

# ASHLEY COOPER

## STORMWATER EDUCATION CONSORTIUM

BY CLEMSON® EXTENSION



## Annual Report of Activities

YEAR 16 / JANUARY 2024 - DECEMBER 2024



**COOPERATIVE EXTENSION**  
*College of Agriculture, Forestry and Life Sciences*

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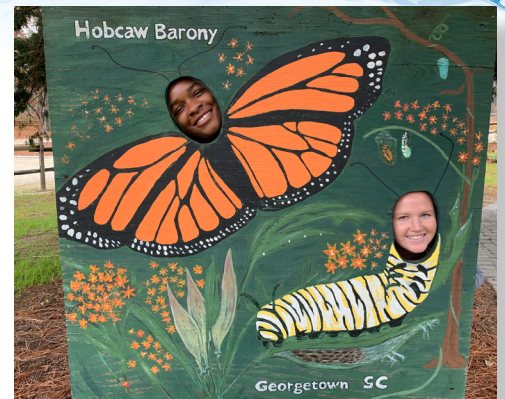
# Executive Summary

The Ashley Cooper Stormwater Education Consortium's Year Sixteen Annual Report of Activities summarizes outreach and involvement programming offered by the Ashley Cooper Stormwater Education Consortium (ACSEC) community and education partners in 2024. The ACSEC implements a region-wide outreach strategy to educate Charleston Tri-County residents on water quantity, quality, and the cumulative impacts of stormwater. Education programming is steered by the ACSEC Stormwater Outreach Strategic Plan 2024-2029, which identifies priority issues to address through messaging, and outreach that targets residential and commercial audiences.

Through partner collaboration, new initiatives in stormwater outreach offered creative methods to work with communities to address pollution in the region.

## 2024 Highlights

- The Shoreline Buffer Workshop, was made possible through a partnership with ACSEC, Dorchester County Parks & Recreation, and Friends of Dorchester County Parks. The workshop focused on using native plants to manage stormwater and prevent erosion. The event included a presentation and hands-on planting of 300 plants led by experts. Attendees received educational resources on stormwater pond management and shoreline buffers.
- The Rain Garden Maintenance Workshop, hosted by the Ashley Cooper Stormwater Education Consortium and Charleston Parks Conservancy, focused on maintaining rain gardens for proper water infiltration and plant health. Experts from Clemson University led hands-on training on inspections, plant management, and troubleshooting. The event was attended by 21 local participants.
- Clemson Extension's Carolina Clear program launched a 2024-2025 mass media campaign focusing on the importance of regular septic system maintenance to protect health, property, and the environment. The campaign featured billboards encouraging septic system inspections every 1-2 years and a commercial promoting septic system pumping every 3-5 years. Statewide, the billboard had over 13 million total impressions; and the commercial had over 1.9 million viewers. The campaign aimed to reduce harmful bacteria pollution in the state's waterways.



**ACSEC Co-Coordinator**  
*Beatriss Calhoun (left) and Samantha Porzelt (right) are Water Resource Agents for the Clemson Cooperative Extension Service. As part of their work with the Carolina Clear program, they Co-Coordinate the Ashley Cooper Stormwater Education Consortium. Bea's professional interests include bacteria pollution management through septic tank and rainwater harvesting. Samantha's professional interests include landscape-level best management practices and the use of native plants. Our goal is to build upon one another's expertise to better suit the needs of the ACSEC region.*



# Executive Summary

## 2024: A Year in Pictures



*2024 Ashley River Park Pond Buffer Workshop. Thank you to Dorchester County Parks & Recreation and Friends of Dorchester County Parks.*



*2024 Aeration Installation in pond 1 and 2 of the Charleston County Public Works Lonnie Hamilton III Public Services Building.*



*2024 Passive and Active Cistern Installation at Baruch Institute. Work with Clemson University Specialist.*



*From Seeds to Shoreline 2024 Veteran Teacher Workshop. Thank you to our partners at SC Sea Grant, SCDNR, and SCORE.*



*2024 Charleston Beach Sweep River Sweep. Shem Creek clean up.*



*2024 Buffer Planting with Mount Pleasant Waterworks.*



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From Seeds to Shoreline

The majority of designated Small Municipal Separate Storm Sewer Systems (SMS4) communities in the Charleston Urbanized Area, representing approximately 90% of the population, have committed to the ACSEC regional collaboration. These communities are represented by a dedicated group of public servants who have been engaged for many years in building the partnership.

## Local SMS4 Consortium Representatives: 2024

Berkeley County	Stephen Tanner, Kevin Kubiak, Robin Stone, Michael Hardwick
Charleston County	Chris Wannamaker, Sonya Cromwell, Brett Champion
Dorchester County	Mike Goldston, Kacy Byrd
City of Charleston	Kinsey Holton, Robin Kidd
City of Folly Beach	Represented by Charleston County via Inter-Governmental Agreement (IGA)
City of Goose Creek	Represented by Berkeley County via IGA
City of Hanahan	Represented by Berkeley County via IGA
City of Isle of Palms	Represented by Charleston County via IGA
Town of James Island	Represented by Charleston County via IGA
Town of Lincolnville	Represented by Charleston County via IGA
Town of Mount Pleasant	Claire O'Loughlin, John Farrell, Cody Robinette
City of North Charleston	Mike Dalrymple, Barry Givens, Merry Barton
Town of Sullivan's Island	Represented by Charleston County via IGA
Town of Summerville	Gary N. Alford, Skip Tucker



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# Education Partners

Collaboration is integral in developing and delivering a successful watershed-scale outreach program that reaches diverse audiences. The ACSEC is fortunate to have a variety of organizations in the Charleston Tri-County region that have joined the effort. Education partners include universities, state and local government agencies, utilities, and non-profits. Each brings unique expertise, resources, ideas, and programs to the ACSEC. The ACSEC fosters communication among organizations and through this cooperative effort programs are being created or enhanced. Lead and supporting partners are noted in the following report of activities.



## ACSEC Education Partners



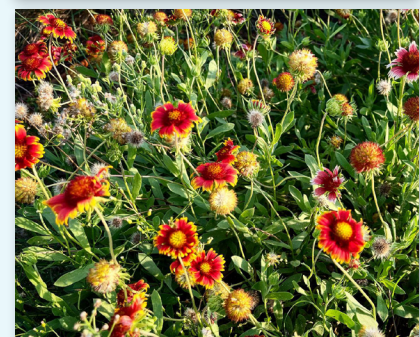
# Mission and Goals

## ACSEC MISSION STATEMENT

*Improve water quality within the Ashley and Cooper River basins by providing educational opportunities on stormwater impacts and our community roles in supporting healthy, fishable, and swimmable waterways.*

## PROGRAM GOALS

- Develop and implement an education plan that defines a cohesive education strategy which outlines target audiences and associated target pollutants relevant to the region using a prioritized approach.
- Facilitate compliance with existing and future educational regulatory requirements by capitalizing on local resources and service providers.
- Foster citizen involvement in stormwater management through ACSEC education and participation programs.
- Encourage behavioral change towards environmental quality improvement through stormwater education.
- Utilize mainstream and developing technologies and tools to maximize citizen exposure to ACSEC stormwater goals and objectives.
- Create an interactive reporting process to facilitate information exchange and dissemination among member entities.





# Education and Involvement Program History

To meet the ACSEC program goals, community and education partners meet twice a year or more frequently as needed to work collaboratively in the development, implementation, and evaluation of new and existing programming. These meetings and decision making process is open to the public.

ACSEC programming priorities were identified and developed through the Ashley Cooper Stormwater Education Consortium Stormwater Outreach Strategic Plan 2024-2029. The Strategic Plan can be found online at: [www.ashleycooper.org](http://www.ashleycooper.org). The Strategic Plan provides a framework for prioritizing regional issues, develops target outreach methods, and determines program evaluation metrics to improve the delivery and impact of ACSEC efforts. It is considered a “living” document to allow for refinement, supplementation, and flexibility as regional efforts and issues evolve over the five-year period. The development of the Strategic Plan was a multi-year effort that involved community and education partner input and an evaluation of geography, pollutant concerns, and public perception as identified in the 2019 Carolina Clear Statewide Survey.

The Strategic Plan process helped identify priority issues, contributing issues, target behaviors, and education strategies to address pollutants of concern in the region. The ACSEC residential and commercial audience priorities are as follows:

## Bacteria

CONTRIBUTING ACTION	TARGET AUDIENCE	TARGET BEHAVIOR
Pet owners improperly disposing of pet waste.	Pet owners who directly take care of their pet or pets.	Increase the number of Individuals properly disposing of pet waste.
Residents who do not maintain their septic tank system (Drain fields and tanks).	Residents and renters with septic tank systems.	Increase the number of septic tank systems operating as designed and properly maintained.

## Litter

CONTRIBUTING ACTION	TARGET AUDIENCE	TARGET BEHAVIOR
Individuals improperly disposal of resident’s trash.	Residents who bring their trash to the curve to be picked up.	Increase the number of individuals properly disposing trash.
Keeping Storm Drains clear from debris.	Residents and those visiting the coast who do not understand the purpose of storm drains .	Encourage proper covering of transported materials and increase awareness of disposal sites as it relates to keeping storm drains clear

# Education and Involvement Program History

## Nutrients

CONTRIBUTING ACTION	TARGET AUDIENCE	TARGET BEHAVIOR
Pond wildlife reducing water quality.	Members of the public who feeds wildlife.	Educate those who visit ponds on the importance to not feed pond wildlife.
Lawn care companies improperly apply fertilizer.	Landscape professionals and home improvement stores that do not currently offer soil testing to clients.	Minimize fertilizers negative impact on waterways by increasing the use of soil sampling recommendations prior to lawn care and maintenance.

