

Stormwater Outreach Strategic Plan: 2019-2023





NOV 2019







Executive Summary

The Lowcountry Stormwater Partners consortium's (LSP) purpose is to coordinate and implement a regional, watershed-scale education strategy. This strategy is focused on preventing stormwater pollution through education and community involvement. The LSP assists communities in addressing the US Environmental Protection Agency (EPA) Phase II Municipal Separate Stormwater Sewer System (SMS4) general permit, which mandates public education and involvement regarding stormwater runoff. The strategic plan will guide the consortium's efforts and maximize program partnerships and resources. The LSP 2019-2023 Strategic Plan is the result of more than six months of meetings and analysis. This document provides a blueprint for education strategies focused on target pollutants and behaviors. This strategic plan is considered a "living" document to allow for refinement, supplementation, and flexibility as regional efforts evolve over the next five years.

The objective of this document is to accomplish the following objectives:

- 1. Prioritize three issues identified as most significant to the region over a five year time span from July 1, 2019 to June 30, 2023.
- 2. Provide information on education strategies related to the priority issues.
- 3. Develop timelines and identify evaluation methods to guide and measure effectiveness.

The consortium developed the priority issues with LSP representative input, which took into account available data and personal experience. The priority issues for the LSP region are shown in the table below:

| POLLUTANT OF CONCERN | TARGET BEHAVIOR |
|----------------------|---|
| BACTERIA | Increase the number of pet owners who properly dispose of pet waste while on walks. Increase homeowners' awareness of their septic tanks' locations as well as the signs and causes of a failing septic tank. Increase the number of boatowners who use a waste disposal product in their buckets. |
| NUTRIENTS | Reduce the amount of ponds that are mowed to the water's edge and increase the amount of ponds with buffer vegetation. Increase the number of property owners who take a soil sample before applying fertilizers. Increase the amount of homeowners who replant buffers to maximize aesthetic preferences while still protecting waterbodies. |
| FRESH WATER | Increase the number of citizens who are aware of and engaged in reporting muddy streets and broken silt fences. Increase design professionals' understanding of low impact development (LID) options so that they can promote it to developers. Increase the adoption of rain gardens, rain barrels, rain chains, and pervious pavers. |

^{*}The priority issues identified do not exclude other awareness and education efforts. The priority issues will form the core of efforts by consortium coordinators over the five-year period.



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Community Partners

All of the designated Small Municipal Separate Storm Sewer Systems (SMS4) communities and the majority of the non-designated communities in the Hilton Head Urbanized Area are committed to the LSP regional collaboration effort. These communities are represented by a dedicated group of public servants who, for many years, actively engaged in building the partnership and continue to do so.













Education Partners

Collaboration is integral in developing and delivering a successful watershed-scale outreach program that reaches diverse audiences. The LSP is fortunate to have a variety of organizations operating within Beaufort County that joined the effort. Education partners include universities, state and local government agencies, and non-profits. Each brings unique expertise, resources, ideas, and programs to the LSP. The LSP fosters communication among organizations to promote the creation and enhancement of cooperative effort programs.



































LEAGUE



















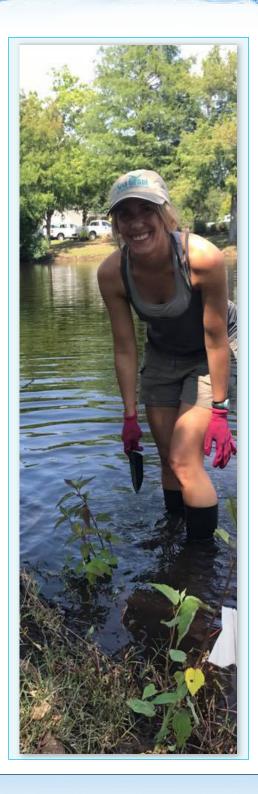
Mission and Goals

LSP MISSION STATEMENT

To protect and restore healthy, productive Lowcountry waterways by engaging citizens in stormwater education and public involvement opportunities through a network of partnerships with local governments, organizations, and businesses.

PROGRAM GOALS

- Help the Lowcountry Stormwater Partners' local SMS4s meet and stay compliant with the NPDES Phase II Stormwater Program permit requirements for MCM1 (public education and outreach) and MCM 2 (public involvement) by providing local resources and services.
- Leverage the Lowcountry Stormwater Partners network of partners to maximize the efficiency of stormwater education and involvement efforts using a regional approach.
- Develop and implement targeted outreach programs that address primary stormwater pollutants of concern.
- Encourage positive behavioral changes in support of environmental protection and awareness through stormwater education.
- Foster and expand upon citizen involvement in stormwater management through education and participation in programs.
- Facilitate collaboration among local organizations interested in watershed-related education in order to best meet the needs of local communities.





