Total Reported Surface Water Use by County 2022 (No Power Production)

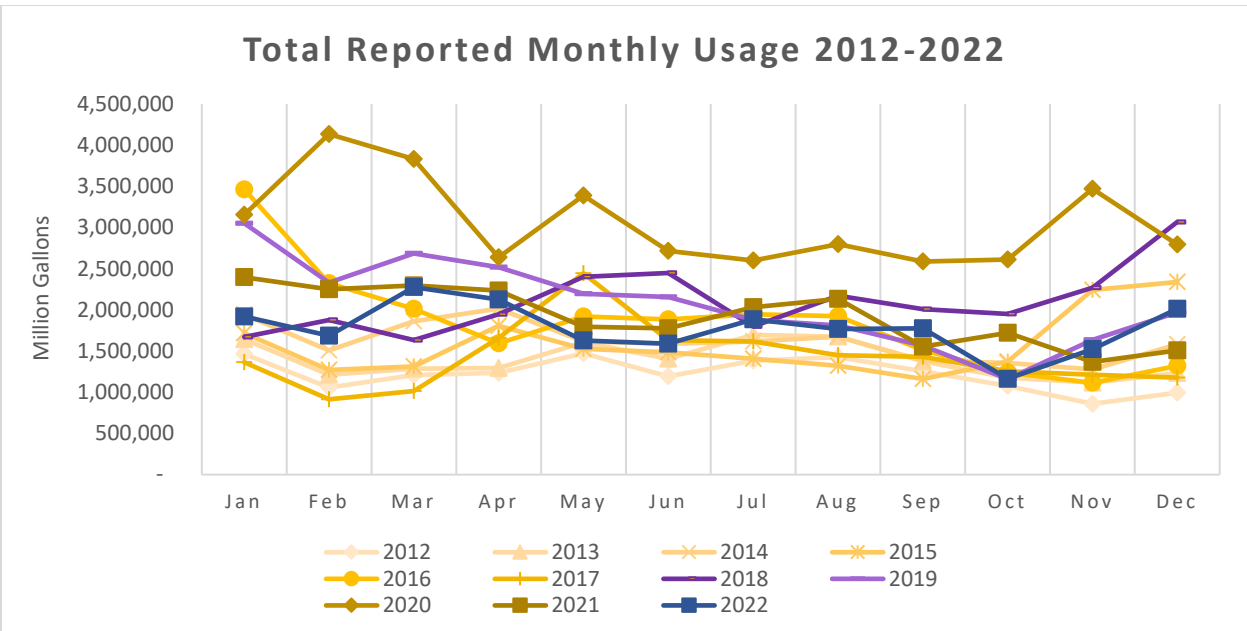


Figure 13: Total Surface Water Monthly Reported Use, 2012 to 2022

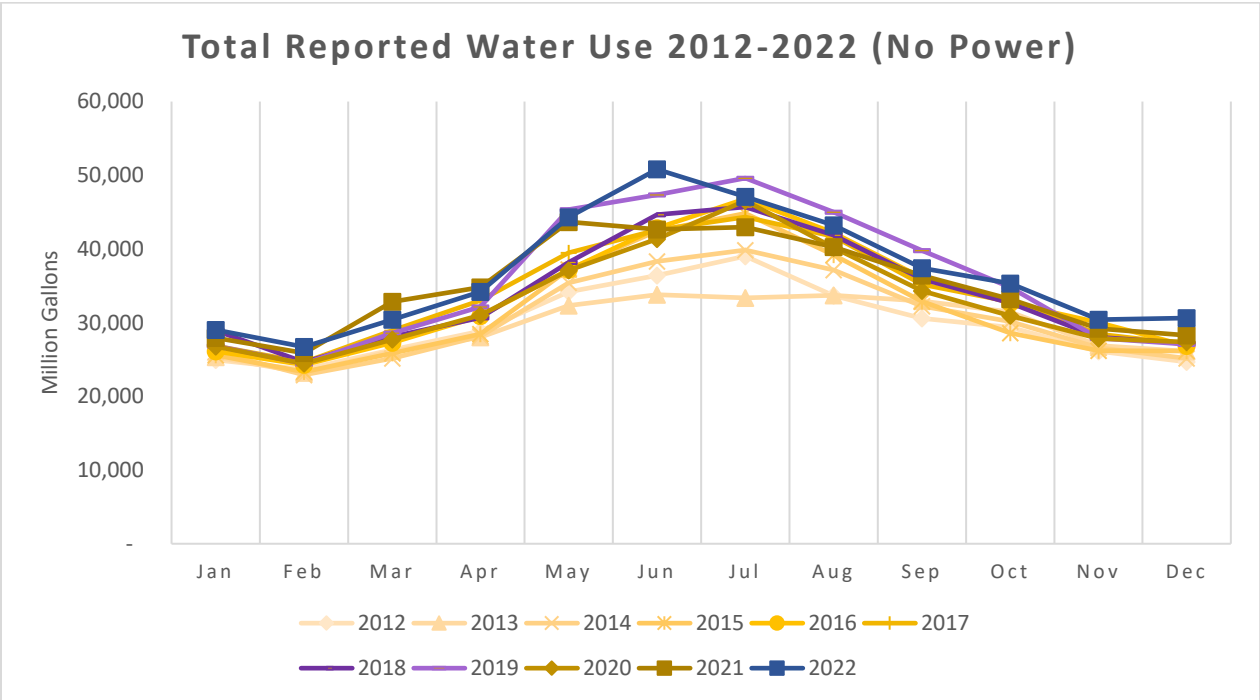


Figure 14: Total Surface Water Monthly Reported Use, 2012 to 2022 (No Power Production)

Total Reported Surface Water Use 2022 by Type Use (No Power)

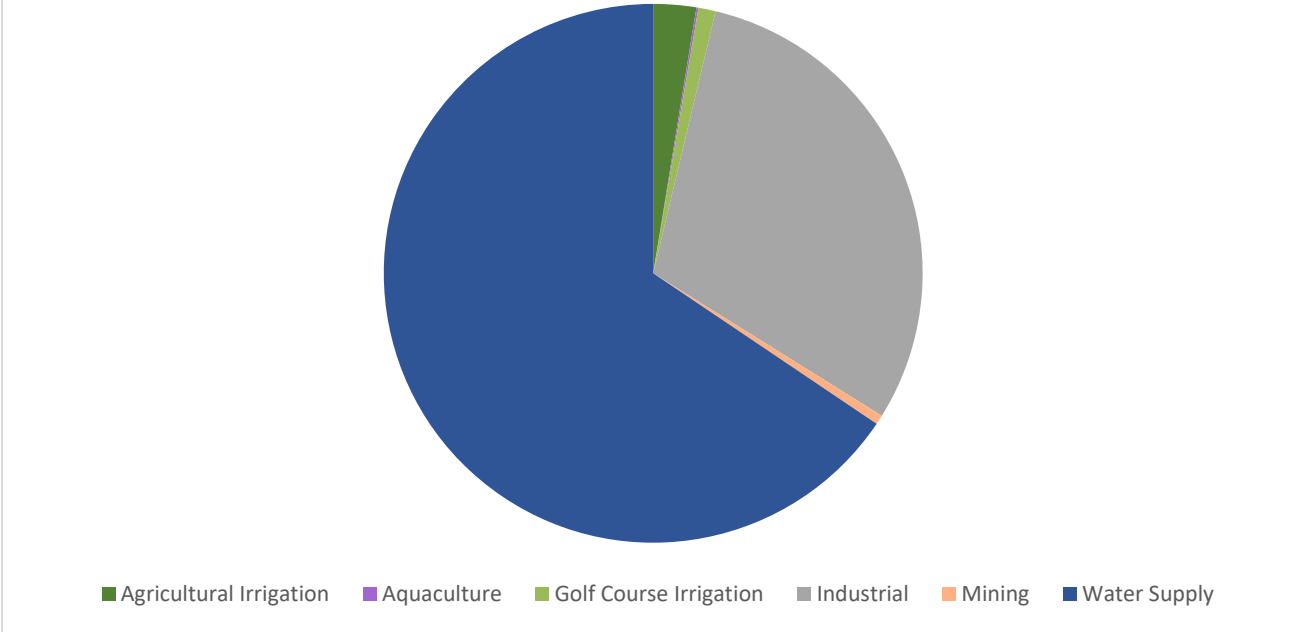


Figure 15: Total Reported Surface Water Use by Type Use 2022 (No Power Production)

Total Reported Groundwater Use by County 2022

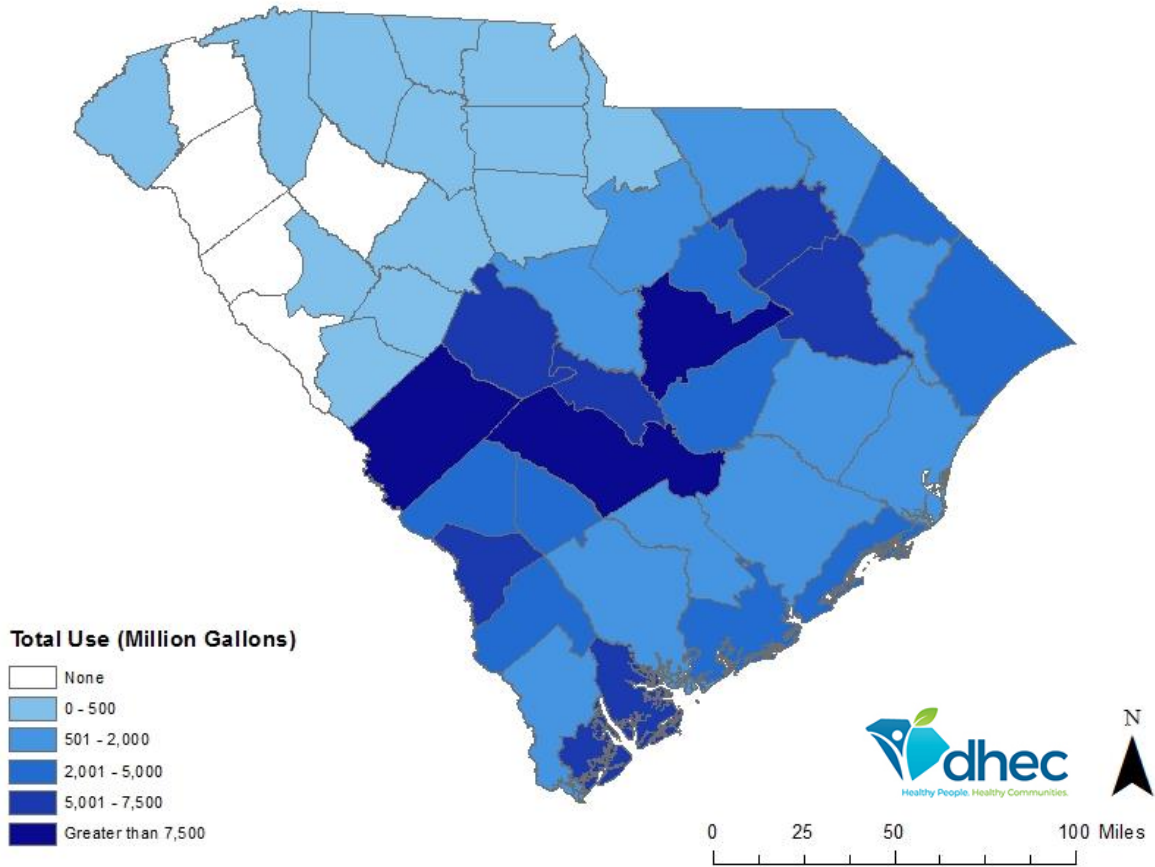


Figure 16: Total Reported Groundwater Use by County 2022

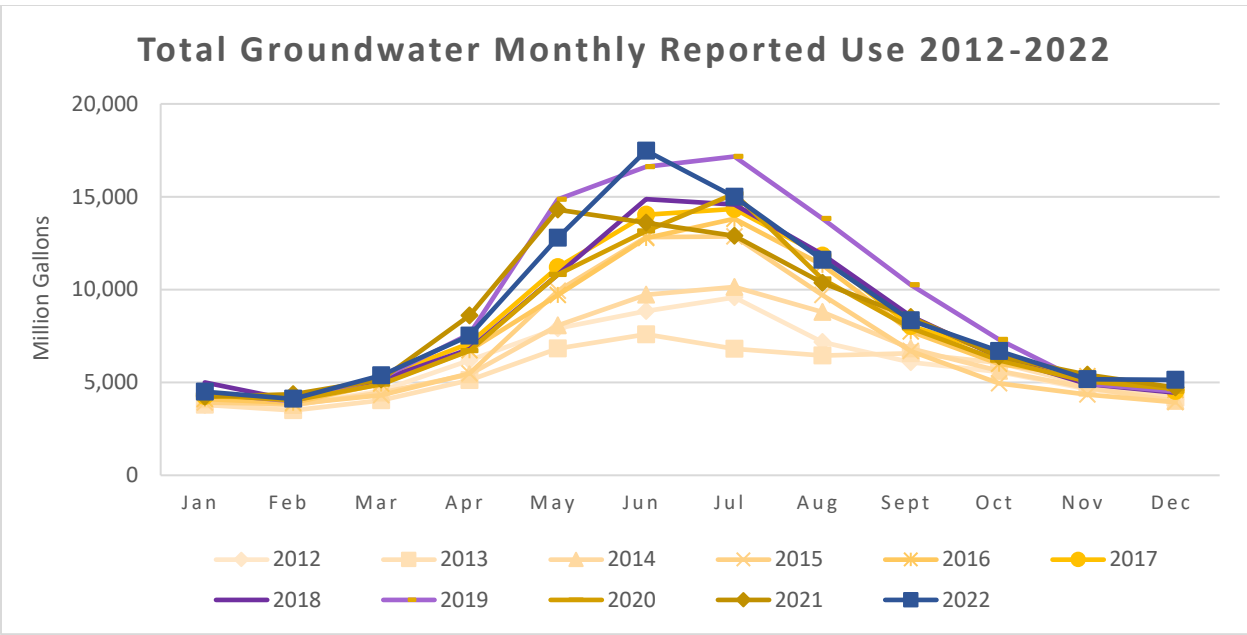


Figure 17: Total Groundwater Monthly Reported Use, 2012 to 2022

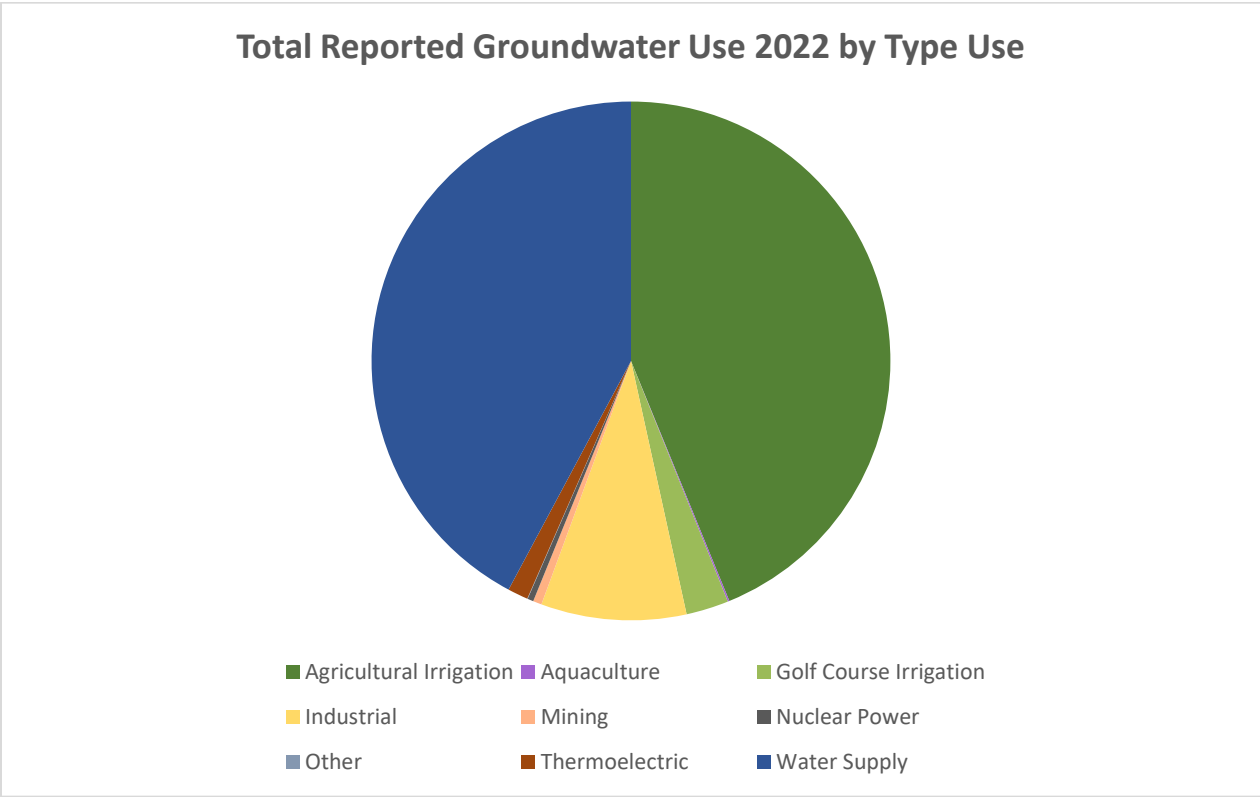


Figure 18: Reported Groundwater Use by Type 2022

Historic Water Use by Basin²

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 decrease was determined to be due to the passing of the Surface Water Act. The Act went into effect January 1, 2012, 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.

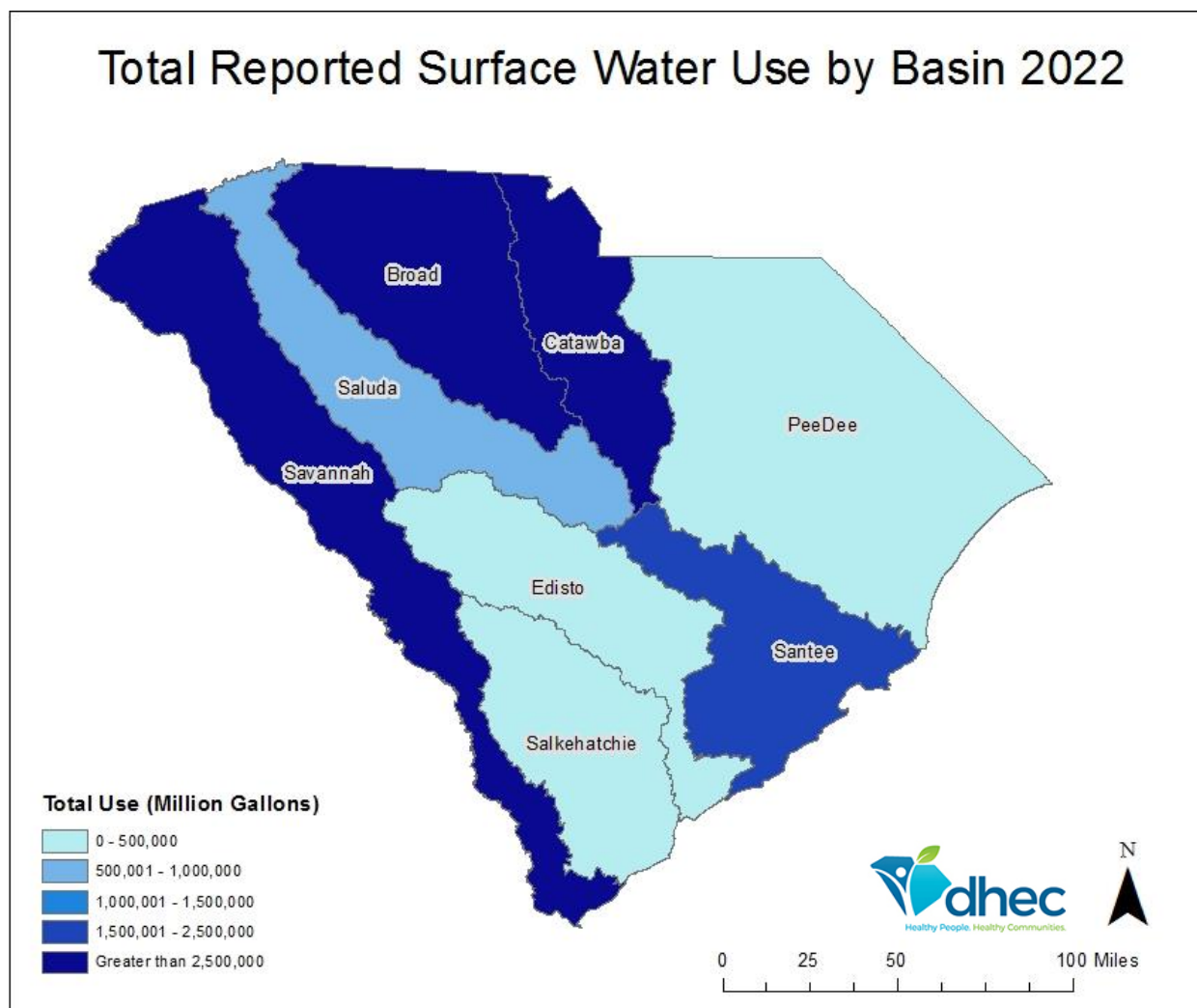


Figure 19: Total Reported Surface Water Use by Basin 2022

² Map legend range differs per map figure.

Total Reported Surface Water Use by Basin 2022 (No Power Production)

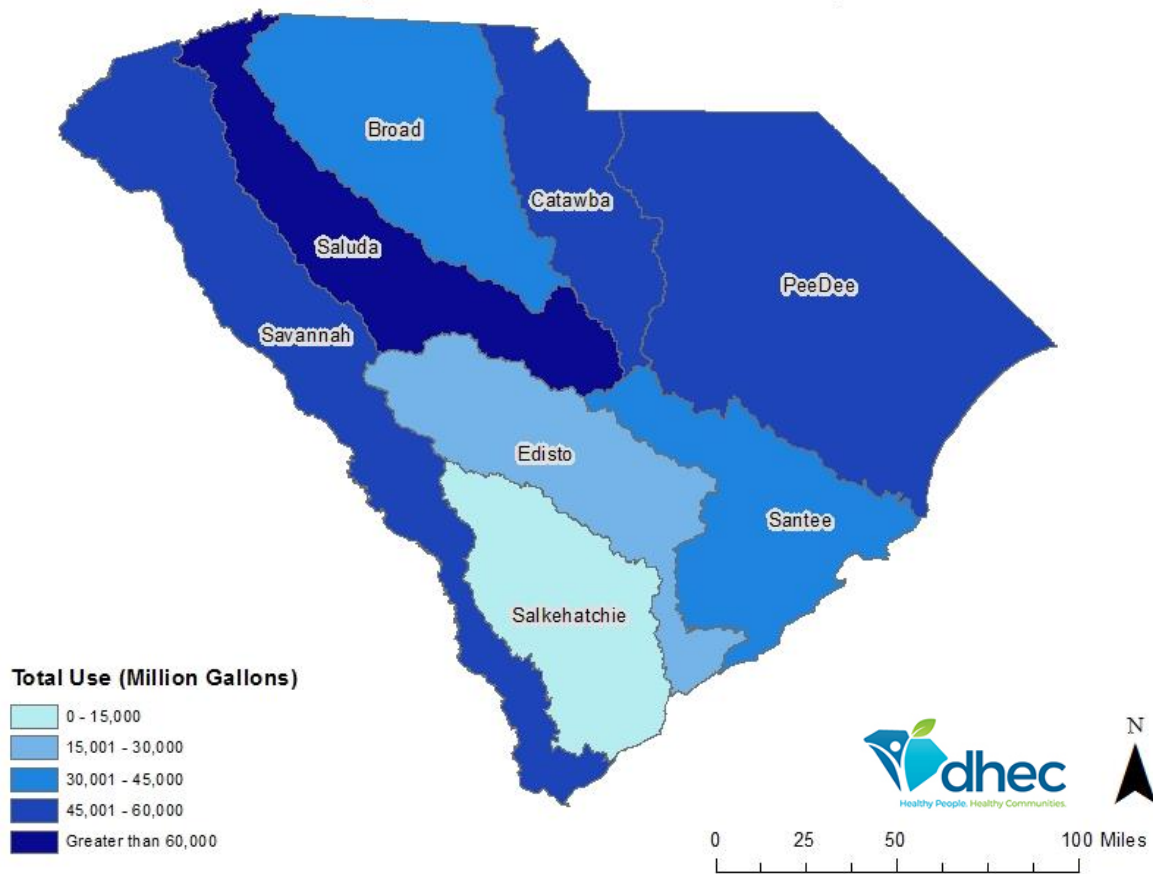


Figure 20: Total Reported Surface Water Use by Basin 2022 (No Power Production)

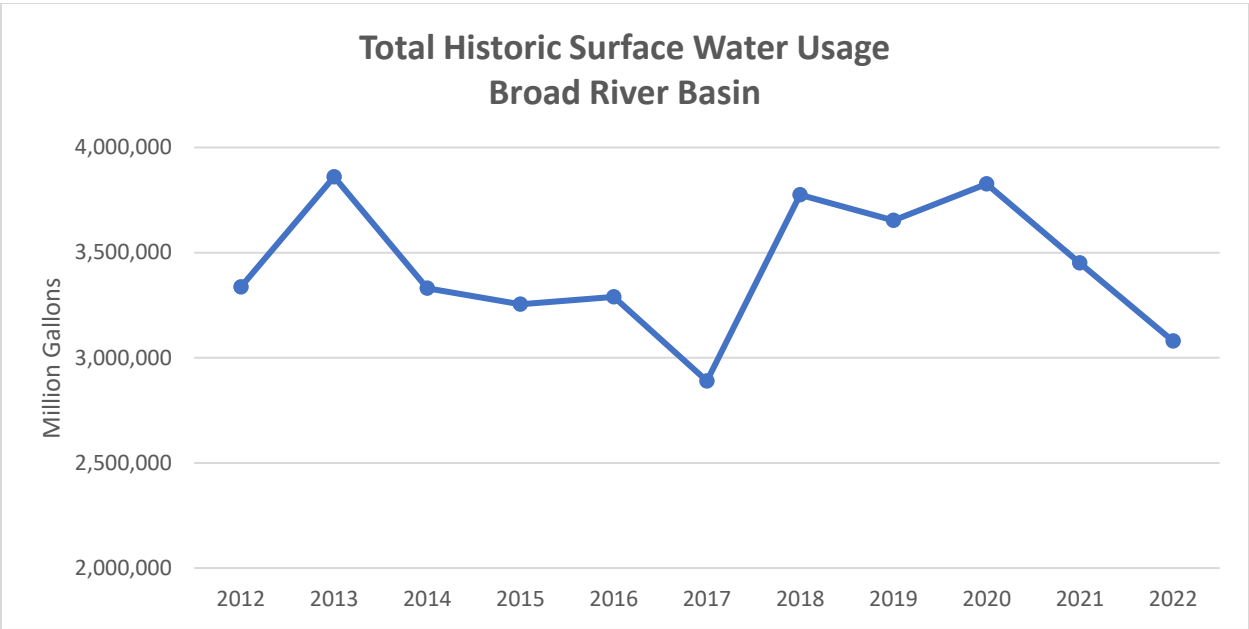


Figure 21: Total Historic Surface Water Reported Use in the Broad Basin, 2012-2022

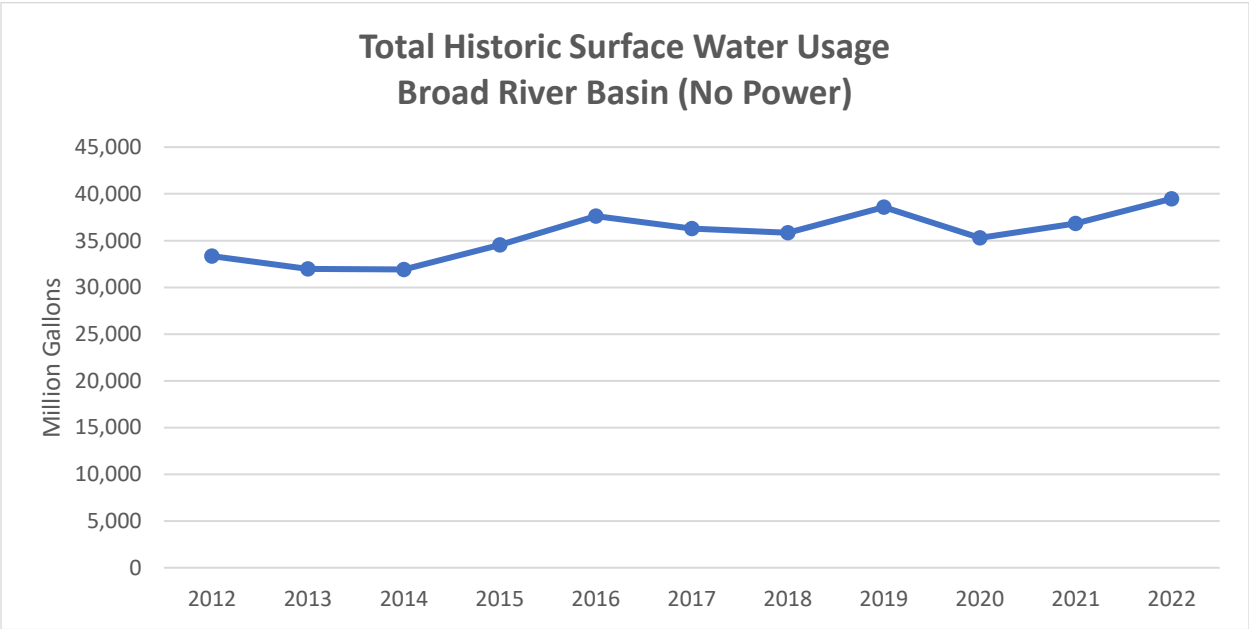


Figure 22: Total Historic Surface Water Reported Use in the Broad Basin excluding power production, 2012-2022

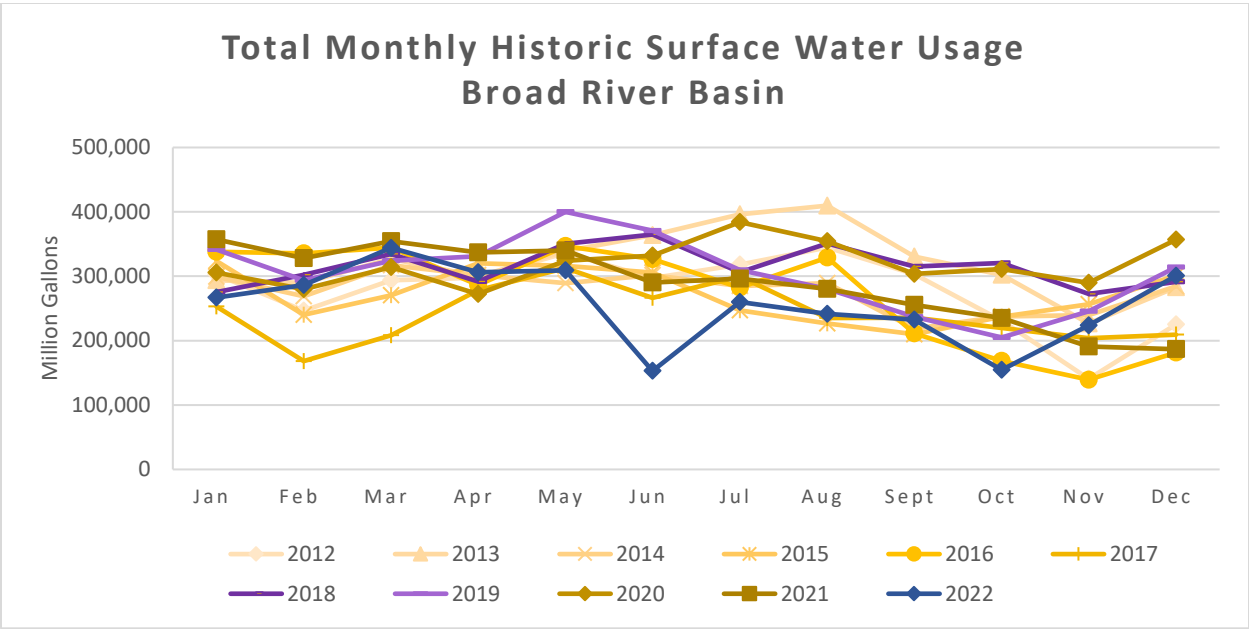


Figure 23: Total Historic Surface Water Reported Monthly Use in the Broad Basin, 2012-2022 *Note: Fairfield Pump Station had an extended outage in June 2022, resulting in the dip seen here.