These priority issues, and subsequent contributing actions, target audiences, and target behaviors, have formed the core of efforts by the ACSEC; education strategies include five-year timelines for program implementation (see Appendix). To evaluate the effectiveness of outreach and involvement campaigns, evaluation metrics include but are not limited to:

- Five-year surveys to gauge perceptions, knowledge gained, and behavior change of residents living in the consortium area.
- Google Analytics to evaluate impacts of web-based programming and outreach.
- Short and long-term program evaluation to evaluate workshop and training success in delivering information, assisting participants in overcoming barriers to practice implementation, and meeting the needs of the target audience.
- Other methods including analysis of distribution numbers.

The ability of the ACSEC to implement and deliver consistent messaging and programming as well as leverage partner-lead initiatives helps the Consortium-model to successfully address community priorities and concerns across multiple waterway “lines.”



## Shoreline Buffer Workshop

Shoreline buffers are a stormwater management practice that use native wetland plants to protect and beautify the waterfront. A well-designed shoreline buffer provides a functional solution to shoreline erosion, poor water quality, invasive weeds, and wildlife management. On September 25th, 2024, the Ashley Cooper Stormwater Education Consortium partnered with Dorchester County Parks & Recreation and Friends of Dorchester County Parks to host the Shoreline Buffer Workshop at Ashley River Park in Summerville, SC. The workshop began with a presentation on the purpose and benefits of ponds and shoreline buffers by Water Resources Agent Ellen Sturup Comeau. Following this, ACSEC coordinator Samantha Porzelt led instruction for site preparation and planting techniques with assistance from ACSEC coordinator Bea Calhoun and Water Resources Team Director Derrick Phinney. The 31 attendees all got the opportunity to have hands-on experience preparing the site and planting 300 native plants on the shoreline. The plant selection included soft rush (*Juncus effusus*), pickerelweed (*Pontederia cordata*), and southern blue flag (*Iris virginica*). Education resources on stormwater pond management and shoreline buffers were provided to all attendees.

For more information on Shoreline Buffers, visit the Home & Garden Information Center “Shorescaping Freshwater Shorelines” Factsheet # 1855



2024 ASHLEY RIVER PARK BUFFER WORKSHOP

## Rain Garden Maintenance Workshop

Rain gardens are shallow depression gardens designed and located to receive stormwater runoff from a roof, driveway, or lawn. They work with nature to collect, filter and infiltrate runoff while showcasing a variety of colorful and adaptable plants. While rain gardens and native plant landscaping are often considered low maintenance once plants are established, just like a regular garden, they are not entirely maintenance-free. To keep a rain garden functioning year after year, it is important to inspect your rain garden several times a year, particularly at the end of the growing season and after large storms or prolonged periods of drought, to ensure water is infiltrating properly, sedimentation and erosion are not occurring, and the plants are thriving.

On February 28th, 2024, the Ashley Cooper Stormwater Education Consortium partnered with the Charleston Parks Conservancy to provide a public involvement workshop to educate residential and professional audiences on rain garden maintenance techniques and considerations. Clemson specialists Amy Scaroni and Sarah Waickowski joined ACSEC coordinators Samantha Porzelt and Bea Calhoun to provide content and hands-on experience in rain garden site background, inspections, plant management, troubleshooting, and rainwater harvesting system maintenance. The half-day workshop was held at Corrine Jones Community Garden in Downtown Charleston - a previous Master Rain Gardener field day site. The 21 attendees included participants from the Master Rain Gardener program, Master Naturalist, ACSEC consortium members, and Charleston area residents.

For more information on rain garden maintenance, visit the Home & Garden Information Center “Maintaining Your Rain Garden” Factsheet # 1905



RAIN GARDEN MAINTENANCE WORKSHOP



## Statewide Highlight: 2024-2025 Statewide Mass Media Campaign



SUSAN LUNT, CAROLINA CLEAR COORDINATOR

Clemson Extension's Carolina Clear program 2024-2025 mass media campaign focused on regular septic system maintenance which keeps you, your family, and your community healthy. By maintaining your system you are ultimately saving money, protecting your property value, keeping your family and neighbors safe, and protecting the environment. Septic Systems that are not operating as designed and/or improperly maintained can contribute to harmful bacteria entering our watershed. Bacteria is currently the most common type of water pollution in SC, with over 300 impaired waterbodies found through the state. Waterbodies affected by bacteria pollution may be unsafe for swimming, fishing, harvesting shellfish, or supplying drinking water. Stormwater Consortia across the State have identified bacteria in waterways as a pollutant of concern. The multi-part mass media campaign included a billboard and a television commercial; each developed by a team of Carolina Clear Extension agents and was based on feedback from regional Consortia. Billboard messaging was provided on the target behavior "Inspect your septic system every one to two years". Twenty-three billboards were installed around the state through a partnership with the Outdoor Advertising Association of South Carolina. These billboards impacts are documented with weekly views and had a combined total of over 2,044,913 totally weekly impressions in 2024 and documented through total impressions which reached over 13,269,871 million. Commercial messaging concentrated on the target behavior: "Pump your septic system every three to five years". The commercial aimed to be relatable and share a clear message. The commercial was shared on five stations and streaming services around the State and reached 1,968,790 million viewers across South Carolina. To view the commercial visit: [https://www.youtube.com/watch?v=gHW\\_SPOULbc](https://www.youtube.com/watch?v=gHW_SPOULbc).

Both the billboards and the commercial directs viewers to visit [Clemson.edu/carolinaclear](https://clemson.edu/carolinaclear).

# Annual Report of Activities Format

The annual report utilizes the same general format as the first Fifteen ACSEC reports and the other regional stormwater consortiums in South Carolina. This annual report, number Sixteen for the consortium, is intended to give the reader a comprehensive look at the ACSEC from January 1, 2024 through December 31, 2024. This report delineates activities into public education and public involvement categories. For each activity, a brief description is provided as well as information on lead provider, supporting partners, date, number of impacts, and target audiences. Furthermore, public education activities are identified as either direct or indirect outreach strategies.

Clemson Extension's Carolina Clear program developed an online database in the first ACSEC reporting cycle to record detailed information on activities conducted by consortium partners. The data collected in the online database includes information on target audiences, pollutants addressed, activity type, lead service providers, supporting partners, number of impacts, location, and several other categories. This annual report provides a condensed version of the information collected in the online database as well as supplementary information sourced from ACSEC partners.

Public education activities are classified into two broad categories, **direct** and **indirect** outreach methods, to express mechanisms by which information has been communicated to the public. Direct methods include activities that are implemented via direct personal contact. Examples of direct methods include workshops, presentations, trainings, and public involvement activities. In contrast, indirect outreach methods refer to contacts through traditional media channels including television, radio, print, and billboards. Indirect methods generally reach a much greater portion of the population due to the nature of their mediums; however, it is often more difficult to gauge specific impacts. When dealing with direct methods, smaller numbers of people are reached yet the ones that are reached generally provide a forum for direct evaluation and feedback. Each method is important in the overall education campaign, and both are part of the five year educational strategy for the ACSEC. Throughout the document, the words "direct" or "indirect" are provided at the top of each reporting table.

\*Data provided are as accurate as possible and are reviewed by multiple individuals involved in the reporting process. However, due to the nature of indirect outreach initiatives, indirect impact numbers are typically estimates.

The activities in the report are listed in table format.



