SC DEPARTMENT *of* ENVIRONMENTAL SERVICES

South Carolina

Nonpoint Source Management Program

2024 Annual Report

SC DEPARTMENT *of*
ENVIRONMENTAL SERVICES

Note that SCDES was formerly known as part of the South Carolina Department of Health and Environmental Control (SC DHEC). SCDES launched on July 1, 2024.

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I. HISTORY OF SC'S NONPOINT SOURCE MANAGEMENT PROGRAM

Recognizing the growing problem of NPS pollution, in 1987, Congress added nonpoint source provisions to the Clean Water Act (CWA) under Section 319. Among other provisions, Section 319 requires each state to develop and maintain a Nonpoint Source Management Program to comprehensively address nonpoint sources of pollution. Contingent on EPA's approval of the State's NPS Management Plan, Section 319 also provides grants to states for implementing NPS best management practices (BMPs).

The Nonpoint Source Management Plan has been prepared in accordance with Federal and State regulations and was originally approved by EPA in 1990. The South Carolina Department of Environmental Services (SCDES) has statutory authority to enforce the Nonpoint Source Management Program provisions of 33 U.S. Code § 1329 through the SC Pollution Control Act, S.C. Code Ann. § 48-1-10, and the regulations and permitting programs promulgated pursuant to the Pollution Control Act. Additionally, the South Carolina Coastal Zone Management Act of 1977, S.C. Code Ann. § 48-39-10, provides additional authority in the coastal counties of the State. South Carolina received full coastal program approval by EPA in 2008. Since the original South Carolina NPS Program was developed, the Nonpoint Source Management Plan has been updated twice. The current plan (2020-2024) reflects improvements and additions to many of South Carolina's NPS management program activities and a refocus of program goals.

II. 2020-2024 NONPOINT SOURCE PROGRAM MISSION AND GOALS

MISSION

The South Carolina Nonpoint Source Program will protect high quality waters from NPS threats and restore waters impaired by NPS pollution.

GOALS:

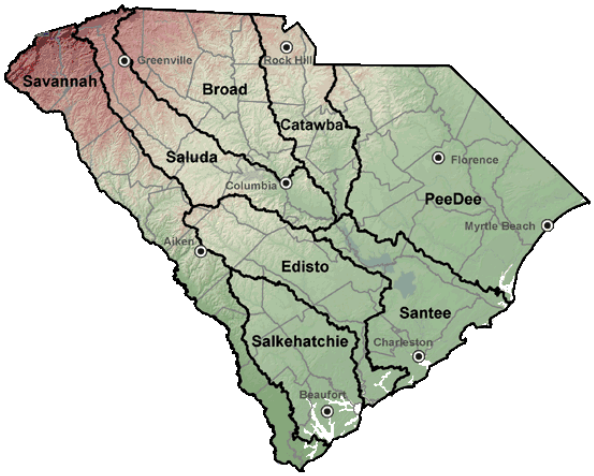
1. **Restoration of SC Waters** – to restore waterbodies that are impaired by nonpoint sources so that they meet water quality standards
2. **Protection of SC Waters** – to prevent nonpoint source-related impairments of unimpaired waterbodies

SCDES has established five guiding principles (see below) to help implement strategies to achieve NPS Management Program goals and objectives for the management plan period of 2020-2024. In order to quantitatively measure progress towards SCDES long-term goals, objectives with measurable milestones have been developed that further define the direction and activities related to achieving the intent of each goal.

III. PLAN IMPLEMENTATION

A. WATERSHED MANAGEMENT

As seen to the right, SCDES divides South Carolina into eight major river basins: Broad, Catawba, Edisto, Pee Dee, Salkehatchie, Saluda, Santee, and Savannah. Together, these river basins contain over 26,000 miles of stream, 393,000 acres of lake, and 280 acres of estuary. These eight basins are broken into 12-digit Hydrologic Unit Codes (HUCs). EPA requires the use of watershed plans for 319 implementation projects and has issued specific guidelines regarding nine required elements that must be included in those plans. In order to focus efforts and most effectively target stakeholders during the project, SC's Nonpoint Management Program looks at watersheds based on 12-digit HUCs. Specifically, both watershed plan development and 319 project solicitations specify that proposals should have a limited



South Carolina's Eight Major Watersheds

watershed size to provide a workable focus area during the limited project time. Most accepted proposals cover a reasonable geographic scope of one to four 12-digit HUCs.

SCDES has developed a suite of tools to assist stakeholders in the creation and implementation of watershed plans. South Carolina's watershed approach takes a holistic view of nonpoint source pollution, addressing all sources within a watershed using complementary practices. The NPS Program continues to look for ways to coordinate and target resources from multiple program areas in watersheds with NPS problems, helping to ensure that maximum water quality benefits are achieved.

Each major basin in South Carolina has a Watershed Manager that supports watershed planning and water quality improvement projects to protect and restore waterbodies. Watershed Managers work closely with community stakeholders to develop and implement plans to address nonpoint sources of pollution. Successful development and implementation of watershed plans depend upon the involvement and support of local stakeholders. Watershed Managers work with SCDES staff, local governments, other state agencies, academia, conservation organizations, landowners, and citizens in addressing chronic NPS problems throughout the state through appropriate use of BMPs. Watershed Managers also provide technical assistance in the identification, assessment, and long-term management of NPS pollution problems affecting waters of the state, primarily through the 319-grant process.

B. REGIONAL NONPOINT SOURCE RESPONSE

Due to increased population growth and drastic changes in land usage, acute nonpoint source incidents are increasing in both frequency and potential water quality impacts. SCDES regional staff investigate nonpoint source-related complaints, including problems from silviculture, agriculture, stormwater, and runoff from construction sites.

Personnel attempt to prevent any further impact and work toward mitigation of offsite impacts with the responsible party and other interested entities. Uncooperative or recalcitrant parties are referred to SCDES Bureau of Water Enforcement Section for violations of the Pollution Control Act and the State's Antidegradation Regulations.

C. CHAMPIONS OF THE ENVIRONMENT

In the 2023-2024 school year, twelve winners were selected for projects ranging from habitat restoration to sustainable gardening. Two schools addressed the impacts of nonpoint source pollution on water quality.

Environmental Engineering students at the Academy for the Arts, Science, and Technology in Horry County learned about stormwater mitigation by caring for different aquatic habitats on campus. One group restored a fishpond (see right), another group tested the water quality of a

stormwater pond and a creek, and a third group created a bog garden with carnivorous plants. At Starr-Iva Middle School in Anderson County, Academic Enrichment Classes preserved a natural area on campus by creating a pollinator garden and outdoor learning lab. Students learned about stormwater reduction by using water collected in rain barrels (see left).

For 31 years, Champions of the Environment has rewarded environmental awareness and action in South Carolina's Kindergarten through 12th grade students. Champions is sponsored by SCDES, Sylvamo, and Dominion Energy, with assistance from the Environmental Education Association of South Carolina. For more information, visit the Champions website.

D. SC ADOPT-A-STREAM

South Carolina Adopt-a-Stream (SC AAS) is a volunteer citizen water quality monitoring program that provides the opportunity to be directly involved in the protection and improved management of our watersheds. Volunteer monitors provide vital baseline data that helps determine the health of South Carolina waterways. In sharing this information on the local level, partnerships are formed that can lead to greater protection and restoration of the State's waters. SC Adopt-a-Stream-trained volunteers increase awareness within their communities and encourage others to join in watershed stewardship. The program granted a total of 655 certifications, including both new and annual recertifications in the Freshwater, Macroinvertebrate, Lake and Tidal Saltwater monitoring programs. These certified volunteers have generated data for 288 sites across South Carolina in 2024. For more information, visit the SC Adopt-a-Stream website.

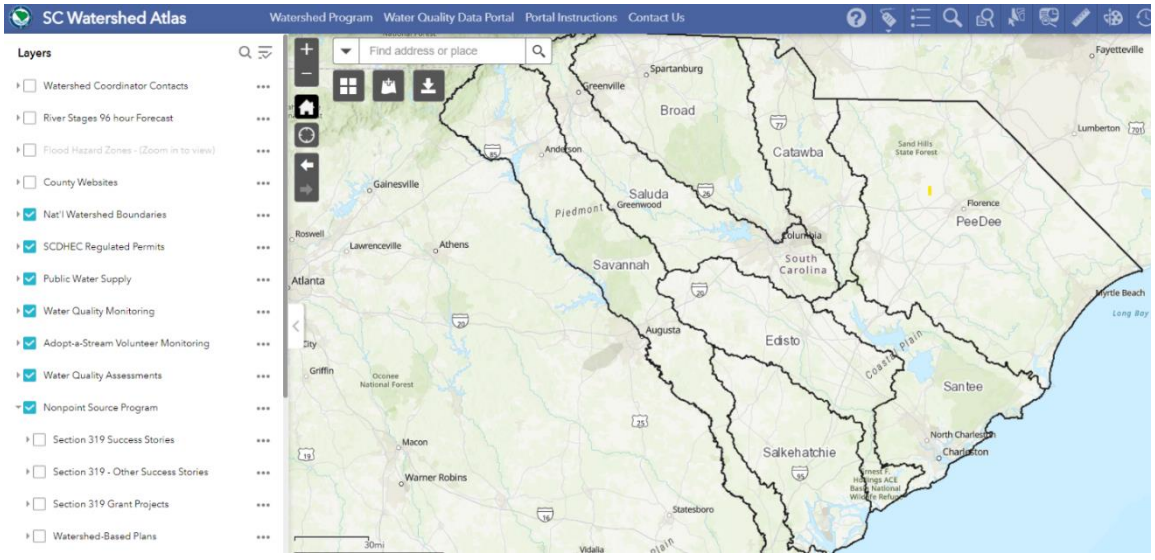
SC AAS Partnered with SCDES Environmental Justice Strong program. SCAWWA and WEASC Students from the Carolina Water Clubs Student Chapter at USC have been collecting water samples at several student-led sampling events following their SC AAS certification hosted by SCDES. Members of the Water Club volunteered to instruct and assist other students in conducting water quality assessments. This includes working with students from Lower Richland High School that participated in Lower Richland's

Citizens Earning and Learning Initiative (an EPA Environmental Justice grant program to support high schoolers that want to help solve environmental issues in their community through the Lower Richland Community Action Committee in the Town of Eastover).

Adopt-a-Stream Trainers also presented program information to the Savannah River Environmental Sciences Field Station group that is a summer program focusing on recruitment of underrepresented students that is based out of SC State but incudes students from all over.