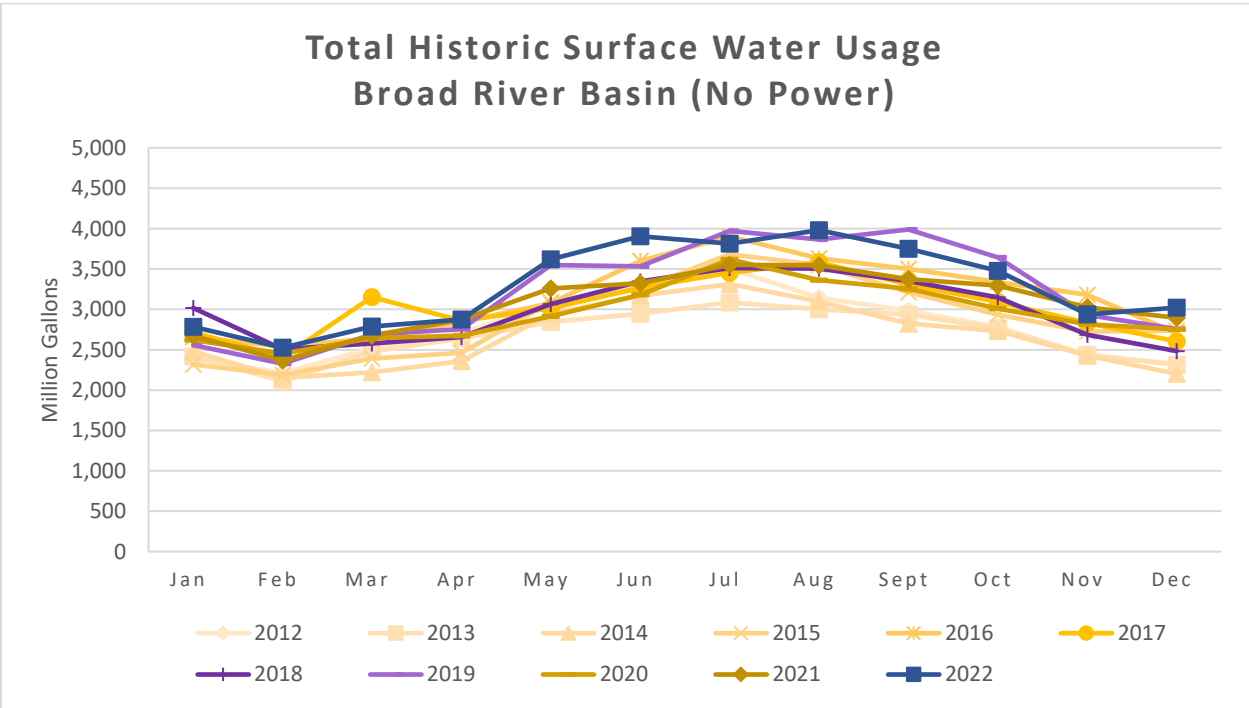


Figure 24: Total Historic Surface Water Reported Monthly Use in the Broad Basin excluding power production, 2012-2022

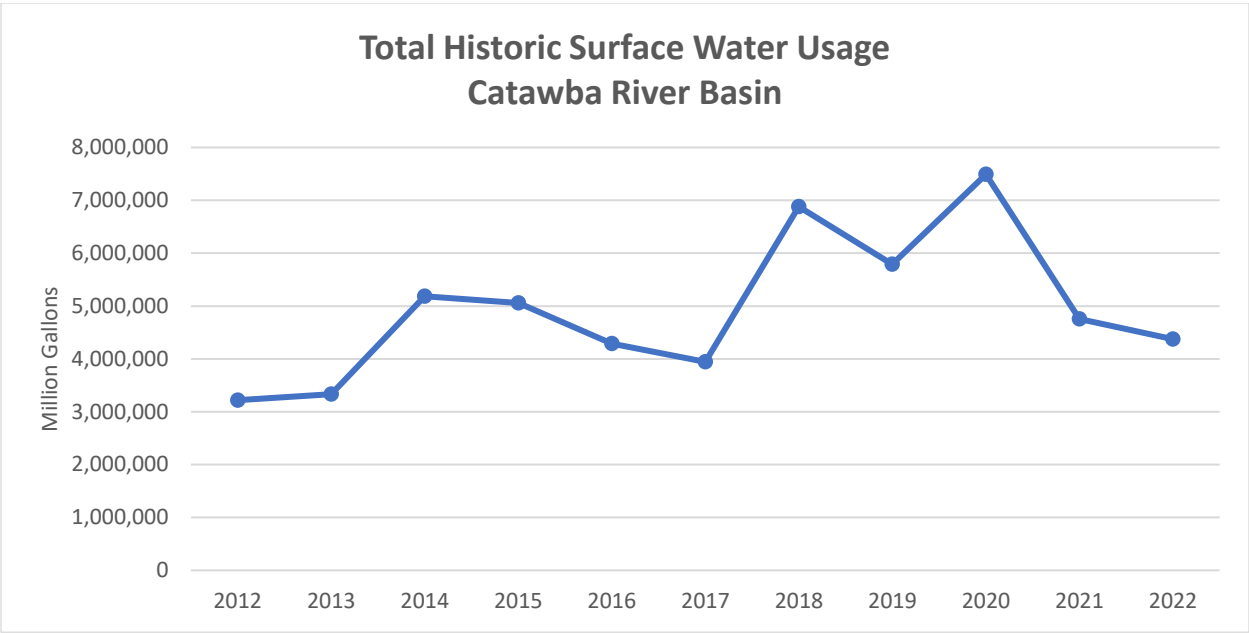


Figure 25: Total Historic Surface Water Reported Use in the Catawba Basin, 2012-2022

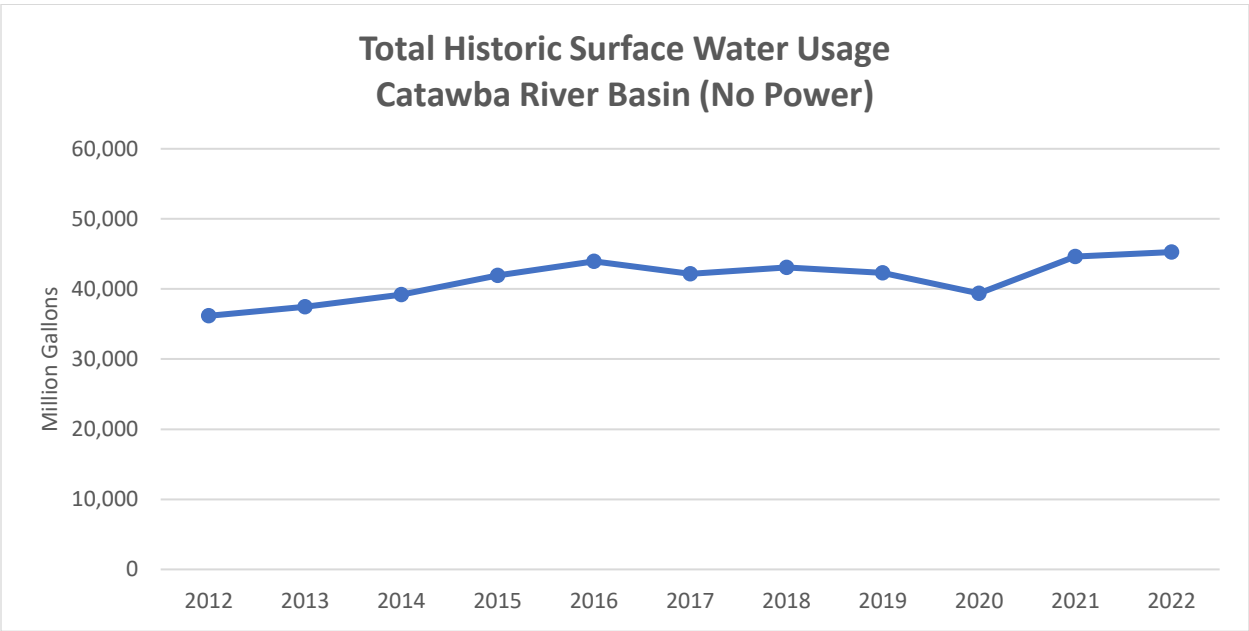


Figure 26: Total Historic Surface Water Reported Use in the Catawba Basin excluding power production, 2012-2022

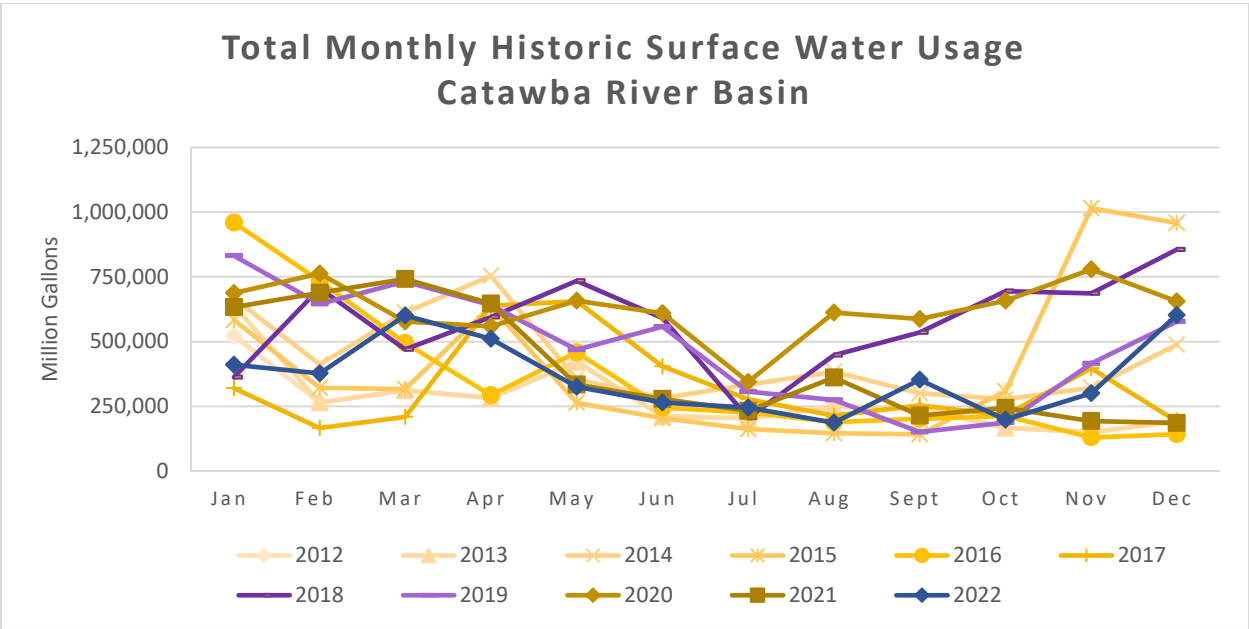


Figure 27: Total Historic Surface Water Reported Monthly Use in the Catawba Basin, 2012-2022

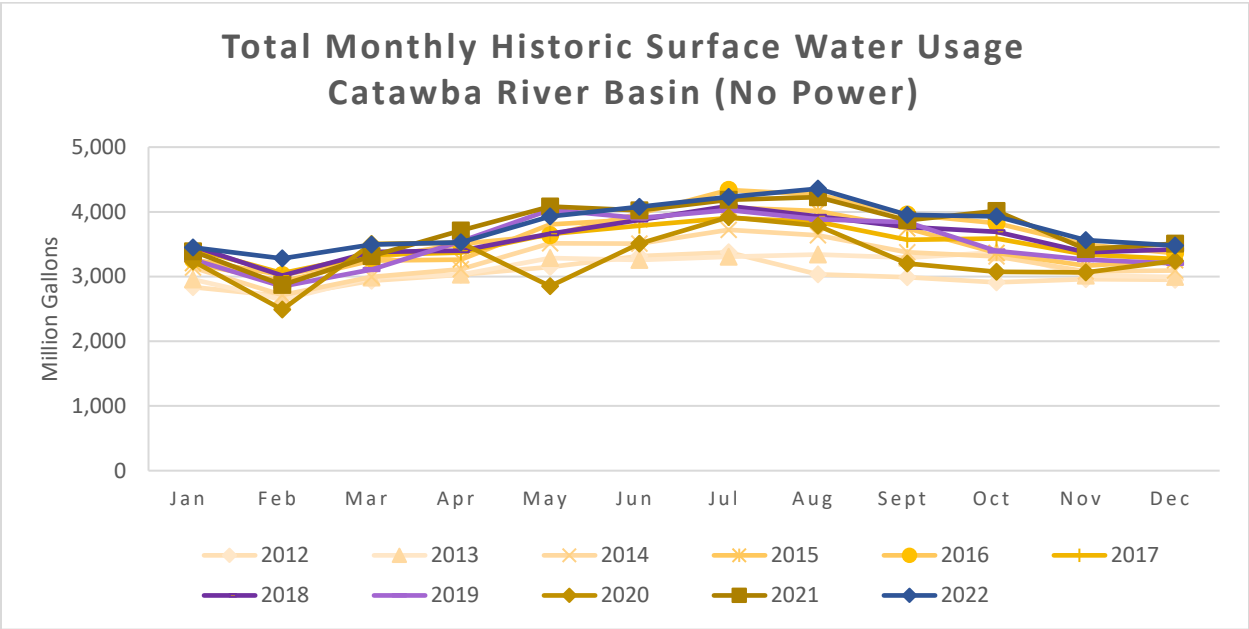


Figure 28: Total Historic Surface Water Reported Monthly Use in the Catawba Basin excluding power production, 2012-2022

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

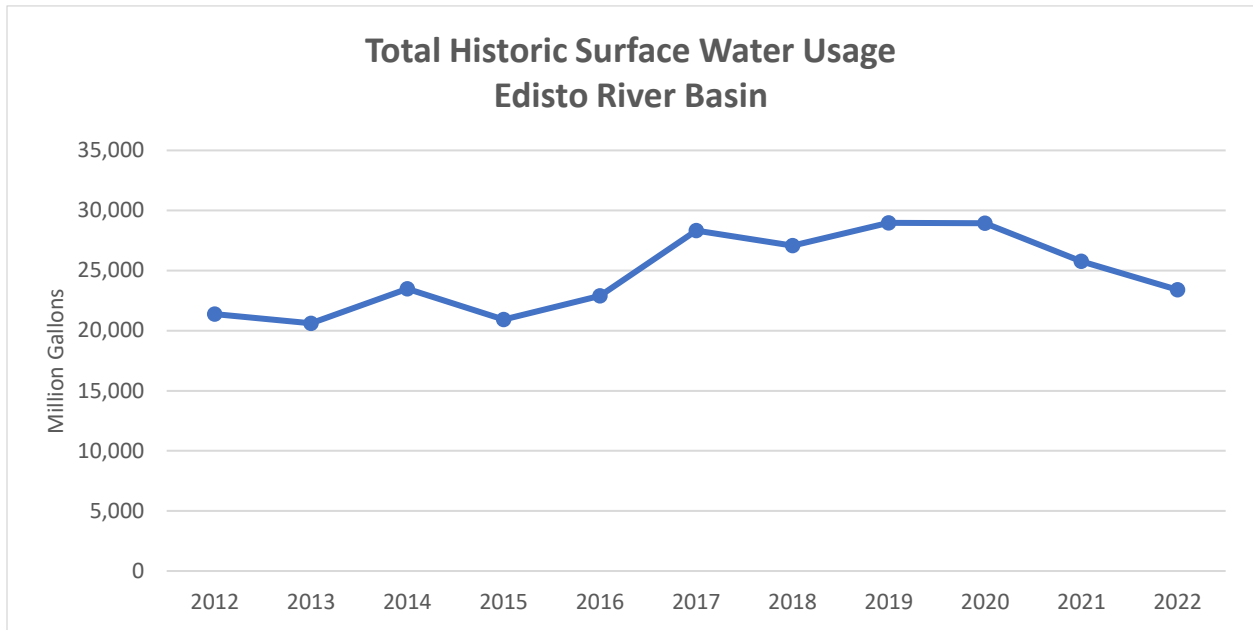


Figure 29: Total Historic Surface Water Reported Use in the Edisto Basin, 2012-2022

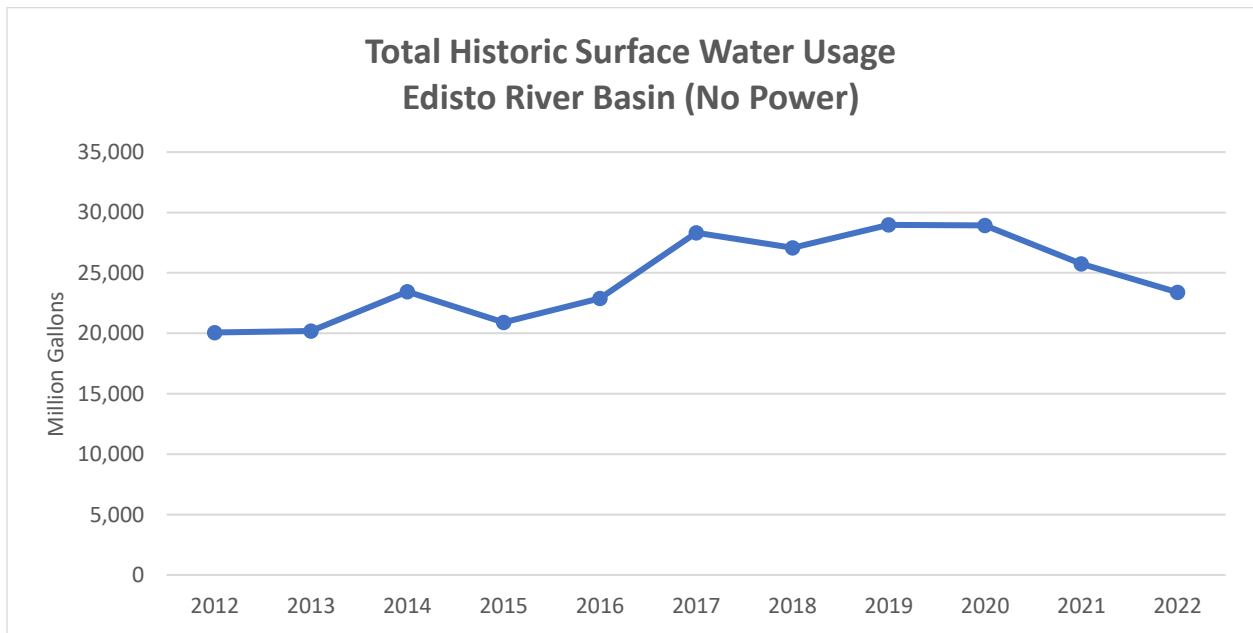


Figure 30: Total Historic Surface Water Reported Use in the Edisto Basin excluding power production, 2012-2022

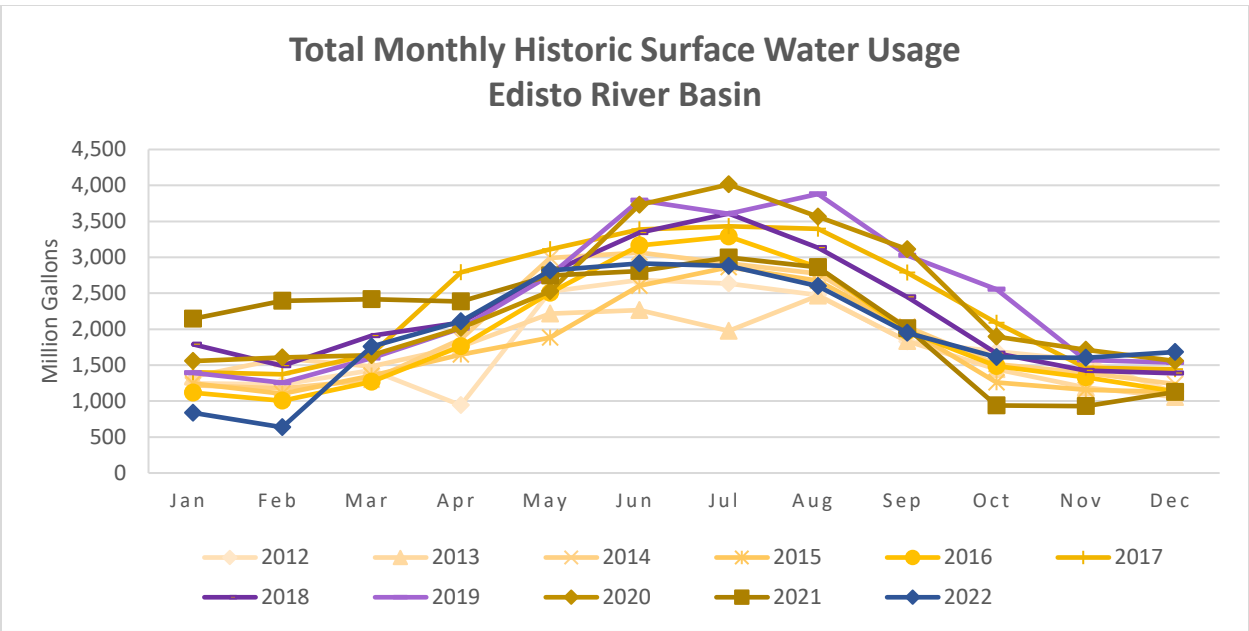


Figure 31: Total Historic Surface Water Reported Monthly Use in the Edisto Basin, 2012-2022

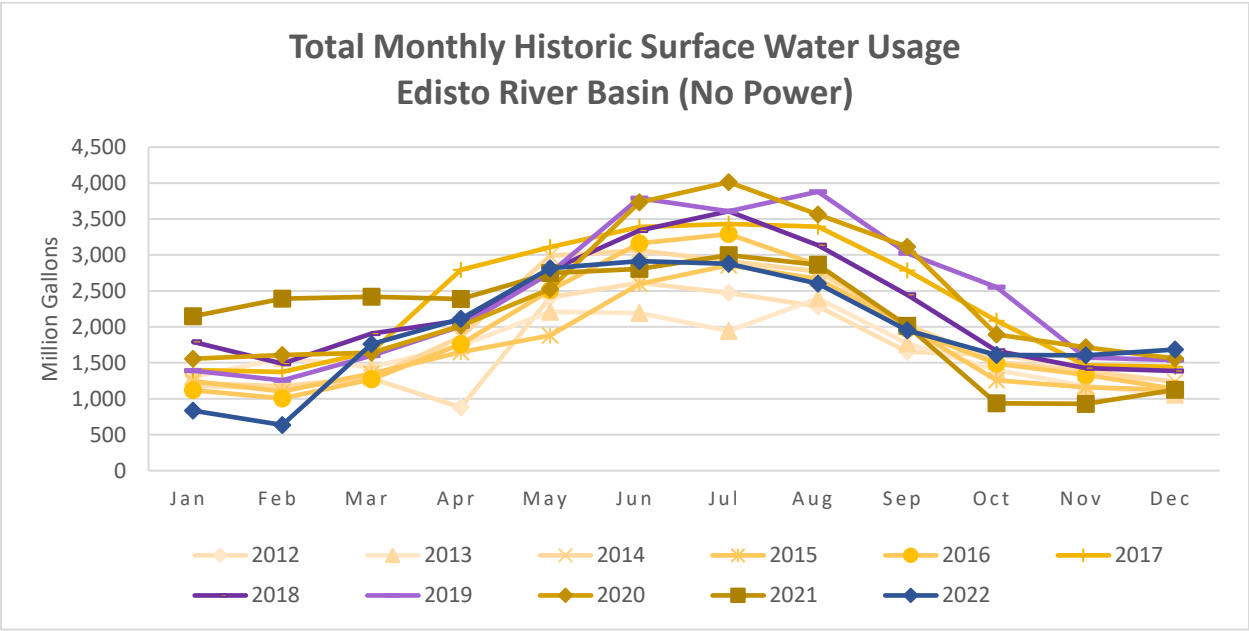


Figure 32: Total Historic Surface Water Reported Monthly Use in the Edisto Basin with no power production users 2012-2022

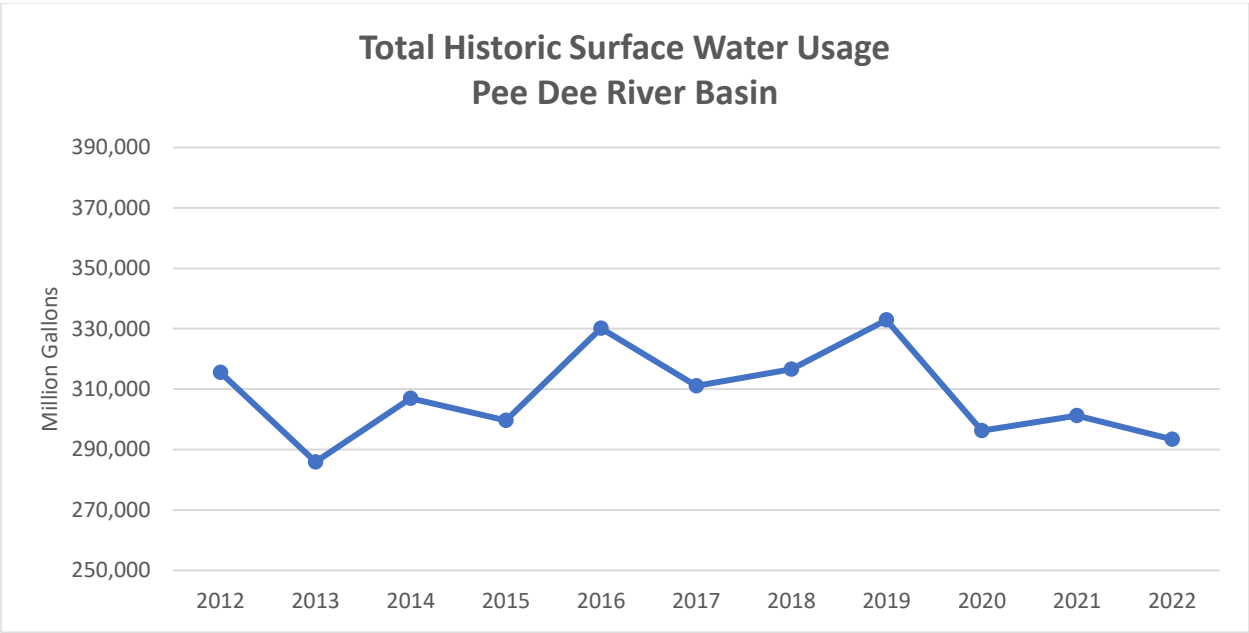


Figure 33: Total Historic Surface Water Reported Use in the Pee Dee Basin, 2012-2022

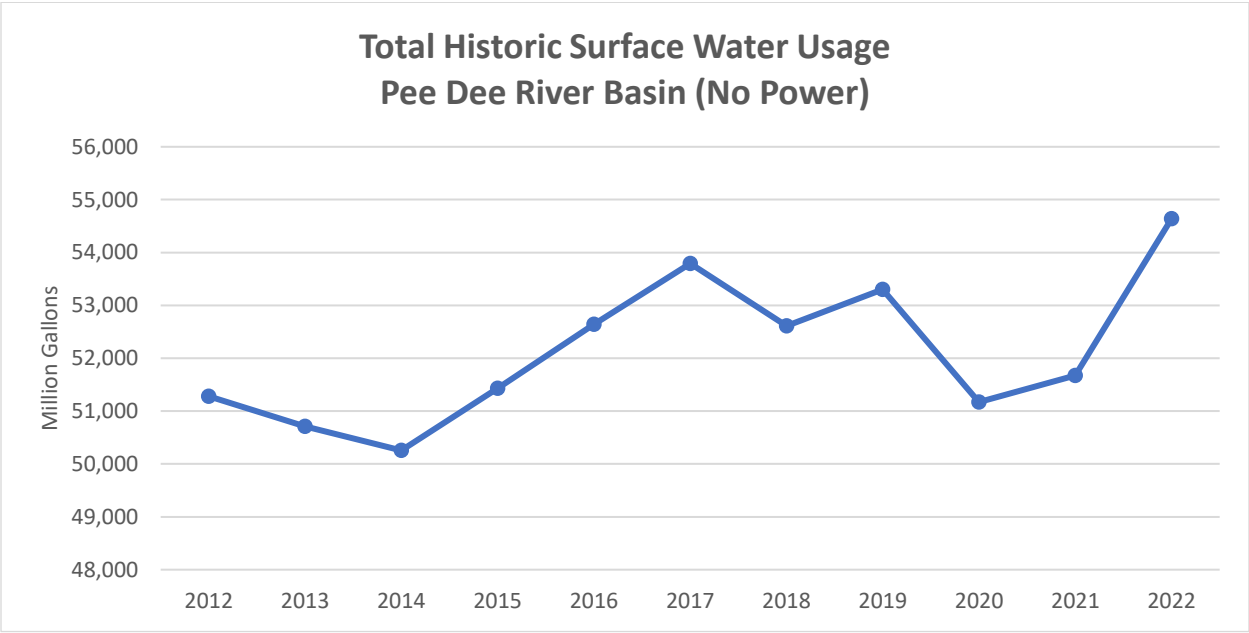


Figure 34: Total Historic Surface Water Reported Use in the Pee Dee Basin excluding power production, 2012-2022

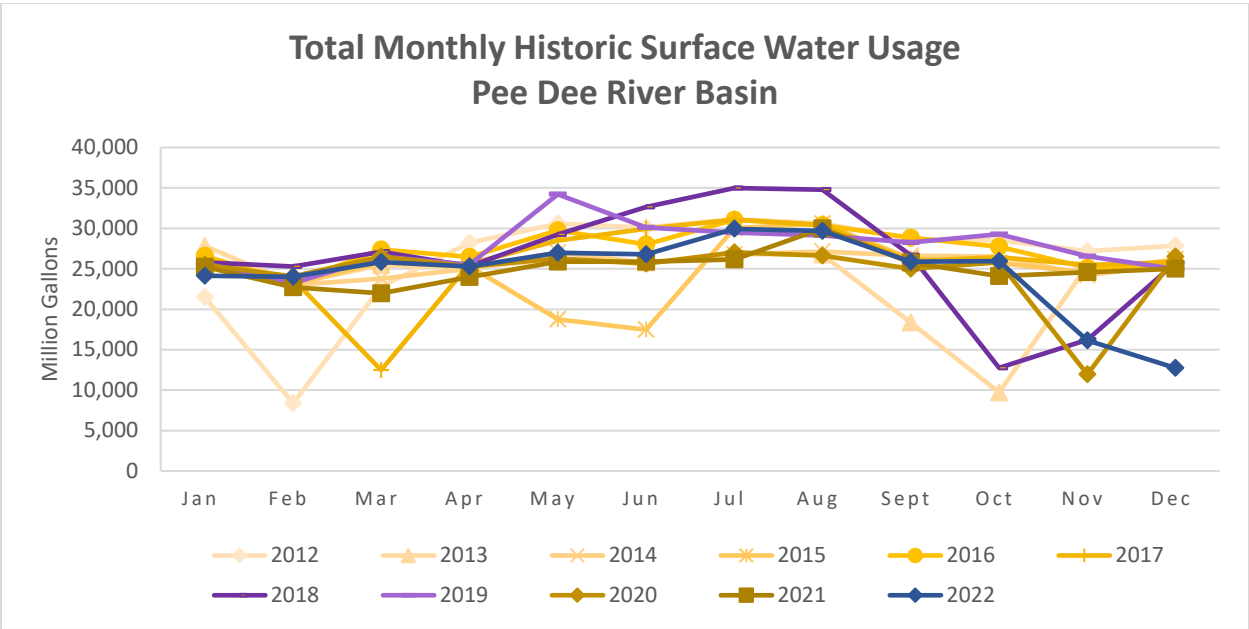


Figure 35: Total Historic Surface Water Reported Monthly Use in the Pee Dee Basin, 2012-2022

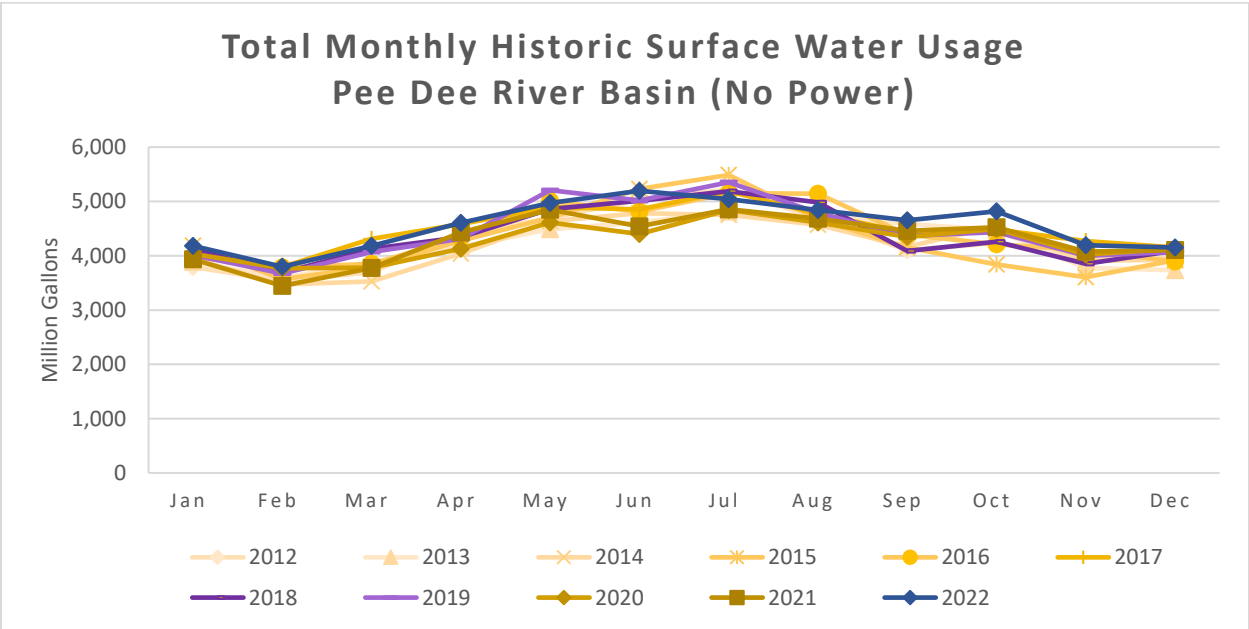


Figure 36: Total Historic Surface Water Reported Monthly Use in the Pee Dee Basin excluding power production, 2012-2022

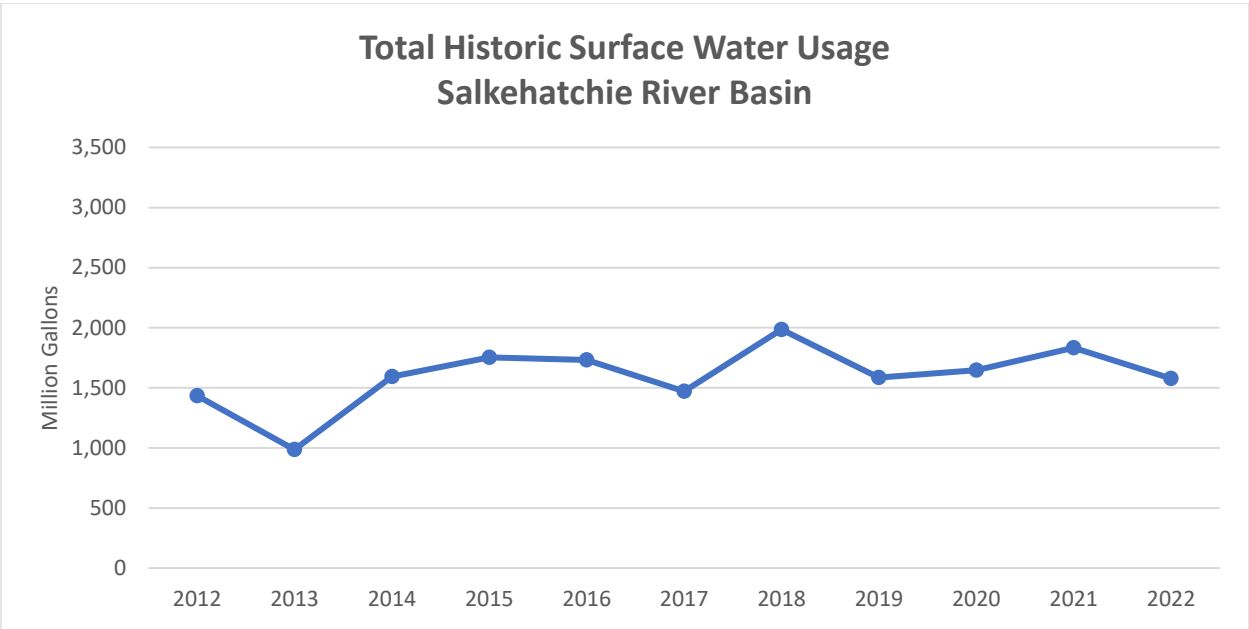


Figure 37: Total Historic Surface Water Reported Use in the Salkehatchie Basin, 2012-2022

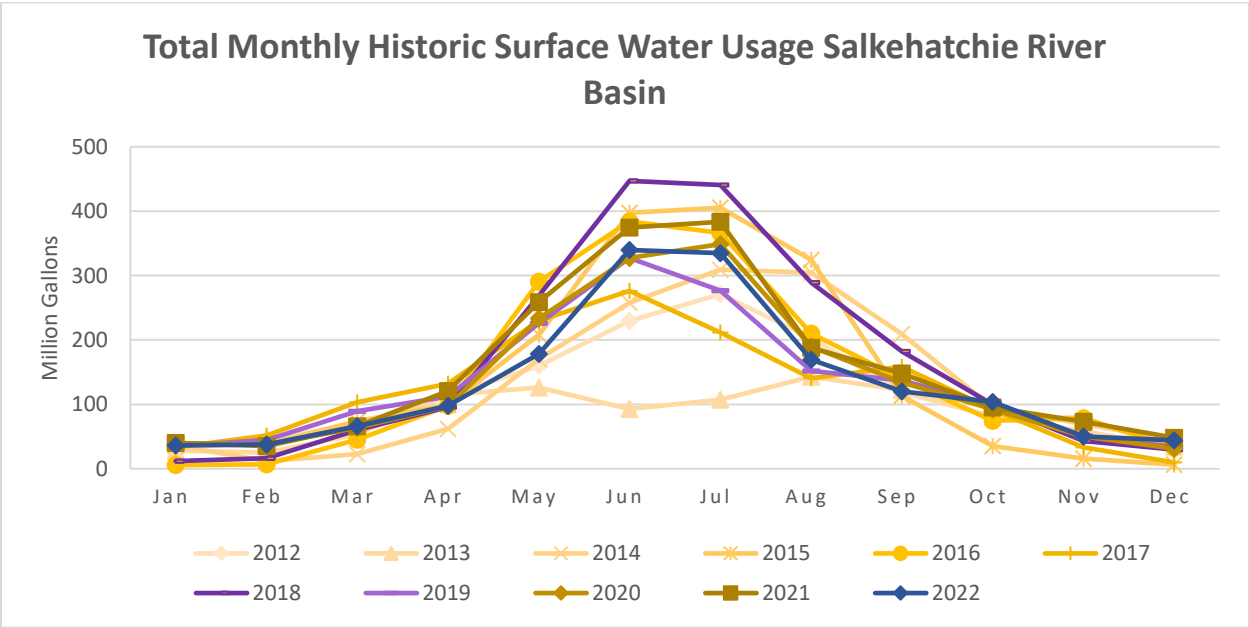


Figure 38: Total Historic Surface Water Monthly Reported Use in the Salkehatchie Basin, 2012-2022

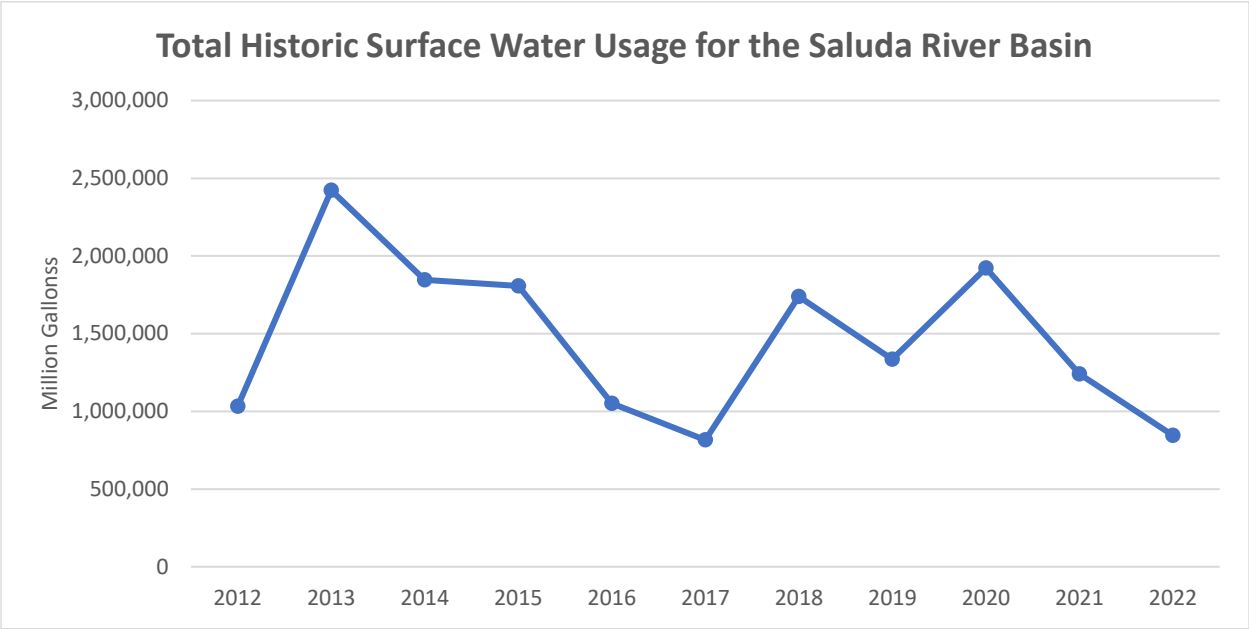


Figure 39: Total Historic Surface Water Reported Use in the Saluda Basin, 2012-2022