# Public Education: Indirect

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
2024	INTERNET: Total unique views for the Carolina Clear, ACSEC, Carolina Clear, Clemson Extension Water Resources Team, CSPR, CEPSCI, Carolina Yards, Rain Gardens, and Living Shorelines, websites (Webpage views 711, Program Page views 96,861)	Clemson Extension, Clemson University, Carolina Clear	97,572
2024	INTERNET: Total unique views for ACSEC Facebook page in 2024.	Clemson Extension	1,472
2024	INTERNET: Total unique views for Carolina Yards Facebook page in 2024 (Lifetime Post Total Reach: The number of people who had your Page's post enter their screen. Posts include statuses, photos, links, videos and more).	Clemson Extension	26,237
2024	INTERNET: Total unique views for Making It Grow Facebook page in 2024 (Lifetime Post Total Reach: The number of people who had your Page's post enter their screen. Posts include statuses, photos, links, videos and more).	Clemson Extension	1,234,555
2024	INTERNET: Total views on Carolina Clear YouTube page. Average duration of 1 minute and 52 seconds (Provides video segments on a diverse array of topics related to watershed stewardship).	Clemson Extension, Carolina Clear	8,900
2024	INTERNET: Total views on Carolina Clear Facebook page views (Lifetime Post Total Reach: The number of people who had your Page's post enter their screen. Posts include statuses, photos, links, videos and more)	Clemson Extension, Carolina Clear	22,700
2024	INTERNET: ACSEC's "Ripple Effect" provides information on ACSEC education and involvement opportunities. In 2024, 3 newsletters were sent to 2,763 contacts.	Clemson Extension	2,763
2024	INTERNET: SC Coastal Information Network (SCCIN) is a coastal partnership of 29 local, state, and federal partners coordinated through the S.C. Sea Grant Consortium providing educational and training opportunities for coastal community officials, staff, and the public. Two meetings were held in 2024 (Winter - January 11; Fall - October 14) and a total of 43 network members attend these virtual meetings. SC Coastal Information Network (SCCIN) also hosts an online event calendar and resource portal providing educational and training opportunities for coastal community officials, staff, and the public. The impact number below reflects website visits.	SC Sea Grant, SC Sea Grant Consortium Partners	4,900
2024	INTERNET: "From Seeds to Shoreline" South Carolina Salt Marsh Stewardship Program highlights characteristics, common flora, fauna, ecosystem services, and current research of the critically important saltmarsh ecosystem. Numbers are based on YouTube views. <a href="https://www.youtube.com/watch?v=fkwH45lQjcg&amp;t=7s">https://www.youtube.com/watch?v=fkwH45lQjcg&amp;t=7s</a>	SC Sea Grant, SCDNR, Clemson Extension, College of Charleston	2,300
2024	INTERNET: From Seeds to Shoreline Educational Workshop video created for teacher workshop and future educational use. (SC Sea Grant reviewed and organized). <a href="https://www.youtube.com/watch?v=xUSfTL39-EU&amp;t=29s">https://www.youtube.com/watch?v=xUSfTL39-EU&amp;t=29s</a>	SC Sea Grant, SCDNR, Clemson Extension, College of Charleston	60

# Public Education: Indirect

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
2024	INTERNET: Land Land Grant Press publications authored by the Clemson Extension Water Resources Team include 31 publications since 2019. Topics include stormwater ponds, livestock ponds, recreational ponds, wetlands, aquaponics, funding, flooding, pond dredging, pond weeds, headwater streams, watershed based planning, harmful algal blooms and more. These publications can be accessed at <a href="http://lgpress.clemson.edu">lgpress.clemson.edu</a>	Clemson Extension, Carolina Clear, Land Grant Press	59,685
2024	INTERNET: The SC Clean Marina Website has 512 total number of visits to the SC Clean Marina Program. Milestones: November 12, 2024 the Clean Marina Guidebook was updated to its latest version, SC Clean Marina Checklist went through revision process April 19, 2024, and approximately 30 rack cards about program for prospective and interested marinas in certification distributed around the state.	SC Sea Grant, SCDNR, Clemson Extension, SCDES, Marina Industry Professionals	512
2024	INTERNET: SC LID Atlas online map was redesigned and relaunched. This interactive online map displays current low impact development (LID) projects statewide. The goal of the atlas is to showcase LID projects so that they can serve as models for communities trying to address stormwater- and growth-related issues. Impact numbers are based on total views. SC LID Atlas Presentation at ACSEC Fall meeting (11/21/2024)	SC Sea Grant, SCCIN Partners, NI-WB NERR, ACE Basin NERR, Clemson Extension	389
2024	INTERNET: Mount Pleasant Waterworks produces a wastewater annual report each year. In 2024, it included information in the report on the impacts of FOGs on the sewer system and safe FOG disposal. The report and information were delivered to 41,901 customers through our Water Smart e-mail distribution system.	Mount Pleasant Waterworks	41,901
2024	INTERNET: Town of Mount Pleasant year 2024 social Media Interactions. Likes, shares, comments, and reaches totaling 13,598. Reported number reflect unique interactions.	Town of Mount Pleasant	299
2024	INTERNET: Factsheets located on the Clemson Home and Garden Information Network (HGIC) that have been authored by Water Resource Agents and that directly relate to stormwater education include topics on pond management, landscape-level stormwater management, vegetative buffers, low impact development, and more. The total unique views is estimated from historical data and current trends. Note: this may be an under estimate of the total impacts as this does not include factsheets on topics associated with fertilizer application, composting, native plants, and other best management practices associated with water quality. These publications can be accessed at <a href="http://hgic.clemson.edu">hgic.clemson.edu</a>	Clemson Extension, Carolina Clear, Home Garden Information Center (HGIC)	50,000



# Public Education: Indirect

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
6/1/24 6/3/24	FLYER: (What to Don't After Flood Damage) Flyer with tips for what to do after a hurricane	City of Charleston	300
6/2/24	FLYER: (5 Tips Before a Flood) Flyer on how to prepare before a flooding event.	City of Charleston	150
2024	Packets: ("Know Before you Buy - Flood Risk Preparedness) Outreach and education packets for real estate agents, insurance agents, and mortgage lenders on pre-home buying flooding protection and preparedness	City of Charleston	30
2024	FLYER: LID Atlas Information flyers used to distribute at presentations and more to gain user of the online tool to showcase projects statewide.	SC Sea Grant	50
2024	NEWSPAPERS: Clemson Newspapers (Clemson Extension offers stormwater pond preparation tips; Floating wetlands bring beauty, benefits to South Carolina ponds)	Clemson University, Clemson Extension	2,177
2024	PERMANENT EXHIBIT: Rain garden and rain barrel: At Mount Pleasant Water Works Water Treatment Plant at 520 King Street, Old Village	Mount Pleasant Water Works, Clemson Extension	100
2024	PERMANENT EXHIBIT: Stormwater pond buffer and floating wetland: At Mount Pleasant Water Works main office location (1619 Rifle Range Road)	Mount Pleasant Water Works, Clemson Extension	100
2024	PERMANENT EXHIBIT: A large shoreline planting project and floating wetland at a stormwater pond on the Charleston County Public Services Building campus serves as a demonstration site for stormwater pond best management practices	Charleston County Government, Clemson Extension	500
2024	PERMANENT EXHIBIT: Clemson REC "Ed Shed" includes education signage and stormwater best management practices. This space is used to host workshops, trainings, and meetings for diverse groups/classes.	Clemson Coastal Research and Education Center, Tri-County Master Gardeners, Clemson Extension	200
Continuous	PERMANENT EXHIBIT: Rain garden and cistern installed at a Berkeley County library "Pollinator Garden" location in Hanahan.	Berkeley County, Berkeley County School District, Keep Berkeley Beautiful	1,000
2024	PERMANENT EXHIBIT: Educational signage about the WaterGoat, "Litter Ends Here".	Berkeley County, Berkeley County School District, Keep Berkeley Beautiful, Caromi Volunteer Fire Department	100
2024	PERMANENT EXHIBIT: The Town of Summerville rebuilt the walkway bridge off of Central Avenue near Pine Street.	Town of Summerville	Continuous
Continuous	PERMANENT EXHIBIT: Educational signage about the stormwater "Treatment Train" and the process for treatment of stormwater runoff from beginning until point of discharge to receiving waters. Signage can be found at the Cypress Gardens in Moncks Corner, SC.	Berkeley County Stormwater Management, Berkeley County Cypress Gardens	30,000

# Public Education: Indirect

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
Continuous	PERMANENT EXHIBIT: Rain garden and signage at Caw Caw Interpretive Center.	Charleston County Parks and Recreation	2,000
Continuous	PERMANENT EXHIBIT: Rain garden “Whirlin’ Waters” at Wannamaker County Park.	Charleston County Parks and Recreation	500
Continuous	PERMANENT EXHIBIT: Rain garden and signage at the Cooper School in West Ashley. Funding for the signs were supplied by the ACSEC.	City of Charleston, Carolina Clear, Clemson Extension	315
Continuous	PERMANENT EXHIBIT: Two rain barrels and drip irrigation at St. Julian Divine Community Center	St. Julian Divine Community Center	1,500
Continuous	PERMANENT EXHIBIT: Two rain gardens, cistern, and native plants installed at Fort Johnson Community Garden and Outdoor Classroom	SCDNR	5,000
Continuous	PERMANENT EXHIBIT: Cistern at Mitchell Elementary School’s Green Hearts Project Garden.	Mitchell Elementary School, Green Heart Project	350
Continuous	PERMANENT EXHIBIT: Cistern, rain garden, rain barrels, composting station and native plants at the College of Charleston’s Grice Marine Lab’s Green Teaching Garden.	College of Charleston	500
Continuous	PERMANENT EXHIBIT: Cistern and drip irrigation installed for raised beds at College of Charleston’s Political Science Building.	College of Charleston	200
Continuous	PERMANENT EXHIBIT: Cistern and adjacent rain garden located at the Medway Community Garden. Rainwater harvested is utilized to irrigate adjacent raised beds; rain garden doubled as a pollinator garden.	Charleston Parks Conservancy, Clemson Architecture Community Design Build, Clemson Extension	1,000
Continuous	PERMANENT EXHIBIT: Folly Beach Community Center: two rain gardens, a cistern, and interpretive signage were installed as part of the Master Rain Gardener program in the fall of 2022.	City of Folly Beach, Clemson Extension	2,500
Continuous	PERMANENT EXHIBIT: Folly River Park: cistern, rain garden, and interpretive signage were installed as a part of the 2023 Master Rain Gardener program.	City of Folly Beach, Clemson Extension	1,500
Continuous	PERMANENT EXHIBIT: Corrine Jones Park - includes wetland plant garden and cistern at the community garden shed. This was installed as part of the Master Rain Gardener course.	Clemson Extension	1,000
Continuous	PERMANENT EXHIBIT: The Town of Summerville placed three (3) new pet waste stations, two (2) at a boat landing and one (1) in a Town park, which supplement the stations already on the Sawmill Branch Trail. These 23 stations use 1,380 bags each year.. These stations are regularly monitored and are being used.	The Town of Summerville	2,300
Continuous	PERMANENT EXHIBIT: As part of Carolina Schoolyards, a rain garden and rain barrel located at the CREEC School.	Cape Romain Enviro. Ed. School	175