E. SC WATERSHED ATLAS

The SC Watershed Atlas brings the agency's most current and comprehensive watershed and water quality information into a user-friendly, statewide application. This searchable atlas includes watershed boundaries and descriptions, 319 projects, approved watershed plans, and success stories, Bureau of Water permits and advisories public water supply, water quality monitoring stations and assessments, water classifications, floodplains, National Wetland Inventory, National Land Cover Data, Municipal Separate Storm Sewers (MS4s), TMDLs, and more. A selection of base maps, measuring and drawing tools, map-making and printing capabilities, and an instructive help section are also available.



General maintenance of the SC Watershed Atlas is designed to be as self-sustaining as possible. Bureau of Water program layers on the Atlas are updated by program area staff in GIS, working with IT's GIS staff as needed. In FY24, new layers were added including Watershed Coordinator Contacts, 96-hour River Stage Forecast, and Flood Hazard Zones. An additional Section 319 Success Story layer featuring Ecological Restoration and Program Accomplishments was also added.

F. ADVISORY PROGRAMS

Freshwater Swimming Advisories

The Watershed Program educates citizens about current nonpoint source health risk advisories, how they can reduce their NPS contributions, and encourages adherence to advisory guidelines. A website, outreach materials, and 1-800 information line increase awareness of health risks associated with swimming in impaired waters. They are also used as a springboard for increasing awareness of NPS issues and steps citizens can take to reduce their contributions to runoff pollution. Staff work with Central and Regional SCDES offices to address concerns from the public about these advisories.

Saltwater Swimming Advisories

In addition to freshwater swimming advisories, SCDES staff issue advisories for coastal waters from May through October to inform recreational users about potential bacteria risks from NPS pollution. SCDES routinely collects water samples at over 120 locations on SC beaches in accordance with federal standards. Advisories may be issued due to high bacteria counts or rainfall. SCDES uses multiple outlets to advertise advisory information including newspapers and television at affected beaches. The SC Beach Guide is a GIS layered map that shows where advisories exist along the coast.

Fish Consumption Advisories

SCDES collaborates with the South Carolina Department of Natural Resources (DNR) to educate citizens about the potential risks of eating fish due to mercury and PCB contamination. SCDES collects and tests a variety of fish from South Carolina lakes, rivers, streams, estuaries, and offshore waters and issues recommendations about which types of fish are safe and how much fish is safe to eat from each waterbody. Advisory information is communicated to the public and at-risk groups via a comprehensive website and, when funding is available, booklets and brochures. For more information, visit the SCDES Fish Consumption Advisories page.

Fish Advisories are one component of the agency's broader Mercury Assessment and Reduction Initiative, which identifies ways that the public, industry, interested groups, and the government can collectively monitor, assess, and address mercury in the environment and reduce mercury exposure.

G. STATE REVOLVING FUND

SCDES sets aside a small percentage of the Drinking Water State Revolving Fund (DWSRF) capitalization grant ($200,000 in FY2024) for the development of watershed plans to protect drinking water sources. A request for proposals is issued annually for the development of watershed plans. The plans address ambient surface water pollutants and their impacts on surface water bodies that feed drinking water sources. Proposals are accepted from SRF-eligible borrowers, watershed organizations, public soil and water conservation districts, regional planning commissions, and public universities. All SCDES-funded watershed plans contain EPA's nine required elements as well as additional NPS program requirements

such as climate change considerations, environmental justice considerations, and protection efforts. The FY24 watershed plan development grant is open for application. An informational webinar and stakeholder outreach will be held in early 2025, with plans to award grants in spring 2025.

H. FORESTRY

The South Carolina Forestry Commission implements a coordinated, statewide BMP Program for forestry-related activities, which is supported in part by a portion of the annual 319 grant. The BMP Program focuses on a proactive approach to preventing NPS pollution through aerial detection of harvesting sites and courtesy exams by trained Forestry BMP Specialists. The courtesy exams provide forest landowners with site-specific BMP information that can be included in timber sale contracts.

The program includes a water quality BMP training program for timber harvesters. The program also incorporates an enforceable mechanism to ensure compliance with the BMPs. Close cooperation with SCDES is essential on sites referred for enforcement action and in correcting problems to ensure compliance with water quality requirements. NPS Staff meet with the Forestry Commission at least annually and conduct an annual visit to a harvesting site to see BMPs that have been implemented.

IV. EPA SUCCESS STORY

The 2024 NPS success story has been accepted and published by EPA headquarters. South Carolina was part of a pilot program to develop new types of success stories. This year's submission is one of the first examples of a Type 5: NPS Program Accomplishments and Interim Measures of Success story with indicators of success including a significant amount of BMPs implemented, changes in community behavior, and program efforts that further equity and environmental justice. The narrative submitted for the 2024 success story is below:

Waterbody Improved

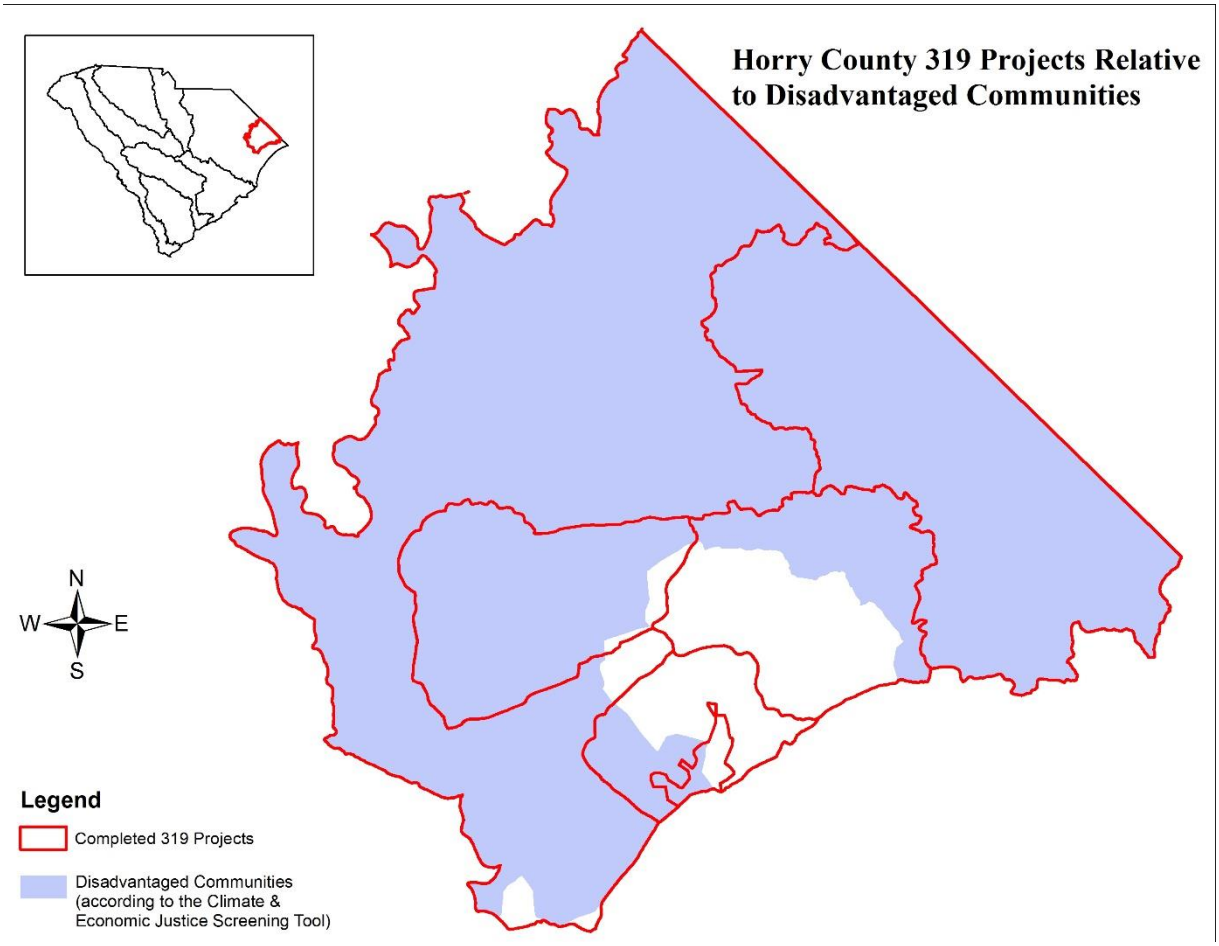
Since 2011, the Horry Soil and Water Conservation District (HSWCD) has implemented seven Clean Water Act Section 319-funded water quality improvement projects throughout the Pee Dee River basin. To date, 1,190 septic and 38 agricultural projects have been completed across 26 subwatersheds through the implementation of three nine-element watershed plans. These efforts are dedicated to reducing *Escherichia coli* levels within the watershed where development, agricultural practices and septic tank failures contribute to pollutant loads. The impressive scope of this project and level of participation are due to HSWCD's undeniable commitment to its community. Two staff members, Nina Warren and Sam Ward, have been instrumental in conducting direct outreach, building partnerships, improving relationships with landowners and providing education to encourage behavior change for 13 years.

Water Quality Challenge

These water quality improvement efforts are in the Pee Dee River basin in Horry County, South Carolina. The project area includes 12 monitoring stations that are included on the 2020 – 2022 Clean Water Act Section 303(d) List of Impaired Waters (Figure 1). These sites are impaired by E. coli, and their primary use is recreational swimming. The watershed includes channelized waterbodies and swamps underlain by soils with low infiltration rates. Nonpoint sources of pollution in the watershed include bacteria from agricultural facilities and malfunctioning septic systems that contribute to urban and agricultural runoff. Septic tank failure is especially common in rural areas of Horry County, where many homes are served by

old and unmaintained septic systems. Additionally, areas of Horry County, including Myrtle Beach, North Myrtle Beach and Conway, have experienced significant development in recent years and have high potential for future residential and commercial growth, further contributing to pollutants and runoff volumes.

According to the Climate and Economic Justice screening tool, most of the project area is considered disadvantaged based on socioeconomic and environmental factors. Additionally, the population in the project area is reported to be higher than the national average on the socioeconomic, climate change and health disparity indices (see map below).



Story Highlights

Seven implementation projects have been completed over 13 years, encompassing efforts from three watershed plans: Kingston Lake with Crabtree, Mitchell Swamp out of Loris, and the Watershed Plan for Little Pee Dee with Chinners Swamp. The recommended practices that have been implemented include repairing or replacing failing or malfunctioning septic systems (see photos below), connecting to sanitary sewer systems and applying agricultural best management practices, including alternate watering sources, heavy-use area protection, and rotational grazing.