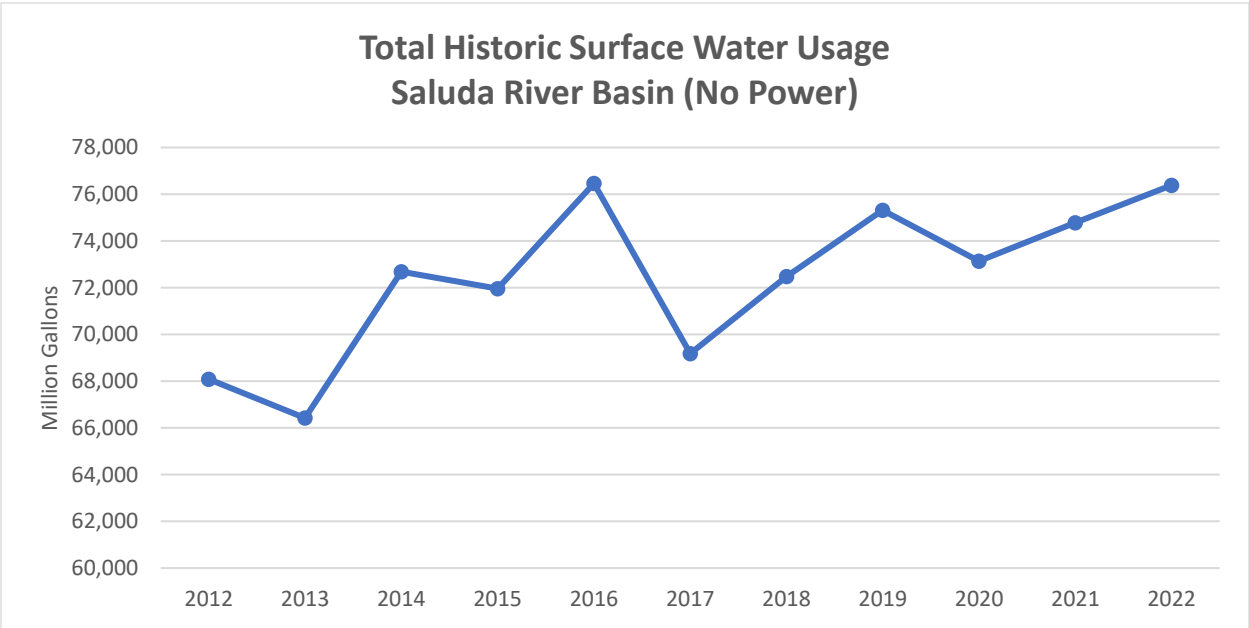


Figure 40: Total Historic Surface Water Reported Use in the Saluda Basin excluding power production, 2012-2022

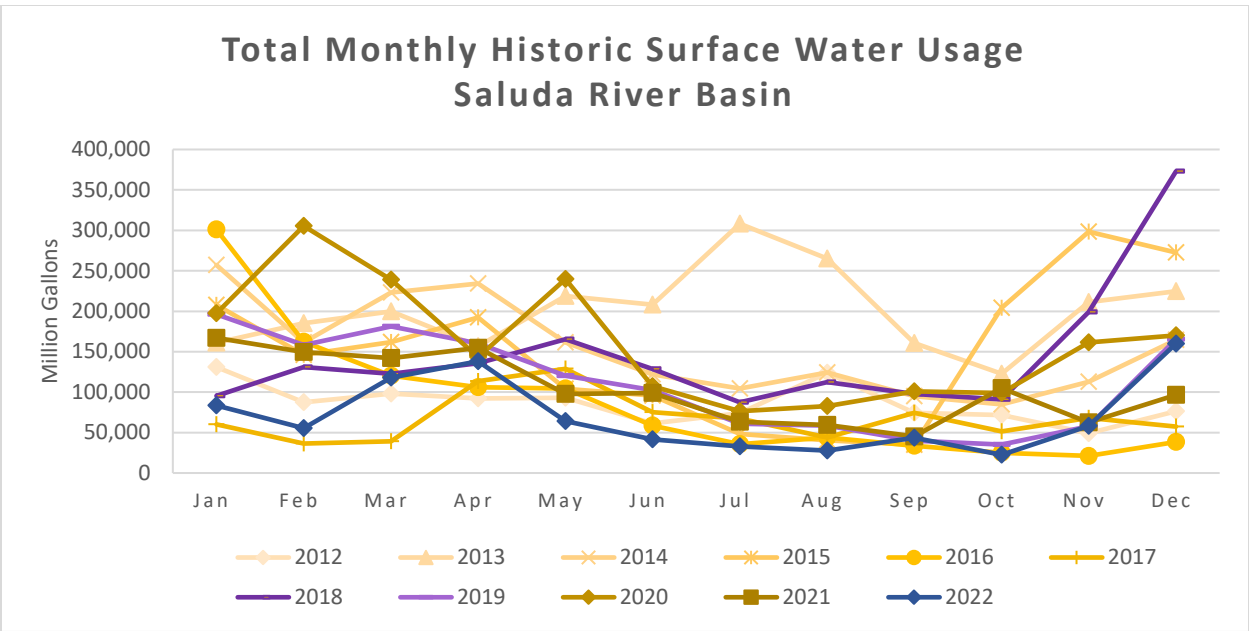


Figure 41: Total Historic Surface Water Monthly Reported Use in the Saluda Basin, 2012-2022

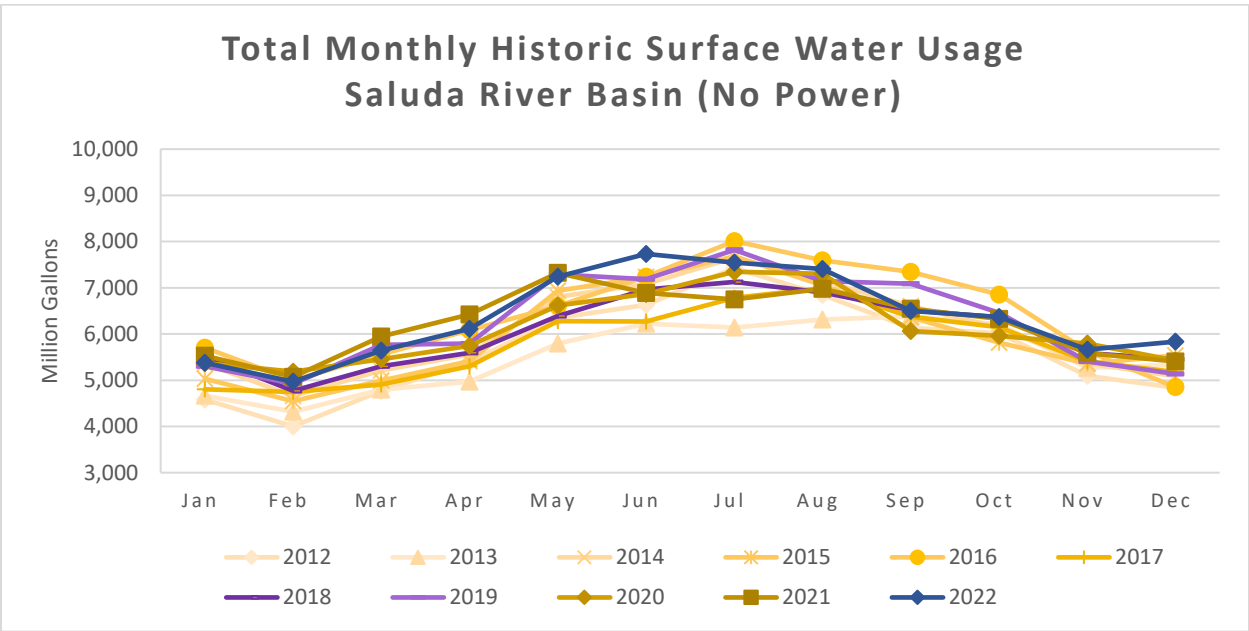


Figure 42: Total Historic Surface Water Monthly Reported Use in the Saluda Basin excluding power production, 2012-2022

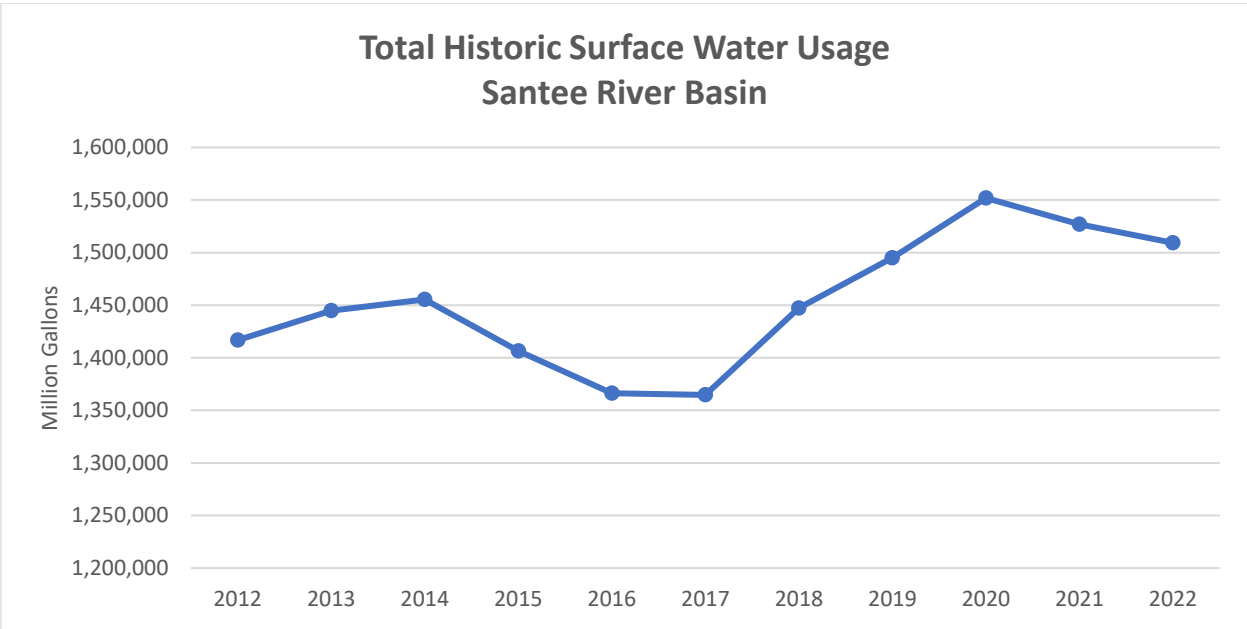


Figure 43: Total Historic Surface Water Reported Use in the Santee Basin, 2012-2022

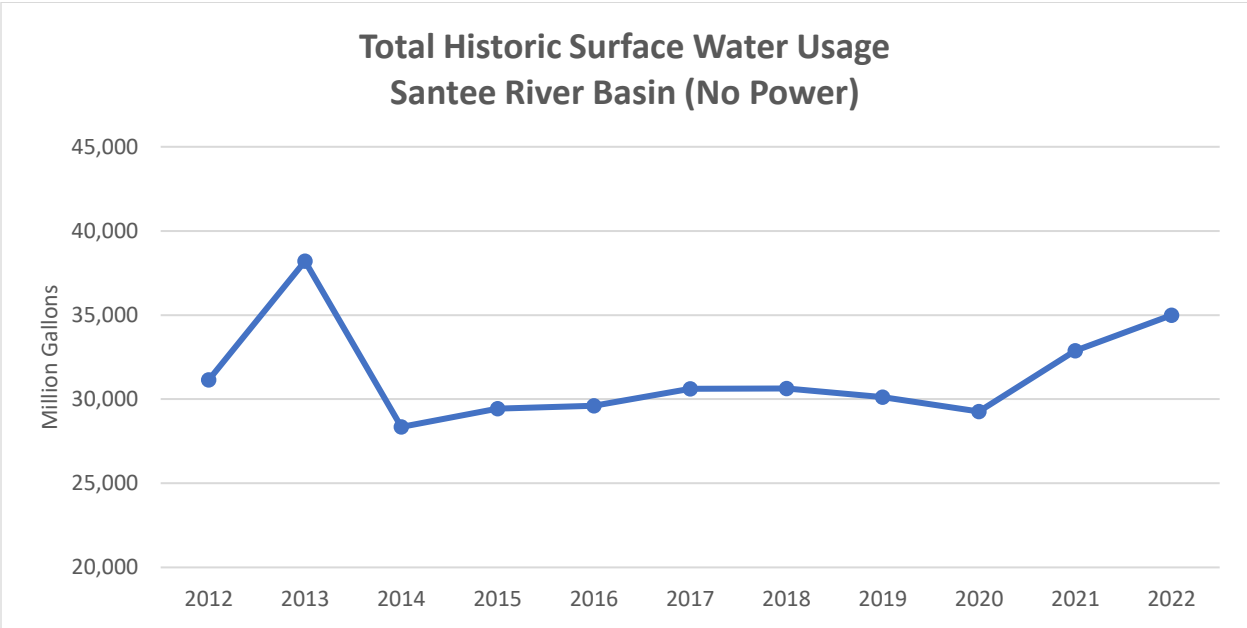


Figure 44: Total Historic Surface Water Reported Use in the Santee Basin excluding power production, 2012-2022
*2013 had the addition of Golf Course and Mining users in the basin

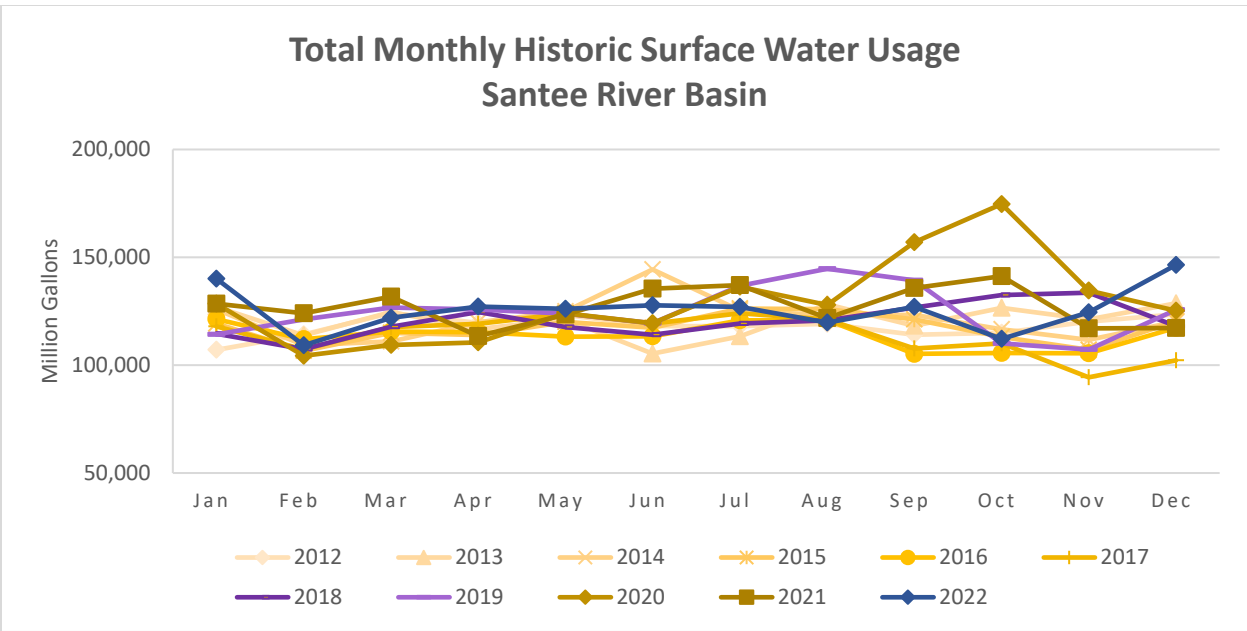


Figure 45: Total Historic Surface Water Reported Monthly Use in the Santee Basin, 2012-2022

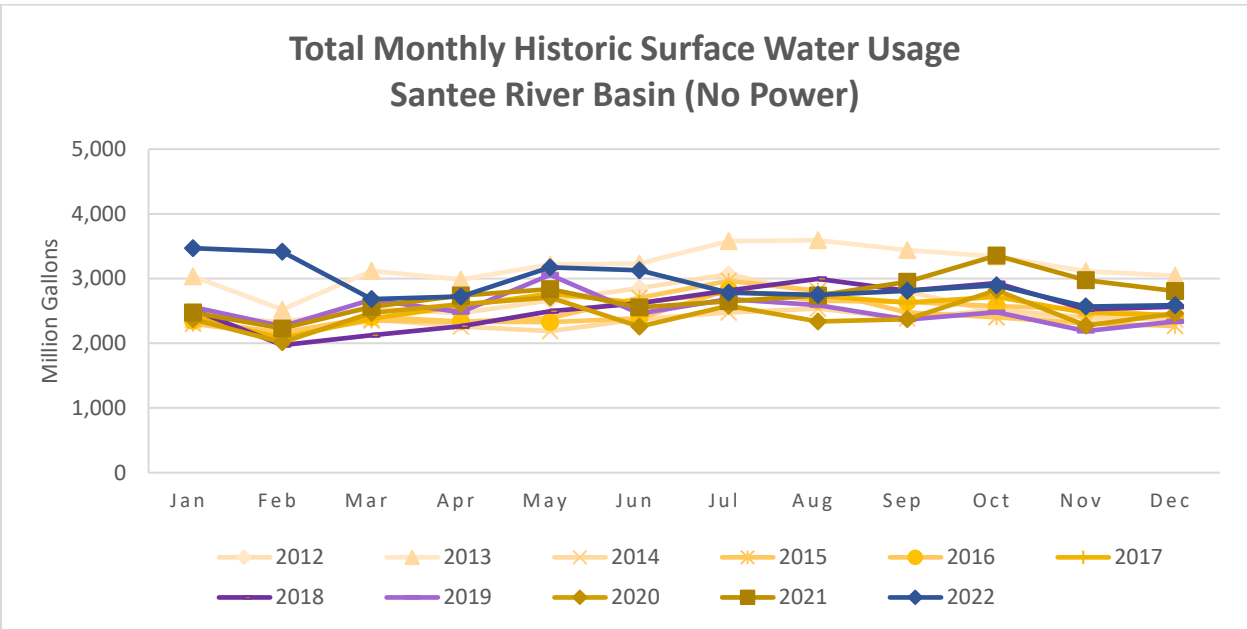


Figure 46: Total Historic Surface Water Monthly Reported Use in the Santee Basin excluding power production, 2012-2022

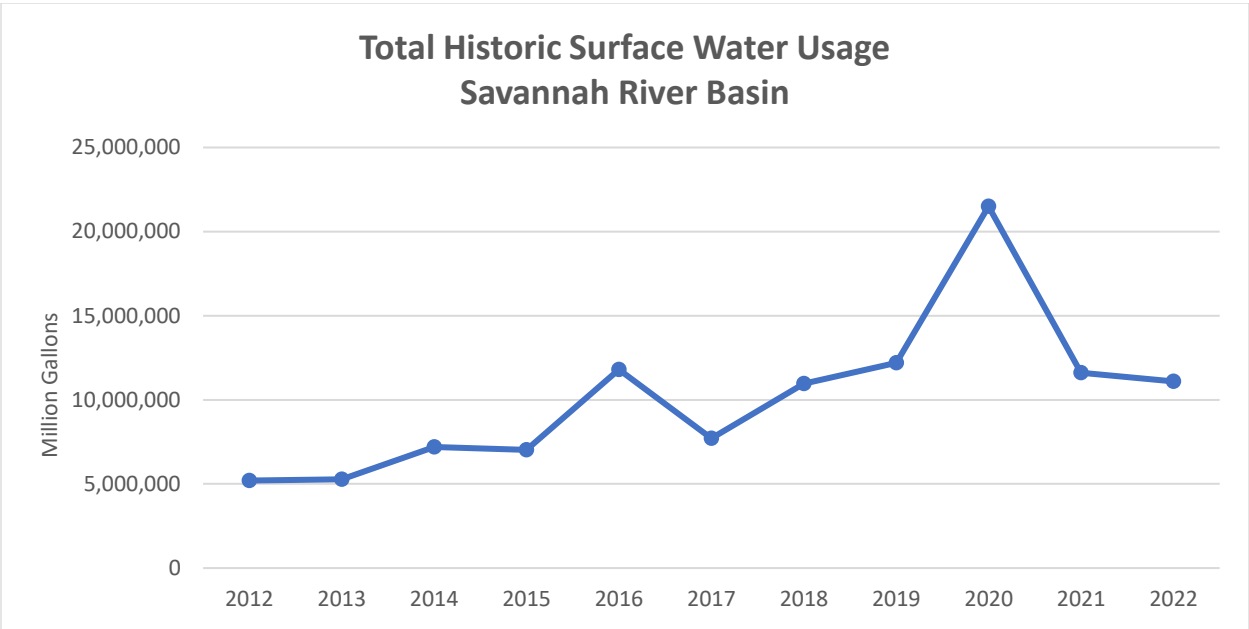


Figure 47: Total Historic Surface Water Reported Use the Savannah Basin, 2012-2022 *2015 to present saw an increased use for hydroelectric power users, including the installation of 3 new power plants

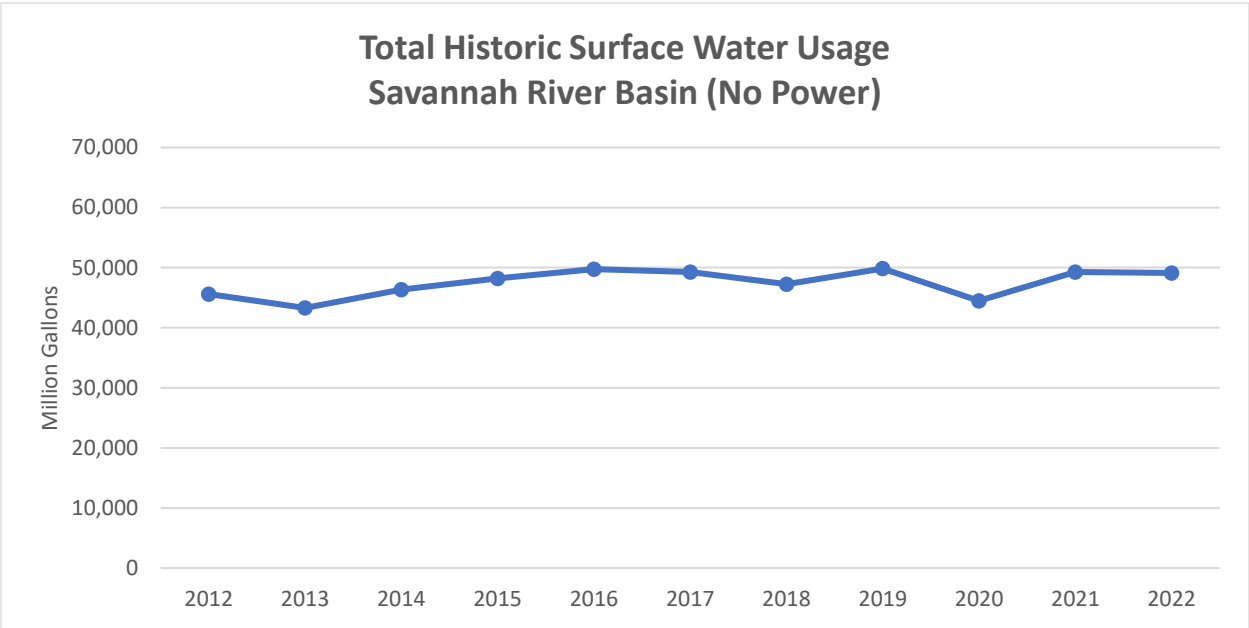


Figure 48: Total Historic Surface Water Reported Use in the Savannah Basin excluding power production, 2012-2022

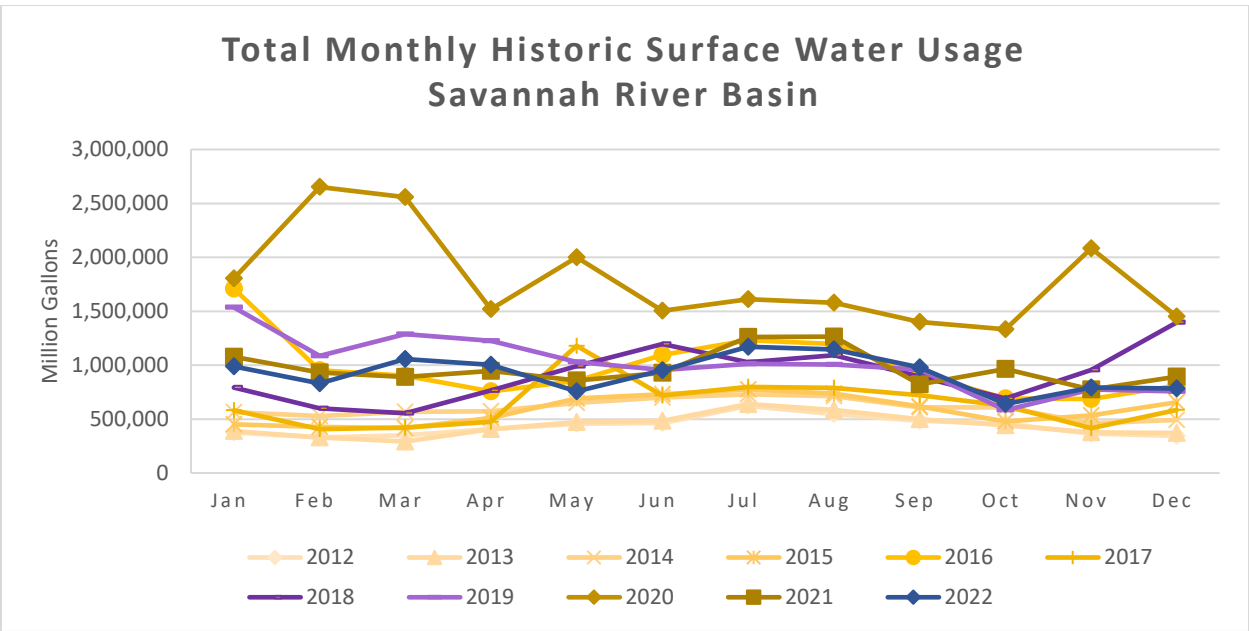


Figure 49: Total Historic Surface Water Monthly Reported Use in the Savannah Basin, 2012-2022

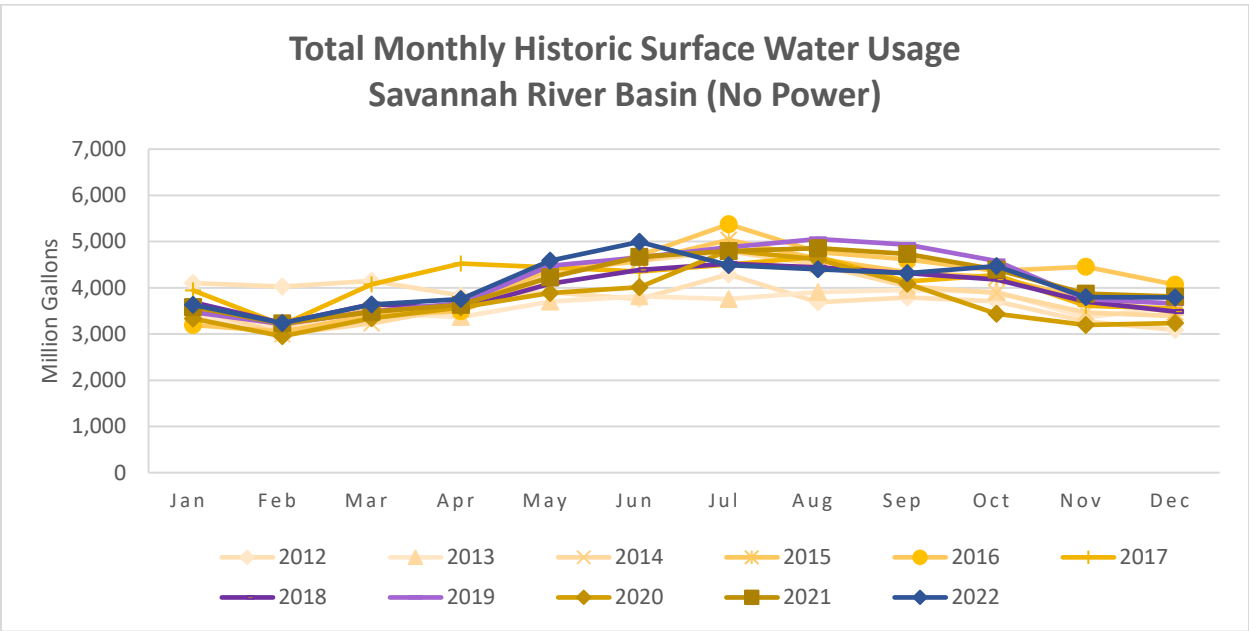


Figure 50: Total Historic Surface Water Monthly Reported Use in the Savannah Basin excluding power production users, 2012-2022

Total Reported Groundwater Use by Basin 2022

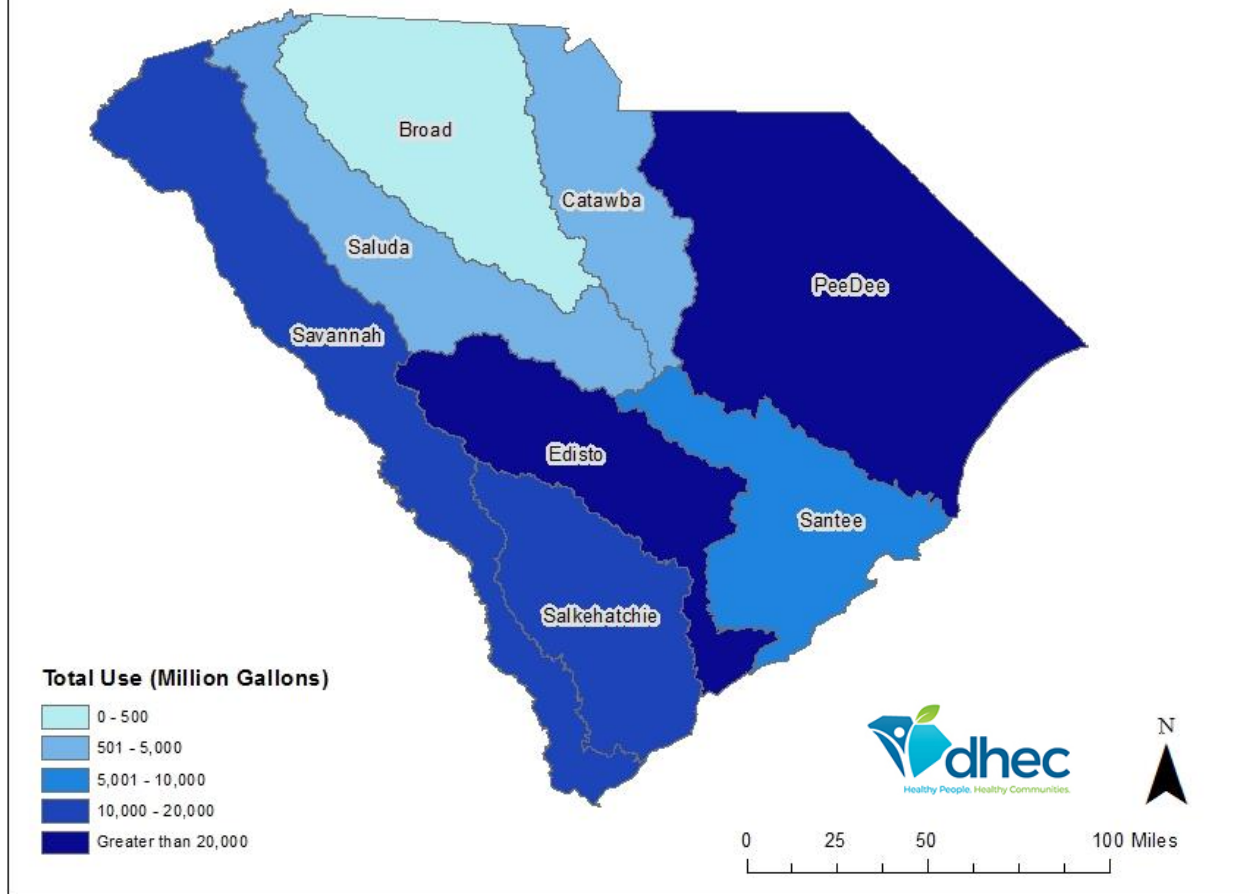


Figure 51: Total Reported Groundwater Use by Basin 2022

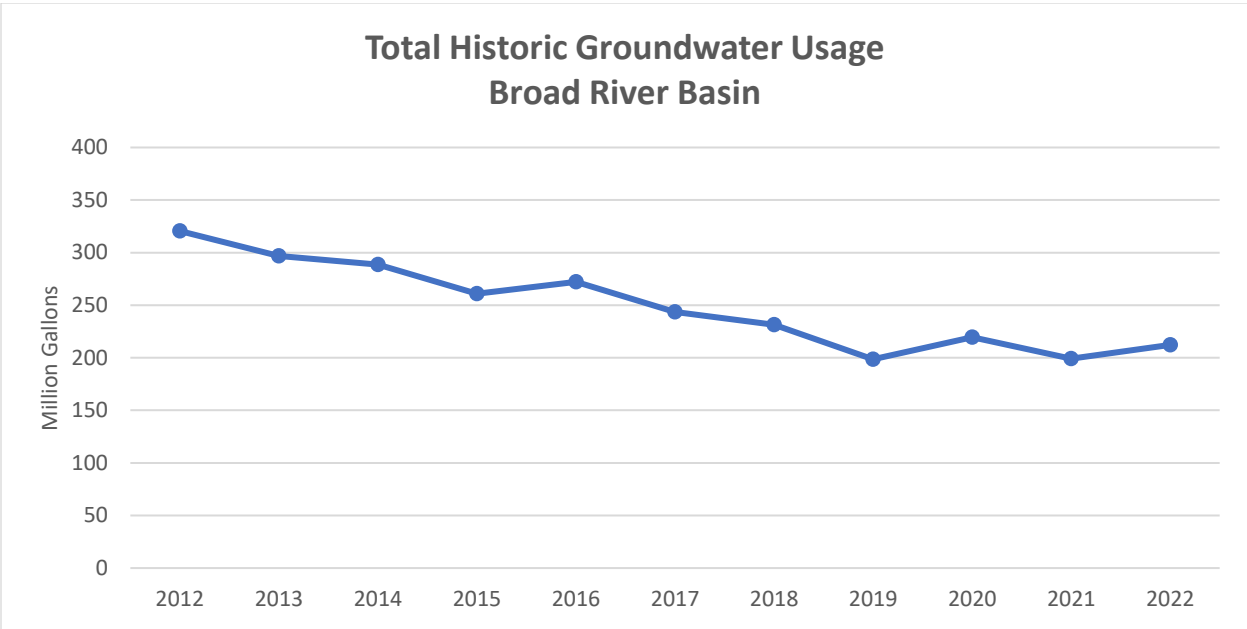


Figure 522: Total Historic Groundwater Reported Use in the Broad Basin, 2012-2022

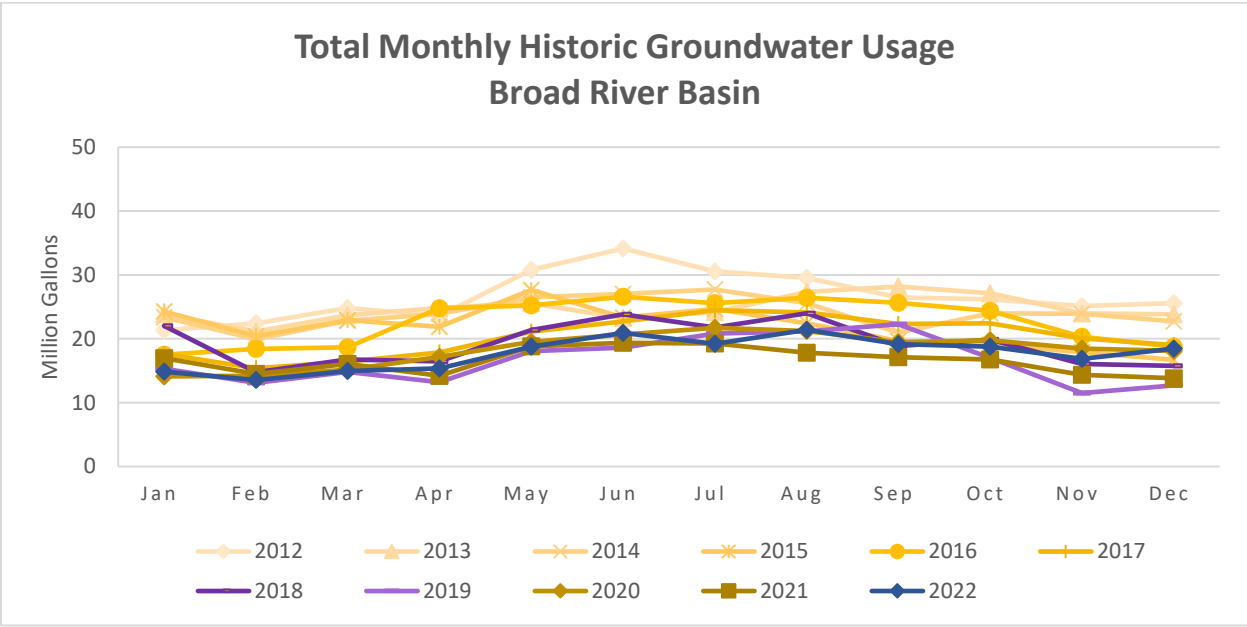


Figure 533: Total Historic Groundwater Monthly Reported Use in the Broad Basin, 2012-2022