# Public Education: Indirect

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
Continuous	PERMANENT EXHIBIT: Installed a rain garden, rain water harvesting system, and signage at Memorial Waterfront Park as part of the Master Rain Gardener Certification course offered by Clemson extension. Signs and rain garden can be viewed by the hundreds of visitors the park everyday.	Town of Mount Pleasant, Clemson Extension	Continuous
Continuous	PERMANENT EXHIBIT: Mount Pleasant Water Works hosted a Rain Garden Community Build with The Sustainability Institute on Saturday, November 16th. An estimated 40 people participate in installing a rain garden, rain barrel and education signage at a new pocket park at our Water Treatment Plant in the Old Village. The ACSEC donated the barrel that was also painted by students at Whitesides Elementary. Number is based on participates	Mount Pleasant Waterworks, The Sustainability Institute	40
Continuous	PERMANENT EXHIBIT: Permanent Floating Treatment Wetland educational signs were put up at two ponds being used for PhD research within the Town Location: Lake Ben Tatum (Royall Ave) and Dorothy Kearns Park (Wando Park Blvd.)	Clemson Extension, Town of Mount Pleasant	Continuous
Continuous	PERMANENT EXHIBIT: Permanent signage mounted at Park West Rec. Center. Location: Park West Recreation complex (1251 Park West Blvd., Mount Pleasant)	Town of Mount Pleasant, Clemson	Continuous
2024	PERMANENT EXHIBIT: Clemson REC Urban Research and Demonstration Area showcases native plants, a rain garden, rain barrel, pollinator space, educational signage and more; open to the public during daylight hours.	Tri-County Master Gardeners, Clemson Coastal Research and Education Center, Clemson Extension	1,000
2024	PUBLICATION: Taking Care of Business: A User's Guide For Being Septic Safe	Clemson Extension, Carolina Clear	2,300
2024	TELEVISION: SC ETV Making It Grow! Average viewers per episode (based on average households viewing each episode and persons per household via census)	SCETV, Clemson Extension	19,866
2024	TELEVISION: The 2024-2025 Carolina Clear mass media campaign focused on regular septic system maintenance which keeps you, your family, and your community healthy. Commercial messaging was provided on the target behavior "Pump your septic system every three to five years" (Tri-County number from WTAT, WCSC, and Streamings: Berkeley, Charleston, and Dorchester 569,260)	WTAT, WCSC, Clemson Extension, Streaming	569,260
Continuous	MANUAL: Low Impact Development Manual in Coastal South Carolina is a Planning and Design Guide. This comprehensive manual provides engineering tools, planning guidance, and case study examples that are relevant to the South Carolina coastal zone. The manual was developed to provide local decision makers with the knowledge and resources to apply LID practices on the community, neighborhood, and site scale. This manual is available for download from the S.C. Sea Grant Consortium's and NI-WB NERR's websites	SC Sea Grant, SCDNR, ACE Basin NERR, NI-WB NERR	389

# Public Education: Indirect

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
2024	<p><b>BILLBOARD:</b> The 2024-2025 Carolina Clear mass media campaign focused regular septic system maintenance which keeps you, your family, and your community healthy. Billboard messaging was provided on the target behavior “Inspect your septic system every one to two years” in high-visibility locations: (weekly impression) Total Carolina Clear Impressions 2,044,913</p> <ul style="list-style-type: none"> <li>- Berkeley: US 52, 0.1 miles E/O Strawberry Road, US 52, 0.5 miles S/O S-8-50</li> <li>- Charleston: I-26, 0.45 miles W/O US 17, Rivers Avenue, 0.6 miles W/O Montague Avenue</li> <li>- Dorchester: I-26 East, 1.9 miles E/O State Road 453, I-26 West, 1.9 miles E/O State Road 453</li> </ul>	Clemson Extension	879,275
2024	<b>PROMOTIONAL ITEM:</b> Native Plant Seed Packets: Seeds contained a native plant mix that supports pollinators and songbirds.	Clemson Extension	300
4/26/24	<b>TABLING EVENT:</b> Kiawah Conservancy and presenting sponsor Kiawah Island Golf Resort held 2024 annual Earth Day celebration in Night Heron Park. Clemson Extension Represented ACSEC and shared information focused on water quality. Seed Packets were give to attendees as they stopped by our both.	Clemson Extension	400
April 2024	<b>FAIRS/FESTIVALS:</b> The MUSC Greenest Day: An Earth Day and Arbor Day Celebration is one of the many ways MUSC sends a clear signal about its commitment to environmental stewardship and recognition of the inextricable link between the health of the environment and human health.	MUSC, Clemson Extension	1,000
2024	<b>PROMOTIONAL ITEM:</b> Dog bag Dispenser distributed to dog owners at tabling events to remind owners to pick up pet waste.	Clemson Extension	230
2024	<b>PROMOTIONAL ITEM:</b> Grease can lids include disposal directions for used cooking grease.	Clemson Extension	50
2024	<b>PROMOTIONAL ITEM:</b> The Ashley Cooper Stormwater Education Consortium sticker includes the ACSEC logo and website utilized to promote website visitation and ACSEC awareness.	Clemson Extension	100
2024	<b>PROMOTIONAL ITEM:</b> Pocket Ashtray distributed to encourage responsible disposal of cigarette butts.	Clemson Extension	20



# Public Education: Indirect

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
June 2024	FAIRS/FESTIVALS: Maritime Days Educational Tabling Event was presented by SC Sea Grant at the Port Royal Foundation Maritime Center in Beaufort, SC. This event is focused on celebrating the culture and ecosystem of Port Royal Sound, with a focus on marine debris prevention. Numbers reflect ACSEC interactions.	SC Sea Grant, Port Royal Sound Foundation, Clemson Extension, Clemson University	50
8/11/24	FAIRS/FESTIVALS: (First Day Festival) First day of school festival for City residents and their children. The City of Charleston office hosted a table and provided stormwater/flooding information to parents ahead of the start of school.	City of Charleston	800
10/20/24	TABLING EVENT: Town of Mount Pleasant participated in Children's day tabling event. Provided pet waste bags, native seeds, and virtual links and resources to participants and their parents. We educated on stormwater and why it is important to keep our waterways clean. Location: Park West Recreation complex (1251 Park West Blvd., Mount Pleasant)	Town of Mount Pleasant	200
10/26/24	TABLING EVENT: Town of Mount Pleasant tabled at the SC NPS plant sale in Mount Pleasant. Town of Mount Pleasant provided rack cards on gardening for stormwater, composting, and gave away native plant seeds.	Town of Mount Pleasant, SC Native Plant Society	20
3/10/24	TABLING EVENT: (Sunday Brunch Farmer's Market) City officials hosted an information table at the Farmer's Market. City of Charleston handed out info flyers and answered public questions about the City flooding issues.	City of Charleston, Sunday Brunch Farmer's Market	45
2024	IN-PERSON, PHONE, E-MAIL: In the Tri-County, Master Gardeners answered questions relating to a variety of home landscaping issues. Topics include compost, mulch, fertilizer, native plants, irrigation, etc. Contact points include farmers markets and in-office visits.	Clemson Extension, Tri-County Master Gardeners Association	41,887
6/1/24	FLYER: The City of Charleston delivered Hurricane Preparedness Tips. A flyer/handout delivered to local community centers and Libraries during Hurricane Season, providing residents with hurricane preparedness tips and resources. Distributed in James Island, West Ashley, and Johns Island areas.	City of Charleston	150
2024	FLYER: The City of Charleston provided "Clean Ditch Notice" reminders to residents. A flyer/handout given to residents throughout the City educating and reminding them of how important it is to keep their ditches free of trash and debris. Distributed in James Island, West Ashley, and Johns Island areas.	City of Charleston	150