HSWCD staff have been instrumental in conducting outreach and building partnerships. Their work in the community began in 2011, with goals of repairing 100 septic tanks and completing 10 agriculture projects. HSWCD relied on various techniques to recruit community participation. In-person meetings were highly effective in rural communities. In residential communities, homeowners association meetings and media outreach were most effective. High-priority areas with failing septic systems and/or poor soil quality were identified through ground surveys and consultation with the South Carolina Department of Environmental Services (previously Department of Environmental Health and Control). With this information, HSWCD conducted door-to-door campaigns and distributed brochures, flyers, and door hangers to recruit potential participants with failing septic systems. Educational workshops engaged the agricultural community in discussions on the proper handling of animal waste, grazing techniques, and other best management practices to improve water quality. By 2015, HSWCD had completed 28 sewer tie-ons, 120 septic tank repairs and 29 agriculture projects, surpassing their original goal and creating momentum to implement future projects. HSWCD went on to complete six additional Section 319 projects, including a second phase in some areas, with the most recent project closed in 2023.
HSWCD has progressively spent less effort on recruitment because they have earned a trustworthy reputation, resulting in a waitlist of applicants with failing systems needing cost-share assistance. Multiple partnerships have supported these efforts, including additional funding sources that allowed higher cost-share rates for low-income residents. Through multiple projects in Horry County, support and match funding was provided by Grand Strand Sewer and Water, the city of Conway, Horry County Stormwater, and the Natural Resources Conservation Service Environmental Quality Incentives Program.
Efforts to prioritize disadvantaged residents included developing a sliding scale and using adjusted incomes to provide proportionate financial assistance. HSWCD also worked with local septic repair companies to secure a lower service rate for Section 319 participants.

Results

In total, HSWCD has completed 908 septic repairs, 282 sewer tie-ons and 38 agricultural best management practices. Horry County has continued outreach efforts to educate community members on the proper care and maintenance of septic systems and to recognize the signs of a failing system. Their personalized efforts and availability have led to more awareness, understanding and, ultimately, behavior changes that support water quality. Since their work began, Horry County has seen an increase in

properties implementing sustainable efforts, including improved agricultural practices, the installation of protective barriers around septic systems and continued septic maintenance. HSWCD's impact is also evident in the positive feedback from participants. These responses reiterate the impact of education, the appreciation and trust built for the organization and the relief from the overwhelming burden of failing septic systems in the community.

V. MEETING THE OBJECTIVES OF THE NPS PROGRAM

The SC NPS Management Program 5-Year Management Plan describes multiple long-term goals and milestones that facilitate and promote the state's efforts to manage NPS water pollution. SCDES believes that these strategies direct the NPS Program to activities most likely to result in water quality improvements as well as efficient spending of 319 grant funds. They are as follows, with corresponding FY2024 objectives met, which is year 4 of the 2020-2024 South Carolina NPS Management Plan.

Objective	Milestone	Outcome
Monitoring and WQ Assessment		
Assess statewide water quality through consistent monitoring to identify waterbodies not fully meeting standards due to nonpoint sources of pollution	a) Collect and analyze monthly samples at 90 sites for the probabilistic monitoring program	Samples from 90 sites across the state were collected and analyzed monthly in 2024.
	b) Collect and analyze monthly samples at 235 base sites for routine monitoring	Samples from 246 base sites across the state were collected and analyzed monthly in 2024.
	c) Perform macroinvertebrate assessments statewide, typically 70 sites per year depending on hydrology	Macroinvertebrate assessments were performed at 46 regular trend sites across the state in 2024. Replicate sampling was performed at 5 sites and 3 special study sites were also sampled.
	d) Measure chlorophyll-a levels at 100 sites monthly May through October	Chlorophyll-a levels were measured monthly at 113 sites from May to October and bi-weekly at 5 sites from April to October 2024 across the state.
	e) Collect and analyze monthly water quality samples at established SCDES monitoring sites in at least one current NWQI watersheds	Monthly water quality samples were collected and analyzed at 2 monitoring sites in NWQI watersheds in 2024.
	f) Collect fish tissue samples at approximately 60 sites statewide and obtain other samples through partnering agencies and events. Analyze 900 tissue samples per year for mercury	Fish tissue samples were collected from 64 sites and 854 samples were analyzed for mercury in 2024.

Implement and update sanitary surveys based on coastal water quality monitoring data	a) Collect monthly water quality samples at 450 sites to be used to establish shellfish classifications	5,475 monthly water quality samples were collected at 468 sites in 2024.
	b) Perform sanitary surveys, identify needed corrective actions, and develop shellfish harvesting classifications in 25 shellfish growing areas	Sanitary surveys were completed, necessary corrective actions were identified, and shellfish harvesting classifications were developed in 25 shellfish growing areas.
	c) Generate a trend report for annual shellfish harvesting classifications	Trend report was produced.
Develop and implement monitoring studies in watersheds where 319 projects have been or will be implemented	a) Update NPS monitoring QAPP to include new projects and other revisions and deliver plan to Department Quality Assurance Project Officer for final approval	The NPS monitoring QAPP was updated in to include new projects and revisions, and it was then delivered to the Department Quality Assurance Project Officer.
	b) Conduct monthly sampling at identified sites within 319 project watersheds, including all impaired locations, once projects are awarded and continuing at least 2 years after each project is completed	Monthly sampling was conducted for all 319 projects including all impaired locations within the watershed. Monitoring commenced with award and continued 2 years after project completion.
	c) Work closely with SCDES Aquatic Science Programs staff involved with 319 monitoring to ensure all 319 project sites are adequately monitored	Met and worked closely with SCDES Aquatic Science Programs staff to ensure all 319 project sites were adequately monitored.
Review 319 Monitoring Strategy and methods and revise as needed to most effectively assess 319 project water quality using available resources	a) Meet with SCDES Aquatic Science Programs staff to optimize 319 monitoring strategy and methods; incorporate results into State Monitoring Strategy	Met with SCDES Aquatic Science Programs staff to optimize 319 monitoring strategy and methods and incorporated results into State Monitoring Strategy.
Effectively assess and document the impacts of 319-funded implementation projects on water quality through collection and analysis of samples	a) Analyze all samples according to appropriate analytical protocol	Analyzed all samples according to appropriate analytical protocol.
	b) Assess all 319 project sites within 1 year after completion of post-project monitoring and document any water quality improvements for inclusion in the Annual Report and Success Stories	Assessed all 319 project sites within 1 year after completion of post-project monitoring and documented any water quality improvements for inclusion in the Annual Report and Success Stories.
	c) Compile, review, and document all available monitoring data for historical and recently completed 319 projects	Compiled, reviewed, and documented all available monitoring data for historical and recently completed 319 projects.
Identify and develop success stories for fully or partially restored waterbodies primarily impaired by NPS pollution	a) Monitor promising 319 Success Story sites regularly	Regularly monitored promising 319 Success Story sites.
	b) Identify and develop Success Stories each year for watersheds	Participated in an EPA pilot program on new success story types and developed a story board success story

	showing full restoration or showing improvement	on multi-phase septic tank program success in Horry County.
SC Integrated Report and TMDLs		
Develop, maintain, and distribute South Carolina's Integrated Report including Part 1: 303(d) List of Impaired Waters and Part 2: Section 305(b) Assessment and Reporting	a) Solicit external data for inclusion in 303(d) assessment	Solicited external data for inclusion in 303(d) assessment.
Work collaboratively with the 303(d), Modeling, & TMDL section to support prioritization of restoration efforts	b) Assess all SCDES data plus appropriate external data to determine impairment status for 303(d), typically 2,000 sites per 2-year cycle and assess all statistical survey sites for the 305(b) report, typically 450 sites per 2-year cycle	Assessed all SCDES data plus appropriate external data to determine impairment status for 303(d)
Work collaboratively with the 303(d), Modeling, & TMDL section to support prioritization of restoration efforts	a) Provide assistance to TMDL staff for prioritizing locations for future TMDL development. An important criterion for TMDL prioritization is determining where there is a higher potential for implementation	There are currently 127 approved TMDL documents covering 803 monitoring stations (mostly for pathogens). There is currently one alternative restoration plan in place to address one impaired location in the Savannah River. In addition, there are 10 TMDL documents or alternative restoration plans under development to address impairments at 78 sites statewide. In 2024, 4 TMDL documents were approved. These included TMDLs for 17 water quality monitoring sites.
319 & Watershed Plan Grants		
Aid stakeholders and selected watershed plan development projects in the development of watershed plans	a) Serve as a facilitator for watershed plan development, as needed	Facilitated watershed plan development.
	b) Work with Long Leaf Alliance, Savannah River Clean Water Fund, and SC Land Trust Network on watershed plans and related feasible projects that highlight watersheds for protection	Worked with partners to highlight watersheds for protection.
	c) Reach out to and work with drinking water intakes for watershed plan development and subsequent 319 projects	Reached out to and worked with drinking water intakes for watershed plan development and subsequent 319 projects.
	d) Incorporate protection strategies into all watershed plans, such as conservation easements	Incorporated protection strategies into all watershed plans.
	e) Incorporate protection of unimpaired/high quality waters	Encouraged protection of unimpaired/high quality waters into

	into watershed plans, when possible	watershed plans and provided a list of priority watersheds.
	f) Incorporate adaptation planning and ways to address climate change impacts, especially for coastal entities, in watershed plans	Incorporated adaptation planning and climate change considerations in watershed plans.
	g) Review and provide draft comments on watershed plans, ensuring compliance with EPA's nine required elements for 319 grant eligibility	Reviewed and provided draft comments on watershed plans, ensuring compliance with EPA's nine required elements for 319 grant eligibility.
Administer 319 grants including issuing and ensuring compliance with grant agreements, processing payments, and monitoring non-federal match	a) Award grant agreements following annual project selection	Selected 5 319 project proposals. Grant agreements are being developed and will be awarded in early 2025.
	b) Review quarterly requests for reimbursement and progress reports from grantees to ensure compliance and track expenditures	Reviewed quarterly requests for reimbursement and progress reports from grantees to ensure compliance and to track expenditures.
	c) Conduct a site visit with each active project at least once annually to ensure adherence to project goals and timeline	Conducted site visits and performed progress assessments.
Manage the 319 and watershed plan program, including solicitations and selection of projects	a) Update RFPs for watershed plan development and 319 implementation proposals at least annually based on changes, priorities, lessons learned, etc.	Updated RFPs for watershed plan development and 319 implementation proposals based on changes, priorities, lessons learned, etc.
	b) Issue statewide solicitations for watershed plan development and 319 implementation proposals at least annually	Issued statewide solicitations for watershed plan development and 319 implementation proposals.
	c) Convene review committee to select projects based on NPS Program priorities after each grant solicitation period	Convened review committee to select projects based on NPS Program priorities after each grant solicitation period.
	d) Annually award funding to committee-selected 319 implementation projects and watershed plan development projects	The committee selected 5 319 implementation projects for funding. Watershed plan development proposals will be reviewed and selected in early 2025.
	e) Award 319 implementation projects with protection components, climate change considerations, and innovative BMPs, as able	Awarded 319 implementation projects with protection components, climate change considerations, and innovative BMPs.
	f) Alert regional SCDES offices to new 319 implementation projects in their areas, including OCRM	Alerted regional SCDES offices to new 319 implementation projects in their areas, including OCRM.