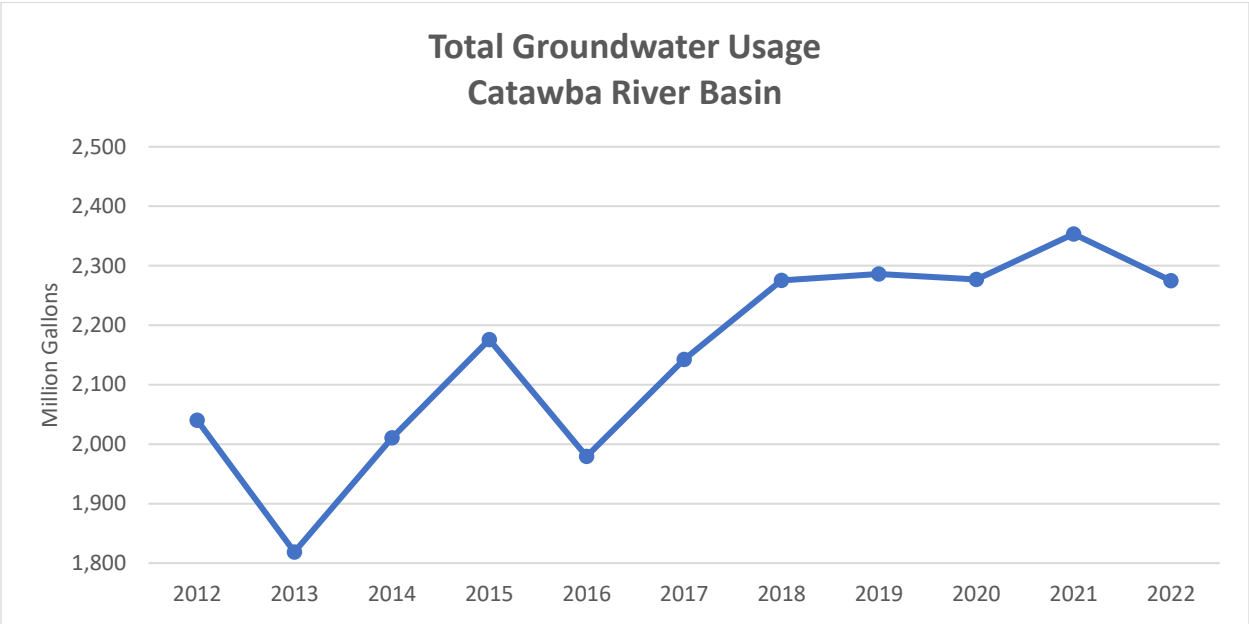


Figure 544: Total Historic Groundwater Reported Use in the Catawba Basin, 2012-2022

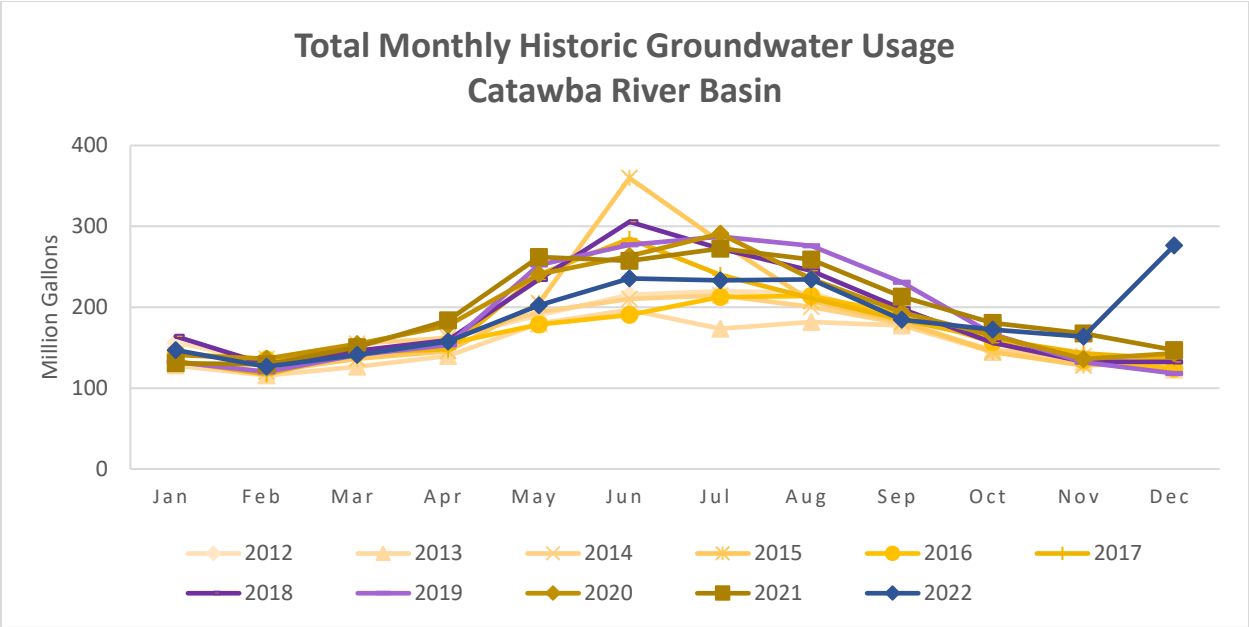


Figure 555: Total Historic Groundwater Monthly Reported Use in the Catawba Basin, 2012-2022

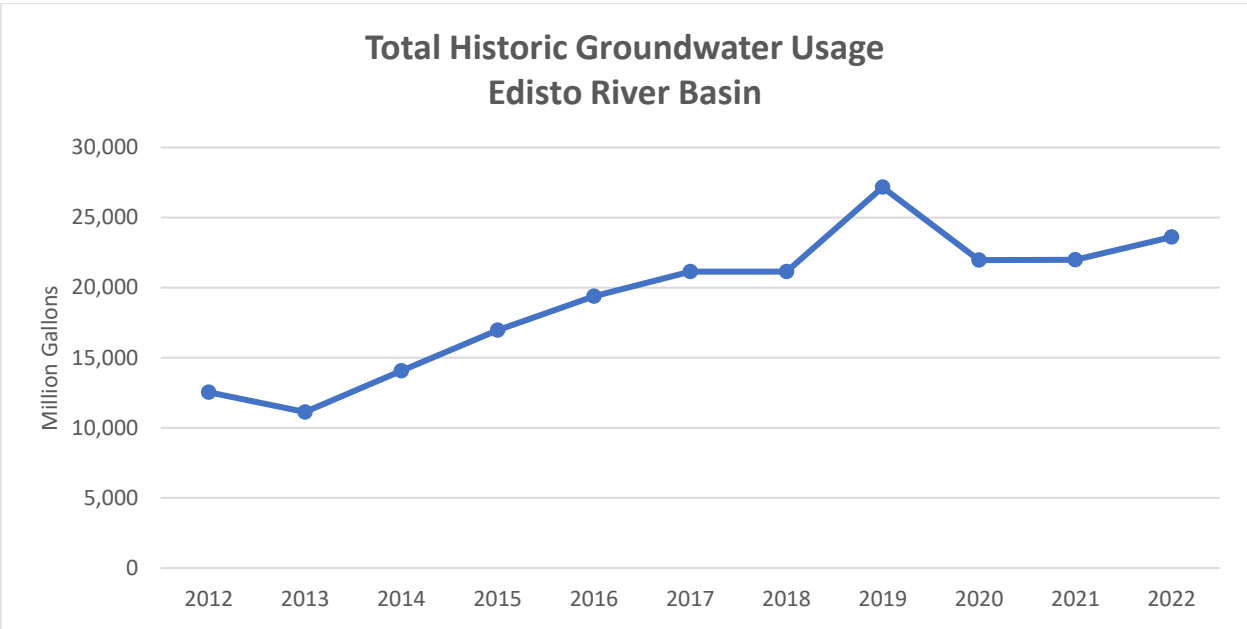


Figure 566: Total Historic Groundwater Reported Use in the Edisto Basin, 2012-2022

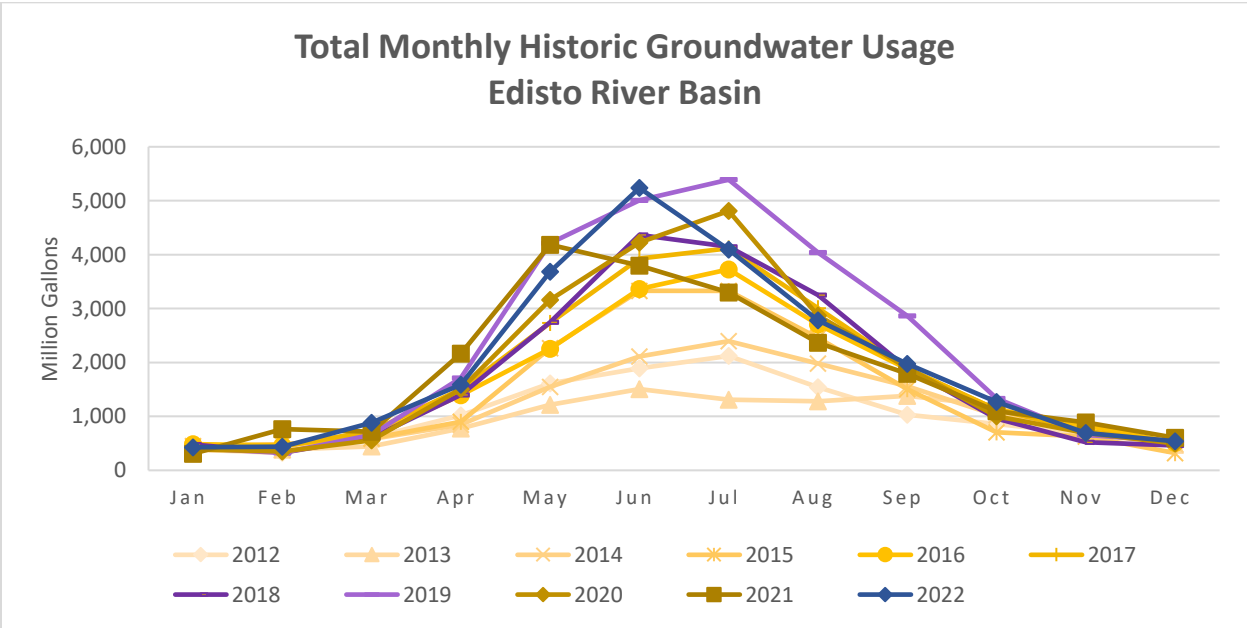


Figure 577: Total Historic Groundwater Monthly Reported Use in the Edisto Basin, 2012-2022

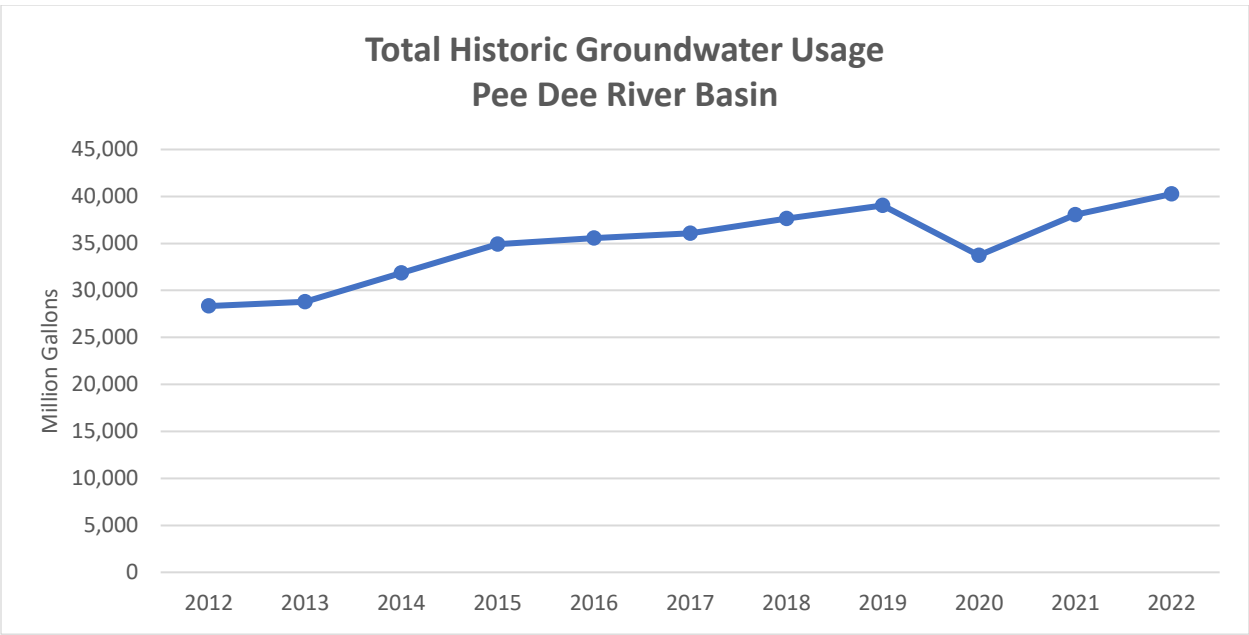


Figure 58: Total Historic Groundwater Reported Use in the Pee Dee Basin, 2012-2022

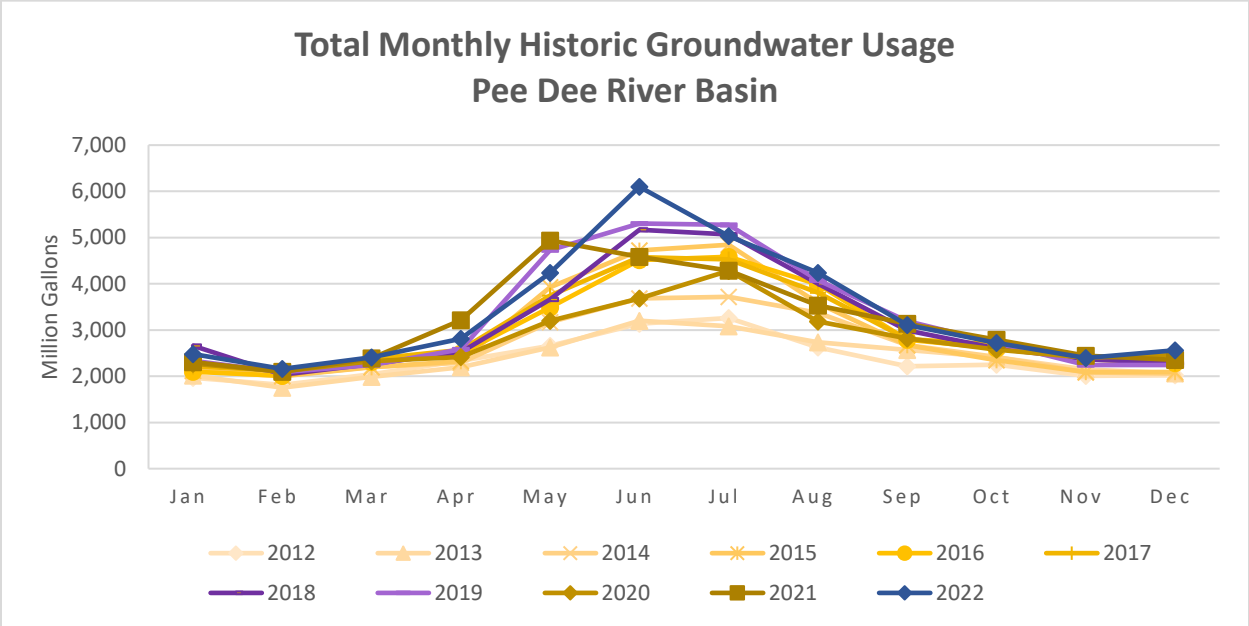


Figure 59: Total Historic Groundwater Monthly Reported Use in the Pee Dee Basin, 2012-2022

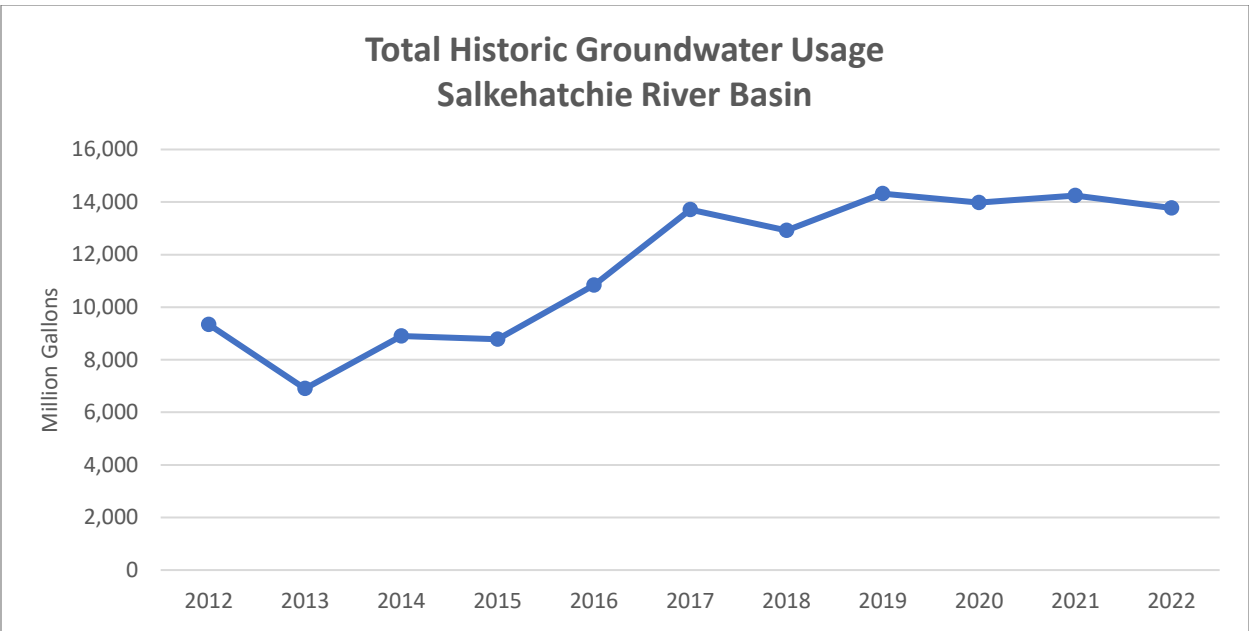


Figure 60: Total Historic Groundwater Reported Use in the Salkehatchie Basin, 2012-2022

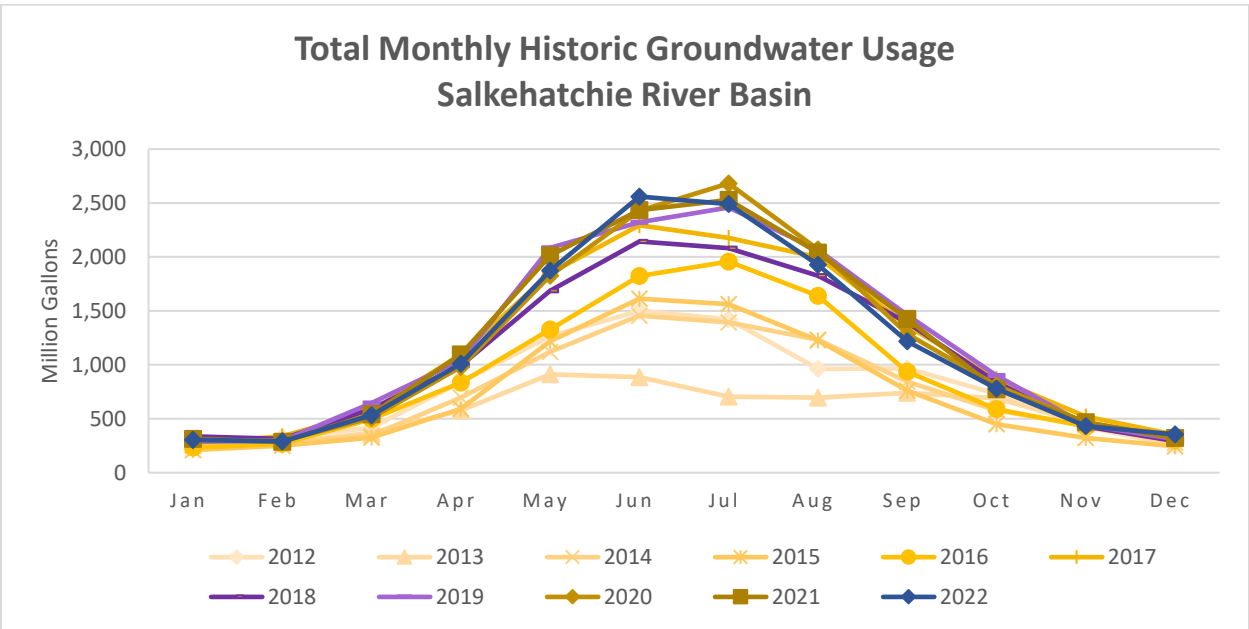


Figure 61: Total Historic Groundwater Monthly Reported Use in the Salkehatchie Basin, 2012-2022

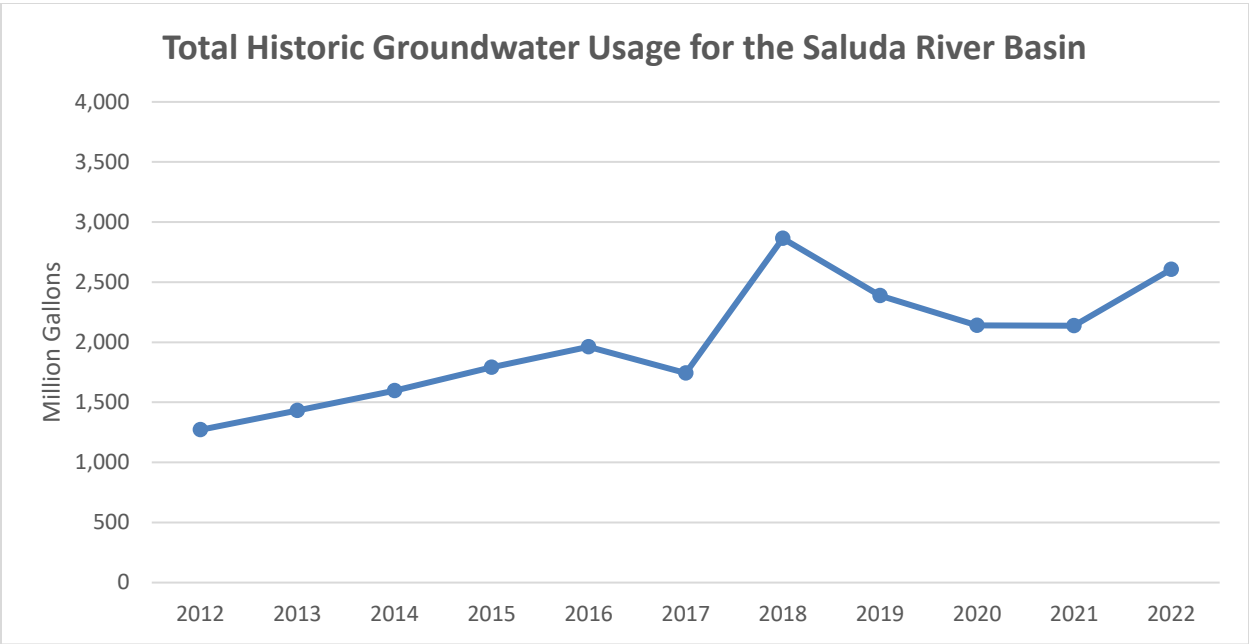


Figure 62: Total Historic Groundwater Reported Use Over Time in the Saluda Basin, 2012-2022

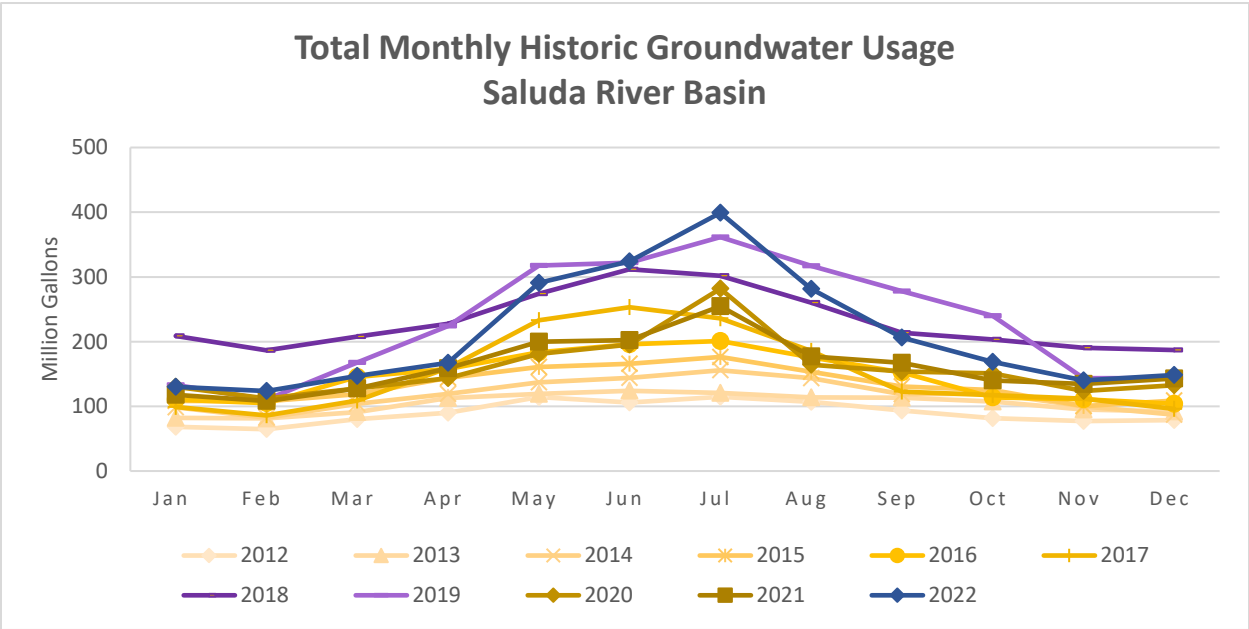


Figure 63: Total Historic Groundwater Monthly Reported Use in the Saluda Basin, 2012-2022

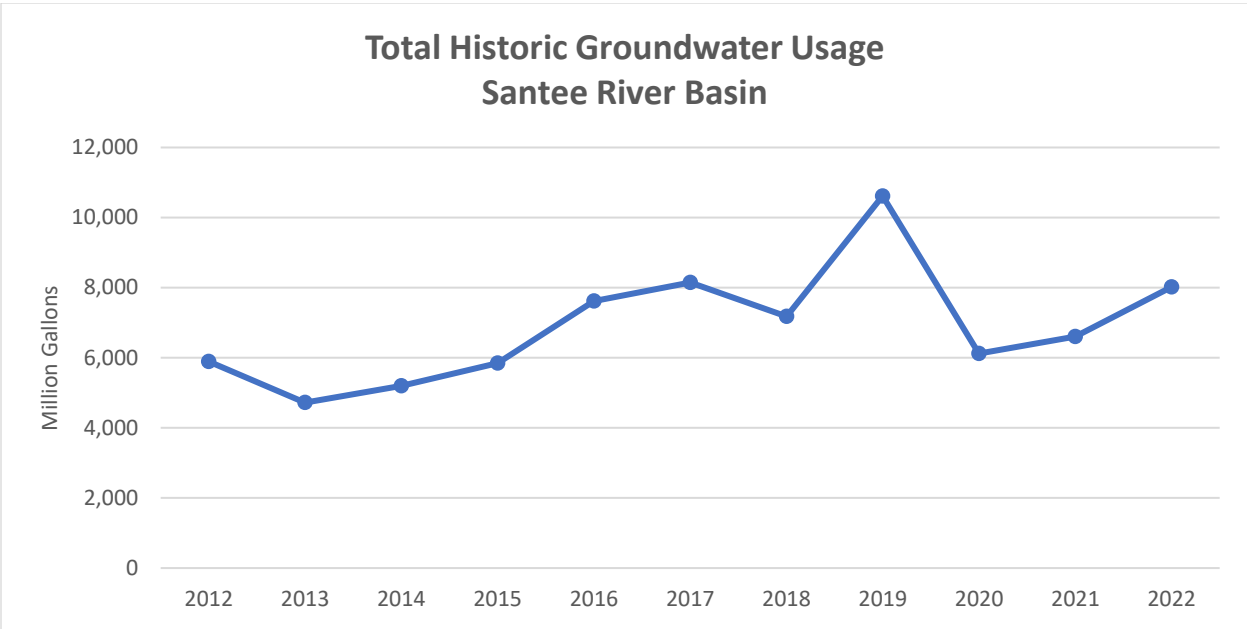


Figure 64: Total Historic Groundwater Reported Use in the Santee Basin, 2012-2022

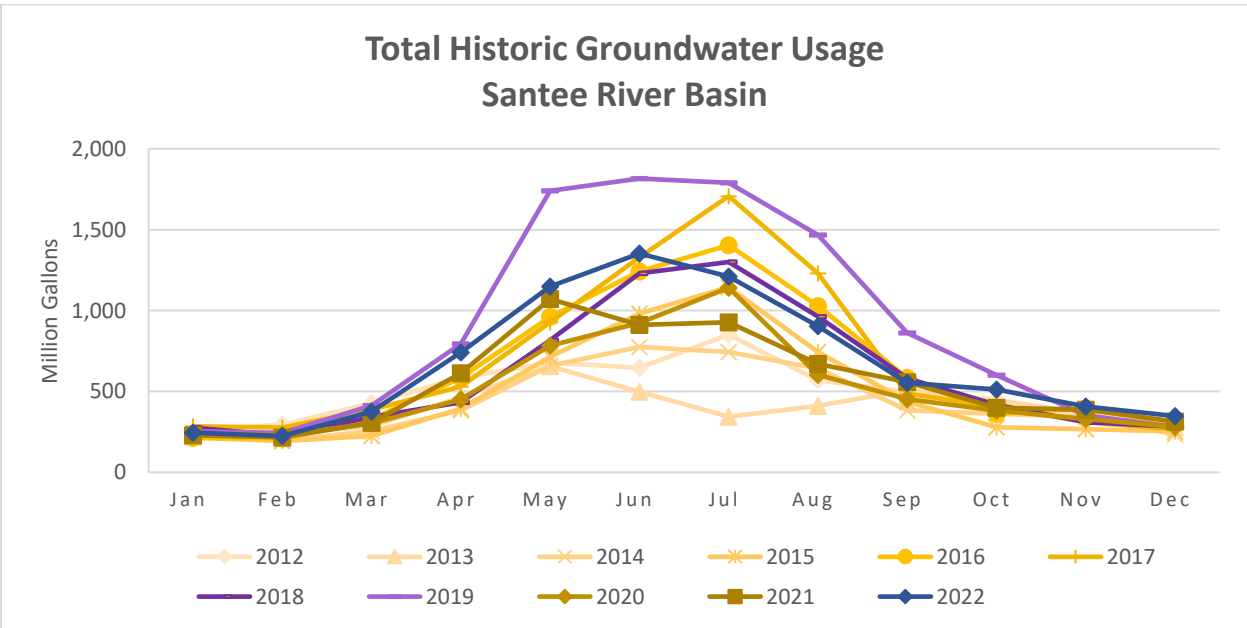


Figure 65: Total Historic Groundwater Monthly Reported Use in the Santee Basin, 2012-2022

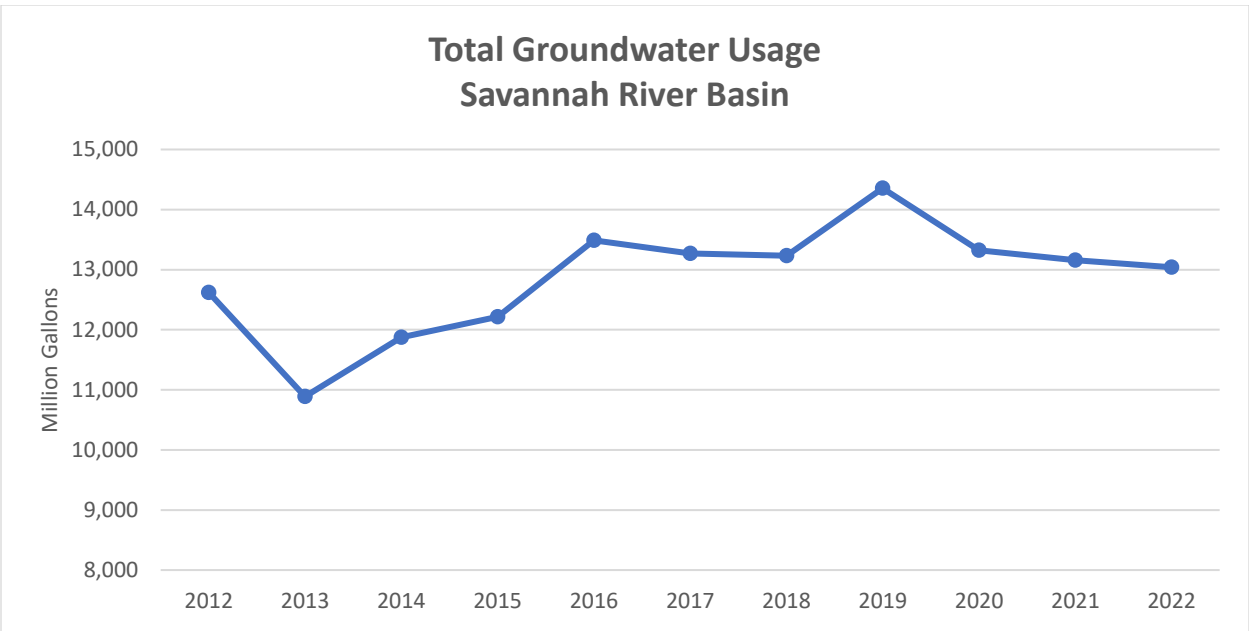


Figure 66: Total Historic Groundwater Reported Use in the Savannah Basin, 2012-2022

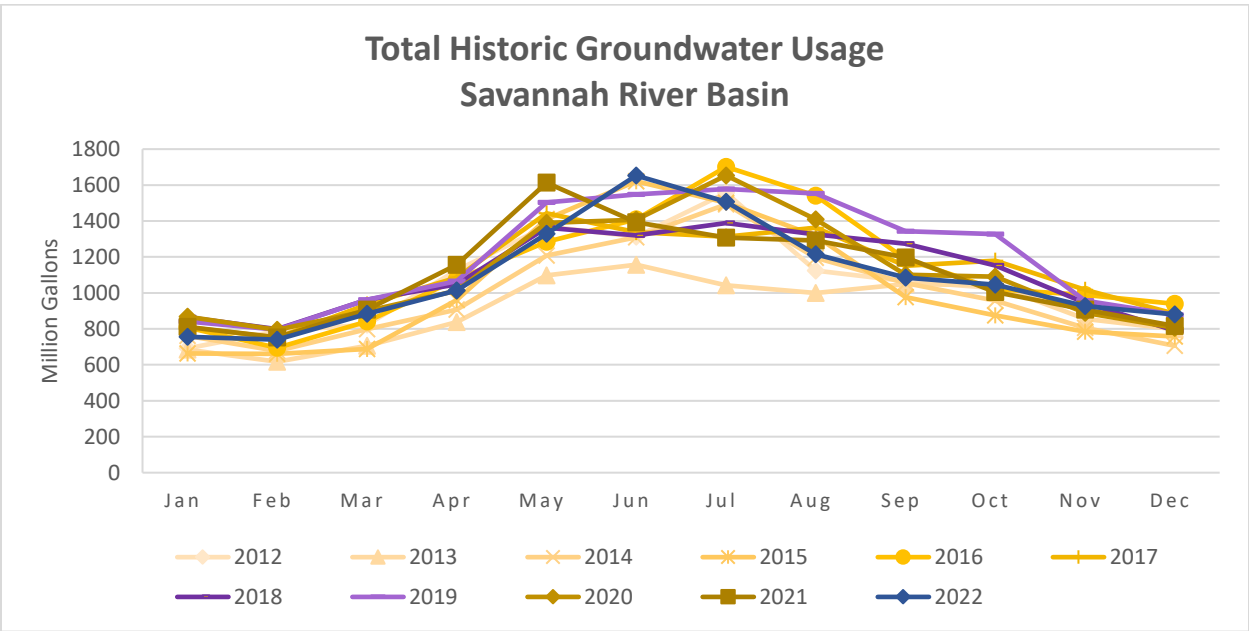


Figure 67: Total Historic Groundwater Monthly Reported Use in the Savannah Basin, 2012-2022

Water Use Categories³

Aquaculture

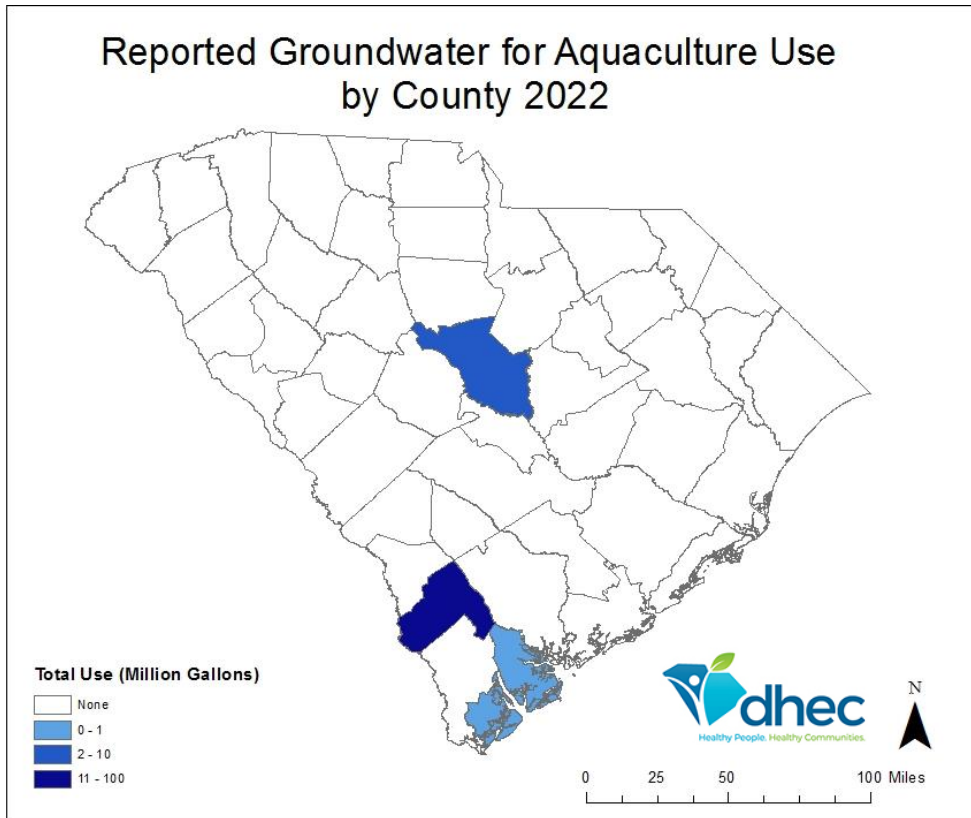


Figure 68: Total Reported Groundwater Use for Aquaculture by County, 2022

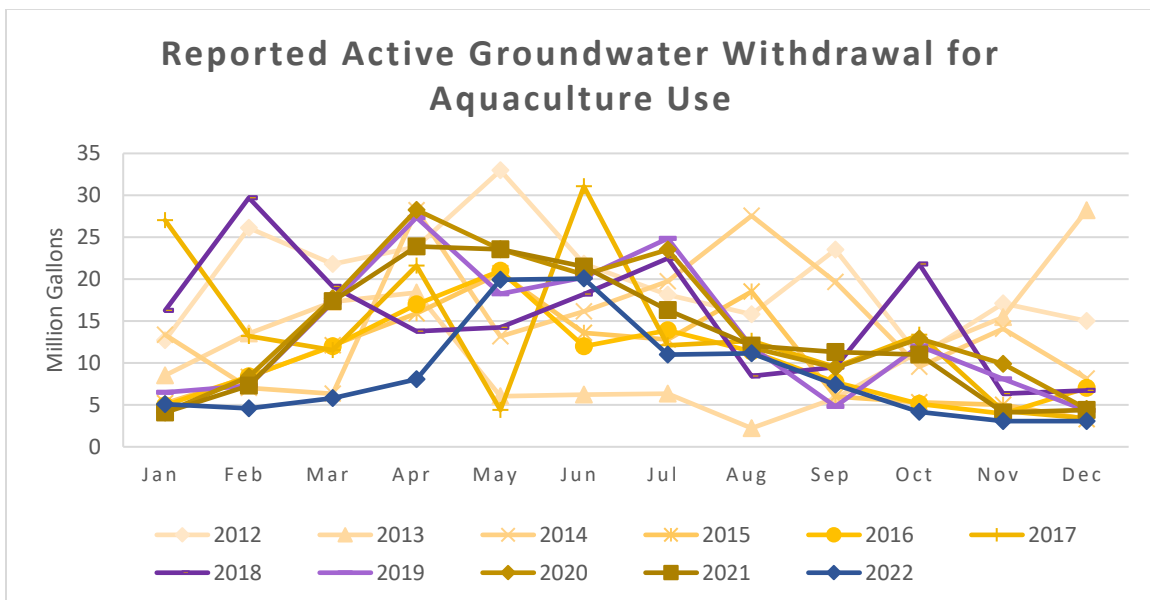


Figure 69: Reported Groundwater for Aquaculture Use by Month, 2012-2022

³ Map legend range differs per map figure.