# Public Education: Direct

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IM-PACTS
2024	IN-PERSON, PHONE, EMAIL: Clemson Extension Agents answered questions and provided services to a variety of Tri-County audiences regarding water resources and stormwater BMPs.	Clemson Extension	350
2024	SOIL SAMPLES: Clemson Extension in cooperation with Clemson's Agricultural Service Lab processed soil and water samples for Berkeley, Charleston, and Dorchester Counties.	Clemson Extension	1,594
1/1/24	DIRECT MAIL: (Charleston Water Systems (CWS) Water Quality Mail Inserts - Stormwater Management) A yearly publication distributed to all City of Charleston residents educating them on the importance of keeping our waterways clean and safe.	City of Charleston, Charleston Water Systems	110,000
2024	DIRECT MAIL: Direct mail with educational rack cards. Town of Mount Pleasant have mailed information to residents and business owners when a violation or concern is brought to our attention. If applicable, we provide rack cards and other printed materials to educate on the issue to prevent future instances. Topics include FOG management, keeping storm drains clear, ditch maintenance, proper yard waste disposal. 38 Letters have been mailed with educational material.	Town of Mount Pleasant	38
11/7/2024	PRESENTATION: South Carolina Association of Storm Water Managers Presentation: Low Impact Development for Residential Properties in Columbia, SC.	Clemson Extension, Carolina Clear	130
10/16-17/2024	PRESENTATION: South Carolina Water Resources Conference in Columbia, SC (Presentations/Posters: Be Septic Safe, Rain Gardens As A Wildlife Habitat, On-Farm Water Management)	Clemson Extension, Carolina Clear	286
7/14-19/2024	POSTER: Singing in the Rain: Embracing the Hybrid Method for Rain Garden Education. NACAA Conference in Dallas, TX	Clemson Extension, Carolina Clear	400
4/6/24	POSTER: Association of Natural Resource Extension Professionals Poster: Singing In The Rain in Hershey, PA	Clemson Extension, Carolina Clear	300
4/5-8/24, 5/15-17/24, 7/16-20/24	POSTER PRESENTATION: Association of Natural Resources Extension Professionals, SC Association of Agriculture Agents, and Cullowhee Native Plant Conference: Singing in the Rain, Embracing the Hybrid Method for Rain Garden Education	Clemson Extension	35
6/6/24	PRESENTATION: South Carolina Association of Storm Water Managers Septic Panel Discussion in Columbia, SC	Clemson Extension, Carolina Clear	130
5/17/24	PRESENTATION: South Carolina Association of County Agricultural Agents Lightening Talk: Natural Resources Team in Beaufort, SC	Clemson Extension, Carolina Clear	120
5/13/24	POSTER: National Health Outreach & Engagement Conference Poster: Be Septic Safe in Greenville, SC (Statewide Campaign)	Clemson Extension, Carolina Clear	300

# Public Education: Direct

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
3/19/2024	PRESENTATION: Educational information and resources were provided on the benefits of rain gardens, site assessments, installation processes, plant selection, and rainwater harvesting systems..	Clemson Extension, South Carolina Native Plant Society	35
3/24/2024, 5/22/2024	PRESENTATION: 2 site tours were completed at the Folly River Park and Folly Community Center rain gardens for a landscape architecture group and for the South Carolina Native Plant Society members.	South Carolina Native Plant Society, SCDNR, SC Sea Grant	20
3/14/2024	PRESENTATION: Cheyenne Twilley Thesis Presentation: Evaluating the Impacts of Boundary Spanning at the Coastal Science-Policy Interface in Folly Beach, South Carolina	College of Charleston, Elko Consulting	38
3/15/24	PRESENTATION: Seminar Series Presentation: A Collaborative Approach to Resilience Management Using GIS in the Lowcountry	College of Charleston, SC Sea Grant	23
3/29/24	PRESENTATION: Kent Wicker Thesis Presentation: Fishing in the Commons: The Effect of Non-Governmental Organizations' Actions on Illegal, Unreported, and Unregulated Fishing	College of Charleston	16
4/2/24	PRESENTATION: Lauren Greenwood Thesis Presentation: Land of Water: Residents' Perceptions of Flooding, Septic Systems, and Buyout Programs in South Carolina	College of Charleston, SC Sea Grant	34
4/3/24	PRESENTATION: Trey Gillespie Thesis Presentation: Generation of Multibeam Acoustic Data Processing Training Modules for Undergraduate Students using QPS Qimera	College of Charleston, NOAA	14
4/4/24	PRESENTATION: Julia Chrisco Thesis Presentation: The Application of Two Remote Sensing Platforms for Water Quality Monitoring of Residential Stormwater Ponds in Coastal South Carolina	College of Charleston, SCDNR	22
4/5/2024	PRESENTATION: Duncan Williamson Thesis Presentation: Assessing Septic System Vulnerability to Sea Level Rise Using a Hybrid Groundwater Modeling Approach - Beaufort County, SC	College of Charleston, SC Sea Grant	33
4/5/2024	PRESENTATION: Briar Ownby-Connolly Thesis Presentation: Analyzing Flaws in the use of Stormwater Modeling: Stormwater Management Implications for the Chesapeake Bay Watershed	College of Charleston	18
4/5/2024	PRESENTATION: Britney Prebis Thesis Presentation: Magnifying Microplastics Monitoring: Developing a Community Science Monitoring Program for the Charleston Harbor Watershed	College of Charleston, Charleston Waterkeeper	29
10/9/24	PRESENTATION: (Palmetto Society Flood Talk) Stormwater Management staff spoke with the Palmetto Society at their monthly breakfast and presented a history of flooding in the City of Charleston	City of Charleston	20
9/20/24	PRESENTATION: "Be Septic Safe" Webinar was presented on September 20 as a lunch and learn to promote water quality when it comes to septic usage. Beaufort and Charleston County Audiance	Clemson Extension	5
9/5/2024	TABLING EVENT: Clemson Extension Exhibitor Table. South Carolina Association of Stormwater Managers Meeting. Columbia, SC	Clemson Extension, Carolina Clear	125



# Public Education: Direct

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
4/9/2024	PRESENTATION: Claire O'loughlin Thesis Presentation: Characterizing Nutrient Dynamics in Lake Environments	College of Charleston, Mount Pleasant Waterworks, Clemson Univeristy	9
4/9/24	PRESENTATION: Nolan Irey Thesis Presentation: Impacts of Drought on Water Quality: A case study on the Edisto River at Givhans Ferry in South Carolina	College of Charleston, McCormick Taylor	21
7/10/24	PRESENTATION: Hannah Quast Thesis Presentation: Assessing Coastal Streamflow and Compound Flooding Risk	College of Charleston, Robinson Design Engineers, SC Sea Grant	12
7/16/24	PRESENTATION: Seminar Series Presentation: A Collaborative Approach to Resilience Management Using GIS in the Lowcountry	College of Charleston, Folk Land Management	32
7/16/24	PRESENTATION: Kent Wicker Thesis Presentation: Fishing in the Commons: The Effect of Non-Governmental Organizations' Actions on Illegal, Unreported, and Unregulated Fishing	College of Charleston, Linebach and Funkhouser, Inc.	12
9/16/24	PRESENTATION: Panel Discussion: Environmental Policy and Coastal Resiliency and the Impact of Elections. Panelists: Dr. Matt Nowlin and Dale Morris, Dale Morris, is the previous Director of Resilience at the City of Charleston	College of Charleston, The City of Charleston	47
10/22/24	PRESENTATION: Reagen Desilets Thesis Presentation: The Land That Water Won't Forget: A Green-Gray Approach to Urban Stormwater Management	College of Charleston, City of Charleston on Public Service Dept.	16
11/12/24	PRESENTATION: Hailey Connell Thesis Presentation: Application of Coastal Vulnerability Models Toward Future Land Use Planning in the Town of Bluffton, SC, USA	College of Charleston, SC Sea Grant	24
11/18/24	PRESENTATION: Evan Cizler Thesis Defense: Mapping South Carolina's Historic Rice Fields to Learn from the Past and Prepare for the Future.	College of Charleston, SC Sea Grant	12
1/8/24	PRESENTATION: (Artillery Point Neighborhood Meeting) Flooding preparedness presentation for the Artillery Point Neighborhood Association. City officials went over flooding preparedness tips and Flooding Insurance information.	City of Charleston, Office of Resilience (Flood Plains Managment)	50
1/18/24	PRESENTATIONS: (Porter- Gaud Fourth Grade Flooding Presentations) Students with Porter-Gaud presented models of potential flood mitigation strategies utilizing information provided by stormwater experts in the previous semester	City of Charleston, Porter-Gaud Elementary School	200
3/19/24	PRESENTATIONS: (South Caroline Association of Hazard Mitigation) City of Charleston officials presented on GIS tools used for floodplain complainance and tracking. Location: Mrytle Beach	City of Charleston, South Carolina Association of Hazard Mitigation	50
May 2024	PRESENTATIONS: (Charleston Green Drink) Flooding preparedness presentation for the May Climate Change and Resilience event at Palmetto Brewery.	City of Charleston, Charleston Green Drinks	40