The development of the LSP 2019-2023 Stormwater Outreach Strategic Plan included the identification of the following during a multi-day planning period from June 2019 - November 2019:

- Pollutants of concern (POC) for the region-wide watershed area
- POC to be targeted through education and involvement strategies
- · Actions that may contribute to POC (e.g., Illegal dumping in storm drain) and its associated target audience
- Desired behavior change in target audience to address the POC (e.g., Residents bring reusable shopping bags to grocery store)
- Barrier-benefit analysis for each education message to assess:
 - Barriers to behavior adoption by target audience
 - Benefits or motivators for the audience to adopt the behavior
- · Goals and objectives of education strategy for each education message
- Education strategies that included resource and/or program development, delivery, and evaluation
- Implementation timelines for the identified education strategies

The consortium identified pollutants of concern through the analysis of the 2014 public survey data, consortium community and education partner feedback, consortium-wide discussion, synthesis of 2016-2018 education and outreach programs, case studies of public feedback, and the 2016 303(d) listed water quality impairments.

Pre-Meeting Questionnaire

Prior to the July 23, 2019 meeting, the LSP community and education partners completed a pre-meeting questionnaire to identify a list of pollutants of concern. The questionnaire asked consortium partners to identify the top three stormwater pollution concerns for their community or organization. Partner responses included

- Bacteria
- Litter
- Post-construction BMP maintenance
- Nutrients
- Dumpsters
- Nitrates
- Phosphates
- Copper

- Dissolved oxygen
- Fresh water
- Turbidity
- Plastics
- Cigarette butts
- Stormwater ponds
- Microplastics
- Lead



July 23, 2019 Meeting

During the July 23, 2019 meeting, partners worked collaboratively through a series of interactive polling, breakout groups, and large discussion activities to identify region-wide POCs, target audiences, and desired behavior change.

Prioritization of region-wide POC for LSP consortium area

Using flipcharts and color-coded stickers, consortium partners independently identified their top three POC from a list generated by the questionnaire. This process identified **bacteria**, **nutrients**, **and fresh water** as the pollutants of concern to focus on through the five-year education strategies. Partners then discussed results and considerations to be made in prioritization.

• Identification of actions that contribute to target POCs

Partners worked independently to list actions, and the associated audiences, that contribute to the target POCs. There were numerous responses, but common themes emerged. As a larger group, the partners identified the following contributing actions to be addressed through the LSP 2019-2023 Stormwater Outreach Strategic Plan.

| POLLUTANT OF CONCERN | CONTRIBUTING ACTION |
|----------------------|---|
| BACTERIA | PET OWNERS NOT PICKING UP AFTER THEIR PETS ON WALKS RESIDENTS NOT MAINTAINING THEIR SEPTIC TANKS BOATERS IMPROPERLY DISPOSING OF THEIR BIOLOGICAL WASTE |
| NUTRIENTS | POORLY MAINTAINED STORMWATER PONDS PROPERTY OWNERS' EXCESSIVE OR UNNECESSARY USE OF FERTILIZERS HOMEOWNERS DISTURBING EXISTING NATURAL BUFFERS |
| FRESH WATER | IMPROPER SEDIMENT AND EROSION CONTROL METHODS ON CONSTRCTION SITES LARGE AREAS OF IMPERVIOUS SURFACES AND GRAY INFRASTRUCTURE SMALL LOTS NOT HAVING THE AREA NEEDED TO INFILTRATE THEIR STORMWATER RUNOFF |



· Identification of target audience and behavior

As a large group, partners discussed target audiences and the ultimate goal in behavior adoption for each contributing action. From this, the partners drafted target behaviors that then laid the foundation for education strategies and messaging. The tables below summarize these target behaviors and audiences.

Bacteria

| CONTRIBUTING ACTION | TARGET AUDIENCE | TARGET BEHAVIOR |
|--|---|--|
| Pet owners not picking up after their pets on walks | Pet owners | Increase the number of pet owners who properly dispose of pet waste while walking. |
| Residents not maintaining their septic tanks | Homeowners with a septic tank system | Increase homeowners' awareness of their tanks' location and the signs/causes of a failing septic tank. |
| Boaters improperly disposing of their biological waste | Private owners of small, recreational crafts (25ft or less) | Increase the number of boatowners who use a waste disposal product in their buckets. |

Nutrients

| CONTRIBUTING ACTION | TARGET AUDIENCE | TARGET BEHAVIOR |
|---|------------------------------|---|
| Poorly maintained stormwater ponds | HOA/POA pond committees | Reduce the amount of ponds that are mowed to the water's edge and increase those with buffer zones. |
| Property owners' excessive or unneccessary use of fertilizers | Property owners | Increase the number of property owners who take a soil sample before fertilizing. |
| Homeowners disturbing natural buffers | Homeowners adjacent to water | Increase the amount of homeowners who replant buffers. |