Reported Surface Water for Aquaculture Use by County 2022

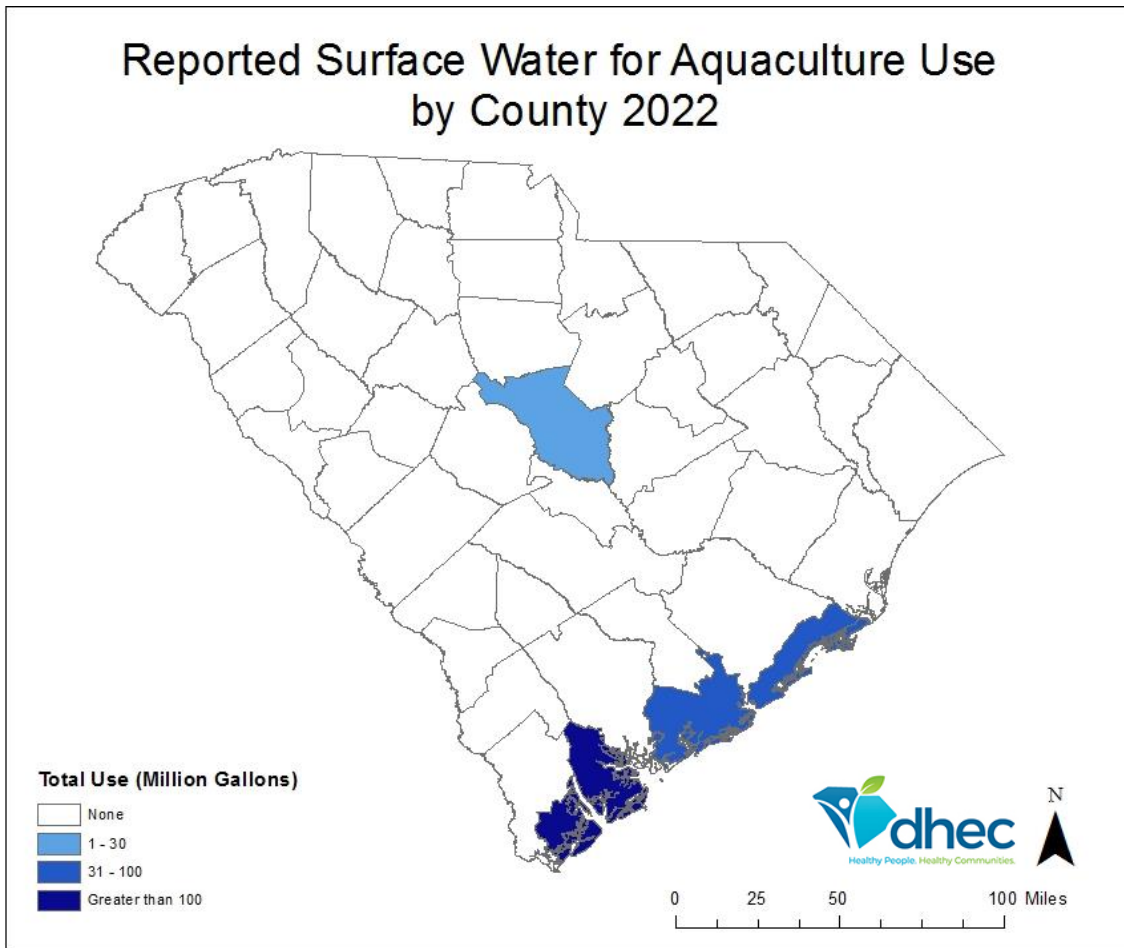


Figure 70: Total Reported Surface Water Use for Aquaculture by County, 2022

Reported Active Surface Water Withdrawal for Aquaculture Use

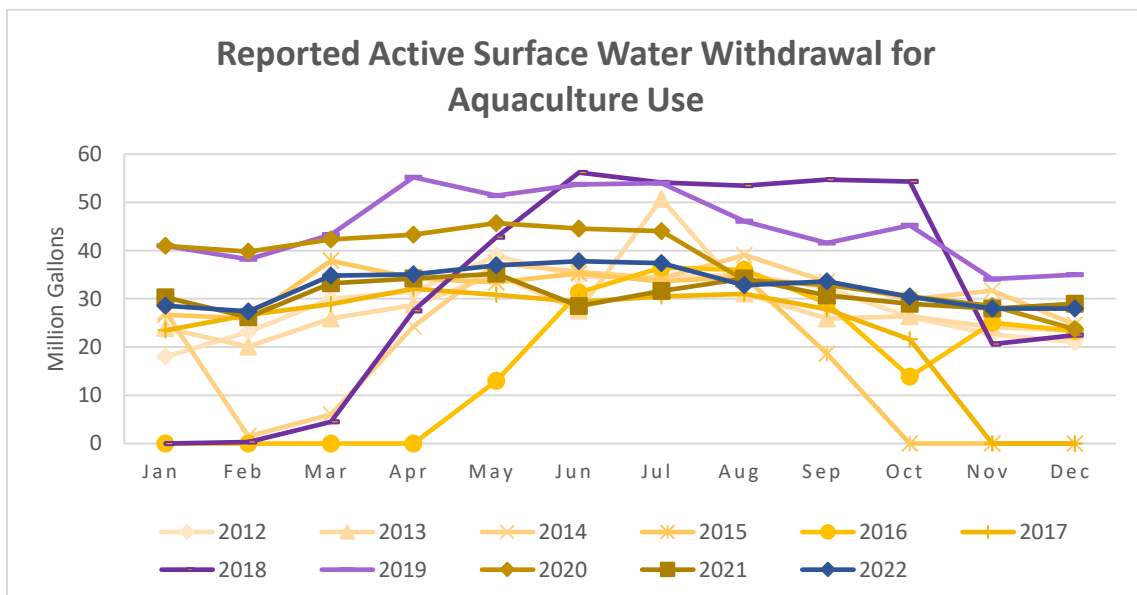


Figure 71: Reported Surface Water for Aquaculture Use by Month, 2012-2022

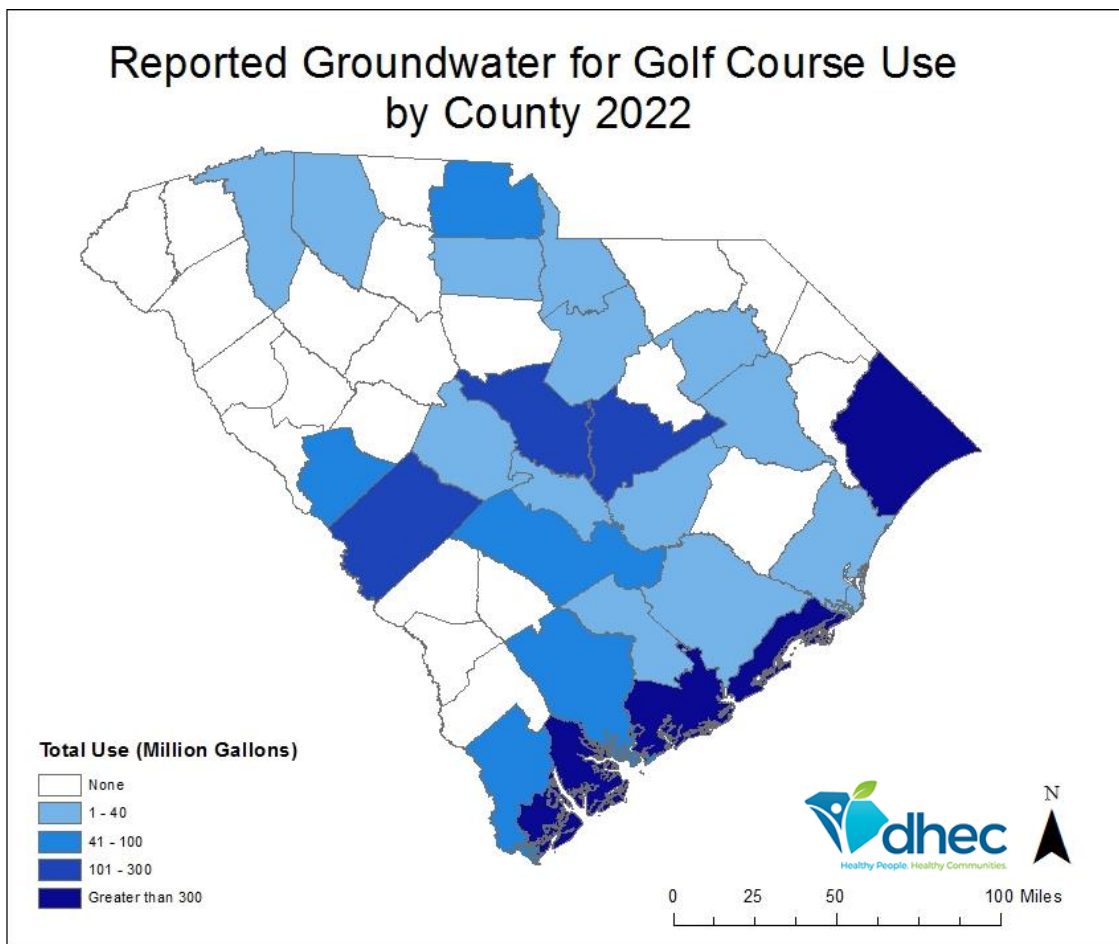


Figure 72: Reported Groundwater Use for Golf Courses by County, 2022

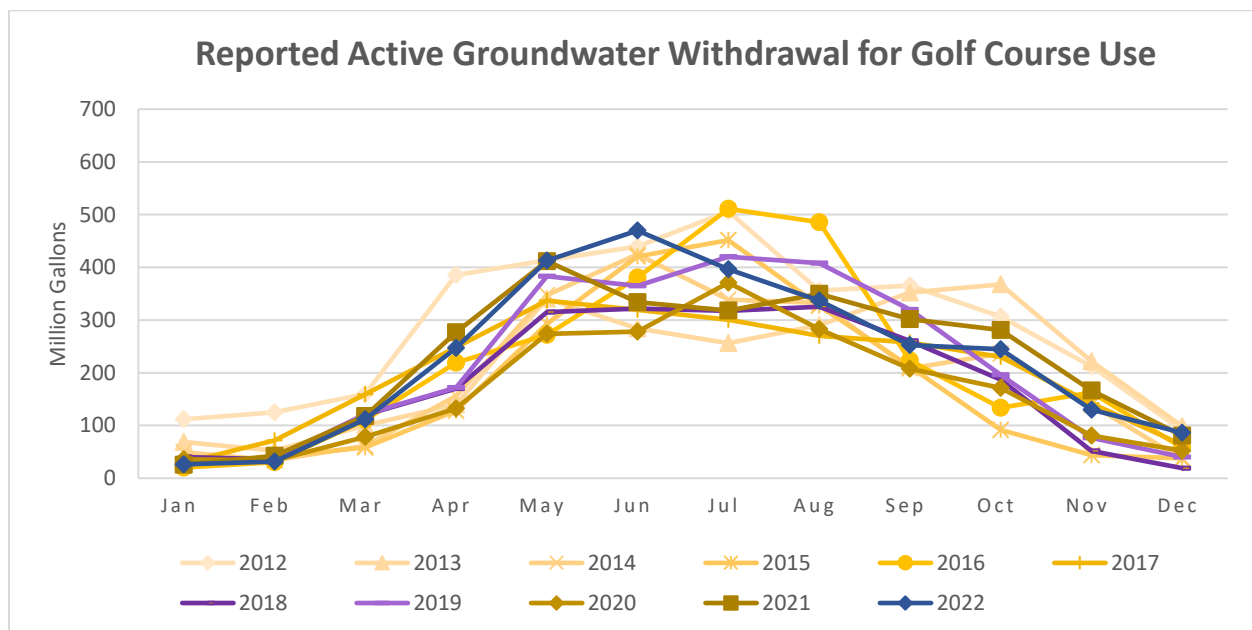


Figure 73: Reported Groundwater for Golf Course Use by Month, 2012-2022

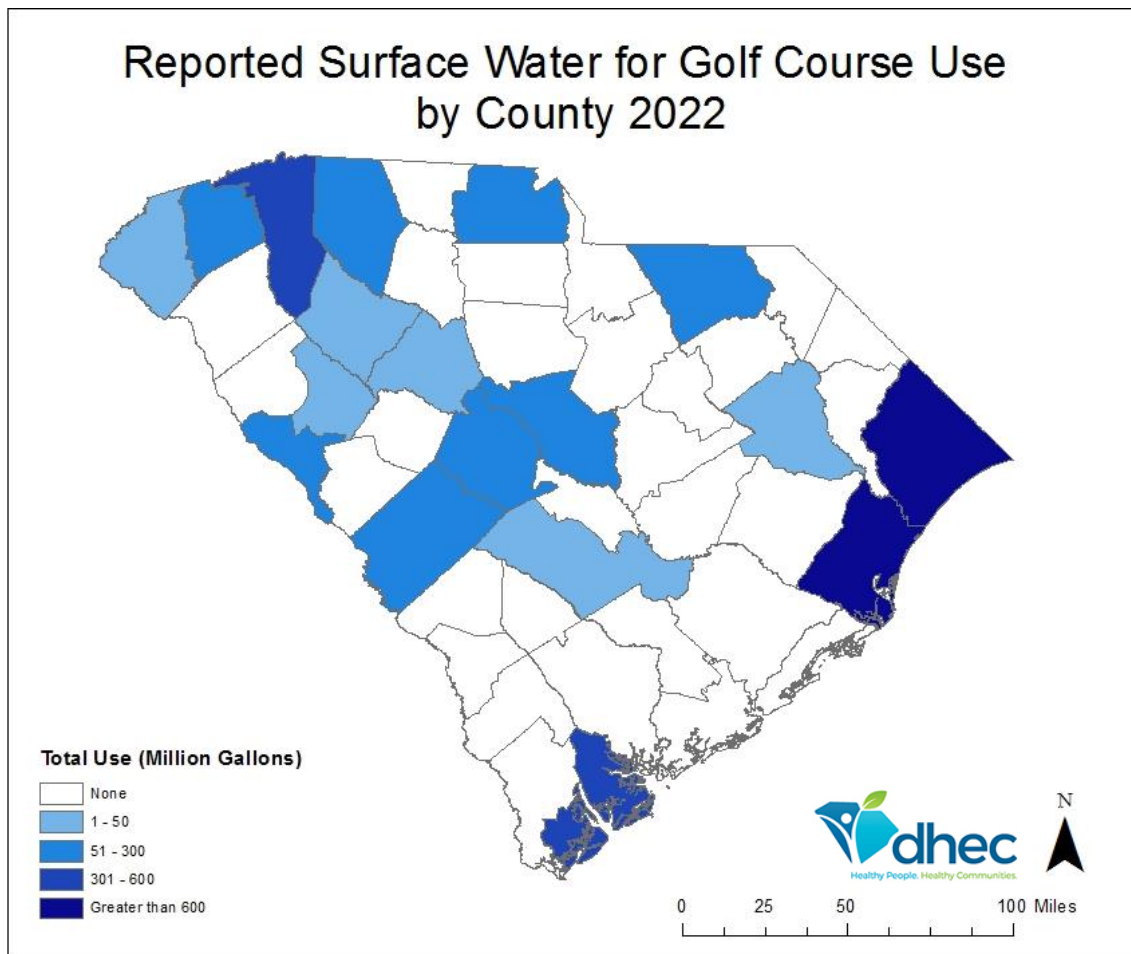


Figure 74: Total Reported Surface Water Use for Golf Courses by County, 2022

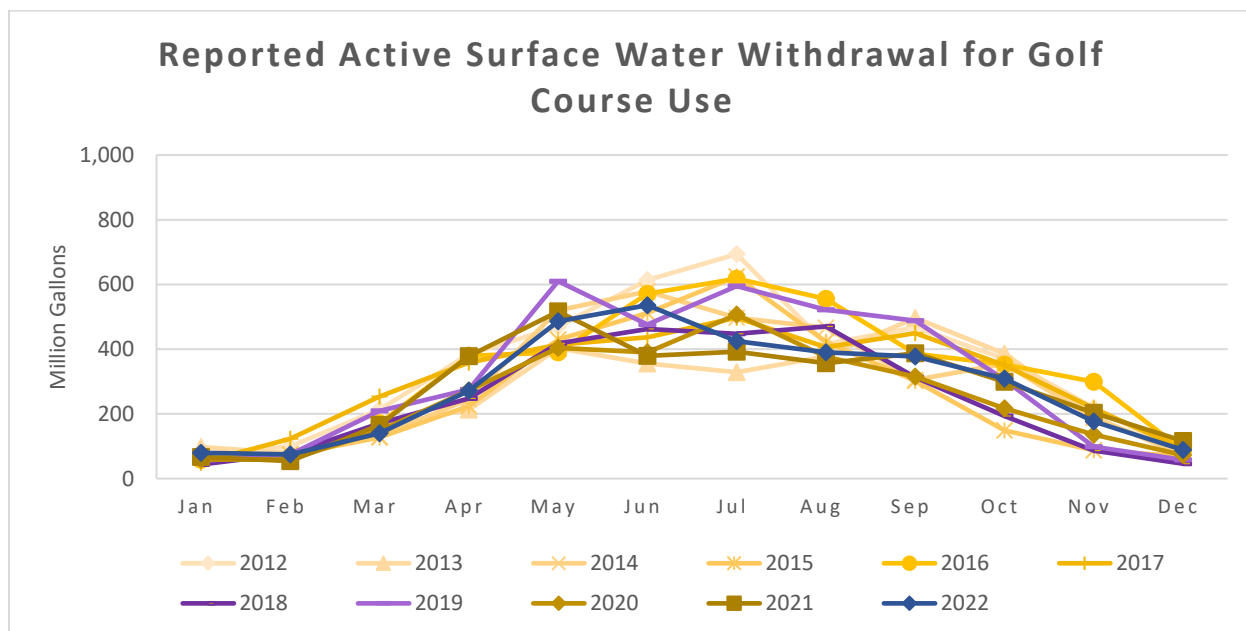


Figure 75: Reported Surface Water for Golf Course Use by Month, 2012-2022

Hydroelectric Power

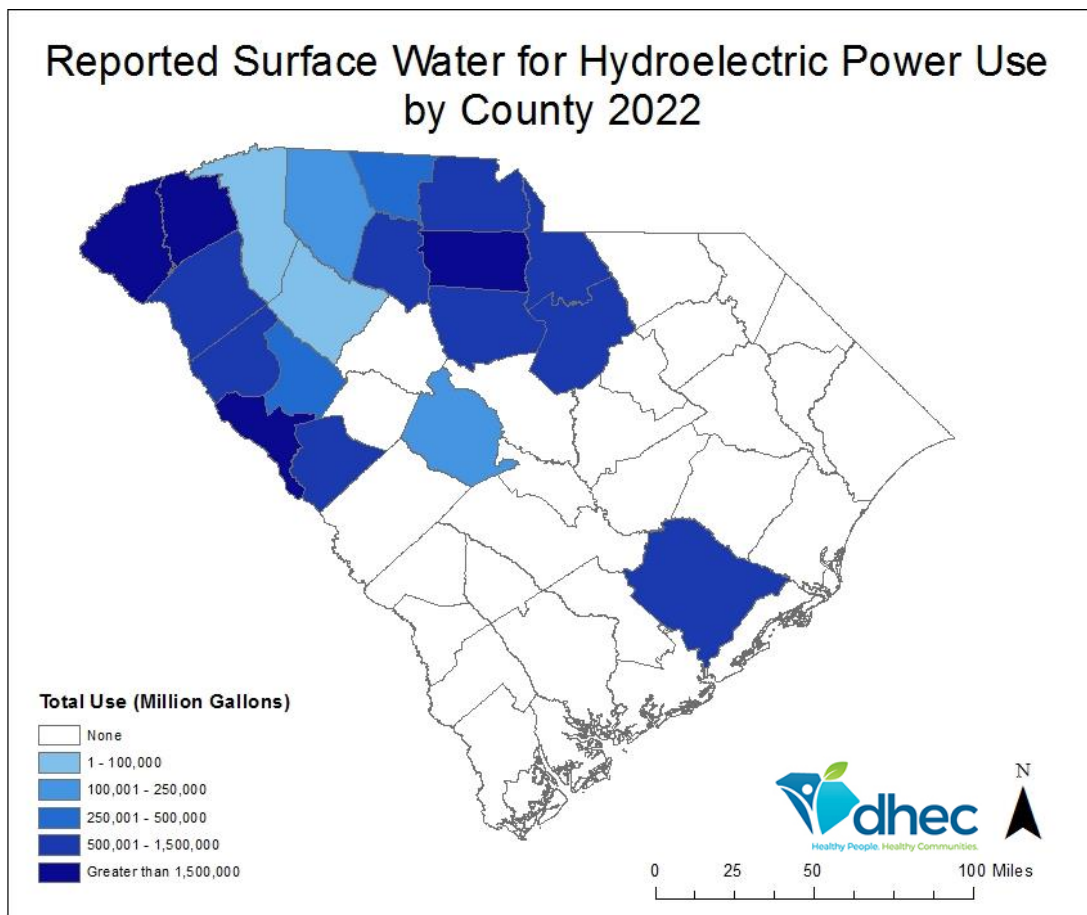


Figure 76: Reported Surface Water Use for Hydroelectric Power by County, 2022. *No Groundwater usage for Hydroelectric use category

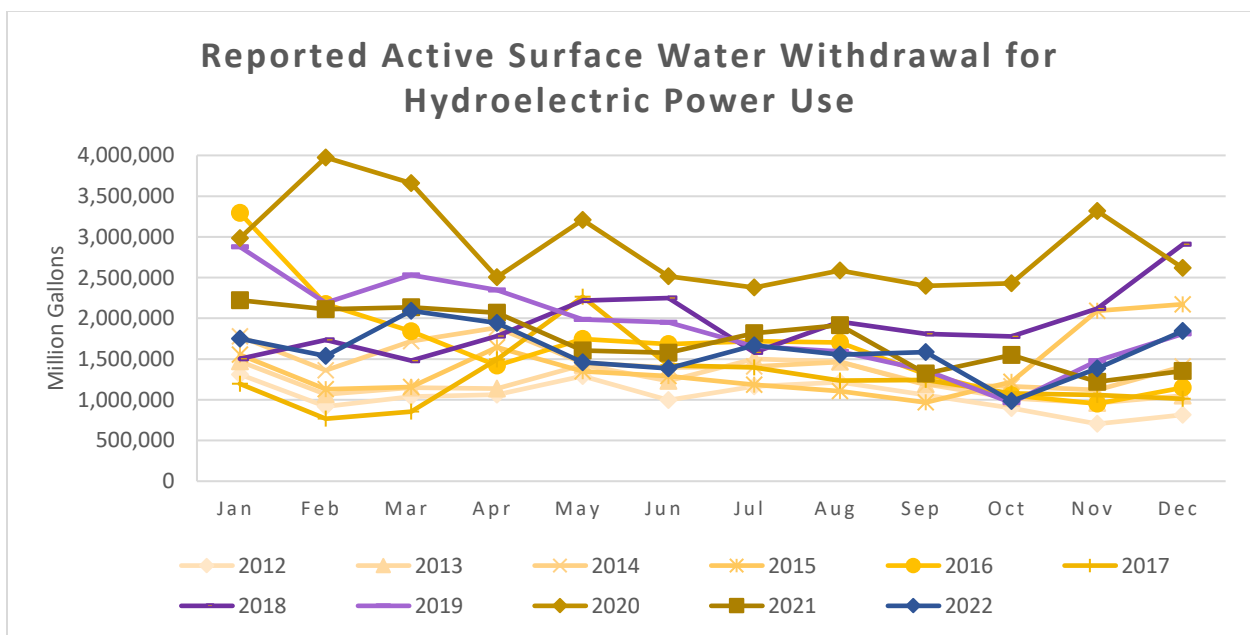


Figure 77: Reported Surface Water for Hydroelectric Power Use by Month, 2012-2022