	g) Create tools and share resources to assist in stakeholder-led development of watershed plans and 319 implementation projects	Shared resources to assist in stakeholder-led development of watershed plans and 319 implementation projects.
Work closely with the SC SCDES Water Pollution Compliance staff for 319 project proposals	a) Consult on project proposals to ensure BMPs go "above and beyond" MS4 requirements	Consulted on project proposals to ensure BMPs go "above and beyond" MS4 requirements.
	b) Obtain and have MS4 staff put Letters of Assurance on file to ensure 319-funded BMP load reductions will not be counted as meeting NPDES permit requirements	Letters of Assurance are on file with our compliance section in order to ensure 319-funded BMP load reductions will not be counted as meeting NPDES permit requirements.
Ensure consistency with national and regional goals and requirements through participation in trainings, conferences, meetings, and webinars	a) Participate in at least 1 national or regional conference and 1 national or regional training such as the National NPS Conference, GRTS Training, or Region IV NPS Coordinators Meeting	Attended the National Nonpoint Source Conference, EPA NPS Webinar series, Region IV NPS Monthly meeting, STEPL training, and GRTS training.
	b) Participate in ACWA 319/NPS Workgroup Webinars	Participated in ACWA 319/NPS Workgroup Webinars.
	c) As necessary, update the formal list of priority watersheds, according to NWQI and EPA priorities	Revised list of priority watersheds with SCDES, NWQI, and EPA priorities.
Estimate load reductions for active and recently completed 319 projects	a) Increase cumulative annual load reductions resulting from 319-funded BMPs	Annual load reductions resulting from active 319-funded projects in 2024 were as follows: • 11,617.44 pounds of nitrogen • 3,502.98 pounds of phosphorus • 3,919.96 tons of sediment • 9.26E+13 CFU of fecal coliform bacteria and/or equivalent *E. coli* reduction
	b) Upload BMP and load reduction information for all applicable projects to GRTS by February 28 in accordance with FY2019 revisions and mandated data elements	BMP load reduction information for applicable projects were uploaded to GRTS.
Use the Grants Reporting and Tracking System (GRTS) to report on progress of active 319 projects	a) Regularly update and comprehensively review all project information in GRTS to ensure completeness by EPA's February 28 annual deadline in accordance with FY2019 revisions and mandated data elements	Updated and comprehensively reviewed all project information in GRTS.

Prepare Annual Report to Congress on progress in meeting NPS Program goals	a) Submit Annual Report to EPA by December 31st each year. Include information on all open 319 implementation projects and report on status of Plan milestones for the year	Submitted Annual Report to EPA by December 31st.
Submit annual 319 grant application to EPA	a) Prepare annual workplan, budget, and grant application. Submit to EPA by September 30th each year	Workplan, budget, and grant application were submitted to EPA in July 2024.
Complete grant close-out packages	a) Assemble and submit grant closeout packages within 90 days of a grant close. Grants from fiscal years 2015 through 2019 will be closed out in this 5-year Plan period	Submitted closeout packages for FY20 by December 31st, 2024.
Work with the SC Forestry Commission to implement a Statewide Forestry BMP Compliance Program	a) Request annual workplan in April/May to have in hand by July, obtain EPA approval, and then issue or amend grant agreement with SC Forestry Commission in August	Requested annual workplan in May, obtained EPA approval, and issued grant agreement with SC Forestry Commission in August.
	b) Follow up on any forestry referrals for water quality impacts	Followed up on forestry referrals for water quality impacts.
Regularly review NPS Management Plan for effectiveness and applicability to programmatic needs	a) Perform cursory plan review and update objectives and milestones as needed as part of annual application process and Annual Report preparation	Performed cursory plan review and updated objectives and milestones as needed as part of annual application process and Annual Report preparation.
Stakeholder Outreach		
Collaborate with and provide technical assistance and water quality information to stakeholders to support the effective management of NPS pollution	a) Participate in stakeholder meetings and committees	Participated in stakeholder meetings and committees.
	b) Respond to requests for information including assistance with obtaining and analyzing water quality data	Watershed managers provided assistance and water quality data for all requests.
	c) Attend NRCS State Technical Committee meetings	Attended NRCS State Technical Committee meetings.
	d) Distribute booklets about reining in runoff, as available	Distributed booklets and educational materials as needed.
Increase statewide knowledge of the 319 program, projects, and grant opportunities	a) Present on the 319 Program, grant opportunities, and projects at various events and conferences	Presented on the 319 Program, grant opportunities, and projects for University of South Carolina, SC Association of Stormwater Managers, SC Source Water Protection Committee, SC Department of Natural Resources, local groups, and others.
	b) Encourage stakeholder organizations to apply for funding for watershed plan development and 319 implementation grants	Encouraged stakeholder organizations to apply for funding for watershed plan development and 319 implementation grants through various means,

	through various means, including emails, flyers, handouts, conferences, presentations, events, etc.	including emails, flyers, stakeholder meetings, and virtual presentations.
Coastal NPS Program		
Decrease marine debris through voluntary partnerships and programs such as Adopt-a-Beach and the Clean Marina Program	a) My Coast – Adopt-a-Beach: Promote increased participation; produce annual summary including number of groups and number of debris items by type	Between January 1st and November 30th, 2024, 688 beach cleanups were logged in the MyCoast South Carolina application. Over 118,000 debris items (estimated at over 5,680 pounds) were removed from South Carolina beaches from North Myrtle Beach to Hilton Head Island. Approximately 1,995 volunteer hours were dedicated to beach cleanups. The most common types of debris found include Cigarettes (36,468), Plastic and Foam Pieces (15,829), and Paper Products (12,811). SCDES BCM staff continue to utilize the Adopt-A-Beach data summary dashboard with local beachfront communities to assist in understanding trends and patterns as the local scale.
	b) Participate in SC Clean Marina program as administered by the SC Marine Association	SCDES BCM continues to serve on the program and steering committees for the South Carolina Clean Marina Program in coordination with the South Carolina Sea Grant Consortium and the South Carolina Department of Natural Resources. Two (2) SC Clean Marina Workshops were held, one in April 2024 and one in November 2024, for marinas interested in becoming certified or recertified Clean Marinas. These events were coordinated by South Carolina Sea Grant and hosted by the SC Clean Marina Committee. There were five (5) new marinas that participated in the 2024 workshops, and one (1) additional seeking recertification, for a total of six (6) marinas.
Collaborate with external partners to improve coastal awareness of non-point source pollution	a) Collaborate with the Ace Basin and North Inlet National Estuarine Research Reserves as well as the SC Coastal Information Network on preparation of communication materials that build awareness of BMPs among coastal stakeholders	Collaborated with the ACE Basin and North Inlet National Estuarine Research Reserves as well as the SC Coastal Information Network on preparation of communication materials that build awareness of BMPs among coastal stakeholders.

Enhance and track marine debris removal efforts through collaboration with state and regional partners	a) Convene the Abandoned Vessel Working Group to improve coordination between federal, state, and local partners on abandoned/derelict vessels	Working Group members participated in the 2024 NOAA Southeast Marine Debris Action Plan meeting held on October 22-24th at the SC Dept of Natural Resources. Working Group members discussed the current status SC Vessel Turn-In Program and development efforts for a statewide abandoned and derelict vessels database. An official Working Group meeting is scheduled for February 2025.
	b) Identify and apply for marine debris removal funding opportunities with local, state, and/or federal partners	Identified and applied for marine debris removal funding opportunities with local, state, and/or federal partners.
	c) Identify and assess Abandoned and Derelict Vessels (ADV) and other large marine debris items and process through compliance/enforcement procedures, if appropriate	Identified and assessed Abandoned and Derelict Vessels (ADV) and other large marine debris items and process through compliance/enforcement procedures.
Continue interagency coordination and planning to study and mitigate climate change and related impacts such as shoreline changes and coastal erosion	a) Coordinate with SC DNR and other Living Shorelines Working Group partners on outreach and education for living shorelines	Coordinated with SC DNR and other Living Shorelines Working Group partners on outreach and education for living shorelines.
	b) Continue to work with local governments on local comprehensive beach management plans and waterbody management planning efforts	Continued to work with local governments on local comprehensive beach management plans and waterbody management planning efforts.
Coordinate management activities between the Coastal Management Program and 319 programs	a) Coastal Program and 319 staff will meet at least annually to coordinate efforts	Met with Coastal Program staff.
	b) Coastal Program staff will serve on the 319 Review Committee for each 319-implementation funding round	Coastal Program staff served on the 319 Review Committee.
Ensure marina compliance with operation and maintenance manuals	a) OCRM Compliance and Enforcement staff will evaluate marina operation and maintenance manuals to ensure compliance with Critical Area permitting requirements	OCRM Compliance and Enforcement staff evaluated marina operation and maintenance manuals to ensure compliance with Critical Area permitting requirements.
Champions of the Environment		
Promote NPS awareness through the Champions of the Environment grant awards program	a) Promote the Champions program through teacher workshops, environmental educators' conferences, social media, mail outs, targeted emails,	Promoted the program projects through SCDES press releases and social media, announcements on environmental education organization

	and organizational webpages and newsletters	webpages, teacher workshops, and local news coverage.
	b) Award 8 grants to environmental education projects. Develop and air TV commercials broadcasting each project. Promote winning projects through social media and local news coverage.	Awarded 12 grants to environmental education projects and promoted winnings through SCDES press releases and social media, announcements on environmental education organization webpages, teacher workshops, and local news coverage.
Adopt-A-Stream		
Increase awareness of local water quality and the Adopt-A-Stream (AAS) program	a) Encourage MS4s and other municipalities to use SC AAS as an education and outreach method for water quality awareness	Several MS4s/municipalities are using SC AAS as an education and outreach method for water quality awareness.
	b) Present Adopt-A-Stream annually at the SC Association of Stormwater Managers (SCASM) meeting	Presented Adopt-A-Stream to local water groups statewide.
	c) Include AAS equipment purchases as part of 319 grants planning to incorporate the SC AAS program	Included equipment purchases as 319 grants planning.
	d) Make 319 grantees aware of the program and the possibility of adding local screening data	319 grantees were made aware of the program and the possibility of adding local screening data. Several referenced AAS data in their proposals.
	e) Add AAS as an example of an education/outreach component in the revised MS4 permit.	Including AAS as an example of an education/outreach component in the revised MS4 permit.
SC Watershed Atlas		
Maintain SC Watershed Atlas Increase awareness of local water quality and the Adopt-A-Stream (AAS) program	a) Respond to queries generated from Atlas users	Responded to queries generated from Atlas users.
	b) Communicate feedback and queries to Agency GIS program	Communicated feedback and queries to Agency GIS program.
	c) Communicate with Bureau of Water programs to ensure assessed data are converted into Atlas specific tables and information, as the data becomes available	Communicated with Bureau of Water programs to ensure assessed data are converted into Atlas specific tables and information.
	d) Coordinate with GIS program to ensure timely updates to the Atlas	Coordinated with GIS program to ensure timely updates to the Atlas.
Document 319 implementation practices using GIS	a) Track all 319 implementation projects and locations of completed watershed plans to the Atlas	Tracked all 319 implementation projects and locations of completed watershed plans to the Atlas.
	b) Update Atlas as new projects are awarded	Updated Atlas as new projects are awarded.