Fresh Water

| CONTRIBUTING ACTION | TARGET AUDIENCE | TARGET BEHAVIOR |
|---|---|---|
| Improper sediment and erosion control methods on construction sites | Motorists who pass by construction sites | Increase the number of citizens who are aware of and engaged in reporting muddy streets and broken silt fences. |
| Large areas of impervious surfaces and gray infrastructure | Design professionals | Increase design professionals' understanding of LID so they can promote it to developers. |
| Small lots not having the area needed to infiltrate their stormwater runoff | Individual lot owners who do not have an existing BMP on their property | Increase the adoption of rain gardens, rain chains, rain barrels, and pervious pavers. |



Post-Meeting Survey

After the July 23, 2019 meeting, all consortium partners recieved a follow-up survey. The survey summarized the prioritized POCs, contributing actions, target audiences, and target behaviors. It then asked consortium members to brainstorm potential five-year education strategies for each target behavior. Education strategies included goals and objectives to achieve, programming opportunities to leverage, existing resources to support, and evaluation tools. These responses were used to create a draft of the 2019-2023 LSP Stormwater Outreach Strategic Plan.

August 20, 2019 Meeting

During the August 20, 2019 meeting, partners reviewed the post-survey meeting data and expanded upon it to finalize the five-year education strategies. Partners also reviewed and finalized the timelines for program implementation for each target behavior. The partners achieved this through a large group-discussion where draft versions of the education strategies and timelines were projected onto a screen and edited in real time. After a thorough discussion of all the educational strategies and timelines, the consortium partners received an edited version of the draft 2019-2023 LSP Stormwater Outreach Strategic Plan. This draft was open for comments and further edits until September 20, 2019. After September 20, 2019, the consortium finalized the five-year education strategies and timelines. The education strategies and five-year timelines are summarized on page 8-25.





Education Strategy and Timeline: Bacteria

Bacteria is the most frequently listed impairment in South Carolina waterways, threatening recreational, drinking, tourism, and shellfish harvesting uses. Sources of bacteria can be varied; to address bacteria in the LSP region of focus, pet waste disposal, septic tank management, and boater waste disposal will be targeted through the LSP's five-year strategic plan. The following education strategies and timelines provide a framework to address this priority pollutant.

EDUCATION STRATEGY: PET WASTE

Target Audience: Pet owners

Contributing action: While a majority of residents are aware that improperly disposed pet waste can impact water quality, some still do not pick up after their pets.

Goal: Increase the number of pet owners who are properly disposing of pet waste in the trash or sanitary sewer.

Objective: Increase the number of pet owners who properly dispose of pet waste while on walks.

Format and Distribution Resources **Evaluation** Message "60% of pet owners pick Mass-media campaign Veterinary clinics, Primary: up after their pet. Do you? (billboard, television animal shelters, Number of pet owners Don't forget to bring your dog groomers, dog who self report that commercial, county bag for pet waste and channel tickers/comday care/boarding they pick up after then dispose of it mercials) facilities, pet supply their pet on walks (via properly." Online dog bag station statewide survey and stores County and city parks pledge data) Signage at public and staff parks and spaces HOAs and POAs Secondary: Annual "small-grants" Number of dog bag Partner dog bag program to install dog station programs dispenser stations bag stations on private • Online mapping requested, installed, and maintained property (i.e., HOAs) resources Dog bag leash holders through partner Small PSAs on how programs and the much waste a dog pro-"small-grants" duces, how many dogs program are in the county, and Number of dog waste how much pet waste is bags distributed Viewership of the produced over time online dog bag station Pet waste pledge

| Year 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|-----------|---------------------|-------------|-----------|---------------|--|------------------|------------------|---------------------|----------------------|----------------------|------------------------------|-------------|--------------|----------------------|------------|------------------|--------------|--------------------|--------------------|------------------|------------------|--------|-------------|-----------|------------------|-------------|-----------|------------------|-------------|-------------|-----------|---------------------|------------------------|
| Year 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | Develop and | Implement | Online pet waste | station map | Develop and | Implement | Small-grant program | for pet waste stations |
| Year 2 | | | | | | | | | | | | | Develop and | Implement | Dog bag leash-holder | giveaways | Develop and | Implement | Signs at local pet | waste station, dog | parks, and other | public parks and | spaces | Develop and | Implement | Pet waste pledge | | | | | | | | |
| Year 1 | Implement | Mass media campaign | Develop and | Implement | Sillatt F 3As | (infographics, videos, etc.) on how many | dogs live in the | county, how much | waste they product, | how much total waste | is produced, and the | effects on water quality. | | | | | | | | | | | | | | | | | | | | | | |
| Audience | | | | | | | | | | | | | | | sue | u۸ | ۸Ο | ĵΘζ | j | | | | | | | | | | | | | | | |
| Target Behavior | | | | | | | | | | | | | | Increase the | number of pet | owners who | properly dispose | of pet waste | while on walks. | | | | | | | | | | | | | | | |



Education Strategy and Timeline: Bacteria

EDUCATION STRATEGY: SEPTIC TANK MANAGEMENT

Target Audience: Homeowners with a septic tank system

Contributing action: Residents are not maintaining septic tank systems and may be contributing to bacteria pollution to the storm drain system and nearby waterbodies.