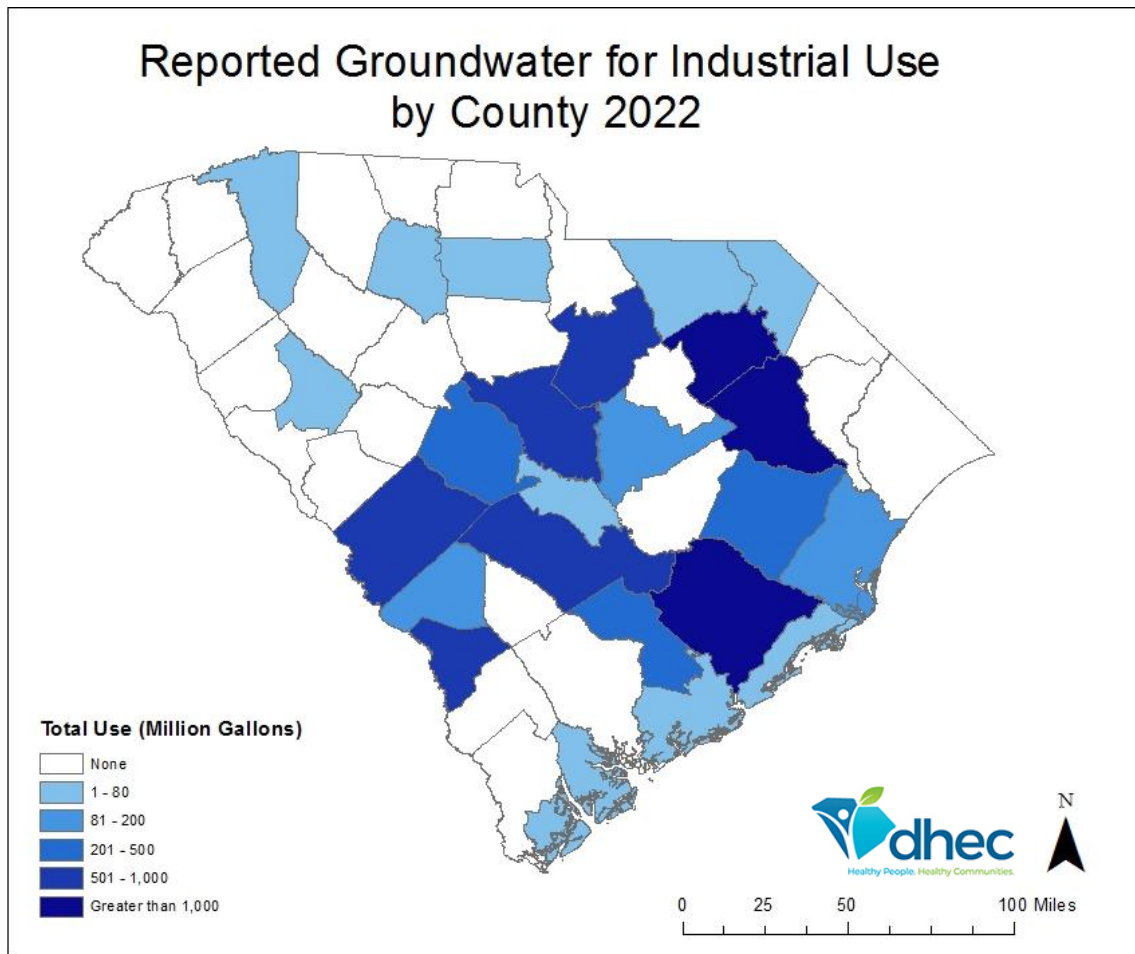


Figure 78: Reported Groundwater Use for Industrial Processes by County, 2022

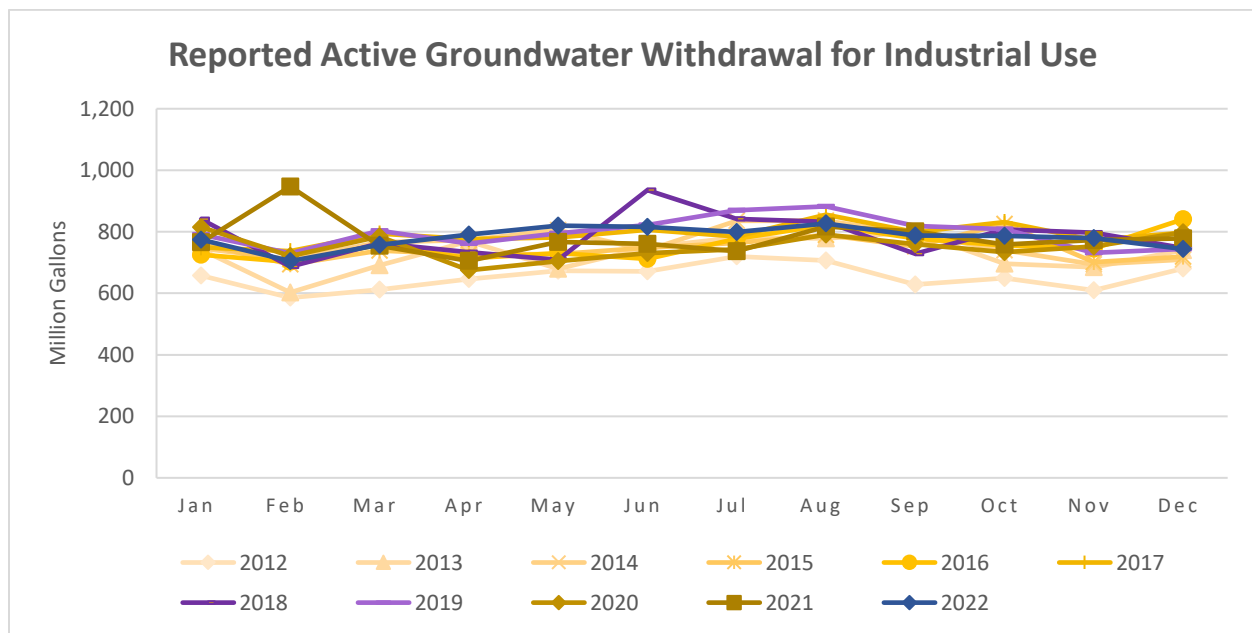


Figure 79: Reported Groundwater for Industrial Processes by Month, 2012-2022

Reported Surface Water for Industrial Use by County 2022

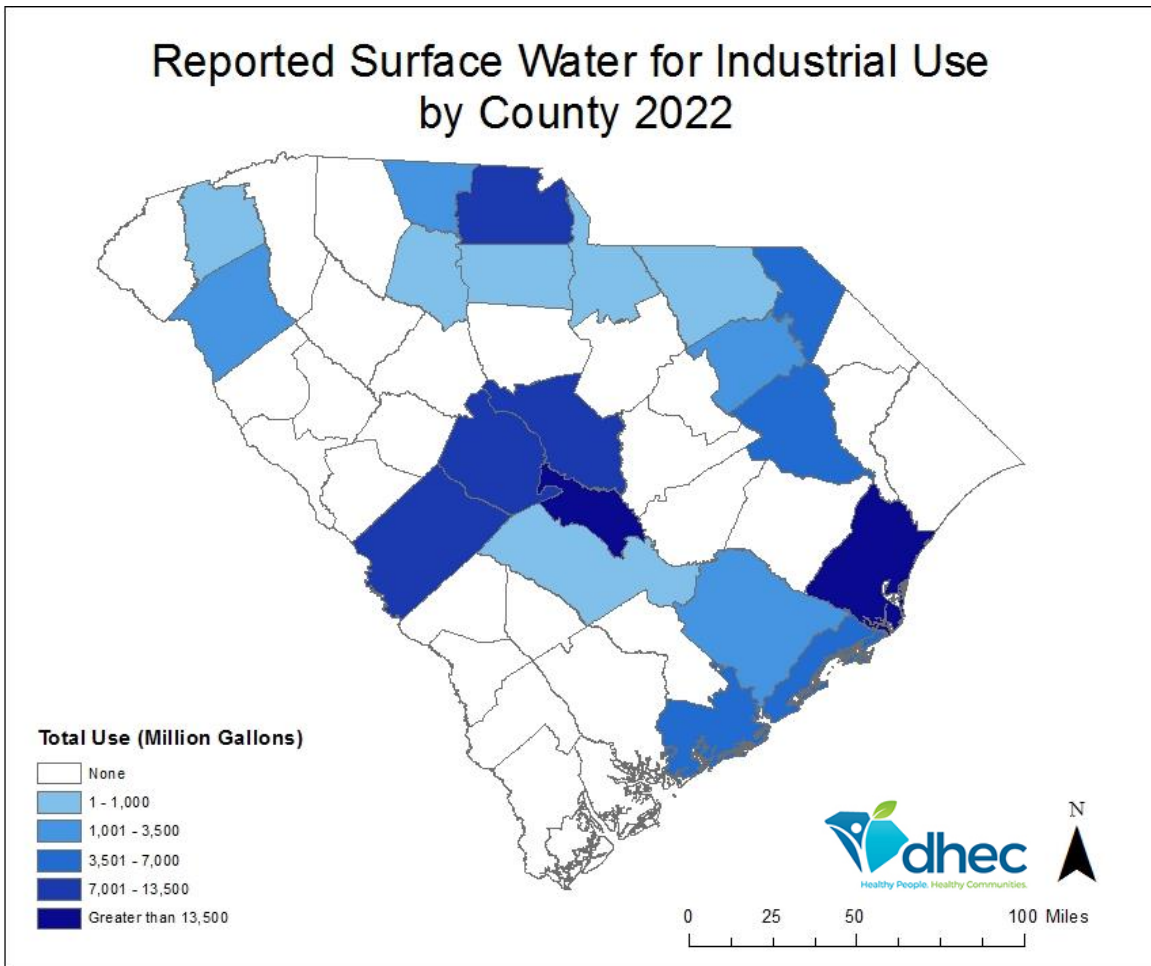


Figure 80: Reported Surface Water Use for Industrial Processes by County, 2022

Reported Active Surface Water Withdrawal for Industrial Use

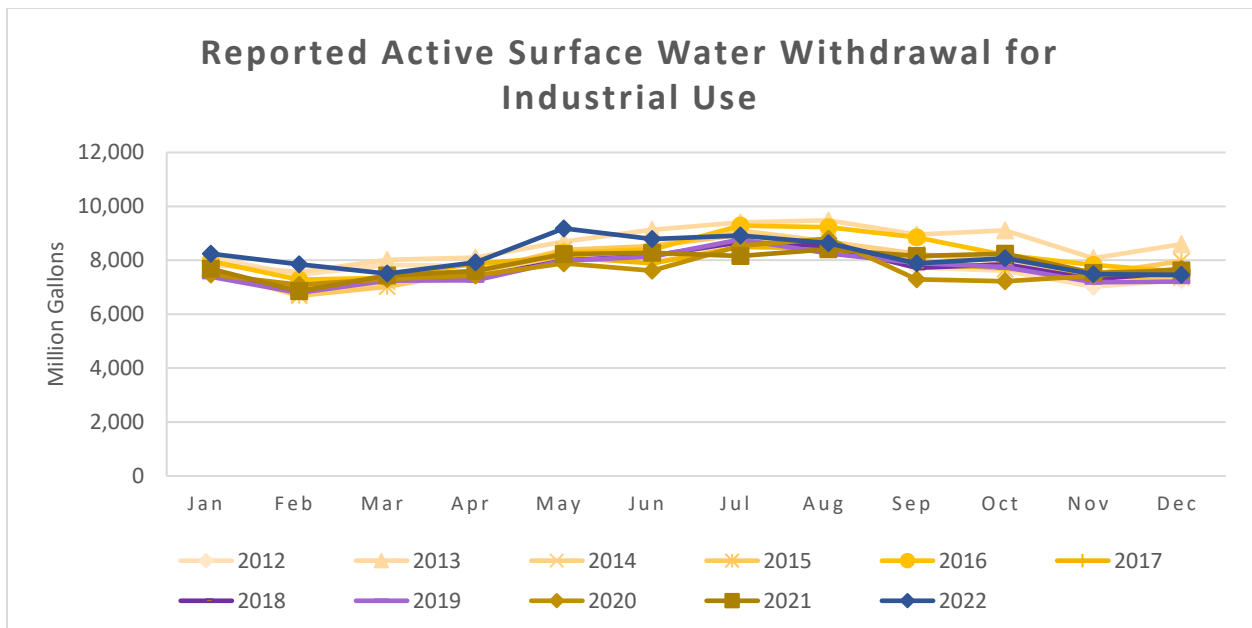


Figure 81: Reported Surface Water for Industrial Processes by Month, 2012-2022

Agricultural Irrigation

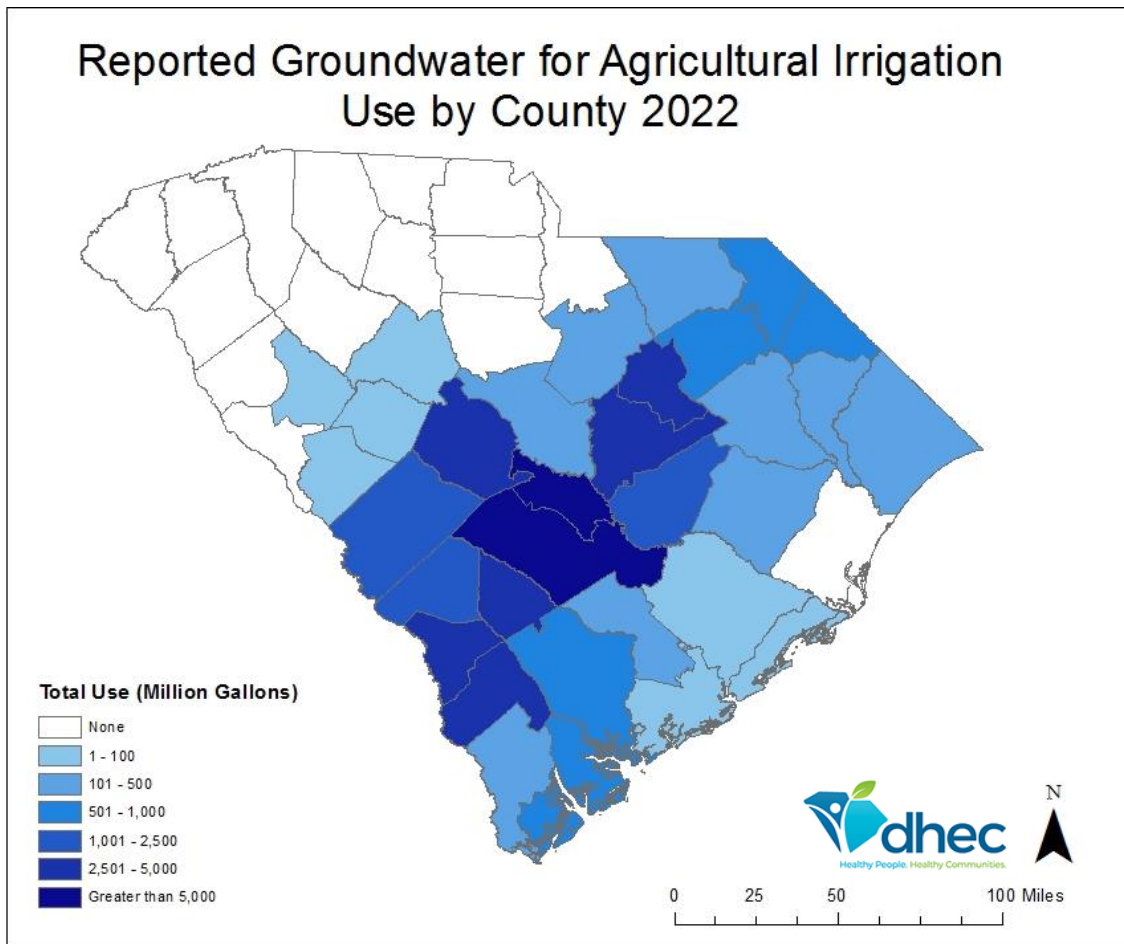


Figure 82: Reported Groundwater Use for Agricultural Irrigation by County, 2022

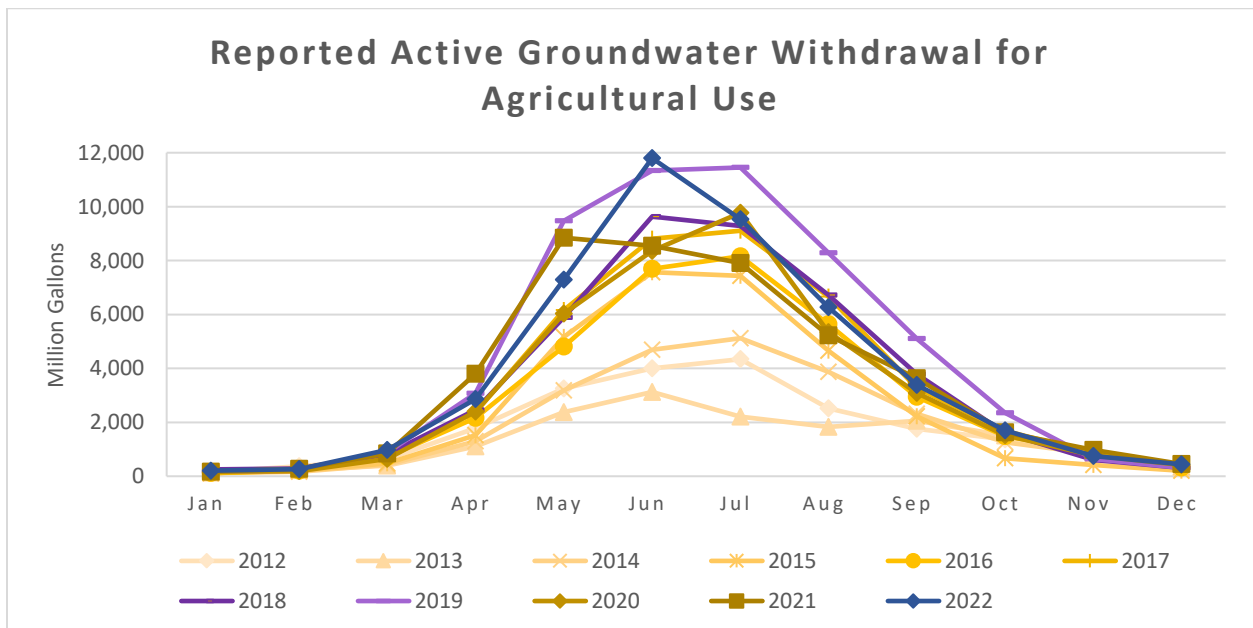


Figure 83: Reported Groundwater for Agricultural Irrigation by Month, 2012-2022

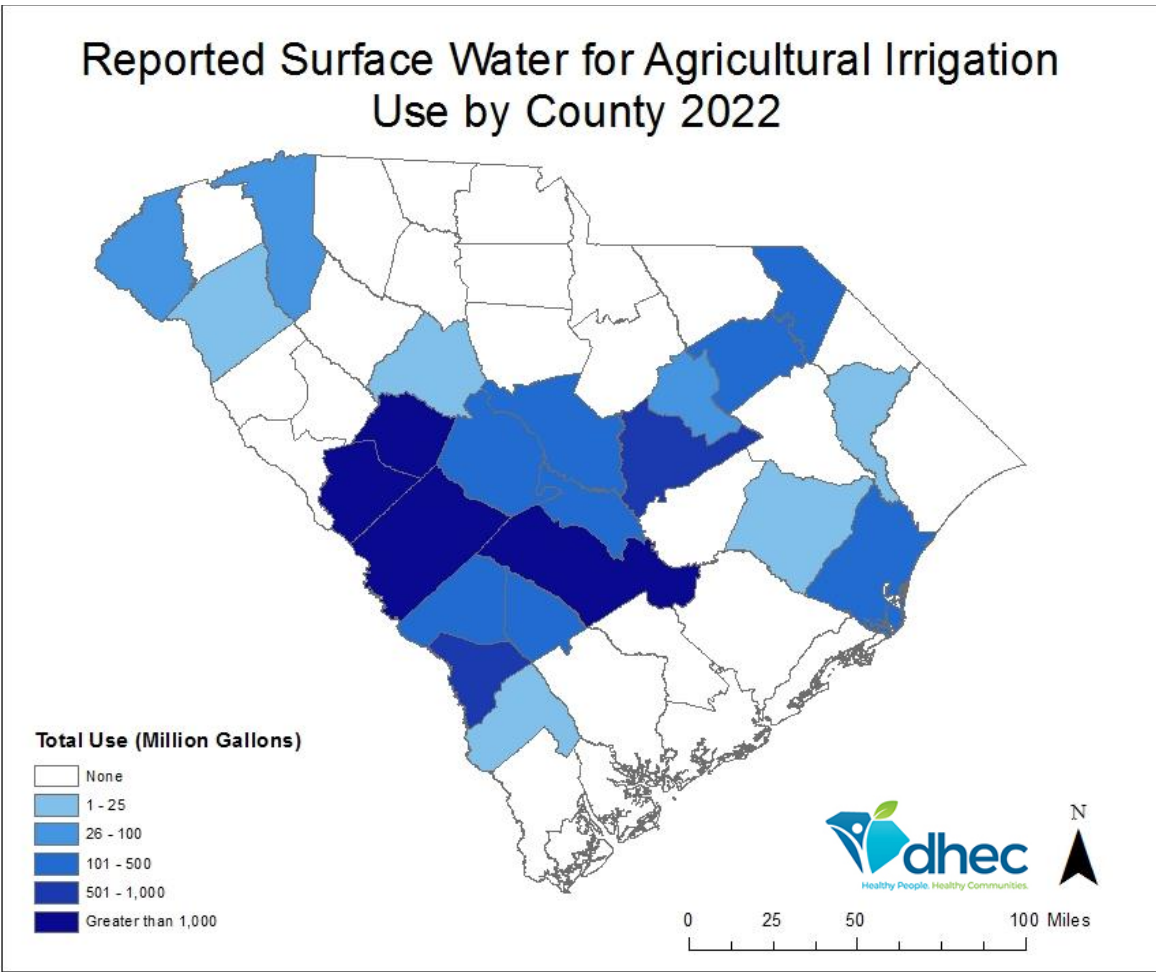


Figure 84: Reported Surface Water Use for Agricultural Irrigation by County, 2022

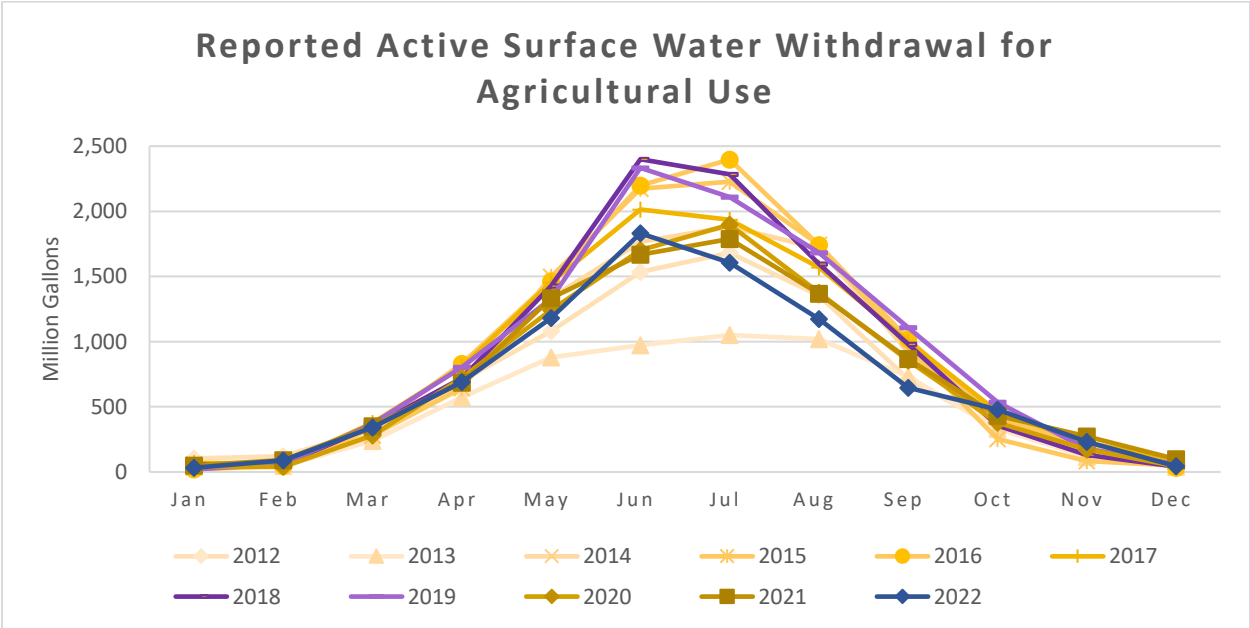


Figure 85: Reported Surface Water for Agricultural Irrigation by Month, 2012-2022

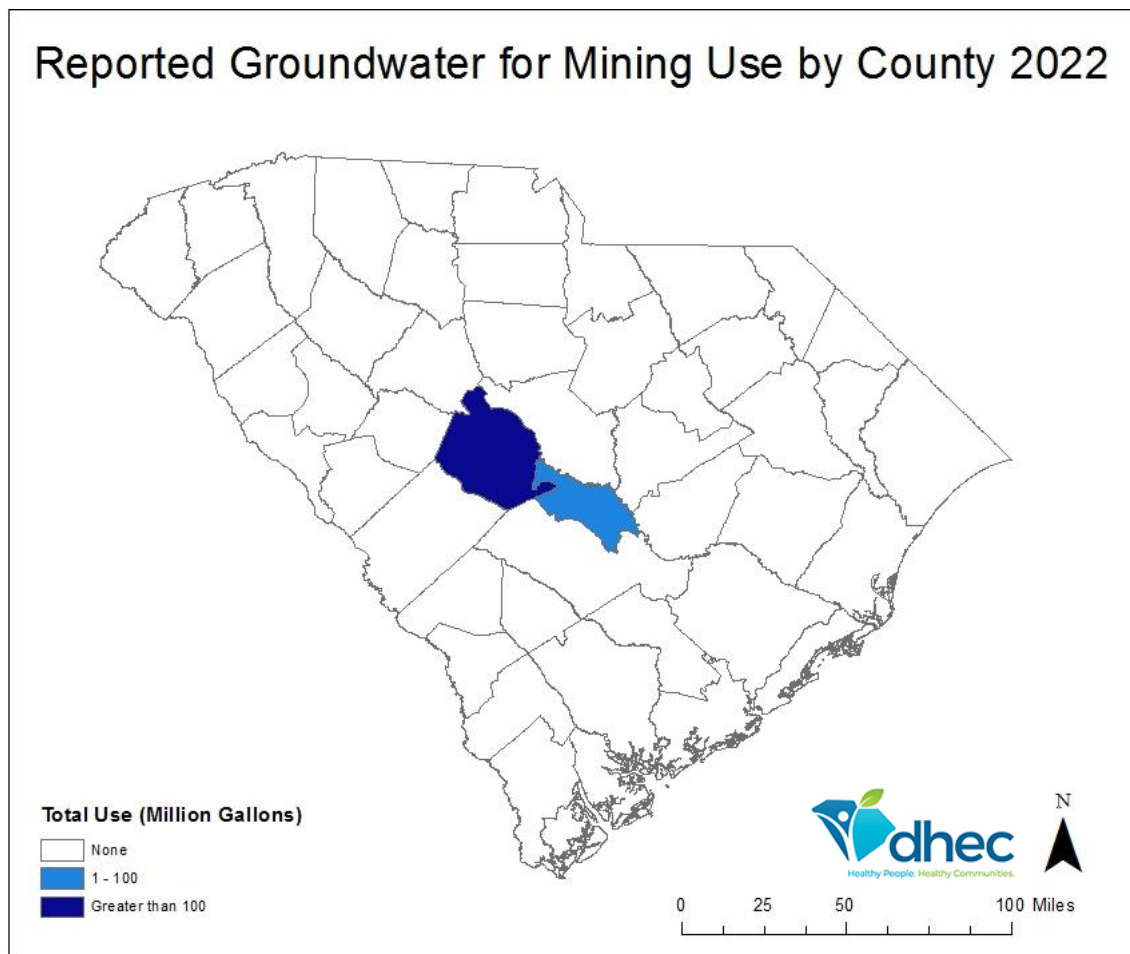


Figure 86: Reported Groundwater Use for Mining Operations by County, 2022

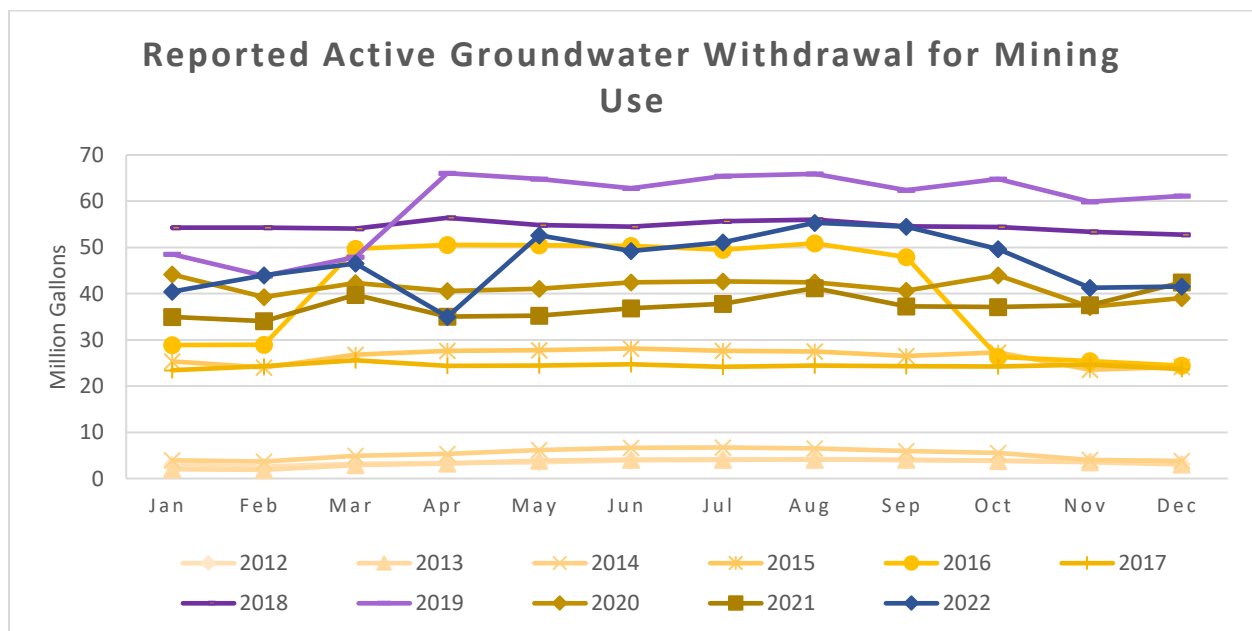


Figure 87: Reported Groundwater for Mining Operations by Month, 2012-2022

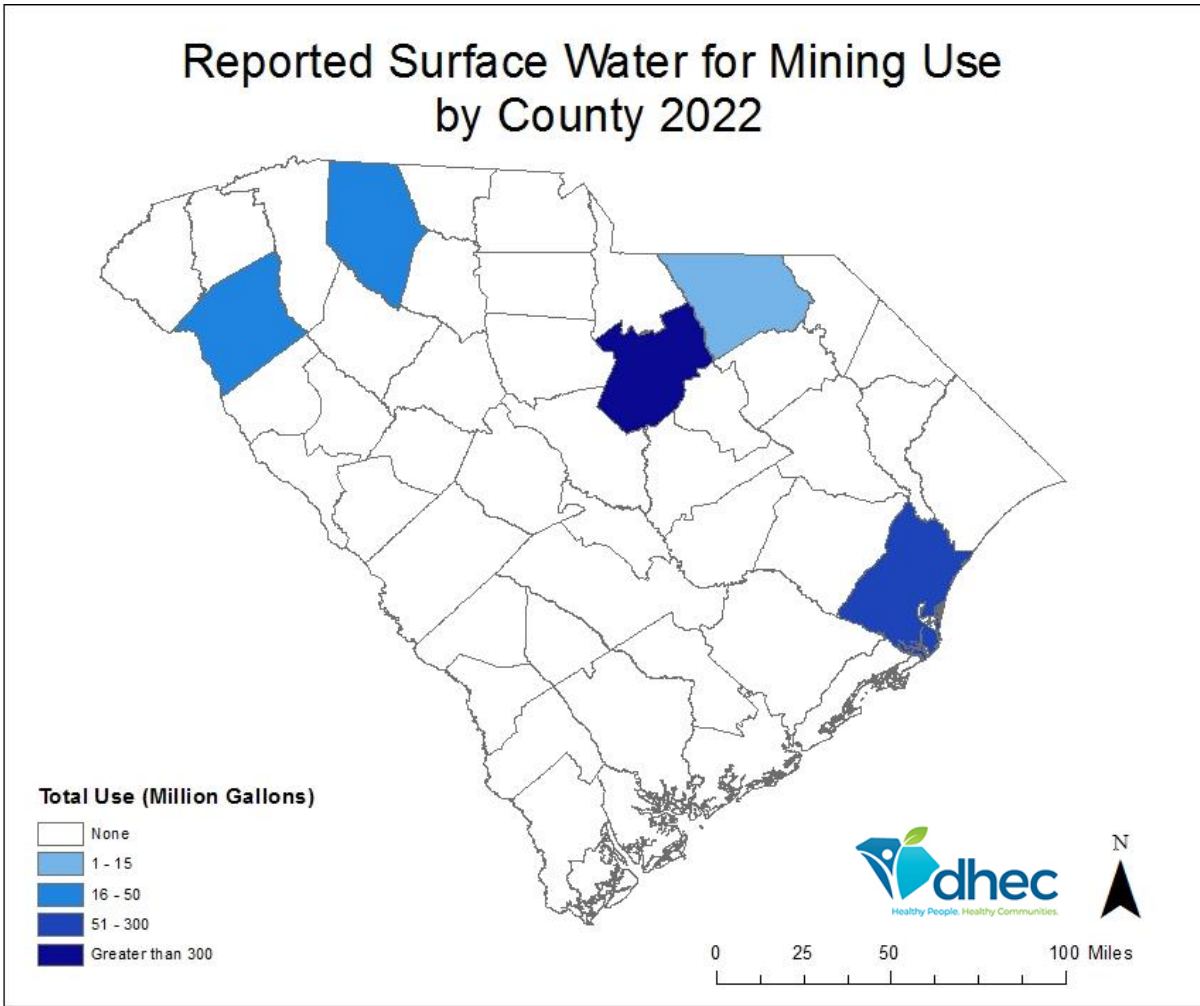


Figure 88: Reported Surface Water Use for Mining Operations by County, 2022

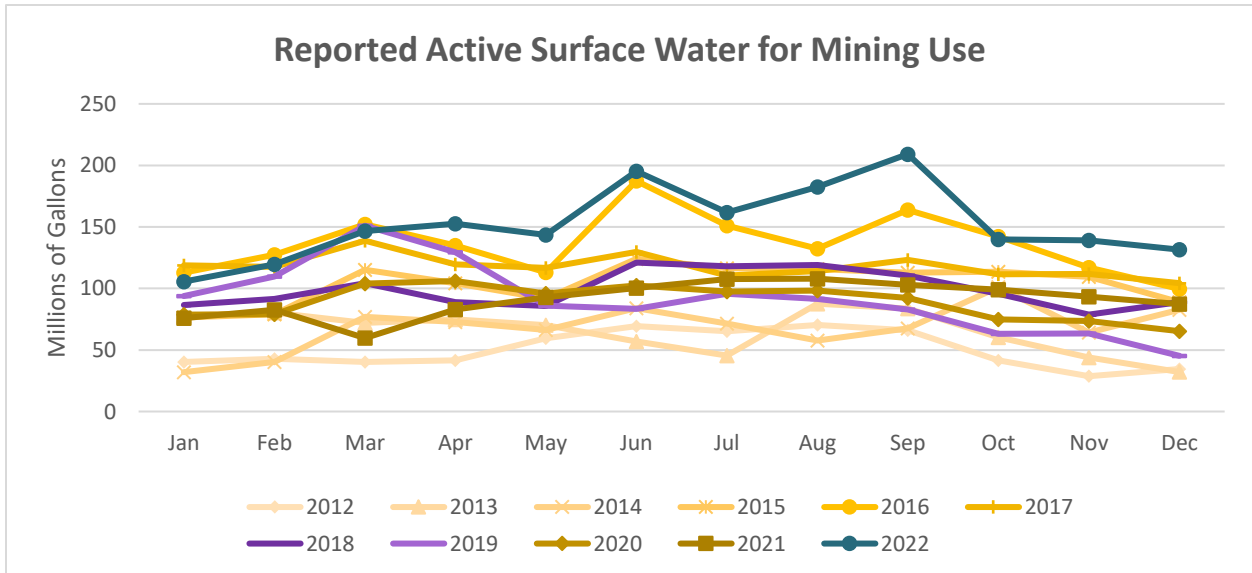


Figure 89: Reported Surface Water for Mining Operations by Month, 2012-2022

Nuclear Power

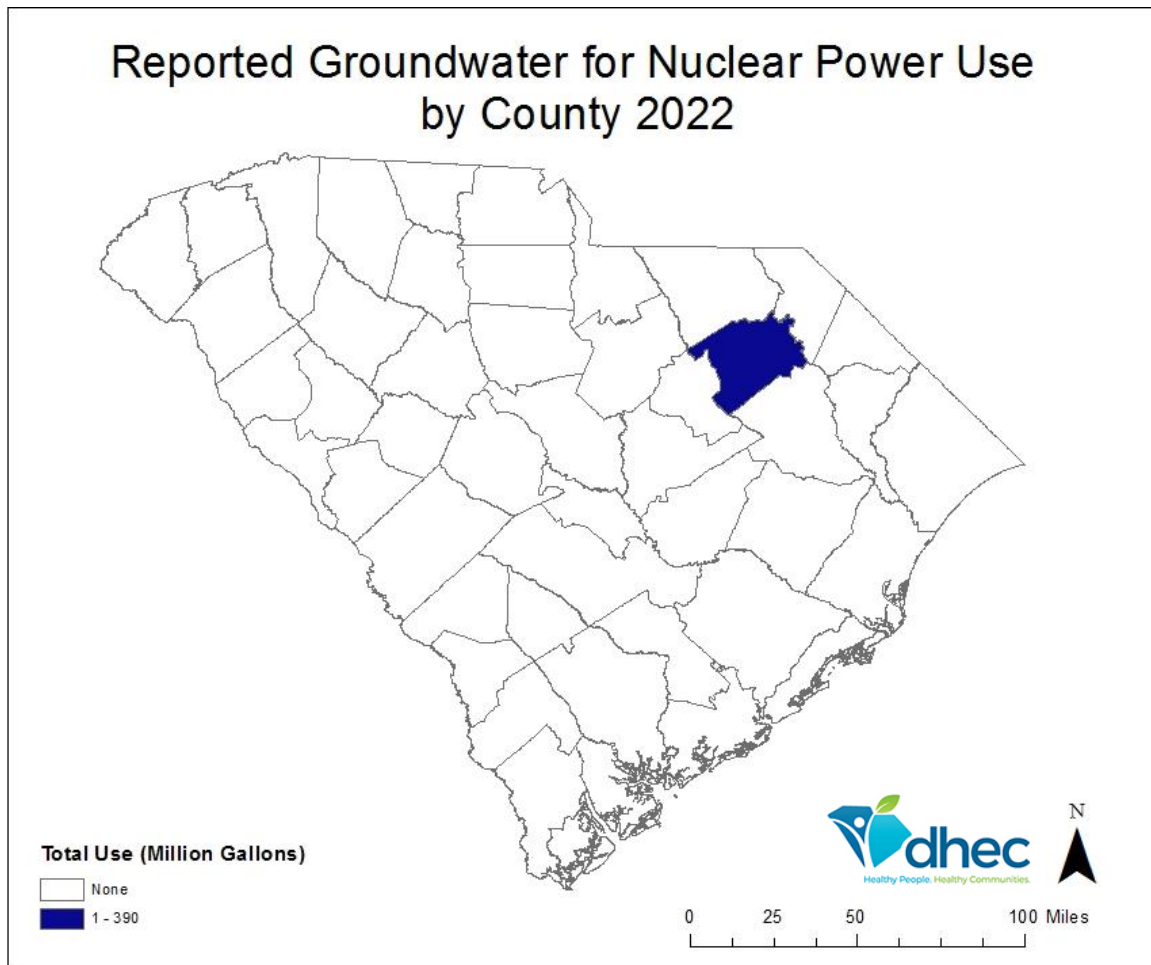


Figure 90: Reported Groundwater Use for Nuclear Power Production by County, 2022

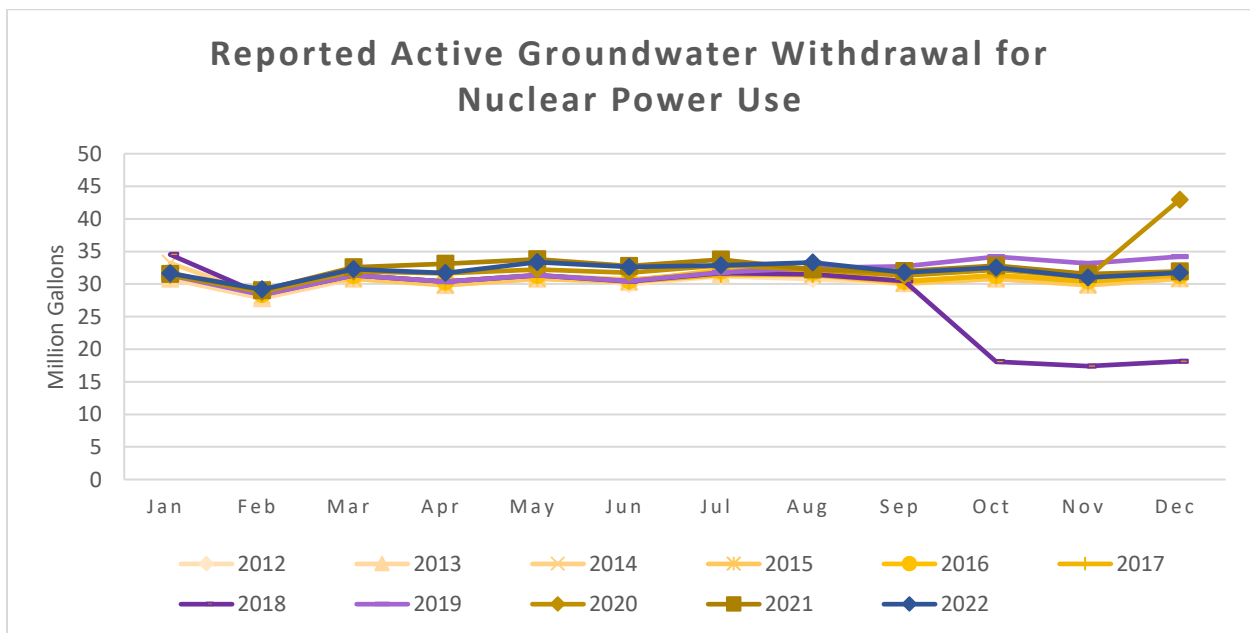


Figure 91: Reported Groundwater for Nuclear Power Use by Month, 2012-2022

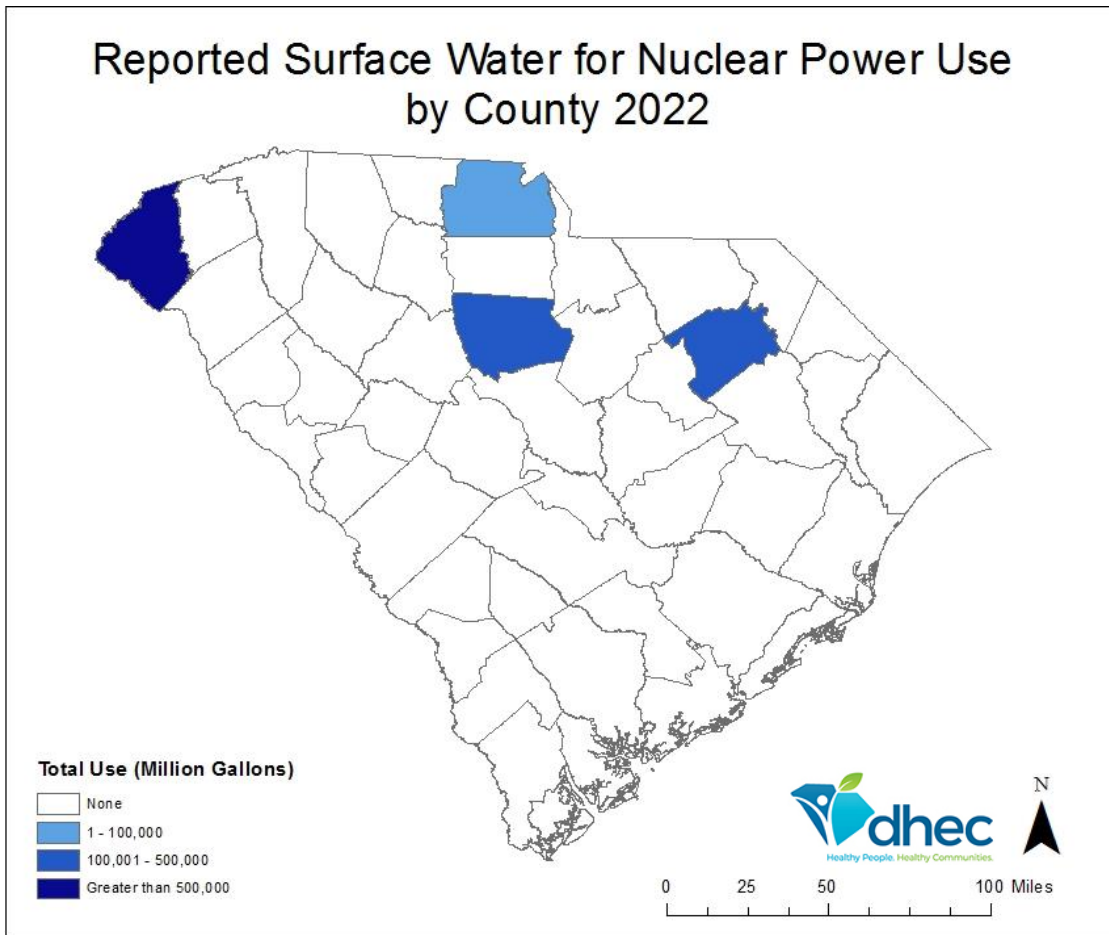


Figure 92: Reported Surface Water Use for Nuclear Power Production by County, 2022