	c) Provide links to more information on 319 projects, completed watershed plans, and project Success Stories	Provided links to more information on 319 projects, completed watershed plans, and project Success Stories.
Advisories		
Increase awareness of health risks associated with swimming in impaired waters and educate citizens about how to reduce those risks and their NPS contributions to local waters	a) Annually review and provide NPS educational information as needed on Agency swimming advisory website	Reviewed and provided NPS educational information as needed on Agency swimming advisory website.
	b) Maintain a swim advisory line for the public	Maintained a swim advisory line for the public.
Increase awareness of atmospheric deposition of mercury and the associated health risks through annual Fish Consumption Advisory information	a) Produce and distribute the SC Fish Consumption Advisory booklet as funds allow, and revise website	Produced and distributed the SC Fish Consumption Advisory booklet and revised website.
State Revolving Fund (SRF)		
Prioritize SRF projects according to their potential to improve water quality and complement existing NPS reduction efforts	a) Assist SRF staff with goal setting in the CWSRF Intended Use Plan and, when it occurs, participate in revision of SRF Priority Ranking System to thoroughly include criteria that target NPS projects and watershed plan implementation	Assisted SRF staff with goal setting in the CWSRF Intended Use Plan and participated in revision of SRF Priority Ranking System.
	b) Using the SRF Priority Ranking System, review and score each project requesting SRF funding. Review includes assessment of priority watersheds, impairments, TMDLs, and 319 projects in the project area	Reviewed and scored each project requesting SRF funding.
Alternative Funding		
Identify and advertise alternate funding opportunities for watershed plan and 319 projects	a) Identify alternate avenues for watershed plan development beyond DWSRF funds and 319 implementation projects (both federal and non-federal match) beyond 319 grant funding	Searched for alternative avenues to fund watershed plan development and implementation projects.
	b) Where available, work with outside entities to combine funding opportunities to support watershed plan and 319 grants	Worked with NRCS on various projects.
	c) Advertise alternate avenues for grant funding in annual RFPs, the SCDES website, partner websites, and other avenues	Advertised alternate avenues for grant funding in annual RFPs, the SCDES website, and partner websites.
Coordinate with SRF staff to encourage implementation of NPS Plan goals and leverage State	a) Work in conjunction with CWSRF to advertise the use of SRF funds for NPS reduction projects	Worked in conjunction with CWSRF to advertise the use of SRF funds for NPS reduction projects and the potential

Revolving Fund money to address waterbodies affected by NPS pollution	and the potential for combining CWSRF and 319 funds for NPS reduction projects	for combining CWSRF and 319 funds for NPS reduction projects.
	b) Utilize the joint funding opportunities fact sheet with RFPs to encourage the combined use of 319 and CWSRF funds for projects addressing NPS pollution	Shared joint funding fact sheet with potential grantees.
	c) When identified, point out joint funding opportunities to public entities with potential projects	Shared funding opportunities with grantees.
Encourage the use of USDA resources to complement existing 319 efforts	a) Encourage grantees to utilize EQIP and other USDA funding options in watersheds with ongoing implementation projects, in annual solicitations and by word of mouth	Encouraged grantees to utilize EQIP and other USDA funding options in watersheds with ongoing implementation projects, in annual solicitations and by word of mouth.
	b) Refer septic calls outside of active septic repair/replacement 319 implementation projects to USDA's Rural Development Single-Family Housing Repair/Section 504 Home Repair program	Referred septic calls outside of active septic repair/replacement 319 implementation projects to USDA's Rural Development Single-Family Housing Repair/Section 504 Home Repair program.
Permitting		
Issue permits, perform inspections, respond to complaints, make recommendations for improvement of stormwater-related programs, and coordinate compliance and enforcement action as needed	a) Issue construction, industrial, and MS4 stormwater permits statewide including permits that require additional monitoring and/or installation of BMPs in impaired and TMDL watersheds	Issued construction, industrial, and MS4 stormwater permits statewide including permits that require additional monitoring and/or installation of BMPs in impaired and TMDL watersheds.
	b) Conduct stormwater site inspections and perform MS4 program audits	Conducted stormwater site inspections and performed MS4 program audits.
	c) Investigate acute NPS complaints from the public and MS4s statewide	Investigated acute NPS complaints from the public and MS4s statewide.
	d) Refer incidents to enforcement when voluntary remediation related to acute NPS incidents are unsuccessful	Referred incidents to enforcement when voluntary remediation related to acute NPS incidents were unsuccessful.
Ensure proper installation of onsite wastewater systems and provide technical assistance as needed	a) Issue permits for new septic systems	Issued permits for new septic systems.
	b) Issue licenses for septic installers and servicers	Issued licenses for septic installers and servicers.
	c) Provide compliance assistance by investigating referrals and failing onsite wastewater systems	Provided compliance assistance by investigating referrals and failing onsite wastewater systems.
Permit, inspect, and provide technical assistance for agricultural facilities	a) Prepare and/or review agricultural waste permits statewide for animal facilities	Prepared and/or reviewed agricultural waste permits statewide for animal facilities.

	b) Perform inspections including follow-up, complaints, site assessment, etc.	Performed inspections including follow-up, complaints, site assessment, etc.
	c) Document noncompliant facilities and refer them to enforcement	Documented noncompliant facilities and referred them to enforcement.
Through 401 water quality certifications, require at least standard construction site BMP conditions to be implemented	a) Issue 401 water quality certifications requiring implementation of BMPs that will minimize erosion and migration of sediments on and off project sites during and after construction	Issued 401 water quality certifications requiring implementation of BMPs that will minimize erosion and migration of sediments on and off project sites during and after construction.
Follow up on referrals for non-compliance and violations of the SC Pollution Control Act related to nonpoint source activities	a) Assign and follow up on all referrals	Assigned and followed up on all referrals.
	b) As needed, follow enforcement procedures for NPS stormwater and onsite wastewater violations	Followed enforcement procedures for NPS stormwater and onsite wastewater violations.
Maintain a database to track permits, inspections, and compliance and enforcement actions	a) Enter all facility- and permit-related information into the Environmental Facility Information System (EFIS) or its replacement database (E-permitting)	Entered all facility- and permit-related information into the Environmental Facility Information System (EFIS) or its replacement database (E-permitting).

VI. IMPLEMENTATION PROJECTS COMPLETED IN 2024

Three and Twenty Creek Watershed BMP Implementation

This project known as the Three and Twenty Creek Watershed BMP Implementation Project Phase 1 was designed and implemented to address the long-term bacterial and biological impairments in the Three and Twenty Creek Watershed within the Savannah River Basin. The goals were met by tackling nonpoint source pollution through a combination of agricultural, septic, and land protection Best Management Practices (BMPs) over a period of 36 months. The great success of this implementation phase led Upstate Forever to seek additional funding for a phase two implementation project in this area. The Three & Twenty Creek Implementation Phase 1 project began October 1, 2020, and ran through November 30, 2023, with reports submitted at the beginning of 2024. In total, the project costs totaled $232,640.64 in federal funding and $155,144.26 in non-federal/partner matching funds. Partners played a significant role in meeting the project objectives of facilitating septic, agriculture, and land protection BMPs in this watershed. Anderson Regional Joint Water System (ARJWS), the primary drinking water utility in the watershed, provided both in kind and financial support ($29,000) for this project. Partners in-kind support to the project was estimated to be just over $12,000 and included: Anderson County Stormwater Department, Anderson County Soil and Water Conservation District (ACSWCD), Anderson and Pickens Counties Stormwater Partners (APCSP), City of Anderson Stormwater Department, Clemson Extension, Lake Hartwell Association (LHA), Pickens County Stormwater Department, and the Three and Twenty Creek Watershed District.

- Septic System Repairs/Replacements: The completed number of septic projects far exceeded the 20 proposed at 42 repairs/replacements.
- Streambank Repair Workshop: 100 feet of stream stabilization was completed by Clemson Extension agents Katie Collins, Haley Dennison, Steven O'Shields, and Susan Lunt in partnership with UF. The project was located at Boscobel Golf & Country Club in Anderson, SC and included two sections of a tributary to Three & Twenty Creek to stabilize highly eroded stream banks. This workshop included both a discussion/lecture portion followed by hands on activities. During the lecture portion, Clemson Extension and UF staff provided background information on water quality issues including impairments in the Watershed, sources of pollutants, permitting specifics, and stream bank repair practices. Afterwards, participants engaged in hands on activities and helped perform streambank repair techniques including re-grading the slope, live staking, and installing erosion control matting at the site. In total, 16 participants completed the program.
- Agricultural BMP Projects: Agricultural projects completed consisted of an additional 50 linear feet of stream bank repairs on a private property, 8,800 square feet of heavy use protection area, 7,955 linear feet of livestock pipeline, and four alternative watering sources. In total, these projects were installed on three separate properties.
- Land Protection: A total of 64.73 acres of forested and agricultural land on Bishop Branch Pastures in Central, SC were placed under permanent protection through a conservation easement. Unfortunately, as a result of unforeseen challenges with staff turnover in the Land Conservation program at UF and the overall cost of conservation easements being less than anticipated in our grant application, we did not meet our desired land protection goal of 100 acres in this project phase, and therefore transferred the remaining funds to septic repairs/replacements.