Goal: Increase the number of residents using SCDHEC-recognized best management practices to maintain septic tank systems.

Objective: Increase homeowners' awareness of their tanks' location as well as the signs and causes of a failing septic tank

| Message | Format and Distribution | Resources | Evaluation |
|---|---|--|---|
| "Do your part, be septic smart! Know where your tank is and the subtle signs of failure." | E-newsletter with automatic annual reminder to home owners Neighborhood stepstake sign campaigns "Welcome to the Neighborhood" packets mailed or distributed to new owners Informational brochures (bilingual) Online resources Mass-media efforts (television, internet) Trainings and workshops by LSP and DHEC (minimum 3) | Realtors/Real estate companies Beaufort Jasper Comprehensive Health Services Volunteer Clinics through Beaufort Memorial Hospital DHEC permitting program EPA Post office new homeowner list Utility septic and sanitary system mapping from SCDHEC and BJSWA HOAs and POAs Septic tank inspection/pump out contractors County and city planning/permitting departments | Primary: Number of contractor-reported septic tank inspections and pump outs Secondary: Number of residents participating in "annual inspection reminder" newsletter campaign Number of neighborhood packets distributed Number of unique views for website online resources |

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|-----------------|-------------|---------|-----------|---------------------|--|-------------|-----------|-----------|---------------|-----------|-------------|------------|------------------|-------------|---------------------|------------------|----------------------|------------------|---------------|-------------------|-----------------|----------------------|-----------------|---------------|-----------------------|-------------|-----------|--------------------|---------------------|-------------|-----------|---------------|--------------------|----|
| Year 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 3 | Develor and | pin do: | Implement | Mass media campaign | ייניים איים איים איים איים איים איים איי | | | | | | | | | | | | | | | | Develop and | Implement | "Welcome to the | Neighborhood" | informational packets | Develop and | Implement | Neighborhood step- | stake sign campaign | Develop and | Implement | Trainings and | workshops (Minimum | 3) |
| Year 2 | | | | | - | Develop and | Implement | Bilingual | informational | brochures | Develop and | Implement | Online resources | Develop and | Implement | E-powelotterwith | ב-וופא אופרופו אורוו | automatic annual | reminders for | homeowners | | | | | | | | | | | | | | |
| Year 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Audience | | | | | | | | | | ι | uə: | sks | ; уі | tar | Эİ | ŋd: | əs | g | ЧĴ | ļM | SLS | u۸ | ۸Οξ | ew | oų | MƏ | N | | | | | | | |
| Target Behavior | | | | | | | | | | | | | | | Objective: Increase | Windre' | אושוא | ss of their | cation as | well as the signs | and causes of a | otic tank. | | | | | | | | | | | | |
| Target B | | | | | | | | | | | | | | | | | | | _ | | | failing septic tank. | | | | | | | | | | | | |
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Education Strategy and Timeline: Bacteria

EDUCATION STRATEGY: BOATER WASTE MANAGEMENT

Target Audience: Private owners of small, recreational crafts (25ft or less)

Contributing action: Boaters are improperly disposing of their biological waste and may be contributing to bacteria pollution in waterways.

Goal: Increase the number of boatowners who are properly disposing of their waste in the trash or sanitary

| Message | Format and Distribution | Resources | Evaluation |
|---|---|--|---|
| "When you use the bucket, don't chuck it! The tides take two weeks to flush your waste, so use a bag or similar product to keep you and our waterbodies healthy." | Waste bag distribution at marinas/dock (complimentary? sale? grants?) Trash facilities at marinas/docks Informational packet/ brochures Adopt-A-Landing Bucket + Bag give- aways Booths at fishing tourneys Signs at recreation outfitters Online bag/trash/ bathroom station map Create boater waste website | SC DNR's boater's program (and registration) Coast Guard Marinas/docks Boat dealers Outfitters/guides/charters County litter and police boats Port Royal Sound Foundation Clean Vessel and Clean Marina programs (SC DNR) | Primary: Number of waste bags and buckets requested and distributed Secondary: Viewership of the online bag station map Unique views of boater waste website |