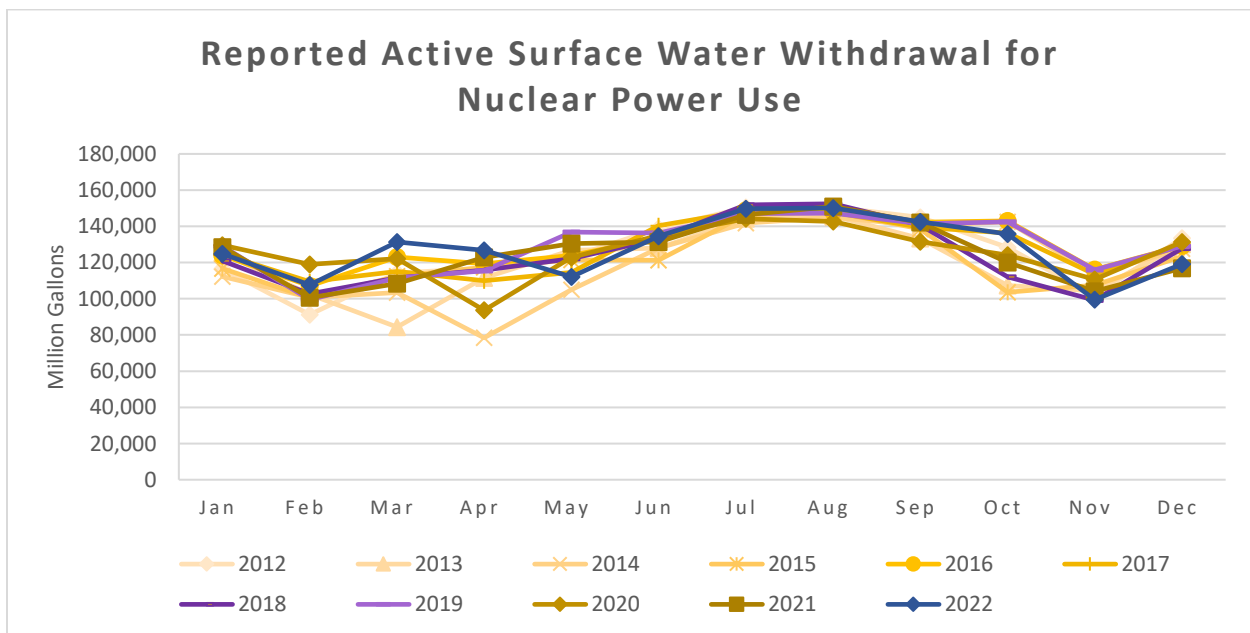


Figure 93: Reported Surface Water for Nuclear Power Use by Month, 2012-2022

Other Use

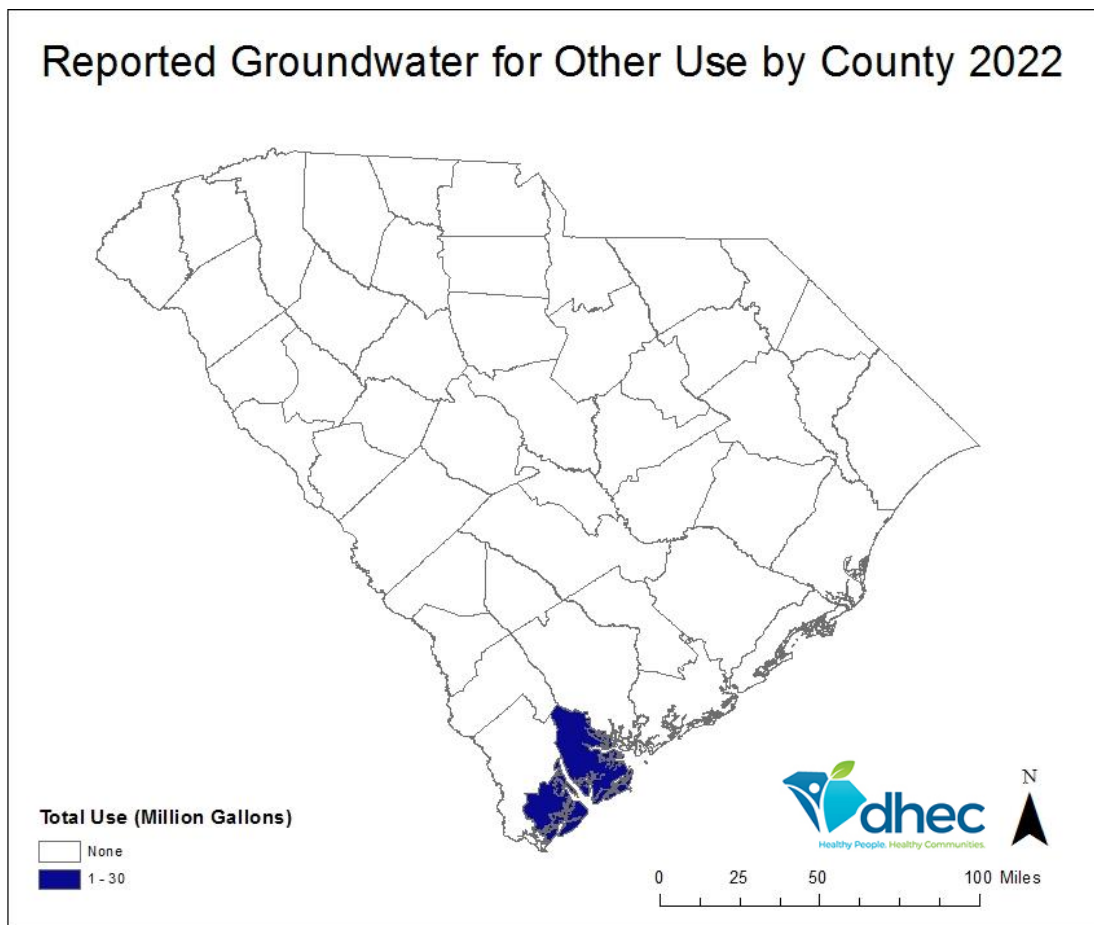


Figure 94: Reported Groundwater Use for Other Use by County, 2022. *No Surface Water usage in the Other water category

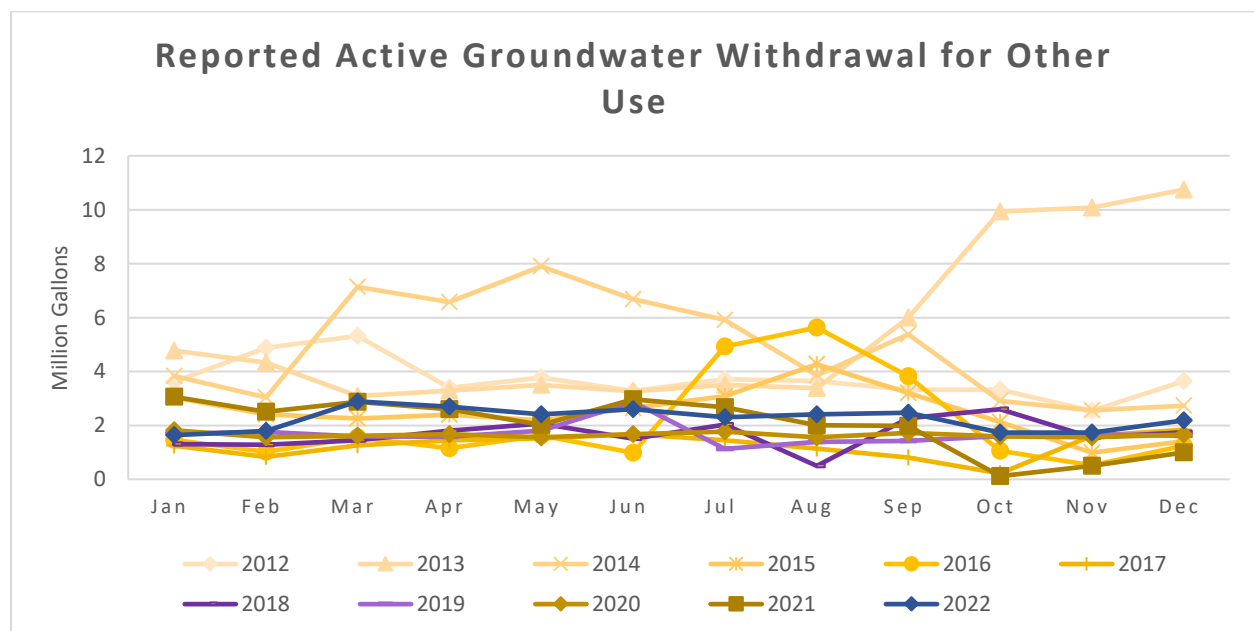


Figure 95: Reported Groundwater for Other Use by Month, 2012-2022

Thermoelectric Power

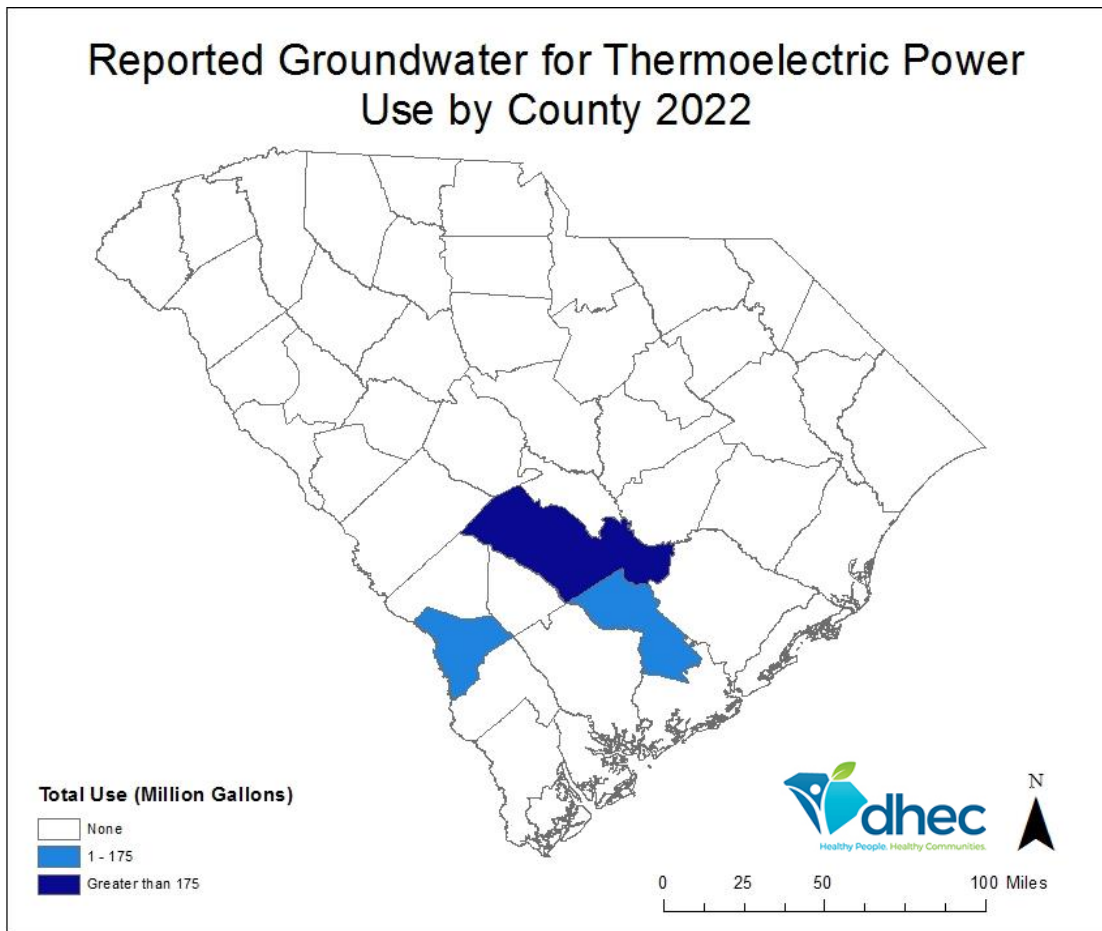


Figure 96: Reported Groundwater Use for Thermal Power Production by County, 2022

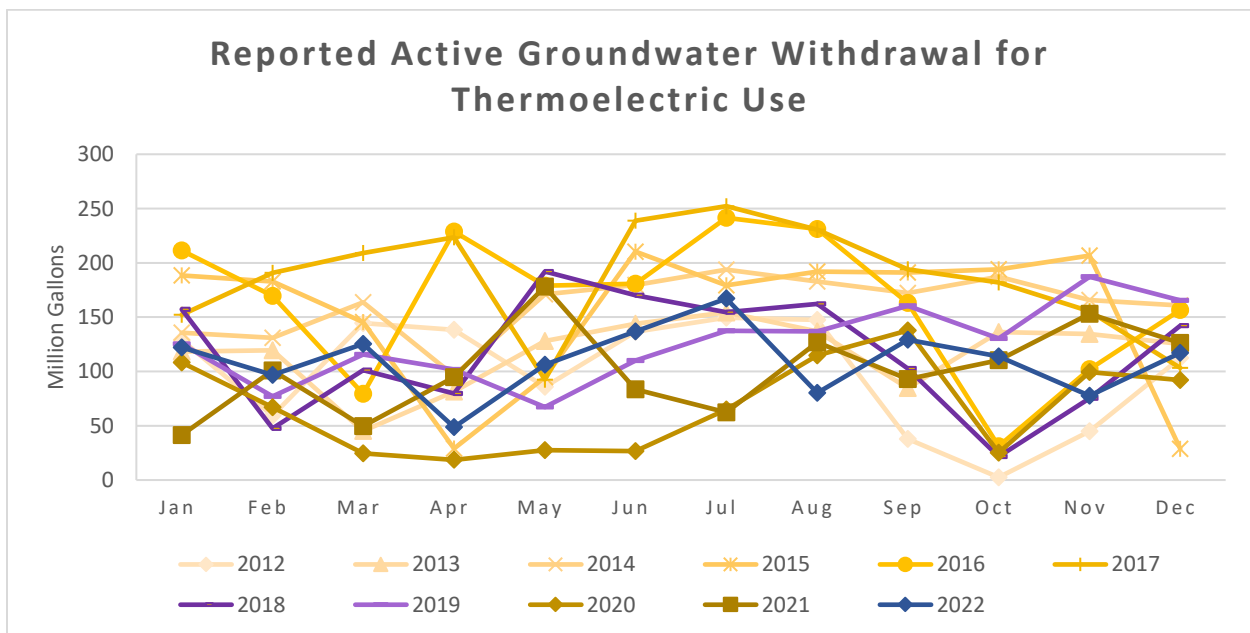


Figure 97: Reported Groundwater for Thermal Power Use by Month, 2012-2022

Reported Surface Water for Thermoelectric Power Use by County 2022

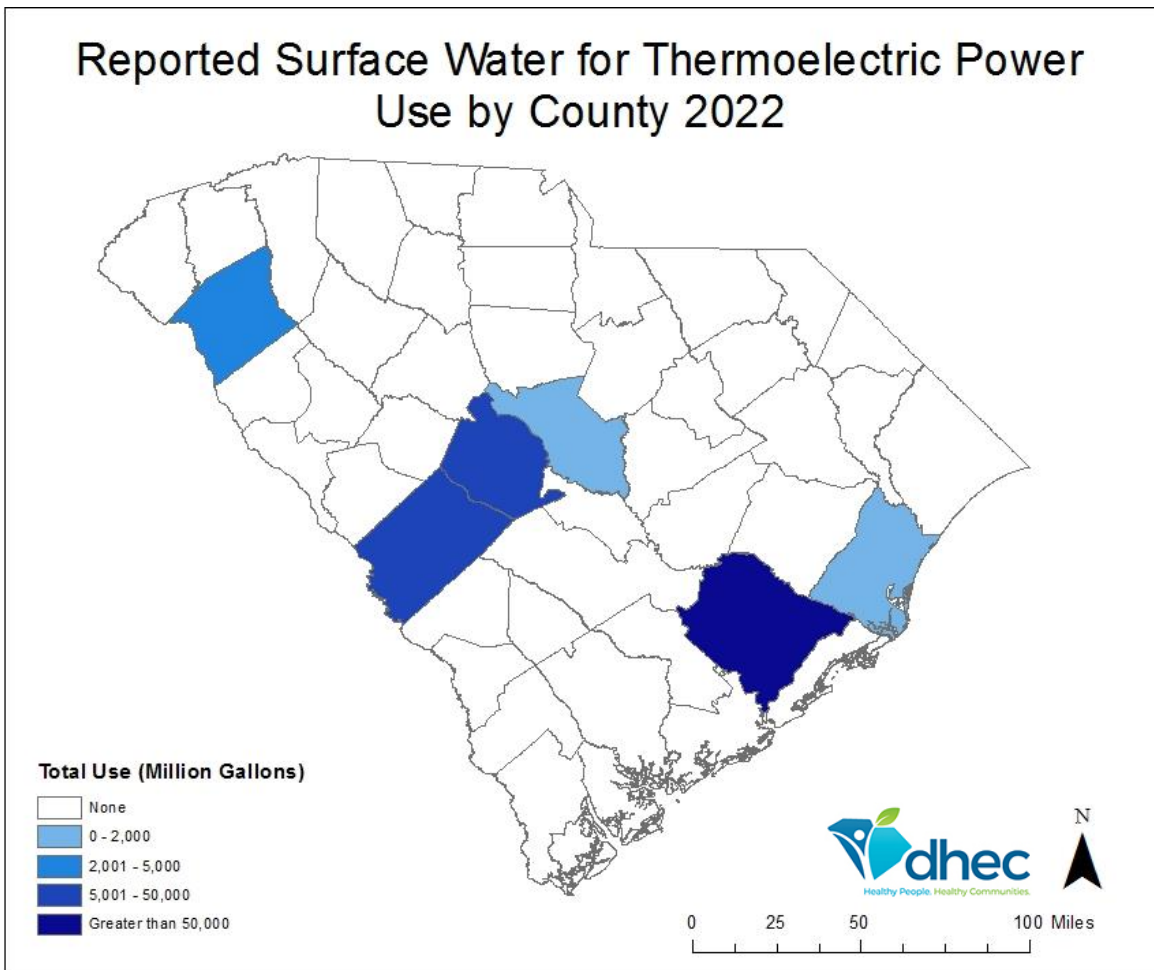


Figure 98: Reported Surface Water Use for Thermal Power Production by County, 2022

Reported Active Surface Water Withdrawal for Thermoelectric Use

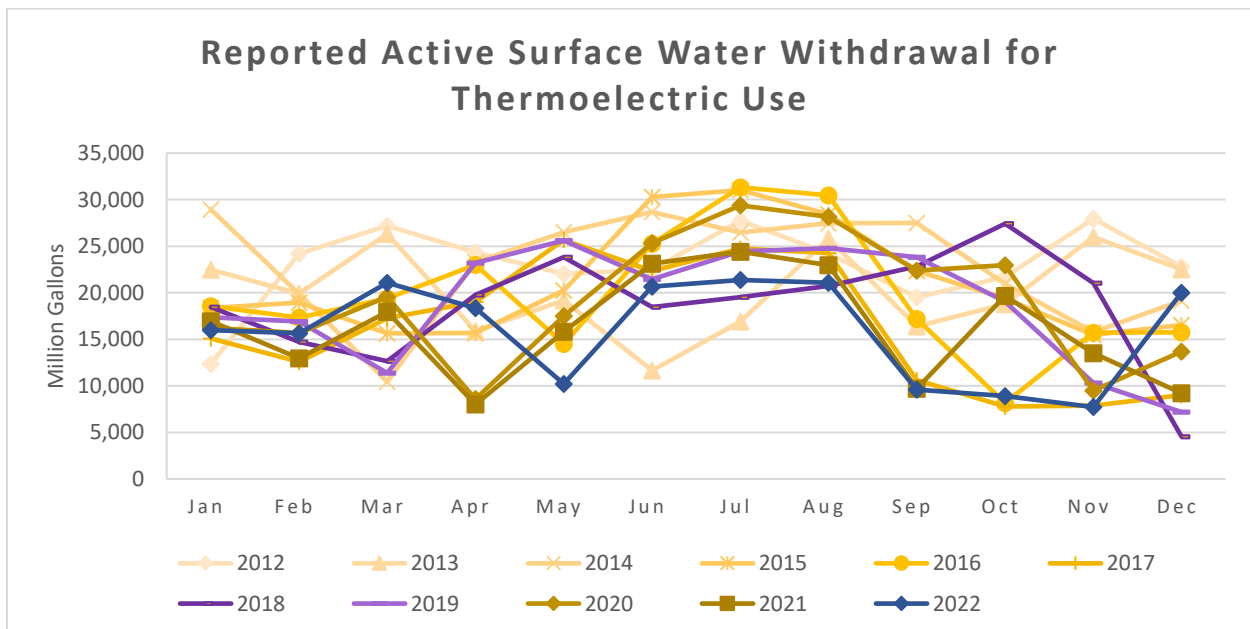


Figure 99: Reported Surface Water for Thermal Power Use by Month, 2012-2022

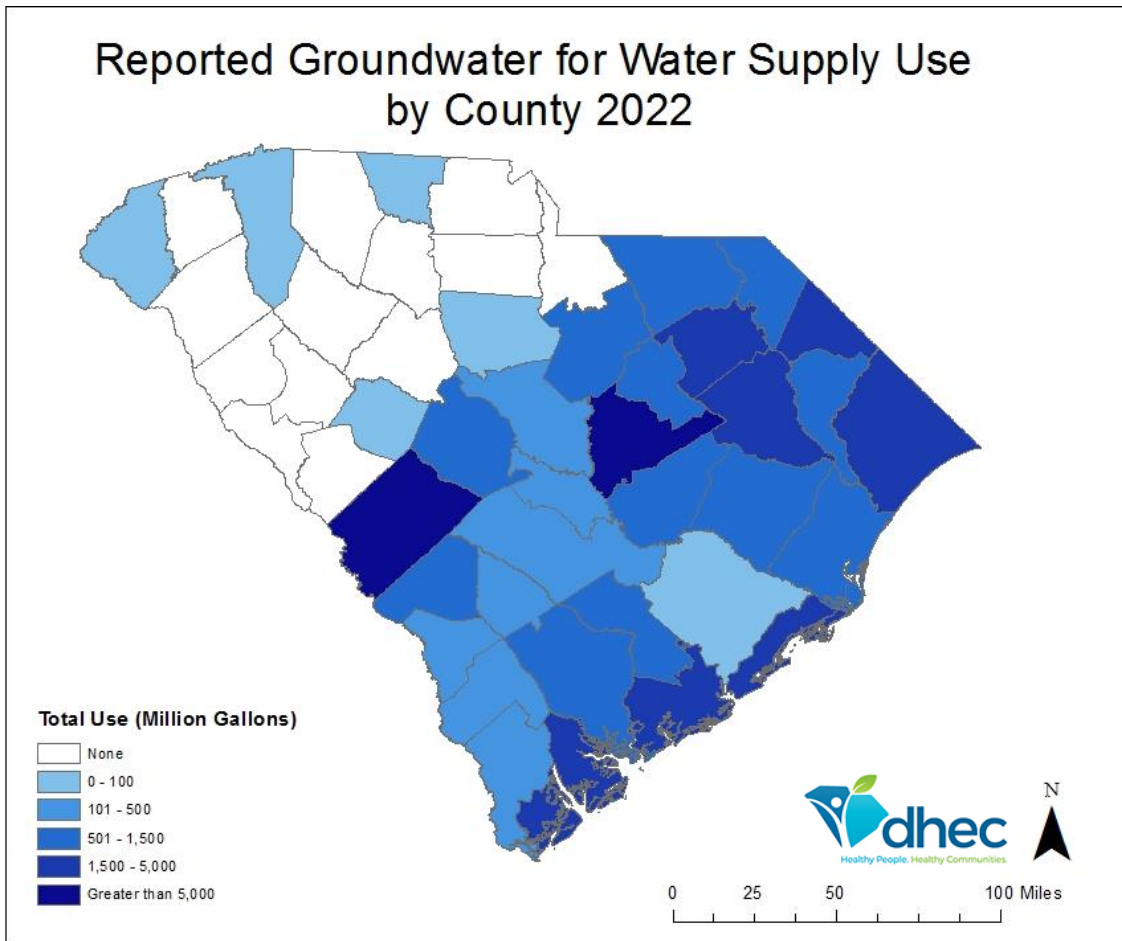


Figure 100: Reported Groundwater Use for Public Water Supply by County, 2022

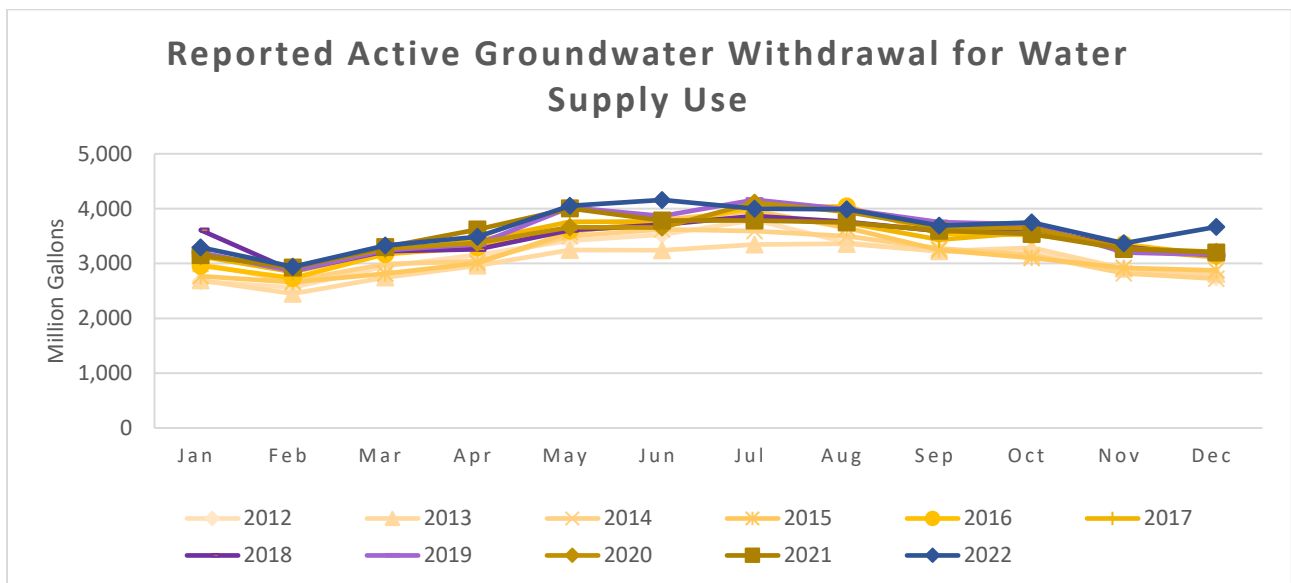


Figure 101: Reported Groundwater for Public Water Supply Use by Month, 2012-2022

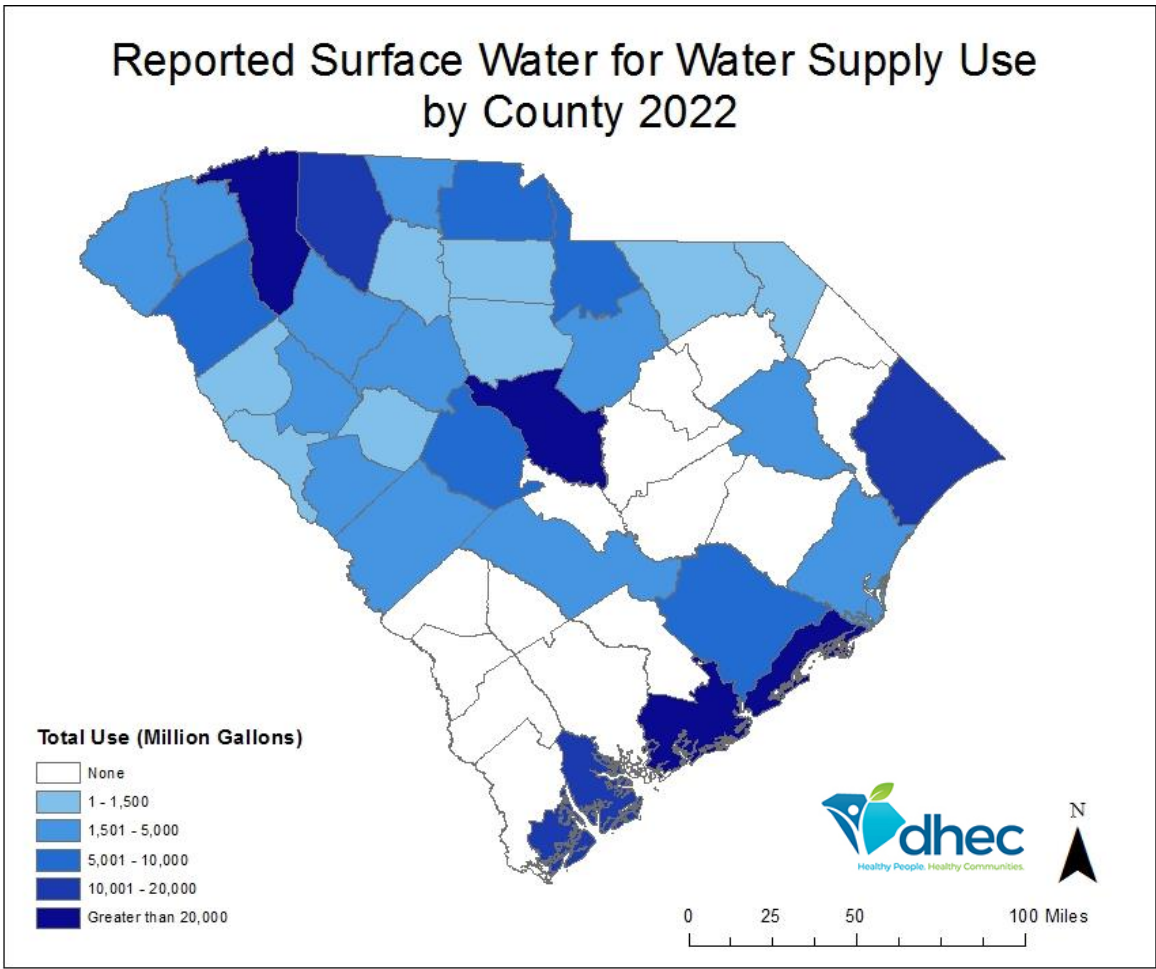


Figure 102: Reported Surface Water Use for Public Water Supply by County, 2022

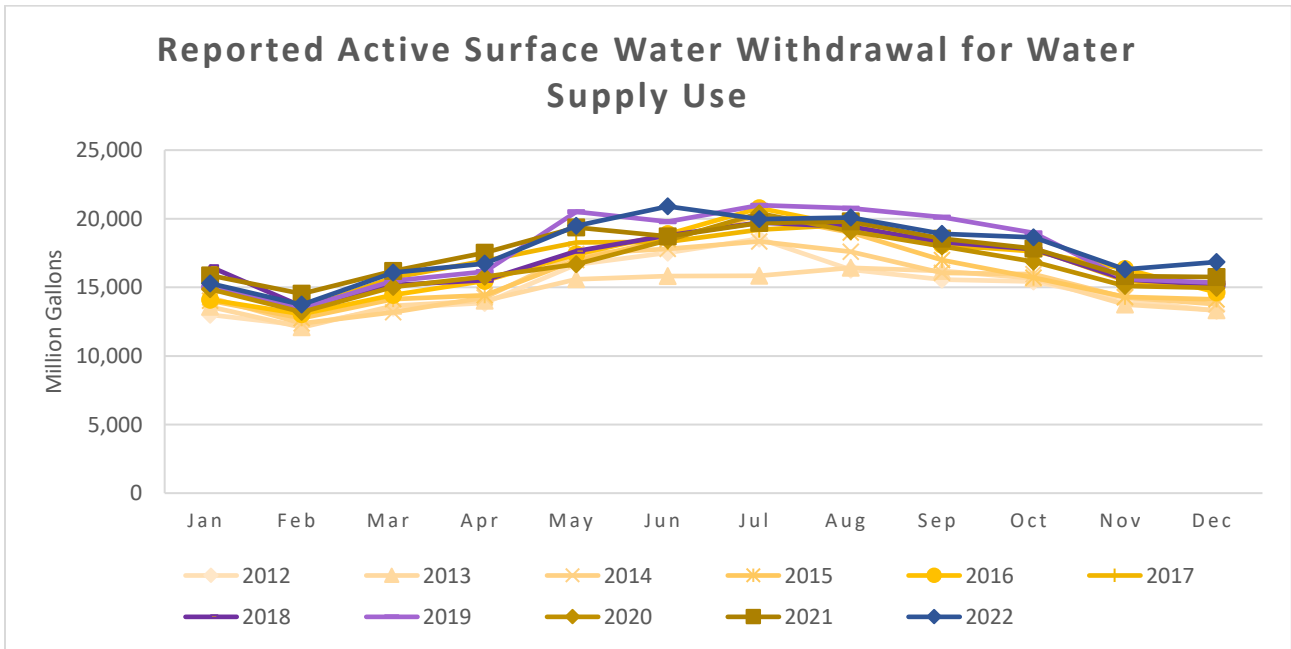


Figure 103: Reported Surface Water for Public Water Supply Use by Month, 2012-2022

Appendix A: Bibliography

- Gellici, J. A., & Lautier, J. C. (2010). *Groundwater Availability in the Atlantic Coastal Plain of North and South Carolina, Chapter B: Hydrogeologic Framework of the Atlantic Coastal Plain, North and South Carolina*. Reston, VA: USGS.
- South Carolina Department of Natural Resources. (2018). *South Carolina State Climatology Office*. Retrieved July 20, 2018, from SC DNR: www.dnr.sc.gov/climate/sco/ClimateData/cli_sc_climate.php
- Southeast Regional Climate Center. (2022). *State Average Data*. Retrieved August 28 2022, from Southeast Regional Climate Center: https://sercc.com/state-climate-data/?wpv_view_count=2688&wpv-wpcf-climate-data-region=SCA&wpv-wpcf-climate-data-type=PREC&wpv_filter_submit=Submit
- Southeast Regional Climate Center. (2022). *State Average Data*. Retrieved August 28, 2023, from Southeast Regional Climate Center: https://sercc.com/state-climate-data/?wpv_view_count=2688&wpv-wpcf-climate-data-region=SCA&wpv-wpcf-climate-data-type=TEMP&wpv_filter_submit=Submit