VII. IMPLEMENTATION PROJECTS ONGOING IN 2024

Timrod Park Stream Enhancement Project

The 319 Grant project progress for 2024 included the completion of preliminary and final design, regulatory permitting and bid package preparation for the Timrod Park Stream Enhancement Project. At the time of this report, a contract has been developed for completion of construction of the Project by April 2025. Delays in the execution of the Cedar-McQueen project resulted in an extension request being submitted to SCDES. This was approved in September 2024, with construction to be completed by April 15, 2025, and subsequent closeout reporting submitted by July 2025. Progress updates will continue to be provided to SCDES as these projects are bid to verify that construction meets the deadlines outlined in the amended grant agreement.

Upper Saluda Watershed Implementation for Sediment

The goal of Save Our Saluda's implementation project is to reduce sediment loading in the Upper Saluda watershed through implementation of agricultural and rural Best Management Practices. During 2024, BMPs were implemented with joint funding from 319 and NRCS EQIP at three farms. The Middle Saluda project involved 350 feet of streambank stabilization, 200 feet of which was funded through the Upper Saluda 319 program and partner match. Structural stabilization and streambank protection included grading, installation of boulder toe rock and 14 single-arm rock vanes to deflect erosive flows away from the streambank (see photos below). Streambank bioengineering BMPs included seeding, coir matting, and installation of native live stakes and herbaceous plugs along streambank slopes. Approximately

72,000 ft2 of riparian buffer was restored and enhanced along 1,800 feet of river frontage with 470 native trees planted during volunteer workdays. Two rock-lined waterways were strategically located and installed through an existing levee berm to provide a hydrologic connection between the river and the floodplain during high flows.

The Terry Creek #3 project is the third streambank stabilization project installed along Terry Creek as a part of the Upper Saluda program. In total at Terry Creek #3, 900 feet of streambank stabilization work was completed, 523 feet of which was funded through the Upper Saluda 319 program and partner match. Structural stabilization and streambank protection included grading and installation of boulder toe rock and 13 single-arm rocks vanes (see below). Streambank bioengineering BMPs included seeding, coir matting and installation of native live stakes and herbaceous plugs along streambank slopes. Approximately 13,000 ft2 of riparian buffer was restored and enhanced along the stabilized reaches with 229 native trees planted during volunteer workdays. Two rock-lined waterways were installed to stabilize drainage areas from the crop field.

Native live stakes and herbaceous plugs were planted along Railroad Creek in January 2024 along 1,400 feet of the creek within newly fenced riparian buffer areas. Outreach efforts in 2024 included a combination of in-person events, social media education, and presentations on project success in the Upper Saluda Watershed. In addition to volunteer workdays, in-person events included two field labs for

Furman University students in the Methods in Earth and Environmental Science course that involved soil sampling at the Naturaland Trust Agricultural Demo Site in Marietta (see below) and sediment sampling at the Terry Creek stream restoration site. A presentation on the Upper Saluda stream restoration projects was given to the Saluda River Basin Council, followed by a field tour of the project sites. Melanie Ruhlman also presented to the Upstate Chapter of the SC Native Plant Society meeting to highlight the utilization of native plants in riparian and floodplain restoration projects in the Upper Saluda Watershed. The recorded presentation can be found here.

Save Our Saluda saw many 319 project accomplishments during 2024, including the implementation of two large streambank stabilization and riparian restoration projects and completion of a livestock exclusion project. In addition, Save Our Saluda was awarded a third 319 grant to continue work in the Upper Saluda Watershed. Another notable accomplishment by Save Our Saluda came after years of advocating alongside partners for more protective regulations for riparian buffers in the Upper Saluda Watershed. In January 2024, Greenville County Council passed an ordinance for new development sites requiring at least 50-foot riparian buffers along all Waters of the State, including all intermittent, perennial, and blue line streams, and a minimum 100-foot riparian buffer for all streams whose watersheds drain 50 acres or more. In April, Pickens County passed a similar ordinance requiring 50-foot riparian buffers for Waters of the State for new development sites. Save Our Saluda worked with partners and decision-makers in each County to bring these protective riparian buffer measures to fruition and its work throughout the Upper Saluda River Watershed undoubtedly played a significant role. Continual project success, as well as education and outreach, has helped highlight the need for stabilized streambanks and vegetated riparian corridors for watershed resilience and the sustainable future use of local water resources. Lastly, as a continuous effort to implement the Watershed Based Plans through land conservation for source water protection, Save Our Saluda worked with Naturaland Trust and Easley Combined Utilities to support the purchase of a large, unprotected property in Pickens County along nearly two miles of the South Saluda River near Table Rock State Park and other protected properties. The 1,100-acre property was purchased through a historic $9 million refundable grant from the South Carolina Conservation Bank and a $500,000 contribution from Easley Combined Utilities. State funding will be reimbursed with $2 million through the SC Office of Resilience and a $7 million appropriation through the SC Department of Natural Resources, which will assume ownership. The property will become the new South Saluda Wildlife Management Area and will be opened for public use.

Phase II: South, Middle, North Tyger River Watersheds BMP Implementation Project

Upstate Forever is continuing to implement the BMP recommendations from the Watershed Based Plan (WBP) for South, Middle, and North Tyger River Subwatersheds during Phase II, a three-year 319 grant, awarded in 2022. These projects are designed to reduce bacteria and sediment pollution in the S/M/N Tyger River subwatersheds. So far, Phase II has included the repair and replacement of 41 septic systems with one more in progress, the completion of two agricultural improvement projects with one more in progress, and the completion of three conservation easements with one more in progress. Numerous partners have committed to assisting Upstate Forever again in Phase II by providing a combination of financial and in-kind support for this work. Project partners include Greer Commission of Public Works (Greer CPW), Startex-Jackson-Wellford-Duncan Water District (SJWD), Woodruff Roebuck Water District (WRWD), Spartanburg County, and Spartanburg County Natural Resources Conservation Service (NRCS).

Our team has continued to encourage participation in the project using social media posts and other publications including our quarterly blog, the Water Log. In addition, Upstate Forever sent out a total of 560 mailings to high priority landowners in the project area. With the completion of 41 septic installations, it is estimated that a bacteria reduction of 9.92E11 bacteria/year has been removed from these watersheds. Some highlights from the past year include the completion of a 1,315-foot farm road stabilization project on a Conservation Easement that utilized 319 funding from Phase I of this project: Calico Vineyards. Sediment pollution from eroding farm roads is another common contributing factor of biological and recreational water quality impairments in these watersheds. Upstate Forever worked with this landowner to stabilize two farm roads on their property (see before and after photos below). This property is in the South Tyger River Watershed and contains nearly 4,000 feet of tributary frontage on McKinney Creek. We are working with this landowner to stabilize an additional section of farm road during the time that we have remaining in Phase II.

In addition to this project, our Land Protection Team Upstate Forever worked with one landowner in Greenville County to permanently protect approximately 60 acres across one property, Pearl Bottoms (see right), in the South Tyger Watershed. This conservation easement consists primarily of forested and pasture lands located near the town of Tigerville in unincorporated Greenville County.

North Saluda Headwaters Restoration Project Phase II

Greenville Water, contracting with Jennings and North State Environmental, completed twelve hundred linear feet of streambank stabilization and channel realignment on the Callahan Branch (see below). Four instream structures, five hundred linear feet of toe wood revetments and bank grading were installed within the project reach. In areas where the stream was channelized or highly sinuous (i.e., where high rates of erosion are occurring), the channel was realigned to match local, stable, naturally occurring stream profiles. Once this construction was completed, warm season grasses were planted to stabilize the site until permanent planting season in late 2024, satisfying the filter strip planting BMP requirement. Permanent planting of native trees, shrubs and grasses will occur in the final quarter of 2024. Highlights from the project in the last year include the completion of work performed by contractors and the community outreach event.

Jennings Environmental assisted Greenville Water with the permitting process that involved interaction with federal, state, and local agencies. Several months were required to obtain permits. During this time, engineering plans were completed and a workplan was installed. Northstate was on site during the months of July and August to complete stream restoration work. During this time, Greenville Water staff assisted and learned from these river restoration professionals. These valuable skills will be carried forward into subsequent phases of the project.

The community outreach event was held on October 30th (see right). Members of the community, along with other conservation minded individuals from the upstate area came to tour the project area. This was a great opportunity for Greenville Water staff to inform the public on how the project was made possible through grant funding. Staff also shared how BMPs can be implemented all throughout the Saluda watershed on stakeholder's properties to increase water quality downstream.

Lake Keowee Watersheds Project

In 2024, Lake Keowee Source Water Protection Team (LKSWPT) completed 16 septic repairs and/or replacements. To date, 55 repairs have been completed with 319 Grant funds. An additional 16 septic repairs were funded by LKSWPT.

In 2024, three conservation easements received partial funding from 319 grant funds to cover due diligence costs. Project 1 is the Happy Berry Farm, a 22.26-acre fruit farm located just four miles northwest of the Town of Six Mile in an unincorporated area of western Pickens County on the eastern shore of Lake Keowee. This conservation easement protects the scenic views and agricultural potential along Gap Hill Road. The property includes approximately 500'+ of streamside frontage along a tributary stream of Lake Keowee. Project 2 is the 67-acre Keowee Ridge Farm, which is located adjacent to The Happy Berry, and across the stream that delineates the boundary. The two projects combined protect both sides of approximately 1,500 linear feet of a tributary stream before it enters Lake Keowee and nearly 90 acres of farmland and forestland in proximity to Lake Keowee. The conservation easement on this property protects the scenic views, agricultural potential, and natural habitat along the ridge line near Gap Hill Road in an area where lakefront development continues to subdivide and convert former agricultural lands and forest lands into residential subdivisions, second homes, and other development projects. Project 3 is the Horse Gap Forest, which permanently protects an additional 69 acres in northern Pickens County (see below). The property is bound on the east and west by tributary streams of Little Eastatoe Creek and shares its northern boundary with a 534-acre tract owned by Duke Ventures Real Estate, LLC, which the SC Department of Natural Resources maintains as a Wildlife Management Area. The bottom third of the property is primarily open fields containing prime soils or soils of statewide importance. The remaining two-thirds is mostly forested with several first and second order streams, small wetland depressions, and a 1.5-acre pond, all of which drain to Little Eastatoe Creek. The Property is located in the Lake Keowee watershed and feeds into Lake Keowee, an important drinking water source for over 569,000 Upstate residents. The conservation easement protects the scenic views, agricultural potential, and natural habitat within the scenic Highway 11 corridor. All combined these three conservation easement permanently protect 158.26 acres that drain directly into Lake Keowee.

All property owners of completed projects are requested to complete a survey to allow the team to solicit feedback and identify any deficiencies in the program. The results are included in a database and reviewed by LKSWPT Board members. Both the website and social media continue to be updated with information as available. The LKSWPT continues to build relationships and work closely with certified septic contractors on potential projects. In partnership with Clemson Extension, a Septic Program Maintenance and Trouble-shooting Guidebook was completed and printed and are being distributed to homeowners participating in the program. Additionally, an article was published in the FOLKS magazine summarizing this year's accomplishments. In July 2024 the LKSWPT was awarded the Izaak Walton League Honor Roll award to LKSWPT for conservation work protecting Lake Keowee.