Online bag and trash marinas and docks Trash facilities at Adopt-A-Landing Develop and Develop and **Develop and** station map Implement Implement Implement Waste bag distribution Informational packets Signage and booth Online resources Bucket and bag **Develop and Develop and** Develop and **Develop and Develop and** Implement Implement Implement Implement Implement giveaways materials **Farget Behavior Audience** Private owners of small, recreational crafts (25ft or less) boatowners who disposal product in their buckets Increase the use a waste number of BOATER WASTE MANAGEMENT



Education Strategy and Timeline: Nutrients

The LSP identified Improper nutrient management as a leading threat to water quality in the LSP region of focus. Excess nutrients in waterways contribute to dissolved oxygen issues, nuisance aquatic plants and algal blooms, and degraded ecosystem health. To address this, pond maintenance, fertilizer application, and buffers will be a focus through the LSP's five-year strategic plan. The following education strategies and timelines provide a framework to address this priority pollutant.

EDUCATION STRATEGY: STORMWATER POND MAINTENANCE

Target Audience: HOA/POA pond committees

Contributing Action: Poorly maintained stormwater ponds can transform from nutrients sinks into nutrient sources if improperly maintained.

Goal: Increase awareness of proper stormwater pond maintenance.

Objective: Reduce the amount of ponds that are mowed to the water's edge and increase the amount of ponds with buffer zones.

| Message | Format and Distribution | Resources | Evaluation |
|--|--|--|---|
| "Healthy ponds make for healthy communities. Protect your pond's health by planting in and around your pond and not mowing to the water's edge." | 2019, 2021, and 2023 Beaufort Area Stormwater Pond Conference Clemson Extension Pond Management website and sticker Healthy Ponds Series Healthy Ponds Workshops Informational brochures Direct mailing to HOA/ POA pond committees about pond trainings Master Pond Manager program Mass-media campaign (billboard, television commercial) | Master Pond Manager SC DNR SC SeaGrant Consortium HOA/POA Pond management companies City/Town/County contacts | Primary: Number of workshops and trainings where specific message was addressed (minimum 12) Number of attendees in pertinent workshops and trainings Website hits Participant feedback and intention to utilize information gained from workshops |

STORMWATER POND MAINTENANCE

| Year 5 | Develop and | Implement | 2023 Beaufort Area | Stormwater Pond | Conference | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|-------------|-----------|--------------------|-----------------|------------|-----------|--------------|--------------------|-----|-----------|----------------------|-------------|-----------|---------------------|---------------|-------------|-----------|-----------------------|----------------|-----------|---------------------|-----------|-------------------|-----------------|---------------------|-------------------|-----------|---------------|-----------|
| Year 4 | | | 20 | S | | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 3 | Develop and | Implement | 2021 Beaufort Area | Stormwater Pond | Conference | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 2 | | | | | | | | | | Implement | Healthy Ponds Series | (Minimum 4) | | | | Develop and | Implement | Direct mailings about | pond trainings | | | | | | | Develop and | Implement | Informational | brochures |
| Year 1 | Develop and | Implement | 2019 Beaufort Area | Stormwater Pond | Conference | Implement | Healthy Pond | Workshops (Minimum | 2) | | | | Implement | Master Pond Manager | program | | | | | Implement | Mass-media campaign | Implement | Clemson Extension | Pond Management | website and sticker | | | | |
| Audience | əse | res | Эui | ı p | ่ ฮม | æ | рə | | | | | | | ∋wc Jiw | | | | | | | - ج عا | | ıun | ow | ક છા | ⊔ 9 Ų ⊋ | əɔ | np | ЭЯ |
| Target Behavior | | | | | | | | | | | | | | Paga AOd/ AOH | מווסקאט יאסוו | committees | | | | | | | | | | | | | |
| | | | | | | _ | ורו | \ I\ - | /ki | _ | . NI | ₩ | AI | ΔN | 10 | | | | . | 14 | /\I | <u> </u> | <u> </u> | | | | | | |



Education Strategy and Timeline: Nutrients

EDUCATION STRATEGY: SOIL SAMPLING

Target Audience: Property owners

Contributing Action: Unnecessary use of fertilizers can lead to water quality degradation as excess nutrients enter water bodies.

Goal: Increase awareness and use of soil testing.

Objective: Increase the number of property owners who take a soil sample before applying fertilizers.

Message

"Don't guess, soil test! A soil analysis will prescribe exactly what your yard needs, saving you time and money."