# Public Education: Direct

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
11/4/24	PUBLIC EVENT: (Porter- Gaud Fourth Grade Flooding Education) Providing education and guidance about flooding and mitigation strategies in Charleston to the Porter-Gaud Fourth Grade class.	City of Charleston, Porter-Gaud Elementary School	200
April 2024	IN-PERSON EVENT: The Town of Mount Pleasant attended the Blessing of the Fleet event to provide ACSEC educational material to the general public.	Town of Mt. Pleasant	500
2/22/24	IN-PERSON EVENT: (City of Charleston Job Shadow Day) City officials hosted students from West Ashley High School in departments throughout the City so they can learn more about a potential career interest and see how the city operates. Stormwater Management hosted three students interested in careers managing and education the public on flood risk/mitigation.	City of Charleston	25
2024	WORKSHOP: Calling the Coast Home: A series of continuing education elective courses focused on coastal issues and topics are offered throughout the year to real estate professionals through the SC Coastal Information Network partners. All project collaborators provide course instruction and S.C. Sea Grant Consortium also oversees project coordination. A new course focused on freshwater wetlands was added and launched in November 2024. The course series includes Coastal Lifestyle for Clean Water (CL); Living with Water (LWW); Land Water Connection (LWC); Tidelands, Water, and Beach: Regulations and Rebuilding (TWB); and Understanding Property with Freshwater Wetlands (UPFW). For course details visit <a href="https://www.sccoastalinfo.org/courses/">https://www.sccoastalinfo.org/courses/</a>	SC Sea Grant, Clemson University and Extension, University of South Carolina, SCDES, SCDNR, ACE Basin National Estuarine Research Reserve, North Inlet-Winyah Bay National Estuarine Research Reserve.	174
November 2024	WORKSHOP: Rain Garden Renovation workshop provided hands-on training for certified Master Naturalists on renovating an existing rain garden and replacement of	Clemson Extension, Charleston County Parks and Recreation Commission, Coastal Master Naturalist Association, Native Plants to the People	15
September 2024	WORKSHOP: Shoreline Buffer Workshop provided educational information on the benefits of buffers and how to install and maintain them	Clemson Extension, Dorchester County Parks & Recreation, Friends of Dorchester County Parks	31
2024	PUBLIC EVENT: "From Seeds to Shoreline®" Participating S2S Schools attended salt marsh restoration days along the SC coast with program partners to plant Spartina alterniflora. 18 schools participated in 17 restoration in 2024. A total of 500 students participated in 10 restoration days. 4,656 Spartina Stalks were counted.	SC Sea Grant, SCDNR, Clemson Extension	500

# Public Education: Direct

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
2024	ONLINE TRAINING: Clemson provides training and certification for the Certified Stormwater Plan Reviewer (CSPR) program to educate personnel on the proper design and review of stormwater and sediment control plans for development sites in order to meet regulatory and environmental requirements. Impacts reflect statewide trainings. In 2024, certifications and recertifications were offered in-person.	Clemson Extension, Clemson University, SCDOT, SCDES	59
2024	ONLINE TRAINING: Clemson's Department of Pesticide Regulation provides training and certification for commercial, non-commercial, and private licensed applicators. Numbers of impacts represent those in the Tri-County receiving continued educational credits.	Clemson University, Clemson Extension	828
2024	ONLINE TRAINING: Carolina Yards Online Course was developed to assist and guide South Carolina homeowners in conserving water in the landscape and making positive changes in the environmental quality of their yards, neighborhoods, and surrounding waterways by implementing and maintaining low impact and low maintenance yard practices.	Clemson Extension	30
2024	ONLINE TRAINING: Dam Ownership in South Carolina Course is an on-demand online course to assist dam owners and/or operator with understanding the basic concepts to protect the integrity and benefit of dams.	Clemson Extension, SCDES, NRCS	35
2024	ONLINE TRAINING: South Carolina Certified Landscape Professional Course is an online, self-paced course designed to provide a basic working knowledge of sound horticultural and landscaping practices.	Clemson Extension	53
2024	ONLINE TRAINING: Salt Marsh Course is an on-demand online course that teaches about ecosystems, threats & stressors, flora & fauna, oysters, stewardship, and provides additional resources related to salt marshes.	Clemson Extension, SC DNR, SC Sea Grant, NOAA	175
2024	HYBRID TRAINING: Clemson provides training and certification through the Certified Erosion Prevention and Sediment Control Inspector (CEPSCI) program to assist in pollution prevention control on construction projects. Impacts reflect statewide trainings. In 2024, certifications and recertifications were offered as online and in-person formats.	Clemson University, Clemson Extension, SCDOT, SCDES	1,295
Fall 2024	HYBRID TRAINING: The Master Pond Manager (MPM) course teaches recreation and stormwater pond management training participants through online classroom and field-based curriculum; it was offered in the fall, with field days hosted in Clemson, SC on 10/23-24	Clemson Extension	47
2024	HYBRID TRAINING: Post Construction BMP Inspector; online and field-based training focused on inspection and maintenance of best management practices used for stormwater management.	Clemson University, Clemson Extension	99



# Public Education: Direct

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
2024	ONLINE TRAINING: Living Shorelines is an on-demand online course that shares how this is a powerful tool to proactively protect estuarine shorelines and prevent erosion along residential and commercial properties	Clemson Extension, Carolina Clear	75
2024	ONLINE TRAINING: Master Naturalist program aims to turn out volunteer citizen scientists who can positively impact the natural resources of the state	Clemson University, Clemson Extension	101
2024	ONLINE TRAINING: Be Well Informed is an on-demand online course that provides information for people relying on private drinking water wells including a basic introduction to groundwater, well components, well maintenance, and relevant water quality issues	Clemson Extension, Carolina Clear	115
2024	ONLINE TRAINING: Backyard Wildlife Habitat Short Course teaches participants the basic principles of creating and establishing a wildlife habitat in their own backyard; and covers topics that include the basic needs for your garden, food, shelter, water, and space requirements for attracting wildlife	Clemson Extension	345
4/25/2024 11/12/2024	TRAINING: SC Clean Marina Program (Includes product development e.g., informational brochure, flags, decals, certificates); This voluntary certification program recognizes marinas, boatyards, and yacht clubs for helping create a cleaner marine environment in South Carolina. The program's goal is to protect and improve local water quality by reducing pollution from marinas. Between both trainings 43 individuals were in attendance representing 16 Marinas.	Clemson Extension, SC DNR, SC Sea Grant, SCDES, Marina Industry Professionals	43
6/18/24	TRAINING: (Internal Damage Assessment Training) City training on the assessment and collection of post flooding event damage assessments and community engagement	City of Charleston, City of Charleston Floodplain Management	100
9/10/24	TRAINING: Pond Bottom Aeration Installation at Charleston County Public Works. Two new diffuser were installed in the front and near pond of the Charleston County Public Works Building located at Lonnie Hamilton III Public Services Building, 4045 Bridge View Drive, North Charleston 29405	Charleston County Public Works, Clemson Extension, The Lake Doctors Inc.	6
Fall 2024	HYBRID TRAINING: The Master Rain Gardener is an online and field based training focused on rain garden and rainwater harvesting system design and implementation; online classroom was held, with a field days in October in Mount Pleasant, SC	Clemson Extension	63
8/8/2024	WORKSHOP: "From Seeds to Shoreline" Veteran Teacher Workshop: A total of 18 participants of educators and partners. Event was held at Sewee Visitor and Environmental Education Center (Awendaw).	SC Sea Grant, SCDNR, Clemson Extension, College of Charleston	18
8/9/2024	WORKSHOP: "From Seeds to Shoreline" New Teacher Workshop: A total of 19 participants of educators and partners. Event was held at the SCDNR Marine Resources Division (Charleston).	SC Sea Grant, SCDNR, Clemson Extension, College of Charleston	19

# Public Involvement

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
2024	LITTER SWEEP: College Park Middle School WaterGoat Cleanups. College Park Middle School has conducted 13 cleanups and has collected 75.35lbs of trash.	Berkeley County School District, Keep Berkeley Beautiful, Caromi Volunteer Fire Department	1
2024	LITTER SWEEP: Berkeley County Stormwater Management Adopt-A-Landing: 34 Cleanups, 4 groups, 195 volunteers, removed over 3,735 lbs of trash from Berkeley County Boat Landings	Berkeley County Stormwater Management, Keep Berkeley Beautiful	195
2024	LITTER SWEEP: South Carolina Aquarium WaterGoat Cleanups. The Aquarium has conducted 8 cleanups, and has recovered 514 items in 2024. Plastic bottles, styrofoam, and some type of plastics making up 89% of the recovered items. SC Aquarium, Berkeley County School District, Keep Berkeley Beautiful, Caromi Volunteer Fire Department	Berkeley County Stormwater Management, SC Aquarium, Berkeley County School District, Keep Berkeley Beautiful, Caromi Volunteer Fire Department	18
Summer 2024	LITTER SWEEP: Karate School Summer Camp WaterGoat Cleanups. The Karate School Summer Camp has conducted various cleanups through the summer months.	Berkeley County Stormwater Management, Karate School, Berkeley County School District, Keep Berkeley Beautiful, Caromi Volunteer Fire Department	18
2024	LITTER SWEEP: Mini Community Litter Grant: Six \$100 Mini Community Litter Grants have been received and awarded (projects including litter cleanup supplies, and school recycling/beautification programs) Number reported is based on number of awards received	Keep Berkeley Beautiful, Berkeley County Stormwater Management	6
9/14/24	LITTER PREVENTION: Household Hazardous waste disposal event in Charleston County. Residents disposed of household hazardous waste to ensure that it is properly disposed of. Items included e-waste, chemicals, paints, etc. Location: Town Hall Mount Pleasant ( 100 Ann Edwards Lane)	Town of Mount Pleasant, Charleston County	276
2024	PERMANENT EXHIBIT: During Earth Day Celebration, the Town along with Heritage Landscape Services installed a pollinator garden on the Sawmill Branch Trail. 96 Facebook interactions ( <a href="https://www.facebook.com/share/p/1Eucreo3rV/">https://www.facebook.com/share/p/1Eucreo3rV/</a> )	Town of Summerville, Heritage Landscape Services	1