Appendix B: Surface and Groundwater Use Summary Table

*Use in Millions of Gallons

±Source Type: GW is Groundwater and SW is Surface Water

County	Source	Use Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Abbeville	GW	Water Supply	0	0	0	0	0	0	0	0	0	0	0	0
Abbeville	SW	Hydroelectric	109508	77673	139474.8	116690.7	73422	101369.8	127308.6	145136.4	119266	38223.8	54653.7	97144.4
Abbeville	SW	Water Supply	63	57	63	51	63	55	54	62	54	59	65	63
Aiken	GW	Agricultural Irrigation	9.123	23.0734	83.31207	185.4936	398.6774	647.4879	477.1873	235.687	168.106	109.767	36.407	11.079
Aiken	SW	Agricultural Irrigation	7.729	19.079	57.946	155.644	220.38	329.88	195.785	85.757	27.547	46.919	16.942	7.045
Aiken	GW	Golf Course Irrigation	0	0	35	6	14	15	13.1	11.2	7.1	2.1	6.1	7.1
Aiken	SW	Golf Course Irrigation	1.9	3.326	12.241	17.951	30.432	36.967	41.191	36.474	26.657	14.373	5.266	1.5
Aiken	GW	Industrial	55.33383	50.73441	67.27306	62.43003	63.96555	62.75611	62.11151	61.1999	52.6613	60.397	62.71297	59.93132
Aiken	SW	Industrial	640	529	628	640	657	621	649	666	662	692	660	679
Aiken	SW	Thermoelectric	1032.3	292.9	2992	3015.5	2225.2	3234.4	3707.8	3323.1	3545.3	4871.4	2834.6	1510.5
Aiken	GW	Water Supply	356.3606	330.5346	380.4944	400.0089	489.5971	536.3453	525.4132	493.2519	473.0175	454.7836	413.2615	448.2946
Aiken	SW	Water Supply	156.546	146.981	198.025	229.441	313.615	383.515	317.476	310.841	265.177	251.749	177.322	197.608
Allendale	GW	Agricultural Irrigation	1.6	33.405	100.471	198.0576	477.5257	925.5129	922.1738	684.5072	429.377	181.1	50.699	13.478
Allendale	SW	Agricultural Irrigation	0.1	0.2	4.4	17.1	84.4	238.8	211.9	60.1	27.4	5.8	1.1	0.3
Allendale	GW	Industrial	40.194	38.367	41.325	36.888	49.155	47.067	44.631	47.154	49.764	48.72	36.366	35.844
Allendale	GW	Thermoelectric	11.7025	11.0624	12.1128	9.1028	12.8122	12.8644	13.5823	12.9628	12.2927	12.3038	8.0824	11.2726
Allendale	GW	Water Supply	41.99777	35.37486	36.47118	35.51668	35.45136	37.40146	38.37142	37.42537	35.51906	37.13833	35.25676	43.58372
Anderson	SW	Agricultural Irrigation	0	0	0	0	0	1.5	1.5	0	0	0	0	0
Anderson	SW	Hydroelectric	66806	90116	124928	127516	73221	86602	71191	79065	82265	43371	53762	75079
Anderson	GW	Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Anderson	SW	Industrial	169.1	148.7	151.7	154.1	159.3	164.4	185.6	168	152.8	171	146.4	162.1
Anderson	SW	Mining	3.6	3.3	3.8	2.9	3.4	3	0	0	3	2.9	3.4	3.3
Anderson	SW	Thermoelectric	159.356	161.967	157.195	121.34	160.385	210.205	234.588	235.558	228.309	234.598	70.726	86.499
Anderson	SW	Water Supply	602.84	535.21	586.38	615.79	739.03	806.11	753.14	734.43	710.02	712.07	604.8	686.24
Bamberg	GW	Agricultural Irrigation	21.375	21.875	79.715	248.09	391.825	492.631	565.245	448.592	239.651	104.87	60.28	18.95
Bamberg	SW	Agricultural Irrigation	0	0	8.96	39.23	57.29	71.57	95.5	84.7	21.2	39	12.6	3.8
Bamberg	GW	Water Supply	28.5947	25.9865	27.2177	28.2961	31.4564	30.9379	31.643	32.6446	31.2436	32.8256	30.2969	34.1557
Barnwell	GW	Agricultural Irrigation	2.00073	6.2343	40.4625	142.5473	337.7732	391.5639	308.2294	252.4436	144.1545	37.81153	14.622	6.10975
Barnwell	SW	Agricultural Irrigation	0	0	0	2	15.1	20.6	23.85	34.25	26.6	5	0	0
Barnwell	GW	Industrial	9.987	9.631	1.6	4.081	10.405	10.02	10.278	21.323	13.696	21.415	25.15	19.938
Barnwell	GW	Water Supply	78.15	65.8301	77.0607	71.9617	83.5199	77.7365	86.2296	89.6266	84.0838	79.0074	63.7106	63.2094
Beaufort	GW	Agricultural Irrigation	5	15.021	23.14465	53.06843	179.576	133.0333	34.31717	27.04488	29.21716	13.308	4.104	2
Beaufort	GW	Aquaculture	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065
Beaufort	SW	Aquaculture	28.6	25.8	28.6	27.7	29	27	28.6	28.6	28	28.6	28	28
Beaufort	GW	Golf Course Irrigation	10.6949	16.4523	35.9411	91.5702	163.1526	170.0131	137.686	98.2099	70.7803	84.1744	51.7478	38.5094
Beaufort	SW	Golf Course Irrigation	9.804	15.349	32.222	53.49	49.977	41.41	44.005	36.674	40.225	40.281	13.398	14.734
Beaufort	GW	Industrial	1.117	0.99	1.643	1.078	1.405	1.227	1.216	1.16	0.96	1.077	1.095	0.956
Beaufort	GW	Other	1.64	1.79	2.89	2.7	2.41	2.6	2.3	2.41	2.47	1.73	1.73	2.19
Beaufort	GW	Water Supply	342.1109	316.934	384.7402	424.3182	500.2785	508.2501	472.6943	448.8713	378.0259	436.3039	385.789	379.0728
Beaufort	SW	Water Supply	784.574	717.816	785.642	815.102	1144.379	1164.949	728.885	683.892	917.19	1065.003	910.032	809.177
Berkeley	GW	Agricultural Irrigation	0	0	0	2	5	7	7	0	0	0	0	0
Berkeley	SW	Agricultural Irrigation	0	0	0	0	0	0	0	0	0	0	0	0
Berkeley	GW	Golf Course Irrigation	0.176	0.432	1.055	1.852	3.207	3.648	3.071	1.277	2.085	1.53	0.286	0.167

County	Source	Use Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Berkeley	SW	Hydroelectric	124133.3	91961.92	104139.1	111036	118463.6	112528.9	110489.9	102596.3	122688.3	107985.6	119344.6	128140.2
Berkeley	GW	Industrial	86.26032	75.32292	89.08308	97.23742	105.5797	100.5144	107.1874	104.9479	78.44601	81.36878	74.79293	74.56245
Berkeley	SW	Industrial	274.974	261.076	280.375	269.782	298.5	334.314	293.573	275.778	256.959	229.318	211.448	188.888
Berkeley	SW	Thermoelectric	12371.36	13782.57	15034.8	13333.58	4347.853	12030.94	13510.49	14217.44	1340.288	1230.575	2485.425	15661.58
Berkeley	GW	Water Supply	5.695	4.587	3.139	3.238	3.786	3.64337	3.588	3.176	4.66	3.61	3.184	3.1271
Berkeley	SW	Water Supply	628.854	578.609	610.974	664.067	833.956	857.081	784.073	767.826	712.031	715.532	654.831	712.113
Calhoun	GW	Agricultural Irrigation	4.1886	16.8	170.8554	429.7426	934.6513	1170.041	1156.713	858.2346	316.9205	78.5776	20.8914	9.996
Calhoun	SW	Agricultural Irrigation	0	4	11.8399	26.26047	54.67655	68.67089	79.18176	74.96097	31.68	14.6	2	0
Calhoun	GW	Golf Course Irrigation	0	0	0.36	0.54	0.36	0.54	0.72	0.36	0.54	0	0	0
Calhoun	GW	Industrial	0	0.071	0.15	0	0	0.18	0.89	0.37	0.13	0	0	0.24
Calhoun	SW	Industrial	1505	1307	1509	1683	1842	1901	1850	1709	1397	1600	1476	1576
Calhoun	GW	Mining	5.778	5.2	8.188	6.382	0.17	7.059	9.729	8.182	8.557	8.735	5.468	4.818
Calhoun	GW	Water Supply	38.731	33.805	35.937	35.874	45.261	41.126	44.843	42.082	40.509	40.888	35.965	43.296
Charleston	GW	Agricultural Irrigation	0	0	0	0	5.21	4.85	0	0	0	0	0	0
Charleston	SW	Aquaculture	0	1.6	4.9	6.5	7.2	8.8	8.8	1.6	1.6	1.6	0	0
Charleston	GW	Golf Course Irrigation	5.13	6.09	10.749	54.033	71.528	90.631	73.406	63.664	28.656	57.486	30.636	16.942
Charleston	GW	Industrial	3.98	3.67	4.16	4.71	4.7	4.49	5.06	4.74	3.83	3.05	4.92	4.23
Charleston	SW	Industrial	814	980	94	64	808	328	132	84	166	238	134	36
Charleston	GW	Water Supply	72.513	77.713	121.908	166.359	212.397	215.33	139.754	172.269	175.287	211.396	155.674	167.321
Charleston	SW	Water Supply	2209.1	1843.2	2883.1	2960	2762	2904	2987	2943	2801	2722	2709	2903
Cherokee	SW	Hydroelectric	39490	35400	69186	63661	48570	28983	26330	26144	31712	19246	44678	59384
Cherokee	SW	Industrial	70.28	81.31	109	87.87	92.08	95.61	95.07	99.51	82.52	88.38	78.9	81.86
Cherokee	GW	Thermoelectric	0	0	0	0	0	0	0	0	0	0	0	0
Cherokee	GW	Water Supply	0.1	0	0	0.1	0	0	0	0.1	0	0	0.1	0
Cherokee	SW	Water Supply	236.36	210.1	195.1	196	350.9	416.1	431.9	426.5	411.4	360.6	229.2	202.3
Chester	GW	Golf Course Irrigation	0	0	0	0	3	3	3	6.2	6.2	0	0	0
Chester	SW	Hydroelectric	143583	128851	201771	178829	118819	103740	100464	80177	137188	77870	118798	212673
Chester	GW	Industrial	0.62	0.652	0.12	0.187	0.182	0.271	0.048	0.109	0.061	0.149	0.178	0.362
Chester	SW	Industrial	1.544	1.398	1.614	1.357	2.087	6.874	7.873	10.519	12.37	1.627	3.056	1.542
Chester	SW	Water Supply	78.74	68.18	76.11	72.87	79.76	82.74	90.78	96.95	82.53	82.41	70.68	75.57
Chesterfield	GW	Agricultural Irrigation	4.66	9.907	7.93	5.192	16.428	103.983	38.685	38.954	58.742	43.808	5.394	5.304
Chesterfield	SW	Agricultural Irrigation	0	0	0	0	0	0	0	0	0	0	0	0
Chesterfield	SW	Golf Course Irrigation	0.203	1.174	1.05	3.095	4.2	7.82	10.67	8.6	5.6	4.97	4.05	0.945
Chesterfield	GW	Industrial	0.0523	0.0687	0.1615	0.1439	0.1068	0.2262	0.1853	0.2093	0.4204	0.1991	0.199	0.0525
Chesterfield	SW	Mining	0.5	0.61	0.54	0.68	1.48	1.4	1.44	1.33	1.3	1.08	0.94	0.76
Chesterfield	GW	Water Supply	87.0754	87.5246	96.1145	88.6427	111.0021	111.4364	120.327	114.8863	101.8746	115.3777	105.0945	105.4226
Chesterfield	SW	Water Supply	52.737	53.001	58.635	55.815	60.819	67.286	62.887	62.851	59.743	58.17	53.65	52.674
Clarendon	GW	Agricultural Irrigation	1.5	0	54.26	209.003	475.077	709.721	582.416	222.48	83.66	46.53	43.04	8.63
Clarendon	GW	Aquaculture	0	0	0	0	0	0	0	0	0	0	0	0
Clarendon	GW	Golf Course Irrigation	0.75	0.5	0	0.5	0.75	2	2	0.5	0.5	0	0.25	0
Clarendon	GW	Water Supply	67.10411	59.61208	64.141	61.85677	73.42609	76.21671	75.473	70.9685	68.2801	64.1734	63.2458	70.2206
Colleton	GW	Agricultural Irrigation	3.28	5	37.8	86.468	131.158	178.016	187.185	96.25	30.3	8.8	2.5	0
Colleton	SW	Agricultural Irrigation	0	0	0	0	0	0	0	0	0	0	0	0
Colleton	GW	Golf Course Irrigation	0	1.16	0.66	10.1	10.78	9.38	7.63	1.5	14.81	8.55	5.21	1.62
Colleton	GW	Thermoelectric	0	0	0	0	0	0	0	0	0	0	0	0
Colleton	SW	Thermoelectric	0	0	0	0	0	0	0	0	0	0	0	0
Colleton	GW	Water Supply	66.121	58.968	69.385	80.365	85.988	94.27	88.094	88.051	79.251	75.035	66.616	70.262
Darlington	GW	Agricultural Irrigation	0.005	0.093	0.587	10.877	101.6895	316.011	150.558	158.279	44.51	4.11	0.543	0.805

County	Source	Use Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Darlington	SW	Agricultural Irrigation	0	0	1.1	7.75	34.7	109.93	72.08	56.42	22.32	12.1	2.7	0
Darlington	GW	Golf Course Irrigation	0.1	0	0.1	0.4	4.2	4.7	4.5	4.6	2.2	0.3	0	0
Darlington	GW	Industrial	164.318	130.959	116.524	162.112	128.525	141.017	156.222	128.05	138.987	136.366	132.289	126.4079
Darlington	SW	Industrial	171.9	166.23	183.03	179.62	175.43	174.2	172.72	143.92	164.45	160.43	132.77	147.05
Darlington	GW	Nuclear Power	31.623	29.169	32.302	31.704	33.356	32.623	32.844	33.326	31.766	32.51	31.022	31.758
Darlington	SW	Nuclear Power	19952.4	20228.34	21664.74	20683.1	22024.26	21575.42	24887.86	24821.9	21227.4	21136.5	11934.69	8580.77
Darlington	GW	Water Supply	340.083	308.499	330.674	326.978	366.193	385.139	385.577	390.713	385.221	377.988	350.557	375.937
Dillon	GW	Agricultural Irrigation	0	0	0.3	32	69.99	137.12	67.03	131.05	52.5	10.7	0	0
Dillon	GW	Water Supply	138.408	123.035	136.353	131.538	142.244	145.444	142.189	147.959	134.492	134.209	125.86	136.133
Dorchester	GW	Agricultural Irrigation	0.4	0.4	0.4	3.9	92.3	174.8	122	47	24	5	0.4	0.4
Dorchester	GW	Golf Course Irrigation	0	0	1	2	7.76	9.48	3	5.16	2	2	1	0
Dorchester	GW	Industrial	20.9063	28.3293	28.3634	26.5454	29.4974	30.6259	37.8203	35.0015	47.7773	44.2098	39.035	33.3892
Dorchester	GW	Thermoelectric	11.3442	9.2135	10.5529	8.8064	12.894	13.0229	13.4036	12.5131	12.1839	4.2958	8.5551	44.2131
Dorchester	GW	Water Supply	44.1349	35.2995	39.8761	44.8074	41.8319	41.7733	47.4564	49.5675	50.543	47.07	45.141	37.3288
Edgefield	GW	Agricultural Irrigation	1.512	4.512	7.5	10.092	9.58	10.4	11.58	11.58	11.4	6.7	3	2
Edgefield	SW	Agricultural Irrigation	0	1	54.4	120.6	199.65	247	272.55	259.4	137.8	47	24	0
Edgefield	GW	Golf Course Irrigation	0	0.5	0.1	2.3	14	13	9	8	8.5	6	2	0
Edgefield	SW	Hydroelectric	83097.28	93737.88	97735.64	92324.6	93763.74	90163.13	95791	88540	70542.38	67854	66141.54	66503.98
Edgefield	SW	Water Supply	113.8	107.1	129.1	138.5	176	208.3	174.5	163.5	151.2	145.2	123.2	130.3
Fairfield	SW	Hydroelectric	122173.3	135579.9	122800.1	111812	147624.8	47649.35	151096.1	139055.2	115668.6	86839	103425.7	131760.6
Fairfield	SW	Nuclear Power	19495.73	19830.38	22915.17	22175.73	22915.97	22145.7	22916.96	22909.58	22162.19	22900.89	22161.86	22901
Fairfield	GW	Water Supply	4.72	4.584	5.618	4.386	5.214	4.866	4.829	5.722	5.311	5.2084	4.859	6.607
Fairfield	SW	Water Supply	66.27	54.45	71.35	69.17	135.9	103.45	79.77	187.85	191.17	122.98	84.62	75.66
Florence	GW	Agricultural Irrigation	0	0	2	28.4	67.66	89.17	104.67	42.09	11.74	23.6	23.4	7.7
Florence	GW	Golf Course Irrigation	0	0	0.2	0.4	1.5	0.8	1	1.6	0.6	0	0	0
Florence	SW	Golf Course Irrigation	0.097	0.21	0.401	1.4	1.8	2	2.7	2.9	2.2	1.6	0.98	0.91
Florence	GW	Industrial	116.4151	110.5151	140.0209	123.3218	144.1695	138.169	101.2364	120.7404	120.1486	112.866	124.1845	114.0303
Florence	SW	Industrial	371	353	397.5	394	407.4	402.8	414.6	413.9	394.1	396.2	314.2	367.1
Florence	GW	Water Supply	370.561	319.735	361.9361	388.147	419.227	396.804	375.834	362.349	344.18	325.744	272.674	332.477
Florence	SW	Water Supply	177.868	181.592	181.462	156.571	174.478	207.649	220.165	220	217.717	217.229	180.357	179.059
Georgetown	SW	Agricultural Irrigation	0	0	0	0	0	0	0	0	0	112.89	58.16	0
Georgetown	GW	Golf Course Irrigation	0	0.37	1.519	4.767	5.499	5.081	1.863	2.837	4.811	4.331	2.68	0.91
Georgetown	SW	Golf Course Irrigation	17.3839	21.8313	29.855	44.17	87.586	90.603	71.213	60.365	68.285	61.099	52.239	26.573
Georgetown	GW	Industrial	11.08	10.77	9.01	9.72	12.79	13.34	13.26	12.67	10.68	12.32	7.53	11.03
Georgetown	SW	Industrial	1237.14	1143.36	1007.5	1310.42	1265.68	1297.52	1305.36	1209.2	1222.64	1246.72	1114.14	1168.24
Georgetown	SW	Mining	23.04	19.62	23.85	23.22	23.49	22.41	23.13	24.21	23.76	22.77	22.59	24.12
Georgetown	SW	Thermoelectric	109	59	157	116	162	109	156	181	185	128	131	107
Georgetown	GW	Water Supply	89.676	78.309	84.428	86.422	109.06	106.84	100.59	117.06	93.833	98.307	94.317	100.383
Georgetown	SW	Water Supply	162.098	147.192	183.961	196.278	235.599	241.15	229.974	219.339	211.136	198.551	162.345	179.166
Greenville	SW	Agricultural Irrigation	0	0	0	3	4	9	10	7.5	7	3	0	0
Greenville	GW	Golf Course Irrigation	0.082	0.005	0.006	0.0095	0.044	0.052	0.073	0.071	0.049	0.041	0.023	0.032
Greenville	SW	Golf Course Irrigation	2.701044	2.546764	8.065319	30.6062	53.40834	62.84861	63.58937	63.34004	53.77214	44.06448	21.18049	8.071185
Greenville	SW	Hydroelectric	0.018428	0.020945	0.025116	0.025844	0.01974	0.013021	0.010116	0.009516	0.017056	0.005981	0.011043	0.01938
Greenville	GW	Industrial	6.38	5.82	6.48	7.03	7.89	7.32	6.02	5.75	5.5	6.03	6.09	6.1
Greenville	GW	Water Supply	2.7147	2.265	2.455	2.7621	4.005	5.0553	4.5086	4.0451	3.9393	4.2359	3.188	2.9796
Greenville	SW	Water Supply	2065.636	1876.438	2095.818	2211.373	2806.902	3122.305	3028.696	2941.749	2670.727	2655.026	2164.831	2242.66
Greenwood	GW	Agricultural Irrigation	0.007	0.004	0.024	0.02	0.021	0.01	0.0092	0.007	0.006	0.011	0.008	0.008
Greenwood	SW	Golf Course Irrigation	0	0.2119	0.421	0.49	1.213	1.361	2.426	3.402	3.245	1.726	0.369	0.005

County	Source	Use Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Greenwood	SW	Hydroelectric	42676	29859	49688	46922	23842	16810	15427	11159	21037	7134	20949	56692
Greenwood	GW	Industrial	0	0	0	0.848	0.868	0.84	0.868	0.868	0.84	0.868	0.84	0
Greenwood	SW	Water Supply	250.668	232.284	261.336	263.77	302.718	325.6	320.9	318.682	297.002	278.854	255.168	275.1
Hampton	GW	Agricultural Irrigation	15.08	22.94	63.4889	157.1939	372.749	717.1753	642.9836	365.7029	229.2303	120.5274	71.25	13.6
Hampton	SW	Agricultural Irrigation	0	0	0	0	0	0	0.1	0.1	0	0	0	0
Hampton	GW	Aquaculture	5	4.5	5	6.5	19	19	10.2	9.8	6.5	3.8	3	3
Hampton	GW	Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Hampton	GW	Water Supply	35.3511	31.2844	38.2131	41.5256	43.0864	44.982	44.6254	41.8993	40.482	43.6659	36.4967	45.4053
Horry	GW	Agricultural Irrigation	45.16014	13.85794	15.31053	12.18332	17.57776	26.55758	28.82156	27.93048	7.74	10.09161	10.94	12.206
Horry	GW	Golf Course Irrigation	3.097	1.758614	10.41023	34.27532	44.65173	47.79477	50.0476	45.54744	33.23592	29.766	15.93965	12.889
Horry	SW	Golf Course Irrigation	41.87246	19.44665	21.9084	68.67959	128.6142	130.3915	71.01229	73.7741	78.46206	74.79518	62.26574	29.75528
Horry	GW	Water Supply	122.216	107.703	106.43	141.607	198.126	203.898	190.841	203.249	182.238	185.252	167.856	170.5348
Horry	SW	Water Supply	1374.502	1164.5	1531.1	1592.2	1749.5	1744.5	1708.4	1707.9	1603.2	1642.8	1473.4	1429.7
Jasper	GW	Agricultural Irrigation	0.401	0.257125	6.90925	50.37658	77.82323	103.179	88.20119	76.97781	51.69272	39.9491	10.197	1.005
Jasper	GW	Golf Course Irrigation	4.03	2.3	2.88	7.468	12.194	10.631	13.699	9.106	6.01	7.2	4.61	3.17
Jasper	GW	Water Supply	19.017	17.589	20.242	24.732	27.813	27.648	27.804	28.7842	28.082	24.416	22.276	25.12
Kershaw	GW	Agricultural Irrigation	0	1.4	6	11.6	13.06635	17.877	21.337	22.59	10.61	6.05	3.4	2
Kershaw	SW	Agricultural Irrigation	0	0	0	0	0	0	0	0	0	0	0	0
Kershaw	GW	Golf Course Irrigation	0	0	1.296	0.353	2.359	3.159	1.296	0.585	0.702	0.353	0	0
Kershaw	SW	Hydroelectric	101170	82906	148239	132899	68081	51309	59687	38707	72846	40172	64150	139712
Kershaw	GW	Industrial	38.88033	33.2701	34.9429	38.25629	43.8831	47.75706	51.77047	52.2388	44.90781	54.0257	51.88161	53.08487
Kershaw	SW	Mining	77.9	95.52	117.668	124.324	112.74	162.5	133.24	152.72	175.06	110.31	111.68	103.2
Kershaw	GW	Water Supply	63.804	56.423	61.54	66.885	79.129	88.032	90.534	82.746	68.6443	67.0387	64.9633	88.716
Kershaw	SW	Water Supply	172.33	157.976	171.165	180.145	204.107	212.223	190.442	207.585	190.294	185.985	174.571	174.192
Lancaster	GW	Golf Course Irrigation	0	0.05	0.15	1.443	3.627	5.382	6.891	7.142	5.29	3.18	0.067	0
Lancaster	SW	Hydroelectric	93260	88169	139527	107901	70587	59419	54961	40442	71522	39227	64870	128798
Lancaster	SW	Industrial	0	0	0	1.44	1.44	2.16	0	0.72	2.43	0	1.44	0
Lancaster	SW	Water Supply	722.06	723.1	684.38	743.62	807.84	927.02	945.84	1022	876.9	930.92	760.2	676.48
Laurens	SW	Golf Course Irrigation	0	0	0	0	0	3.24	2.2	2.2	1.08	1.08	0	0
Laurens	SW	Hydroelectric	6231	7821	9548	7704	5191	1929	2040	1201	1884	745	2504	4230
Laurens	SW	Water Supply	174.197	144.165	141.482	144.349	164.604	173.871	178.68	174.448	156.329	165.099	142.292	156.543
Lee	GW	Agricultural Irrigation	3.29	2.93	6.580397	54.56015	492.7072	972.4302	628.8812	372.4711	128.8904	22.25736	16.96	18.339
Lee	SW	Agricultural Irrigation	0	0	0	0	0	3	16	20	16	8	0	0
Lee	GW	Water Supply	51.4	43.5	44.5	41.85	45.3	46	48.1	51.4	48.1	47	44.5	51.9
Lexington	GW	Agricultural Irrigation	14.562	25.04	60.252	156.9708	416.8522	898.6157	463.7852	431.7214	434.55	453.4904	210.873	67.889
Lexington	SW	Agricultural Irrigation	1.85	3.98	7.34	17.7	24.64	47.54	34.16	27.82	30.8	27.55	14.65	0.6
Lexington	GW	Golf Course Irrigation	1.08	0.04	1.1	0.6	1	3.4	1.85	2.3	2.9	1.9	0.5	0.5
Lexington	SW	Golf Course Irrigation	0.4	0.78	1.98	6.7	12	20.2	12.4	10.9	11.3	9.7	2.7	0.36
Lexington	SW	Hydroelectric	20357.45	2783.74	36289.99	58358.41	11629.39	2238.83	640.57	568.59	3405.56	4547	22222.54	80693.73
Lexington	GW	Industrial	31.11635	28.0235	31.59699	31.23784	24.88742	23.50881	23.81993	38.77581	38.2115	37.20601	36.5209	36.86146
Lexington	SW	Industrial	648.774	692.749	787.08	841.959	987.657	1024.244	1210.268	1176.665	1037.723	800.553	837.648	693.168
Lexington	GW	Mining	34.661	38.778	38.318	28.616	52.467	42.159	41.337	47.157	45.906	40.888	35.775	36.754
Lexington	SW	Mining	0	0	0	0	0	0	0	0	0	0	0	0
Lexington	SW	Thermoelectric	2193.11	1295.04	2728.67	1728.73	3121.94	4899.16	3615.86	2969.22	4090.51	2331.73	2123.43	2521.94
Lexington	GW	Water Supply	45.7565	41.7096	46.2198	53.3846	65.1252	72.1658	61.4999	62.4045	60.249	53.508	48.582	52.5797
Lexington	SW	Water Supply	527.031	503.309	564.115	581.97	728.91	831.79	777.008	782.46	727.5	666.827	566.39	588.33
Marion	GW	Agricultural Irrigation	1.41	0.02	0.7	31.05	52.98507	96.40015	33.42013	57.81902	20.2	14	3.9	8.2
Marion	SW	Agricultural Irrigation	0	0	0	1	1.5	0	0	0	0	2	0	0

County	Source	Use Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Marion	GW	Water Supply	99.633	86.214	93.182	93.737	99.244	98.101	99.62	100.09	92.612	92.78	88.116	101.173
Marlboro	GW	Agricultural Irrigation	0	0	0	4.1	61.431	244.221	171.263	82.807	29.928	1.668	0	0
Marlboro	SW	Agricultural Irrigation	0	1.32	3.432	4.488	28.786	87.679	51.259	18.516	13.424	2.112	0	0
Marlboro	GW	Industrial	8.132	6.134	7.229	10.753	8.76	4.774	4.85	4.7477	3.211	1.485	0.877	1.168
Marlboro	SW	Industrial	521	495	521	511	507	505	533	530	490	541	511	521
Marlboro	SW	Mining	0	0	0	0	0	0	0	0	0	0	0	0
Marlboro	GW	Water Supply	92.7052	79.1714	88.6322	89.3769	99.8531	98.7205	109.1744	103.0672	89.3623	87.8283	86.1544	93.7279
Marlboro	SW	Water Supply	10.546	11.73	11.841	10.452	10.429	13.445	2.803	8.718	10.977	13.31	9.949	8.76
McCormick	SW	Golf Course Irrigation	0.14468	0.436	0.137319	1.022401	14.30525	17.96968	5.93959	6.373623	7.790211	4.03215	0.720734	0.383572
McCormick	SW	Hydroelectric	145319	147256	236917	273754	103473	113395	132323	126759	81656	83047	81146	98894
McCormick	SW	Water Supply	20	21.7	19.7	30.4	31.3	42.6	36.1	36	41.4	38.8	21.1	32.6
Newberry	GW	Agricultural Irrigation	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Newberry	SW	Agricultural Irrigation	0	0	1.1	1.1	1.64	2.44	2.142	2.6	2.1	1.1	0	0
Newberry	SW	Golf Course Irrigation	0	0	0.7	0.95	3.8	6.6	4	1	4.3	3	0.3	0
Newberry	GW	Water Supply	0	0	0	0	0	0	0	0	0	0	0	0
Newberry	SW	Water Supply	160.915	159.842	165.595	159.584	127.932	157.241	126.987	128.781	122.793	125.27	118.684	133.44
Oconee	SW	Agricultural Irrigation	1	1	1.5	1.6	2.6	3.7	3.8	3.8	3.6	2.5	2.5	1.5
Oconee	SW	Golf Course Irrigation	0.128	0.123	0.494	1.067	4.776	6.182	3.221	2.282	2.487	3.143	0.167	0.135
Oconee	SW	Hydroelectric	148149	116164.1	124998.3	49430.7	138534.8	145389.1	166481.6	151986.2	140324.9	119302.6	132438.6	112975.8
Oconee	SW	Nuclear Power	81778.04	64486	81984	79501.03	63357	86519	97169.01	97791.02	94741	88374.03	62001	84222.06
Oconee	GW	Water Supply	2.374729	2.245589	2.540898	2.688744	2.911161	2.455436	2.870415	3.161271	2.728423	2.453642	2.276735	2.596232
Oconee	SW	Water Supply	307.392	264.485	280.827	303.103	384.251	389.666	419.326	402.041	354.805	358.01	309.197	350.331
Orangeburg	GW	Agricultural Irrigation	69.792	52.147	177.613	581.5794	1674.245	2223.742	1785.345	1071.38	631.7955	280.583	104.48	94.287
Orangeburg	SW	Agricultural Irrigation	20.37	27.36	58.77	103.13	150.12	214.69	178.3	165.75	127.08	64.18	46.42	31.01
Orangeburg	GW	Golf Course Irrigation	0.323	0	0.402	3.5	7.214	13.629	5.662	10	11.46	6.5	0.5	0
Orangeburg	SW	Golf Course Irrigation	0	0	0.584	0.574	0.009	2.9	1.1	0.802	0.673	0	0.292	0
Orangeburg	GW	Industrial	46.248	56.194	61.589	58.424	63.77	65.01	54.11	61.559	58.838	57.136	59.269	47.578
Orangeburg	SW	Industrial	4.18	4.36	4.91	3.49	4.16	3.78	4.59	5.32	4.03	4.36	3.73	5.55
Orangeburg	GW	Thermoelectric	99.16	76.5	102.76	30.8	80.4	110.92	140.07	54.7	104.66	97.39	60.98	61.62
Orangeburg	SW	Thermoelectric	0	0	0	0	0	0	0	0	0	0	0	0
Orangeburg	GW	Water Supply	25.3151	20.885	23.7008	24.187	31.5358	33.754	35.733	30.09	30.179	30.526	28.647	35.488
Orangeburg	SW	Water Supply	236.022	220.075	224.194	229.985	284.729	287.196	284.952	312.207	260.562	251.627	233.118	270.447
Pickens	SW	Golf Course Irrigation	0.50651	3.210156	16.8594	23.00794	41.95622	41.38384	33.20215	23.08615	21.30848	17.28021	0.43591	0.322215
Pickens	SW	Hydroelectric	359158	248910	261566	280084	220799	331540	477690	453886	392410	192734	342445	256522
Pickens	SW	Industrial	30.18	34.04	45.58	41.53	55.99	121.07	76.31	158.92	42.304	79.15	52.4338	33.19
Pickens	SW	Water Supply	217.806	198.137	227.435	237.885	293.713	299.091	299.849	284.683	259.293	267.206	239.49	257.074
Richland	GW	Agricultural Irrigation	0	0	0.5	11.7	28	68.4	146.8	8.3	0	21.3	24.9	129
Richland	SW	Agricultural Irrigation	0	3.2	11.4	10.2	16.4	20.4	26.4	18.8	11.4	10.6	5.2	1.1
Richland	GW	Aquaculture	0	0	0.75	1.5	0.85	1	0.75	1.3	0.85	0.3	0	0
Richland	SW	Aquaculture	0	0	1.3	0.9	0.7	2	0	2.6	4	0.2	0	0
Richland	GW	Golf Course Irrigation	0.252	0.487	4.676	10.066	15.631	17.358	23.901	24.001	17.463	12.576	2.475	1.492
Richland	SW	Golf Course Irrigation	2.767	4.972	10.959	13.35	37.638	43.348	34.734	36.348	32.998	20.385	8.752	3.609
Richland	SW	Hydroelectric	0	0	0	0	0	0	0	0	0	0	0	0
Richland	GW	Industrial	88.865	76.705	77.485	76.795	78.176	75.669	80.354	83.207	79.59	71.168	80.355	78.247
Richland	SW	Industrial	858	785	867	886	1001	1052	1063	1042	930	886	937	931
Richland	GW	Other	0	0	0	0	0	0	0	0	0	0	0	0
Richland	SW	Thermoelectric	120.33	61.16	0	49.4	180.14	164.39	149.59	161.68	193.12	117.37	77.02	132
Richland	GW	Water Supply	17.286	10.873	11.792	7.385	14.305	17.571	15.232	13.82	14.282	18.504	13.345	17.24

County	Source	Use Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Richland	SW	Water Supply	1854.46	1684.86	1839.7	1911.04	2249.53	2430.96	2312.97	2430.31	2220.85	2094.64	1878.21	1987.17
Saluda	GW	Agricultural Irrigation	0	0	0	0	0	7.8	10.035	15.5	21.5	1.8	0.6	0
Saluda	SW	Agricultural Irrigation	0	0	51	113	202	256	242	187	88	44	24	0
Saluda	GW	Water Supply	0	0	0.582	1.031	1.177	0.148	0.099	0.539	0.232	0.363	0	0
Saluda	SW	Water Supply	80	72	83	76	88	86	86	88	83	81	75	77
Spartanburg	GW	Golf Course Irrigation	0.001	0.0012	0.0012	0.0013	0.0025	1.0027	1.0039	3.1624	2.162	2.1618	2.1612	2.1615
Spartanburg	SW	Golf Course Irrigation	1	1	1	3.5	6.82	8.95	9.13	9.46	7.08	2.19	1	1
Spartanburg	SW	Hydroelectric	15808.1	15086	17557	16811.9	14072	8616.6	10115.4	7289.2	9602.8	3934	11029.9	16759.7
Spartanburg	SW	Mining	0.56	0.56	0.8	1.43	2.46	6	3.99	4.26	6.04	2.73	0.55	0.22
Spartanburg	GW	Water Supply	0	0	0	0	0	0	0	0	0	0	0	0
Spartanburg	SW	Water Supply	1014.1	918.543	1025.846	1080.527	1290.287	1398.787	1379.687	1378.688	1312.015	1242.212	1092.017	1118.457
Sumter	GW	Agricultural Irrigation	3.706	4.751	22.19374	128.656	357.2052	834.894	701.419	453.032	165.105	51.35	21.585	4.405
Sumter	SW	Agricultural Irrigation	1.4	26.8	68.4	66.8	79.9	79.4	80.1	68.2	59.2	38.8	21.2	0
Sumter	GW	Golf Course Irrigation	0.214	0.77	3.58	11.99	18.01	21.79	13.83	11.44	12.8	6.91	1.873	0.193
Sumter	GW	Industrial	14.354	15.212	14.384	14.818	12.905	14.112	10.34	13.955	13.929	11.783	12.432	12.943
Sumter	GW	Water Supply	459.8393	397.3671	450.1475	450.9057	508.8491	535.9697	512.0203	508.5654	451.4564	469.8505	431.7434	468.5675
Union	SW	Hydroelectric	62931.61	74069.13	104458.7	84549.39	69054.57	39725.13	43763	40902	47668.57	17462	36736	62796
Union	GW	Industrial	0.173	0.151	0.167	0.141	0.133	0.124	0.123	0.12	0.133	0.195	0.147	0.126
Union	SW	Industrial	0	0	0	0	0.1	0	0	0.1	0	0	0	0
Union	SW	Water Supply	97.8	92.2	103.4	99.8	106.4	112.4	111.1	117.9	113.2	117.4	101.9	105.9
Williamsburg	GW	Agricultural Irrigation	0	0	7	14	26.7	93	74	27	13	6	0	0
Williamsburg	SW	Agricultural Irrigation	0	0	0	0	1	6	5	2	0	0	0	0
Williamsburg	GW	Industrial	29.897	23.2583	23.7778	23.8066	27.8744	26.8718	26.2759	27.8585	24.9478	25.0268	22.3648	26.9786
Williamsburg	GW	Water Supply	85.439	76.375	83.335	67.069	73.603	70.351	73.956	88.206	93.317	84.147	77.037	92.878
York	GW	Golf Course Irrigation	0.5	0.5	0.75	3.13	8.05	18.25	18.45	18.75	11.79	7.5	2	0.5
York	SW	Golf Course Irrigation	0.55122	0.26016	0.6733	1.613688	7.199	11.711	11.676	12.002	9.756	5.011	1.971	0.4
York	SW	Hydroelectric	65780	71407	103209	83533	60065	41947	20389	18095	62542	33512	46152	114115
York	SW	Industrial	907.7	862.4	913.2	845.6	893.4	748.4	919.1	927.7	859.5	928.7	867.1	869.5
York	SW	Nuclear Power	3659	3093	4788.1	4378	3814.1	4276	4738	4625	4360	3303.2	3384.2	3373
York	GW	Water Supply	0	0	0	0	0	0	0	0	0	0	0	0
York	SW	Water Supply	659.773	590.475	633.406	658.293	777.715	848.811	841.501	868.756	819.819	810.395	674.742	692.204