Format and Distribution

- Placards/bracket at fertilizer retailers informing customers of proper use.
- Soil sample drives (with giveaway)
- Mailers to local landscape companies
- Mailers to HOAs
- Include soil sample bags at festivals, specific nurseries, "Ask a Master Gardener" event, etc.
- Trainings and workshops specific to professional and residential audiences (i.e., Carolina Yards)
- Info packets on where to drop off samples/ how to mail in
- With all info, dovetail the directive of not fertilizing until May/ June
- Provide soil sample bags at commercial locations

Resources

- Clemson University Ag Services LabClemson Extension
- Carolina Yards
- Area nurseries
- Master Gardener
 program
- Farmers Markets
- Soil sample pocket guide
- Green Industry Training
- Workshops, educational programs and trainings provided by educational partners.
- Demonstration gardens
- Testimonials

Evaluation

Primary:

- Number of soil samples per county on an annual basis
- Number of soil sample drop-off locations
- Number of workshops and trainings where specific message was addressed (minimum
- Number of attendees in pertinent workshops and trainings
- Website hits

| Year 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|-----------|---------------|--------------------|----|-------------|-----------|------------|-------------------|--------------------|-------------------|----------------------|---------------------|-------------|--------------|-----------------------|---------------------|-----------------------|---------------------|-----------------|--------|-------------|-----------|------------------------|-----------|-------------|-----------|--------------|----------|-------------|-----------|---------------------|----------------------|-------------|-----------|--------------------|
| Year 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 3 | | | | | | | | | | | | | | | | | | | | | Develop and | Implement | Placards at fertilizer | retailers | | | | | Develop and | Implement | Soil sample bags at | commercial locations | Develop and | Implement | Soil sample drives |
| Year 2 | | | | | Develop and | Implement | Mailers to | HUAS/ tandscaping | companies and into | packets with soil | sample instructions, | drop-off locations. | and mail-in | instructions | | | | | | | | | | | Develop and | Implement | Social media | campaign | | | | | | | |
| Year 1 | Implement | Trainings and | Workshops (Minimum | 5) | | | | | | | | | | | Implement | Soil sample bags at | festivals, nurseries. | farmers markets and | Master Gardener | events | | | | | | | | | | | | | | | |
| Audience | | | | | | | | | | | | | | | s. | əι | | | | do. | ηq | | | | 1 | | | | | | | | | | |
| Target Behavior | | | | | | | | | | | | | | | Z Increase the | number of | מכ | | | | | | | | | | | | | | | | | | |



Education Strategy and Timeline: Nutrients

EDUCATION STRATEGY: BUFFERS

Target Audience: Homeowners adjacent to water.

Contributing Action: New homeowners who disturb the existing natural buffers may contribute to water quality degradation as excess sediments and nutrients leech into nearby waterbodies.

Goal: Increase homeowners' understanding of the importance and effect of buffers on water quality.

Objective: Increase the amount of homeowners who replant buffers to maximize aesthetic preferences while still protecting waterbodies.

| Message | Format and Distribution | Resources | Evaluation |
|--|--|--|---|
| "Healthy buffers beautify and protect both your property and our waterbodies! Protect and enhance your view by planting along the water's edge." | Pre-made buffer designs and plant lists Direct mail campaign Signage where plants are sold to highlight regionally appropriate plants Promotional seed packets Trainings and workshops specific to professional and residential audiences Current buffer information and contacts Welcome to the neighborhood resource package | Realtors Landscaping companies City/Town/County Staff Clemson Extension Carolina Yards Area nurseries Master Gardener program Farmers Markets Backyard Buffer brochure Demonstration gardens HGIC Salt marsh buffer factsheet Code enforcement/Zoning/Planning departments | Primary: Number of workshops and trainings where specific message was addressed (minimum 5) Number of attendees in pertinent workshops and trainings Secondary: Number of seed packets distributed |

| Year 5 | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|--|----|-------------|-----------|--------------|-----------|------------------|---------|--------------|-----------|-----------------------|--------------------------------|-------------|-------------------|--------------------------------|------------------|-------------|-----------|----------------|-----------------------|--------------|-------------|-----------|-----------------|---------------------------------|---------------|
| Year 4 | | | Develop and | Implement | Mallers | | | | | | | | | | | | | | | | | | | | | |
| Year 3 | | | | | Day dolayard | Implement | Promotional seed | packets | Develop and | Implement | List of retailers for | native plants and signage |)) | | | | | | | | | | | | | |
| Year 2 | | | | | | | | | | | | | Develop and | Implement | Welcome to the | resource package | Develop and | Implement | Current buffer | ordinance information | and contacts | Develop and | Implement | Pre-made buffer | designs (with cost information) | וווסוווארוסוו |
| Year 1 | Implement Trainings and Workshops (Minimum | 5) | | | | | | | | | | | | | | | | | | | | | | | | |
| Audience | | | | | | | ٠ | эдг | 2M | το: | цэ | osįb | เร ช | əu, | M0Ə | шоן | Н | | | | | | | | | |
| Target Behavior Audience | | | | | | | | | Increase the | amonnt of | homeowners who | replant burrers to maximize | aesthetic | preferences while | still protecting water hodies. | | | | | | | | | | | |
| | | | | | | | | | | | | | | _ | | | | | | | | | | | | _ |