May River Phase VI – Pritchard Street Drainage Project

Pritchard Street Streetscape 100% design submittal from consultant in July 10,2024 has resulted in additional comments from Town and Project Stakeholders. As indicated above, Current design development has resulted in changes to proposed BMPs as a result of design constraints, utility conflicts, design enhancements and/or stakeholder comments. Currently, Town proposes to install sixteen (16) BMP related inlet/catch basin/control box structures that will capture and convey stormwater to proposed BMPs, up to six (6) underground detention/infiltration and stormwater conveyance BMPs (BMPs #2-#7), and one (1) infiltration Basin BMP OR an underground detention system with infiltration OR a combined underground detention system with infiltration combined with a rain garden. A public meeting is currently being scheduled for the project and to be held in October 2024. Based on Public meeting outcomes, final direction on design will be provided to the consultant for submission of a Bid Ready submittal. Currently the Project is Scheduled for Public Bid in February 2025 and a construction start in April 2025. Coordination with Dominion for street light installation initiated. Easement needs for project work have been identified with easement acquisition to begin a soon as Bid Ready submission items are finalized and needed easement areas determined. Easements for construction are needed and have been identified. Acquisition of required easements may impact project schedule.

Design development enhancements have occurred throughout design phase, which has resulted in optimization of drainage capture, conveyance and Water quality treatment. Permitting from required agencies has been initiated and pending final plan submittal for permit approvals and issuance. Easements needs have been identified and are being finalized based on outcomes of Public Meeting comments. A Public Meeting on the Project was held on October 24, 2024 at Town of Bluffton Town Hall. Feedback from residents was received and provided the Town an opportunity to discuss the benefits of the project and acknowledge the Town's receipt of Section 319 Grant Funding from EPA/SCDES in support of the project.

Edisto Island Septic System Improvement and Assistance Program

We have completed 40 of 45 planned Septic System Repair/Replacement BMPs for the project. All funds for BMP implementation have been exhausted. We anticipate completing 41 total BMPs before year's end with the additional non-matching grant funds on hand, up to 43 if one still pending grant source comes through. We have 26 additional qualified applications we will not be able to fund repairs for. Outreach efforts have included, two poster presentations (see below), two stakeholder presentations, hosting a community workshop (see below), and participating in a panel discussion. Webpages have been created to provide program information to the public and resources have been added to additional partner websites. Organizational newsletters, fact sheets, brochures, and press releases have been developed.

The number of septic system failures in the Edisto Island Watershed, the level of community need, and the rate at which we have been able to implement BMPs have all been staggering compared our initial estimates. The number of systems that need to be fully replaced is far higher than anticipated. The need for the work we are doing has never been more evident.

Our work has garnered a lot of interest in our community. We also continue to grow our list of partners and collaborators and there are several in-progress collaborative research projects that should assist with our long-term plans for this program and water quality in the watershed.

Although our direct public outreach efforts have been slow going due to staff capacity limitations in material development, we have been impressed with how quickly word has spread about the program following our community workshop and through word of mouth. We take this as an encouraging sign that we will be able to educate residents of the watershed about these issues and effect behavior changes to keep septic systems better maintained.

Phase II Three and Twenty Creek Watershed BMP Implementation

Upstate Forever is continuing to implement the BMP recommendations from the Watershed Based Plan for the Three and Twenty Creek Watershed, to reduce bacteria, nutrient, and sediment pollution in the Three and Twenty Creek watershed. This three-year 319 grant was awarded in 2024 and is a continuation of progress made in Phase I (2020-2023). So far, Phase II has included the repair and replacement of nine septic systems with two more in progress, the completion of three agricultural improvement projects with eight more in progress, and five conservation easements in progress. Numerous partners have committed to assisting Upstate Forever again in Phase II by providing a combination of financial and in-kind support for this work. Project partners include Anderson Regional Joint Water System (ARJWS), Anderson County, Anderson County Soil and Water Conservation District, City of Anderson Stormwater Department, Anderson & Pickens County Stormwater Partners (APCSP), Clemson Cooperative Extension, Anderson County Natural Resources Conservation Service (NRCS), Pickens County Stormwater

Department, and Lake Hartwell Association. Many of these organizations are a part of the Lake Hartwell Partners for Clean Water (LHPCW) which serves as an advisory council for this project.

Our team has continued social media posts and other publications including our quarterly blog, the Water Log, to encourage participation in the project. In addition, Upstate Forever sent out a total of 333 mailings to high priority landowners in the project area. With the completion of 9 septic installations, it is estimated that a bacteria reduction of 2.18E11 bacteria/year has been removed from this watershed.

Some highlights from the past year include the completion of three agricultural projects across the watershed. Sediment pollution from eroding farm roads is a common contributing factor of biological and recreational water quality impairments in these watersheds. Two of the three completed agricultural projects were with landowners who have/had active EQIP contracts through NRCS and utilized our funding in addition to that cost-share. The first contract completed 2,345 feet of livestock exclusion fencing (see right). The second project utilized our funding for 2,200 square feet of heavy use areas and 3 alternative watering sources (see right). In addition, Upstate Forever worked with Clemson University's Simpson Beef Cattle Farm to complete a variety of BMPs along the confluence of Big and Little Garvin Creek. In 2024, they completed their first phase of fencing along the southern boundary of these creeks.

Phase II South Pacolet River Watershed BMP Implementation

Spartanburg Water System (SWS) operates Lake William C. Bowen and Municipal Reservoir #1 as a drinking waters source for City of Spartanburg and other regional areas. Stormwater runoff transports excess nutrients, sediment, and bacteria to the lakes, causing algal blooms, and impacting water treatment, aquatic life, and recreational use of the lake. Best Management Practices (BMP) were identified for specific locations to reduce the amount of pollutants entering the lakes.

SWS has partnered with Forty Oaks Farm (Phase I), and Foster Road Farm at Turkey Creek to showcase and encourage cooperative BMP implementation in the community. In Phase I, BMPs installed at the Forty Oaks farm included moving the livestock exclusion fencing back to increase the stream buffer and relocating and improving the alternate watering system. A similar method will be installed at the Foster Road Farm site as part of Phase II. Implementation of this BMP is planned for 2025.

Proposed shoreline protection BMPs at the Lake Bowen Landing will leverage SWS property to provide additional benefit to the community. Bioretention was installed in Phase I and serves as a public demonstration project to reduce nutrients while providing wildlife habitat. As part of Phase II, shoreline protection will use native plantings and vegetative buffer to reduce erosion. The bid documents/plans have been prepared and bid advertisement is expected in December 2024 for a January 2025 bid opening and award of contract.

The proposed Phase II outfall improvement projects at up to 3 locations (see below), including riprap and stilling basins, will reduce sediment flowing into Lake Bowen from private lakefront properties. The 3 locations have been identified. Photos are attached. Spartanburg Water staff is meeting with potential consulting engineer on 11/18/24 to discuss preparation of plans and specifications for bidding in Spring 2025.

May River Phase VII – Historic District Phases 4-6 Sanitary Sewer Connections

Sewer extension design plans finalized by Cranston Engineering have been approved by Beaufort Jasper Water and Sewer Authority (BJWSA) to submit for state permits. Town of Bluffton public project pre-application meeting was held in July 2024. Property owners in the project area received written notice of the impending projects. Staff is preparing to put the project out to bid prior to the end of 2024. The project was recommended by Town of Bluffton Planning Commission on 3/27/24 for prioritization as part of the Capital Improvement Program (CIP) projects within the Fiscal Year 2025 Budget, which was approved by Town Council on 6/11/24. Staff has met with each property owner regarding the septic to sewer conversion projects and how 319 grant support will cover the cost to construct lateral lines and connect to sewer. The public has access to project updates via monthly written Town Council reports as well as on the Town's website via the CIP Project "Story Map" as part of overall sewer extension and connection projects.

Phase III Congaree Creek Watershed Water Quality Improvement Project

In Congaree Creek Watershed, fecal coliform pollutant load reductions are required to meet water quality standards as specified in the TMDL. Because Congaree Creek discharges to the Congaree River, a bacteria pollutant load reduction in the Congaree Creek Watershed will have a direct impact on the water quality of Congaree River. Lexington County is finalizing processes to install approximately 70 septic repairs, replacement, or sewer connections to reduce bacteria load. An outreach effort will accompany this project, educating property owners about proper septic system maintenance, and proper disposal of Fats, Oils, Wipes, and Grease (FOWG), a common cause of septic failures and sanitary sewer overflows. The ultimate outcome or goal of this project is to reduce bacteria contamination in surface waters of the Congaree Creek Watershed by installing septic system repairs, replacements and/or sewer connections and through community outreach. Staff are finalizing details of the implementation process, with the program implementation beginning in early 2025.

VIII. IMPLEMENTATION PROJECTS BEGINNING IN 2025

Horry County Septic and Agricultural Project Phase II

The Horry Soil and Water Conservation District in partnership with Grand Strand Water and Sewer Authority, Horry County Storm Water Department, City of Conway, Crabtree Watershed District, Simpson Creek Watershed District, and Buck Creek Watershed District want to improve the water quality within Horry County. Based on field observation from staff and the use of the watershed plans, multiple factors exist to decrease water quality; poor soil quality with heavy clay materials, higher water tables, older septic systems, high population density, and socially underserved urban and rural land users. The district will work to help landowners with cost assistance in repairing failing septic systems and agricultural producers with installing Best Management Practices to reduce E. Coli within the Horry County Phase II Project Area. The ultimate outcome or goal of this project is to improve the water quality within the project area by reducing runoff and reducing e-coli withing the watershed by impacting 40 cattle, 15 horses, and 43 households.

Lake Wateree Kershaw County Septic Repair Project

Lake Wateree serves many important uses for the surrounding population, including its use as a source of drinking water for the City of Camden and the Lugoff-Elgin Water Authority, recreational uses for residents, and agricultural and industrial uses. Water quality in and north of the project area is considered poor, particularly for nutrients and E. coli. As development in the Lake Wateree area increases, it becomes increasingly imperative to limit the amount of bacteria and excess nutrients entering Lake Wateree.