# Public Involvement

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
2024	LITTER SWEEP: Adopt - A - Highway (AAH) held 5 official litter cleanups throughout Charleston County. 104 volunteers participated, removing over 27,000 lbs. of trash over 210 miles of roads.	Charleston County Community Pride, Clemson Extension, SCDOT	104
2024	LITTER SWEEP: Town of Mount Pleasant were involved in various litter clean up events. Approximately 1,045 lbs. of litter was removed in 2024.	Town of Mount Pleasant	105
April 2024	LITTER SWEEP: During Earth Day Celebration, the Town conducted a litter clean-up at Jessen Public Boat Landing with The Summerville Rotary Club	Town of Summerville, The Rotary Club	1
2024	LITTER SWEEP: (Operation Neighborhood) Various neighborhood events throughout the year where the City, along with volunteers assist in the overall clean up of a neighborhood. Location: Westside Neighborhood, Stephen Washington Park	City of Charleston, Business and Neighborhood Services	150
2024	LITTER SWEEP: 755 volunteers removed 7 tons of marine debris from marshes at 51 litter sweeps.	Charleston Waterkeepers, Keep Charleston Beautiful, Keep North Charleston Beautiful, PalmettoPride, Surfrider, Adopt-A-Highway, SC Sea Grant, SCDNR, SC Aquarium	755
April 2024	VOLUNTEER WORKDAY: During Earth Day Celebration, the Town conducted a volunteer work day along the Sawmill Branch.	Town of Summerville	1
2/8/24 2/13/24	PUBLIC EVENT: Weston & Sampson conducted public engagements in the development of Dorchester County Greenbelt Plan. The material provided by the ACSEC watershed stewardship program. The materials were distributed at the "Conservation Station" alongside information on wildlife habitat/pollinator plantings. The events were held on February 8th in St George at the Rosenwald School with 20+ participants, and February 13th in Summerville at Alston Middle School with 35+ participants. The objective of the engagement sessions was to better understand existing conditions of Dorchester County as it relates to open space, and to determine conservation priorities based on community preferences, this included discussions surrounding floodplain management and water quality protection.	Weston & Sampson, Dorchester County Government, Dorchester County Conservation & Greenbelt Commission, Audubon SC	55



DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
2024	STORMDRAIN MARKING: Stormdrain marking event were conducted in West Ashley and Mount Pleasant using supplies provided by ACSEC.	Clemson Extension	15
2024	STORMDRAIN MARKING: Town of Mount Pleasant were involved in various storm drain marking events. Approximately 175 drains marked within town	Town of Mount Pleasant	12
2024	CERTIFICATION: Carolina Yards certified in SC: residents who meet CY principles for healthy, watershed-friendly, low-maintenance landscapes.	Clemson Extension	58
2024	ENVIROSCAPE: Enviroscope loner program: Watershed Model K-12 formal and nonformal educators are welcome to check out the Enviroscope model free-of-charge to impliment programming in their schools/classrooms. 3 Schools Participated with in SC	SC Sea Grant, Clemson Extension, Clemson 4-H	120
2024	WORKSHOP: Microplastics monitoring workshops include a virtual lecture and in-person field day training community scientists to collect, filter, and analyze water samples for microplastics counts, concentrations, types, and colors.	Charleston Waterkeepers, College of Charleston Dept of Geology	32
2024	WORKSHOP: Adopt-A-Stream workshops include a virtual lecture and in-person field day. The program trains community scientists to monitor general waterway health. Location: Mount Pleasant	Mount Pleasant Waterworks, Clemson Extension, SC DES, Clemson Center for Watershed Excellence	19
Summer 2024	WATER QUALITY MONITORING: Swim Alert: Volunteers help monitor recreational quality of local waterways to inform the public where it is safe to swim.	Charleston Waterkeepers, College of Charleston Department of Geology	1346
2024	WATER QUALITY MONITORING: Creek Watcher Program: This program engages community scientists in the monitoring of the health of their local waterways. Creek Watchers complete annual training to gain certification to conduct monthly tests of surface water chemistry at a designated site.	Charleston Waterkeepers	649
2024	MICROPLASTICS MONITORING: Community Science Microplastics Monitoring Program: This program engages community scientists in monthly monitoring of sites in their local waterways for microplastics counts, concentrations, types, and colors to help identify potential sources and distribution patterns.	Charleston Waterkeepers, College of Charleston Dept of Geology	176
June 2024	RAIN BARREL SALE: ACSEC, Clemson Extension, and Rainwater Solutions partnered to facilitate a rain barrel sale in the tri-county area. Two pick up days were offered in June 2024 at Gahagan Park in Summerville and at the Charleston County Government building in North Charleston. In 2024, 158 rain barrels were sold.	Clemson Extension, Rainwater Solutions, Town of Summerville, Charleston County	158

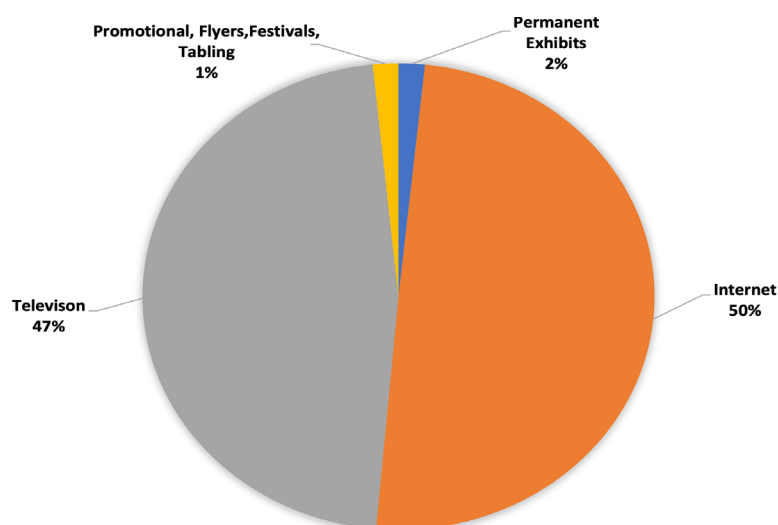
# Public Involvement

DATE	ACTIVITY DESCRIPTION	PARTNERS	NUMBER OF IMPACTS
12/6/24	PUBLIC EVENT: The Town and the Flowertown Garden Club hosted the annual Arbor Dat Ceremony and Treet Planting at Wassamassaw Community Park. The celebration concluded with the planting of a tree. Numbers based off Facebook interactions likes and shares.	Town of Summerville, Flowertown Garden Club	15
5/31/24	PUBLIC EVENT: Town of Mount Pleasant participated in an oyster reef build with SCDNR SCORE program and Moultrie Middle School. Students placed oyster bags along the Pitt St Bridge to add to the existing oyster reef.	Town of Mount Pleasant, SCDNR SCORE Program	75
2024	PUBLIC EVENT: SCDNR's SCORE Program implements various educational lessons with K-12 school groups. A total of 40 events related to education were implemented with a total of 458 students. The SCORE Program also gives education presentations to interested groups and 16 of these took place during this reporting period, educating a total of 925 people. Another outreach activity includes tabling at community vents. The SCORE Program participated in 5 tabling events and reached a potential audience of 4,690 people.	SCDNR SCORE Program	5,615
2024	PUBLIC EVENT: SCDNR's SCORE volunteer assist with multiple saltmarsh restoration stewardship activities. These include bagged oyster shell, fabricating and deploying manufactured wire reefs, constructing oyster reefs, monitoring oyster populations, smooth cordgrass seed collection, planting smooth cordgrass seeds, greenhouse maintenance, sorting trash from recycled shell, fish sampling, and planting smooth cordgrass on the shoreline. A total of 213 events took place during this reporting period with a total of 3,960 volunteers.	SCDNR SCORE Program, Charleston Waterkeeper, Coastal Conservation League, Sustainability Insitute, Casual Crabbing with Tia, SC Aquarium	3,960
June 2024	PUBLIC EVENT: 4H2O camp engages youth ages 9-12 in exploring the outdoor world and studying their local watershed. Students had the opportunity to engage in fun and educational water activities such as boat tours, salt marsh scavenger hunts, and more.	Clemson Extension, Charleston 4-H	5
February 2024	WORKSHOP: Rain Garden Maintenance Workshop provided educational information on how to maintain established rain gardens and rainwater harvesting systems.	Clemson Extension, Charleston County Parks Conservancy	21

# Outreach Summary

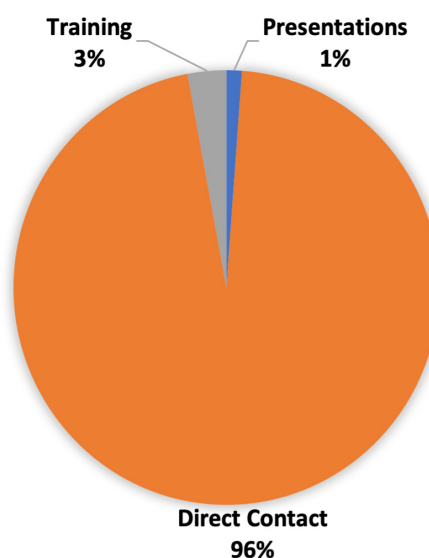
ACSEC program success is, in part, measured by outreach impacts that represent an estimate of individuals reached through direct and indirect education and involvement activities. **Total indirect impacts for the Year Sixteen reporting year total an estimated 3,083,437 individuals, and total direct impacts were estimated 119,591 individuals.**