Education Strategy and Timeline: Fresh Water

LSP consortium partners identified fresh water as a major threat to the LSP region of focus for two reasons. First, the majority of local waterbodies are naturally high in salinity. Stormwater runoff from impervious surfaces transports large amounts of fresh water into this saltwater environment in a very short amount of time. This causes a drop in salinity that can negatively impact the health of ecologically and econominally important species, such as oysters. Second, stormwater runoff is known as the main vehicle through which most other non-point pollution enters waterbodies. Limiting the volume of runoff entering waterbodies reduces the amount of pollution entering the system. To address these concerns, the LSP's five-year strategic plan will focus on proper sediment and erosion control methods on construction sites, low impact development (LID), and residential best management practices (BMPs). The following education strategies and timelines provide a framework to address this priority pollutant.

EDUCATION STRATEGY: CONSTRUCTION SITES

Target Audience: Motorists who pass by construction sites.

Contributing action: Improper sediment and erosion control methods on construction sites can lead to the degradation of water quality by increasing sediment loads, blocking infrastructure, causing localized flooding and increasing the amount of freshwater infiltrating into saltwater areas.

Goal: Increase the amount of construction sites compliant with sediment and erosion control practices.

Objective: Increase the number of citizens who are aware and engaged in reporting muddy streets and broken silt fences.

| Message | Format and Distribution | Resources | Evaluation |
|--|--|---|--|
| "Keep our water clean and clear! Report muddy streets and broken silt fences to your local stormwater department." | Mass-media campaign (billboard, television commercial) Tables at festivals Social media campaign Brochure/doorhangers Training for contractors | CEPSCI BC Connect See Click Fix Phone numbers for County and city staff Homebuilders associations Keep America Beautiful affiliates Adopt-A-Highway Silt Fence and Beyond Adams Outdoor for regional billboard | Primary: • Number of construction sites reported Secondary: • Number of citations issued |

| | | | | | | | | | | | | | | | | _ |
|---------------------------------|-------------|-----------|---------------------|--|--------------|--------------|------------------|-------------|-----------------|-----------------|-------------|-------------|-----------|---------------|----------------------|----------|
| Year 5 | | | | | | | | | | | | | | | | |
| Year 4 | Develop and | Implement | Mass-media campaign | | | | | Develop and | Implement | Brochures/ | doorhangers | | | | | |
| Year 3 | | | | Develop and | Implement | Social media | campaign | | | | | | | | unu | |
| Year 2 | | | | | | | | | | | | Develop and | Implement | Trainings for | contractors (Minimun | \ |
| Year 1 | | | | | | | | | | | | | | | | |
| Audience | | səti | is u | ıoi: | ncp | sţı | uo | | | | | 1W | sts | ino | jo | W |
| Target Behavior Audience | | | | 14 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | Increase the | number or | Citizens who are | aware and | reporting middy | reporting maduy | broken silt | fences | | | | |

CONSTRUCTION SITES



Education Strategy and Timeline: Fresh Water

EDUCATION STRATEGY: LOW IMPACT DEVELOPMENT (LID) INCORPORATION

Target Audience: Design professionals

Contributing Action: Large areas of impervious surface and gray infrastructure leads to increase volumes of stormwater runoff which can degrade local saltwater habitat.

Goal: Increase the amount of LID practices incorporated into new development and redevelopment projects.

Objective: Increase design professionals' understanding of LID options so they can better promote LID options to developers.

| Message | Format and Distribution | Resources | Evaluation |
|--|--|--|--|
| "Go green and put a LID in your development! LIDs are a great way to minimize impacts of development!" | Workshops/lunch and learns/ LID Manual trainings with Greg Hoffman for design professionals LID Factsheets LID Manual LID cost-benefit research LID installation training for municipal staff Case studies Signage at public parks and green spaces (major intersections?) | Homebuilders' associations Landscape architects Planning associations Realtor groups Local research County and city staff | Primary: Number of LID projects installed Secondary: Number of LID projects planned Number of workshops and trainings where specific message was addressed (minimum 6) Number of attendees in pertinent workshop and trainings Website hits Participant feedback and intention to utilize information gained from workshop |

