



Surface Water Study Committee Report

March 2026

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Introduction

In the Spring of 2024, the South Carolina General Assembly passed proviso 117.184, creating the Surface Water Study Committee (the study committee) to study the state of surface water in South Carolina. On September 24, 2024, Governor Henry McMaster issued Executive Order 2024-22, establishing the WaterSC Water Resources Working Group (WaterSC). Governor McMaster appointed then Interim Director, now Director Myra Reece of South Carolina Department of Environmental Services (SCDES) to serve as the Chair of WaterSC and for SCDES to serve as the lead coordinating agency. Due to the creation of WaterSC, the Surface Water Study Committee decided to delay their findings from March of 2025 to March of 2026 and to add groundwater to the study to better understand the work WaterSC is doing.

The study committee spent numerous hours hearing testimony from both sides to discover the information incorporated into this report.

The study committee consisted of 7 members who represent different areas of the state. At the first meeting, the study committee voted to have Senator Wes Climer and Representative William Hixon serve as co-chairmen of the study committee.

Authorizing Legislation - Proviso 117.184, 24-25 Fiscal Year Budget

117.184. (GP: Surface Water Study Committee) (A) There is established for the current fiscal year the Surface Water Study Committee. The committee shall be comprised of seven members as follows:

- (1) one member appointed by the Governor;
- (2) two members of the Senate appointed by the President of the Senate;
- (3) two members of the House of Representatives appointed by the Speaker;
- (4) one member of the Senate Agriculture Committee appointed by the chair of the committee; and
- (5) one member of the House Agriculture, Natural Resources, and Environmental Affairs Committee appointed by the chair of the committee.

(B) The study committee shall meet as soon as practicable after appointment and organize itself by electing one of its members as chair and such other officers as the study committee may consider necessary.

(C) The study committee shall study the current state of surface water in South Carolina. The study shall include information regarding available surface water, the number of permit holders and registered surface water withdrawers, use of the withdrawals, and

recommendations to the General Assembly regarding any necessary additions or changes to current law to ensure sustainable surface water withdrawal practices and procedures. When making recommendations, the committee shall consider both the environmental and economic implications of the study.

(D) The study committee shall consult with the Department of Environmental Services, agricultural and farming organizations, manufacturing and business organizations, environmental organizations, other state agencies, and others that the committee may deem necessary to complete the work of the committee.

(E) By March 1, 2025, the study committee shall issue a report on its work and findings to the General Assembly.

(F) The study committee shall use clerical and professional employees of the General Assembly for its staff, who shall be made available to the study committee. (G) Committee members are entitled to such mileage, subsistence, and per diem as authorized by law for members of boards, committees, and commissions while in the performance of the duties for which appointed. These expenses shall be paid from funds of the appointing authority.

Authorizing Legislation to extend the Surface Water Study Committee

A JOINT RESOLUTION TO PROVIDE THAT THE SURFACE WATER STUDY COMMITTEE MAY STUDY THE CURRENT STATE OF GROUNDWATER IN THIS STATE AND TO POSTPONE THE DUE DATE OF THE COMMITTEE'S REPORT.

Be it enacted by the General Assembly of the State of South Carolina:

Surface Water Study Committee

SECTION 1. Proviso 117.184 in Act 226 of 2024 created a Surface Water Study Committee to study the current state of surface water in this State. The study committee was charged with making a report of its findings to the General Assembly by March 1, 2025.

Scope of study committee

SECTION 2. The study committee is authorized to expand its scope to include a study of the current state of groundwater in this State as well as other topics related to surface water and groundwater.

Study committee report

SECTION 3. The date that the study committee’s report to the General Assembly is due is changed from March 1, 2025, to March 2, 2026.

Effect of proviso

SECTION 4. Proviso 117.184 remains in full force and effect except for those provisions contained in this joint resolution in conflict with the provisions in the proviso. In that case, the provisions contained in this joint resolution shall control.

Time effective

SECTION 5. This joint resolution takes effect upon approval by the Governor.