Septic system failure is one of many non-point sources (NPS) that have the potential to cause bacteria and nutrient loading in the Lake Wateree area. Residents in the Lake Wateree area are not connected to a wastewater treatment system, and it is therefore assumed septic systems are widely used in the area. For this implementation project, it is estimated that 10% of septic system are failing. To reduce impacts from failing septic systems to the Lake Wateree area, Kershaw County will use 319 funding to install approximately 25 septic repairs or replacement to reduce bacteria and nutrient loads. An outreach effort will accompany this project, educating property owners about proper septic system maintenance and disposal of fats, oils, wipes, and grease. The ultimate outcome or goal of this project is to reduce bacteria contamination and nutrient loads in the Kershaw County portion of the Lake Wateree Watershed by installing septic system repairs or replacements through community outreach.

Lake Keowee Watershed BMP Implementation Phase 3

The Lake Keowee Source Water Protection Team (LKSWPT) will implement funds to address bacterial, sediment, and nutrient pollution in the Little River-Lake Keowee and Keowee River-Lake Keowee Watersheds. The Lake Keowee Watersheds include drinking water intakes for three water utilities that provide drinking water to nearly 569,000 residents in Oconee, Pickens, Anderson, Greenville, and Laurens counties. Building upon the success of Phase 1 and 2 funding received in 2020 and 2022 for septic repairs and land protection in the Cane Creek and Little Cane Creek Watersheds and the Little River-Lake Keowee and Keowee River-Lake Keowee Watersheds, the LKSWPT plans to continue implementation efforts in the Lake Keowee Watersheds area to include 28 septic repairs and land protection through three conservation easements. This combination of BMPs addresses the bacterial, nutrient, and sediment reduction needs of the area. The LKSWPT is an established group of interested parties with a common goal of protecting and restoring the Lake Keowee Watersheds and the important resources they provide. The LKSWPT's working relationships with local municipal/county/state governments and local interest groups ensures the continued success of BMP implementation in the Lake Keowee Watersheds. The ultimate outcome of this project is to protect the surface water resource of Lake Keowee. Given the combined acreage of the Lake Keowee Watersheds (184,000 acres) and the bacterial, nutrient, and sediment load reductions required per the Watershed-Based Plan, it was necessary to divide the nonpoint source pollution reduction plan into a series of manageable phases to generate meaningful load reductions without imposing unrealistic financial burdens on local governments, utilities, and residents. The implementation of this phase of septic repair and the proposed land protection projects in the Lake Keowee Watersheds will allow the LKSWPT to take advantage of our previous accomplishments and further the reduction and prevention of nonpoint source pollution loading to these important source waters. While septic repairs work to reduce pollutant loads, land protection works to prevent pollution from entering waterways. Thus, pollutant load reduction calculations include both BMPs.

Upper Saluda Watershed Implementation for Sediment Project #3

The Upper Saluda Watershed above Saluda Lake drains parts of Greenville and Pickens Counties; provides source water for Upstate communities, business, and industry; provides recreational opportunities; and supports a rich diversity of aquatic life. Excess sediment in surface waters impairs water quality, degrades aquatic habitat, diminishes recreation, and significantly impacts Saluda Lake. Between 2011 and 2012, approximately 366,600 yd3 of sediment were dredged from the upper lake at a cost of over eight million dollars. The dredged area has since filled in again and removal estimates exceed ten million dollars.

In 2016, Save Our Saluda began building a partnership of cooperating stakeholder organizations to address sediment runoff in the Upper Saluda Watershed. Since then, over twenty partner organizations cooperated to develop two watershed plans and support two 319 implementation grants for BMPs for erosion and sediment control in priority source areas (intensively managed floodplain farmlands). BMPs were installed on 15 crop farms across approximately 1,000 acres. Specialized farm equipment was purchased to facilitate regenerative farming practices for soil conservation. This proposed third 319 implementation grant will again focus on sediment runoff from agricultural and rural properties and will encompass North and South Saluda watershed planning areas above Saluda Lake. The ultimate outcome or goal of this project is to reduce sediment loading in the North and South Saluda Rivers and Saluda Lake through implementation of agricultural and rural BMPs for soil conservation and water quality.

Edisto Beach State Park Bank Stabilization

Turbidity concerns in Scotts Creek, Big Bay Creek, and the larger Edisto Island Watershed (EIW) have been identified by multiple monitoring sites consistently over several years. SC State Parks has identified an area of increasing concern along Scott's Creek at Edisto Beach State Park. This area consists of approximately 250 linear feet of shoreline that is exposed and eroding into the creek due to wind and wave action, as well as boat traffic. The erosion from this site is likely contributing to turbidity impairments within these waterbodies. This project will develop a living shoreline, by regrading the slope, installing natural structures, including oyster reefs, and planting salt-tolerant native plants, to stabilize the shoreline and reduce sediment contributing to turbidity concerns within Scott's Creek, and the larger EIW. Clemson University and Cooperative Extension is partnering to provide technical expertise, educational resources, and project monitoring services. SC Department of Natural Resources is also partnering to provide technical expertise and supplies for oyster reef establishment. The ultimate goal of this project is to stabilize the shoreline of Scotts Creek at Edisto Beach State Park by developing a living shoreline to reduce turbidity impairment by preventing sediment from eroding into the Edisto Island Watershed.

IX. WATERSHED PLAN DEVELOPMENT PROJECTS COMPLETED IN 2024

Creating a Watershed-Based Plan for the Twelvemile River-Keowee River Watershed

This Watershed Plan intends to address the consistent water use impairments of bacterial loading to the Twelvemile Creek watershed (the watershed) in addition to sedimentation issues and potential nutrient impairments. The watershed is completely within and comprises a third of Pickens County, a significant

area of 154 square miles draining through agricultural and forested areas until it reaches Clemson, South Carolina, discharging to Lake Hartwell. This watershed highlights the features of what the project team values about land and water in the Southern Inner Piedmont: rolling green pastures, tablelands, isolated mountains, and bedrock outcroppings that create small series of rapids in upstream river reaches. The full plan is available here.

X. WATERSHED PLAN DEVELOPMENT PROJECTS ONGOING IN 2024

Givhans Ferry/Edisto River Basin Watershed-Based Plan

The ultimate goal of this planning effort is the development of a watershed-based plan that is both embraced and implemented by the project's Cooperating Partners, including Charleston Water System, Dorchester County, Colleton County, as well as the supporting partners and stakeholders. The recommendations included in the plan will serve as the foundation for future 319 grant opportunities in the watershed and should serve as a framework for addressing identified water quality problems with realistic, effective, and implementable solutions. We will work to ensure that the partners who participate in the development of the plan take a sense of ownership in the final product as it will be those agencies who will be ultimately responsible for its implementation. While the development grant period has ended, partners are still working to finalize the plan for publishing.

Big Dutchman and Burgis Creek WBP

The goal of creating the watershed-based plan is to begin implementation of the plan within the watersheds once it is approved. In coordination with the stream restoration "currently in progress" list, the plan will assist in prioritizing projects within the watersheds in order to ensure a focus on rectifying existing pollution and preventing additional pollution where possible.

York County, Fort Mill, Tega Cay, York, the Catawba Indian Nation, and the City of Rock Hill can use the final watershed-based plans to coordinate with the respective jurisdictions to move forward with project selection and approval in a way that prioritizes activities outlined in the watershed-based plan. Each municipality will fund and manage projects in their jurisdiction or work together on regional solutions to water quality issues. The Watershed Evaluation Team will continue to meet to discuss projects that are underway and to coordinate resources.

The Big Dutchman Creek Watershed Plan and Tools Fork Watershed Plan have been approved and are available at their respective links. Partners continue to finalize the Burgis Creek Watershed Plan for approval.

Fishing Creek WBP

The goal of this planning effort is to develop targeted strategies that reduce the impacts from bacteria, nutrient, and sediment pollution through BMP implementation and other protective measures for the watersheds selected. SCRWA works diligently with the committed partners and other stakeholders to complete the WBP with hopes to facilitate implementation funding for the targeted strategies from sources such as the 319 Nonpoint Source Implementation grant program, local governments, and private donations.

SCRWA hopes to establish a long-term water quality improvement strategy focused on mitigating the effects from nonpoint source pollution in the Catawba-Wateree River Basin through opportunities like the 319 Nonpoint Source Program-Watershed-Based Plan development grant. This plan will be part of a systematic watershed planning strategy that would allow SCRWA to not only address water quality issues in the proposed watersheds but would also create added benefit to downstream watersheds, like the ones identified in SCRWA's Lake Wateree WBP. The first complete draft of the Fishing Creek plan is in revision for approval.

Creating a Watershed-Based Plan for the Rocky River Watershed

The ultimate goal of this planning effort is to develop a roadmap to reduce bacteria, nutrient, and sediment pollution through BMP projects, and other protective measures for the Rocky River watershed. This work will include recommendations and a comprehensive land prioritization for the entirety of the watershed to help identify where BMP implementation would be most effective. Upstate Forever's (UF) Land Conservation Program is active in Anderson and Abbeville Counties and is working with landowners to secure conservation easements in the area. UF currently manages four conservation easements in Abbeville County and 13 Anderson County, with 27 potential future easements identified. Thus, UF's Land Conservation team will work towards identifying and securing priority parcels for protection in the watershed to guide on-the-ground decisions about utilizing land protection as a strategy to protect source water in the region.

Significant progress on this plan has been completed this year including researching the watershed, collective background data and information, visiting the watershed, and collaborating with our project partners. Additional progress includes two in-person windshield surveys, meeting with project partners during nine Lake Hartwell Partners for Clean Water (LHPCW) board meetings, beginning the watershed-based planning document, GIS analysis for prioritizing land for both protection and restoration practices, and identifying Best Management Practices (BMPs) to address the bacterial, sediment, and nutrient concerns in the watershed.

Chauga River Watershed Plan

The ultimate goal following the development of this watershed plan, is to implement measures to improve and maintain the aquatic integrity of the Chauga River Watershed. This Chauga River WP will act as the roadmap for the Chattooga Conservancy and our community partners to restore and protect this special waterway for our county and state. We will be seeking to apply for other funds (especially in connection with our partners) such as Trout Unlimited's Embrace-a-Stream (EAS), USDA-Forest Service's Every Kid Outdoors grants, and USDA NRCS's Conservation Reserve Program. A future goal of the Chauga WP includes applying for 319-funds to help further implement and enhance the measures set forth in the WP to restore and maintain the Chauga as a quality aquatic resource for both use as a community drinking source water intake and for recreational opportunities.

This plan has seen significant progress including confirming and engaging the Watershed Advisory Committee (WAC) and Forest Service as partners. Reviews include GIS and LIDAR information, load reduction calculations, visual data, and surveys. One of our staff has now passed part 107 and has become an FAA certified remote UAS pilot. The drone is currently being used to collect observational/visual data.

XI. NONPOINT SOURCE PROGRAM CONTACTS

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