LOW IMPACT DEVELOPMENT (LID) INCORPORATION

| Year 5 | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|-------------|-----------|---------------|----------------------|----------------|-----------------|-------------|-----------------|----------------|------------------|-------------|-------------------|----------------------|----------------|-------------|-------------|-------------|-----------------|---------------------|--------|-------------|-----------|-----------------------|---------|
| Year 4 | | | | | | | | | | | | | | | | | | | | | Develop and | Implement | LID Installs and case | studies |
| Year 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Year 2 | | | | | | | | | | | Develop and | Implement | Lunch and Learns for | LID installers | (minimum 4) | Develop and | Implement | Signage for LID | practices in public | spaces | | | | |
| Year 1 | Develop and | Implement | Workshops and | trainings for design | professionals/ | municipal staff | (minimum 2) | Develop and | Implement | LID Factsheets | | | | | | | | | | | | | | |
| Audience | | | | | | | | | sji | euc | oiss | :ĐJ | bro | u | gise | Ð | | | | | • | | | |
| Target Behavior Audience | | | | | | | | Increase design | professionals' | understanding of | low impact | development (LID) | options so they | can better | promote LID | options to | developers. | | | | | | | |



Education Strategy and Timeline: Fresh Water

EDUCATION STRATEGY: HOMEOWNER BEST MANAGEMENT PRACTICES (BMPS)

Target Audience: Individual lot owners who do not have an existing BMP on their property.

Contributing Action: Small single-family home lots typically do not have the area required to infiltrate their stormwater runoff and can contribute to excess freshwater in saltwater habitat.

Goal: Increase the awareness and use of stormwater BMPs in a residential setting.

Objective: Increase the adoption of rain gardens, rain chains, rain barrels, and pervious pavers.

Message

"Be a neighbor for clean water! Install a rain garden, rain barrel, rain chain, or pervious pavers on your property and enjoy less flooding, erosion, and upkeep than a traditional landscape!"

Format and Distribution

- Workshops for homeowners and/or contractors
- Rain barrel sales
- Master Rain Gardener
- Media campaign (tv commercial, mailers, social media)
- Signage at public parks and spaces
- Annual "smallgrants" program to install BMPs on demonstration sites
- BMP website where homeowners can describe their landscape and needs and the site can match them with a BMP, costs estimates, and a list of certified contractors for install
- Step-stake for marking rain garden on site
- Packet describing why homeowners should keep a rain garden

Resources

- Clemson Extension Carolina Yards
- Master Gardeners
- Master Rain Gardener
- Local research/ statewide survey
- County and city parks and staff
- HOAs and POAs
- Carolina Rain Garden Initiative

Evaluation

Primary:

 Number of homeowners/certified contractors who self-report installing BMPs through followup evaluations from workshops and trainings.

Secondary:

- Number of workshops and trainings where specific message was addressed (minimum
 5)
- Number of attendees in pertinent workshops and trainings reporting gaining knowledge and self-report that they will use it in the future
- Number of demonstration BMPs installed

| Year 5 | | | | | | | | | | | | | | | | Develop and | Implement | Social modia/mass | JUCIAL IIIEUIA/ IIIASS | media campaign | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|-----------|---------------|-------------|----------------------|----|------------|----|-----------|-------------------|-------------|--------|-------------|-----------------|---------------------|--------|-------------|-----------|-------------------|------------------------|----------------|---------------|-----------|----------------------|--------------|---------------------|----------------------|-------------|-----------|---------------------|--|---------------------------|-----|-----------------|------------------|---------|-------------|-----------|----------------------|------------------|--------------------|------|--|
| Year 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Develop and | Implement | BMP info site/packet | with a survey to | determine notenial | BMPs | |
| Year 3 | | | | | | Developand | | Implement | Rain Barrel Sales | | | | | | | | | | | | Develop and | Implement | Small grants program |) - | | | | | | | | | | | | | | | | | | |
| Year 2 | | | | | | | | | | Develop and | tomora | IIIIpieilie | Signage for LID | practices in public | spaces | - | | | | | | | | | | | Develop and | Implement | Step-stake sign for | יייין איניא איניאירא | mai hiligi laili galuelis | | prochure on the | benefits of rain | gardens | | | | | | | |
| Year 1 | Implement | Workshops for | nomeowners/ | contractors (minimum | 2) | , | | | | | | | | | | | | | | | | | | -tomolomi | Manton Dais Cardons | Master Kain Gardener | | | | | | | | | | | | | | | | |
| Audience | | | | | , | ር | ıə | do | bud | ٦ļ٠ | әų | י בן | uo | d۷ | BW | Вu | iΤS | ix | əι | gı | ə٨ | µч | ן זָנ | ou | op | 0 | ч۸ | ۸ S. | ıəı | u <i>N</i> | (O) | וסו | פן | sub | ŅΝ | ıpu | I | | | | | |
| Target Behavior A | | | | | | | | | | | | | | | | ld | | od+ orcozod | | ğ | gardens, rain | | barrels, and | n Privious n | | | | | | | | | | | | | | | | | | |



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