Ratified the 24th day of April, 2025.

Approved the 28th day of April, 2025.

Committee Membership

Appointed by:

Speaker of the House: Representative Doug Gilliam and Representative Roger Kirby

Chairman of the House Agriculture, Natural Resources and Environmental Affairs Committee:
Representative Bill Hixon

President of the Senate: Senator Rex Rice and Senator Kent Williams

Chairman of the Senate Agriculture and Natural Resources Committee: Senator Wes Climer

Governor: Myra Reece, Director, Department of Environmental Services

The Study Committee Objectives

Pursuant to Proviso 117.184, the “Surface Water Study Committee” was established and was tasked with three objectives:

- (1) To study the current state of surface water in South Carolina. The study shall include information regarding available surface water, the number of permit holders and registered surface water withdrawers, use of the withdrawals, and
- (2) Make recommendations to the General Assembly regarding any necessary additions or changes to current law to ensure sustainable surface water withdrawal practices and procedures. When making recommendations, the committee shall consider both the environmental and economic implications of the study.
- (3) To study the current state of groundwater in South Carolina.

Committee Meetings

The study committee met to hear testimony and discuss these objectives on the following dates:

Meeting 1 (1/23/2025):

Myra Reece provided an update to the study committee on what WaterSC is and detailed that WaterSC's intentions are to make needed updates to the South Carolina State Water Plan. After her presentation, membership of the study committee discussed the need to extend the study committee to better track the work of WaterSC. The study committee also decided that WaterSC would need to provide quarterly updates to the study committee.

Meeting 2 (4/3/2025):

The study committee received another update from Myra Reece concerning the progress WaterSC is making. The study committee also received testimony from Tommy Lavender

Meeting 3: (10/29/2025):

WaterSC provided updates on their meetings, including multi-state considerations and water reuse options. Inter-basin transfers were especially noted as an important upcoming topic for South Carolina. Mr. Rob Devlin, the bureau chief for DES's Water Bureau, spoke at length on the importance of clarifying inter-basin transfer priorities and procedures with Georgia and North Carolina. DES Director Myra Reece emphasized the need for WaterSC to be an ongoing planning group beyond the adoption of the new state water plan.

South Carolina's Water Resources and Planning

Surface Water

Surface water is found on the earth's surface in features like rivers, streams, lakes, and oceans. It is more directly exposed to the environment and human activities, leading to higher levels of biological contaminants and runoff.

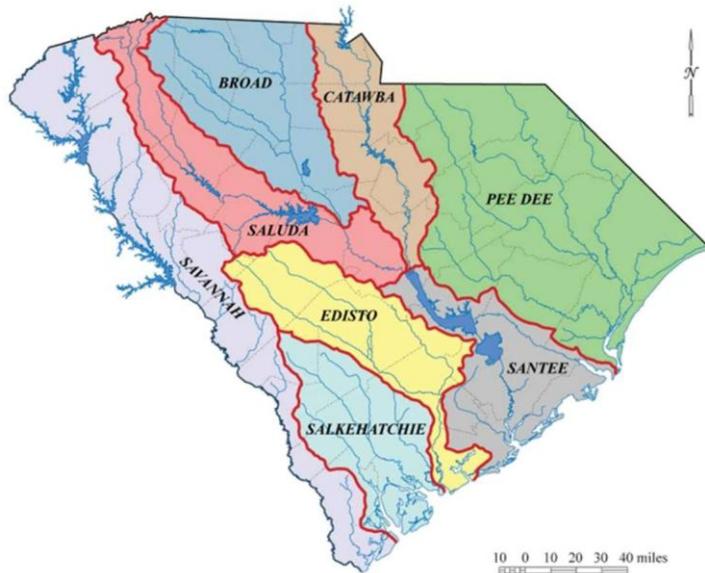
Groundwater

Groundwater is stored underground in porous soil and rock formations known as aquifers, below the water table. It is naturally filtered as it moves through the soil and rock layers, which can remove some contaminants but can also accumulate minerals, nitrates, and metals.