## PUBLIC EDUCATION: INDIRECT



**INDIRECT METHODS SUMMARY,  
 TOTAL ESTIMATED IMPACTS: 3,083,437**

## PUBLIC EDUCATION: DIRECT



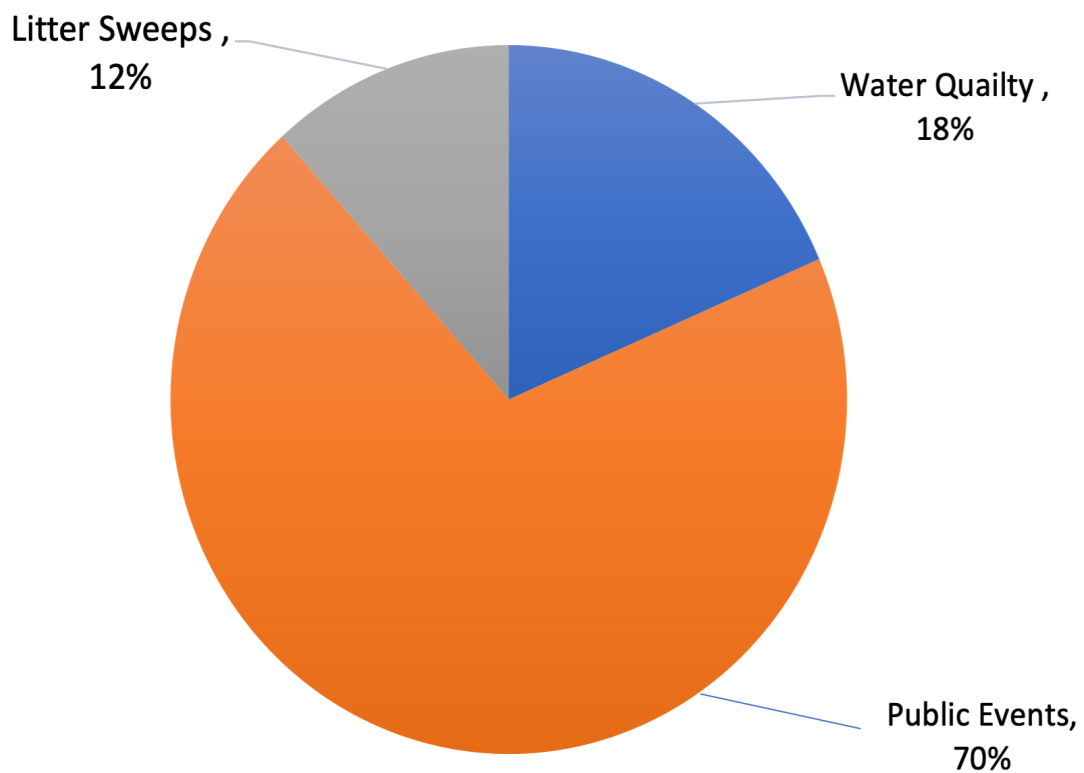
**DIRECT METHODS SUMMARY,  
 TOTAL ESTIMATED IMPACTS: 119,591**



Public Involvement is considered an activity that provided hands-on opportunities for target audiences to take part in stormwater management and pollution prevention. Public involvement opportunities include oyster reef construction, water quality monitoring, litter sweeps, storm drain marking, rain barrel sales, native plant sales, and youth involvement activities. Estimated impacts attributed to public involvement were 13,962 individuals.

**PUBLIC INVOLVEMENT SUMMARY,  
TOTAL ESTIMATED IMPACTS: 13,962**

## PUBLIC INVOLVEMENT



## ACSEC 2024-2029 Strategic Plan: Education Timelines

### Bacteria: Pet Waste

Objective	Audience	Year 1	Year 2	Year 3	Year 4	Year 5
Provide education and outreach on proper animal waste disposal in the Tri-County area	Individuals who dispose of animal waste		<b>Develop &amp; Implement</b> Presentation on proper pet waste disposal to include in workshops & trainings			
			<b>Develop &amp; Implement</b> Additional outreach materials including factsheets, blogs & online resources			
			<b>Implement</b> Continued distribution of educational outreach materials (tabling events, vet offices, or pet stores)			<b>Evaluate</b>
			<b>Implement</b> Continued collaboration with other Clemson Extension groups			
				<b>Develop &amp; Implement</b> New educational signage at pet waste stations for parks		

### Bacteria: Septic Tank Management

Objective	Audience	Year 1	Year 2	Year 3	Year 4	Year 5
Increase the number of residence with septic tank systems who are working with a professional to perform annual inspections	Septic users including renters, new residence, and existing residence		<b>Develop &amp; Implement</b> Septic presentations, workshops, tabling events, and webinars			
			<b>Develop &amp; Implement</b> Publications with annual reminder			
				<b>Develop &amp; Implement</b> Additional outreach materials including online resources, videos, signage & welcome packets		<b>Evaluate</b>
			<b>Implement</b> Continued distribution of educational outreach materials			
				<b>Develop &amp; Implement</b> Financial incentives programs information		

## ACSEC 2024-2029 Strategic Plan: Education Timelines

### Litter: Proper Trash Disposal

Objective	Audience	Year 1	Year 2	Year 3	Year 4	Year 5
Provide education and outreach on best management practices and benefits of proper waste reduction and disposal in private residents in the Tri-County area	All citizens residential and in transit	<b>Develop</b> Outreach material, including online resources, and cleanups in high problem areas				
		<b>Implement</b> Distribution of rack cards and other outreach material				
		<b>Develop &amp; Implement</b> Signage for neighborhood welcome centers, HOA/POA Groups, and council groups				
		<b>Develop &amp; Implement</b> Litter messaging for current and new residents in neighborhood-related events, workshops and presentations				
						<b>Evaluate</b>

### Litter: Storm Drains

Objective	Audience	Year 1	Year 2	Year 3	Year 4	Year 5
Provide education and outreach on best management practices and benefits of proper waste reduction and disposal near and around storm drains in the Tri-County area	All Citizens who live near and around storm drains	Develop Outreach material, including online resources, and cleanups in high problem areas				
		Develop Outreach material for local restaurants and landscaping companies				
		Implement Working with community groups, girl/boy scout groups, and local residents who would like to adopt storm drains throughout the community				
		Develop Online resources including list of contractors, tips for inspection, etc.				
		Implement Participation in litter clean-ups, tarp-it campaigns, storm drain marking, and other outreach events				



## ACSEC 2024-2029 Strategic Plan: Education Timelines

### Nutrients: Pond Wildlife

Objective	Audience	Year 1	Year 2	Year 3	Year 4	Year 5
Provide education and outreach related to nuisance wildlife in stormwater pond in the Tri-County area	Residents new and existing who are feeding wildlife in or around stormwater ponds	<b>Develop</b> Outreach material, including online resources, publications, and educational signage				
		<b>Implement</b> Seasonal distribution of material and resources				
		<b>Implement</b> Shoreline planting workshops to reduce number of geese in problem areas and improve water quality				<b>Evaluate</b>
		<b>Implement</b> Workshop with messaging of "Avoid feeding pond wildlife"				
		<b>Develop</b> Content to increase awareness on the importance of limiting wildlife interactions				

### Nutrients: Soil Sampling

Objective	Audience	Year 1	Year 2	Year 3	Year 4	Year 5
Provide education and outreach on lawncare practices as it relates to soil samples and fertilizer use within the Tri-County area	Landscape Companies and residents in charge of landscaping needs	<b>Implement</b> Continued distribution of outreach material (HGIC factsheets, rack cards) at tabling events and programs				
		<b>Develop &amp; Implement</b> Soil sampling advertisement from Clemson Extension, including interpretation assistance, for landscaping companies & plant nurseries				
		<b>Implement</b> Soil sample and lawn care information in presentations and workshops for residential audiences				<b>Evaluate</b>
		<b>Develop</b> Professional training and resources (Green Industry Training with LID Management Practices and existing Clemson Extension programs)				
		<b>Develop &amp; Implement</b> "We Soil Test" seals or branding				

## AUTHORS

### SAMANTHA PORZELT

ACSEC Coordinator

Water Resources Agent

Clemson University Cooperative Extension Service

259 Meeting Street, Charleston, SC

843-730-5208

sporzel@clemson.edu

### BEATRISS CALHOUN

ACSEC Coordinator

Water Resources Agent

Clemson University Cooperative Extension Service

259 Meeting Street, Charleston, SC

843-729-4523

beatis@clemson.edu

## SPECIAL THANKS TO THE FOLLOWING DATA CONTRIBUTORS:

Susan Lunt, Claire O'Loughlin, Alford Gary, Bonnie Miley, Christine Von Kolnitz, Tammy Lark Lognion, Robin Stone, Terasa Lott, Donna Bowen, Steven O'Shields, Jeremy Pike, Mallory Maher, Catherine Watts, Kim Morganello, Cheryl Carmack, Morgan Treon, Michael Hodges, Kelly Lambert, Guinn Wallover, April Turner, Robin Kidd, Katie McKain, Madison Parker, Brooke Saari, Marlo Shedlock, Olivia Greenslit, Lucy Davis, Ellen Comeau, Gary N. Alford, Michael Hardwick, Brian Bohannon

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## NOTES:






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