State of Surface Water in South Carolina

South Carolina's surface water resources are divided into eight major river basins. The Pee Dee, Catawba, Broad, Savannah and a very small portion of the Saluda River basin are shared with North Carolina and Georgia, while the Salkehatchie, Santee, and Edisto basins sit entirely within South Carolina.

The Catawba and Savannah River basins are two of the most managed basins in South Carolina and its neighboring states and are significant resource for energy production. The Savannah's major reservoirs include Lake Hartwell, Richard B. Russell Lake, and Strom Thurmond Lake managed by the US Army Corps of Engineers and Lake Keowee managed by Duke Energy. The Catawba's chain of 11 reservoirs, all but 2 of which are in North Carolina, are also managed by Duke Energy.



In the Upstate, the Saluda and Broad Rivers, which form the Congaree River at Columbia, serve as significant water resources supporting public water supply, industry, power generation, recreation, and other uses. Table Rock Lake, North Saluda Reservoir, Lake Murray, and Lake Greenwood in the Saluda River basin, and numerous reservoirs in the Broad River basin provide storage necessary to meet the many in-stream and offstream demands for

surface water.

In the Coastal Plain, the Great Pee Dee, Edisto, Santee, and Cooper Rivers and their many tributaries support a wide array of surface water uses. Agriculture, power generation, public water supply, industry, golf courses, and aquaculture all rely on what is typically considered to be an abundant resource. These rivers and streams also support a wide variety of recreation and are vitally important to tourism.

Quantifying Surface Water Use

In 2023, 95 percent of reported water withdrawals within the state were from surface water (excluding hydropower), totaling over 2.0 trillion gallons of surface water use for the year (SCDES 2024b). By sector, energy production is by far the largest user of surface water supplies; in 2023, 85 percent of surface water withdrawals were for energy production. The majority of this use was non-consumptive (returned after use). Public water supply accounted for 10 percent of the 2023 surface water use, industrial use accounted for 4 percent, and golf course, irrigation, aquaculture, and mining each accounted for 1 percent or less. Over the last decade, total surface water withdrawals have increased by approximately 3.8 percent, and excluding the energy sector use, withdrawals have increased by 7.9 percent.

Permits and Registrations

Throughout the state, there are 191 surface water withdrawal permits, 8 of which were issued after the 2011 South Carolina Surface Water Withdrawal, Permitting, Use, and Reporting Act. Any water user withdrawing more than 3 million gallons of surface water in any one month must secure a registration (agricultural water users) or permit (other water users). New permits are issued based on factors including availability of water at point of withdrawal and minimum instream flows. In addition to surface water withdrawal permits, there are 113 agricultural water users with surface water registrations.

Types of Use

Industrial	30
Golf Courses	75
Mining	9
Thermal Power	11
Nuclear Power	4
Water Supply	52
Agriculture Irrigation	110
Aquaculture	3

Surface Water Modeling

To support the water planning effort, surface water quantity models have been developed and used by the River Basin Councils (RBCs) and other water planning groups in each of the eight major river basins. The models allow for simulation of historical, current, and future demand conditions considering climate, precipitation, and streamflow patterns over the last 50 to 90 years. Modeling has demonstrated that statewide, surface water resources are generally sufficient to meet current water needs, even considering the most severe droughts observed during the past 50 to 90 years.

Much of the focus of the river basin planning process has been on the simulation of conditions nearly 50 years into the future to identify whether surface water supplies are likely to meet water demands under different levels of growth and water use. Given the uncertainty around future surface water demands and supply availability, the RBC's have identified and recommended various water management strategies to address a more conservative, "High Water Demand Scenario" which assumes a hot and dry climate coupled with a high population and economic growth. Surface water modeling results using this High Water Demand Scenario to assess the potential for water shortages through the year 2070 indicate the following:

- In the Savannah River basin and the non-coastal portion of the Pee Dee River basins, there is a low likelihood that demands would outpace surface water supply availability

for most users. Modeling was not performed for the coastal portion of the Pee Dee River basin, where there are numerous surface water withdrawals on tidally influenced streams and rivers.

- Public water supply demands in the Broad River basin may exceed the available surface water supplies during more severe droughts; however, modeling indicates that strategies such as optimizing the operation of water supply reservoirs, adding new intakes, and establishing interconnections with other water utilities may eliminate these projected shortages.
- In the Edisto River basin, increasing demands may require that several public water suppliers rely more on existing, alternate sources, including groundwater and reservoirs in adjacent basins to fully and reliably meet their future surface water demand during periods of severe or extreme drought.
- Throughout the state, there could be infrequent surface water shortages for agricultural users, golf courses, and others that withdraw surface water from small, headwater streams. In most of these instances, existing impoundments and storage ponds serve as effective strategies to reduce the frequency of or eliminate potential shortages for these users.
- Streamflow conditions resulting from water demands through 2070 are not expected to significantly impact ecological health metrics such as fish and macroinvertebrate richness in most parts of the state. However, the modeling performed to evaluate the relationship of changing and reduced streamflow to ecological health focused only on select “wadeable” streams and should not be considered a comprehensive or definitive analysis.

Surface water modeling was also performed to evaluate the sustainability of the resource if every surface water user withdrew their fully permitted or registered amount. Under this scenario, there would be frequent and significant surface water shortages in nearly every river basin. While this outcome is extremely unlikely to occur over the next 50 years given that most surface water users lack the infrastructure to withdraw, treat, and deliver water at their fully permitted and registered amount, this outcome highlights the fact that in most basins, permits and registrations have been issued for more surface water than is available.

Overview of Current Surface Water Withdrawal Laws and Regulations

The South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act (the Act) was passed in 2010, changing SC’s water law from riparian water rights to a “regulated riparianism” system. The implementing regulation R. 61-119, Surface Water Withdrawal, Permitting, Use and Reporting, was promulgated in 2011. The Act and regulation apply to any entity that withdraws greater than three million gallons per month (MGM) of surface water.

New permittees are those users that were established after January 1, 2011. These new permittees are subject to prescribed minimum instream flows (MIFs) during low flow periods and must have contingency planning for their withdrawal based on low flow occurrences. This contingency planning could include purchased water, a groundwater source, or onsite storage. R.61-119 describes the manner in which the MIFs are calculated based on the location of the

withdrawal point. Safe yield is another metric calculated to determine if the permit limit requested is available, followed by MIFs. Final permit limits for new permits are determined based on reasonable needs of the user based on information provided in their application, as well as industry standards for the facility.

Existing permittees must only have contingency plans for low-flow conditions based on appropriate industry standards for conservation. These permits were issued withdrawal limits largely based on the design capacity of the intake structure as of January 1, 2011, design capacity of a pending intake structure permit application deemed administratively complete as of January 1, 2011, or maximum historical reported water use.

Existing permits were issued for a minimum of 30 years and up to 50 based on information provided by the permittee. New permits are typically issued for a minimum of 20 years and not to exceed an additional 20 years. All permits have annual renewal fees of \$1,000 per intake and they can be transferred as long as the new permittee is using the water for the same type of use. Users are required to report monthly water use on an annual basis. Any permit may be withdrawn by the Department if no water is withdrawn for a period of 36 consecutive months.

Agricultural users have registrations instead of permits, which must only meet the reporting requirements of the regulation. A registration's withdrawal limit is determined by calculating safe yield at the point of withdrawal. If the requested volume is within the safe yield, it is deemed registered by the Department. An agricultural registration does not expire and cannot be transferred.

WaterSC

On Sept. 24, 2024, Governor Henry McMaster issued Executive Order 2024-22, establishing the WaterSC Water Resources Working Group (WaterSC). Myra Reece, Interim Director of SCDES, will serve as the Chair of WaterSC, as SCDES is the lead coordinating agency. WaterSC is to be comprised of the following five additional ex officio participants: 1. Director of the Office of Resilience, ex officio, or designee; 2. Commissioner of Agriculture, ex officio, or designee; 3. Director of the Department of Parks, Recreation and Tourism, ex officio, or designee; 4. Director of the Department of Natural Resources, ex officio, or designee; and 5. Secretary of Commerce, ex officio, or designee.

SCDES was directed to identify and designate up to 25 additional participants from among the following sectors and categories: academia; public water suppliers; conservation, water and land; agriculture; forestry; industry; energy; tourism and hospitality; historic preservation; and individuals with relevant professional expertise.

The 31 WaterSC participants [chair (1), ex officios (5) and stakeholder participants (25)] are listed below.

Chair

Myra Reece, Director, S.C. Department of Environmental Services

Academia

Josh Eagle, J.D., Joseph F. Rice School of Law, University of South Carolina

Dr. Raghupathy (Karthi) Karthikeyan, Chair of Natural Resources Engineering, Clemson University

Public Water Suppliers

Christy Holder, CEO, Grand Strand Water & Sewer Authority

Jill Miller, Executive Director, SC Rural Water Association

Craig Sorensen, President, SC Water Utilities

Scott Willett, Anderson Regional Joint Water System

Conservation, Water and Land & Historic Preservation

Aldon Knight, Executive Director Upstate Forever

Queen Quet, Chieftess of the Gullah/Geechee Nation

Bill Stangler, Congaree Riverkeeper

Dale Threatt-Taylor, Executive Director, The Nature Conservancy

Agriculture

Neal Baxley, Baxley Farms, LLC

Melanie Shull, Shull Ag

Charles Wingard, Vice President, Field Operations, Walter P. Rawl & Sons

Landrum Weathers, Buck Branch Farms, LLC

Forestry

Cam Crawford, President & CEO, Forestry Association of South Carolina

Industry

Carey Bullard, Environmental Manager, Nucor Steel

Tommy Lavender, Senior Counsel, Maynard Nexsen

Ralph (Nick) Odom, Jr., Senior Advisor Environmental Policy & Technology, Springs Creative Products

Jeff Uphues, CEO, DC BLOX

Energy

Tim Pearson, State President, Duke Energy South Carolina

Keller Kissam, President, Dominion Energy of SC

Jimmy Staton, President & CEO, Santee-Cooper

Tourism and Hospitality

Steve Hamilton, Dunes Golf & Beach

David “Rock” Lucas, Charwood Golf Club

Professional Experience & Recommended Designees

David Baize, Executive Director, SC Water Associations

ex officio:

- Ben Duncan, Director, SC Office of Resilience
- Hugh Weathers, Commissioner, SC Department of Agriculture
- Duane Parrish, Director, SC Department of Parks, Recreation & Tourism
- Thomas Mullikin, Director, SC Department of Natural Resources
- Harry Lightsey, Secretary, SC Department of Commerce

Committee Recommendations

The committee was well apprised on a number of policy and technical water issues by members of DES and the WaterSC working group. Below are several committee recommendations for water regulation in South Carolina moving forward.

1. Given that interstate transfer conflicts are likely to arise in the near future, the SC Attorney General’s office needs to be well-informed and proactive in pursuing water rights for South Carolinians.
2. With the support of current research suggesting that water recycling options in industrial applications provide sustainability benefits, South Carolina should lean into these options to maximize economic, agricultural, and conservation values of the state’s water.
3. South Carolina is a state that is continuing growth daily. The Department of Environmental Services is tasked to review and update the State Water Plan. DES should continue to make changes within their authority to the State Water Plan.
4. The Department of Environmental Services needs to continue to gauge water quality and water quantity, and if issues arise, report to the Chairman of the Senate and House Agriculture Committee with a recommendation of what can be done.
5. The Department of Environmental Services is to review other states’ models, with regards to new technologies, and make necessary changes. If statutory changes need to be made, the department will contact the Chairman of the Senate and House Agriculture Committee with a recommendation of what can be done.

For the Committee,



Senator Wes Climer



Representative Bill Hixon