

### Table of Contents

- Year In Review
- About the **Program**
- Stormwater **Solutions**
- **Program Strategies**
- **Hydrographs**
- **Water Quality**
- **Projects Map**
- **FY25 Achievements**
- **FY25 Projects**
- Glossary

#### Message from the **Watershed Coordinator**

#### Dear watershed neighbors,

What a wonderful fiscal year this has been for the city's Heal Our Waterways Program! I hope you enjoy reading through the hard work that the city, community members, and local partners have continued to put in to implement the Bradley and Hewletts Creeks Watershed Restoration Plan.

The watershed restoration plan aims to slow down the "bus" carrying pollutants, i.e., stormwater runoff, to our waterways. Since our area experiences a lot of rain, this goal might seem ambitious at times, but we're steadily working toward it, no matter how big or small the project.

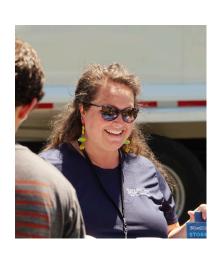
One of my favorite moments this year was seeing the progress made in Hewletts Creek recognized by the North Carolina Department of Environmental Quality and the Environmental Protection Agency through a Success Story, which is now published for the entire country to read. It was a wonderful reminder that our efforts truly matter and that we're making real progress.

I want to sincerely thank everyone who has participated in or supported the Heal Our Waterways Program – this work truly can't be done without you.

#### With gratitude,

ANNA REH-GINGERICH

CITY OF WILMINGTON WATERSHED COORDINATOR



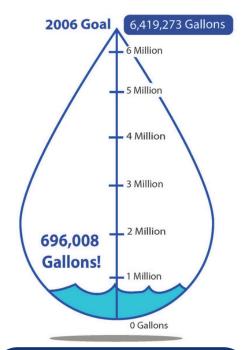
**HEAL OUR WATERWAYS** 



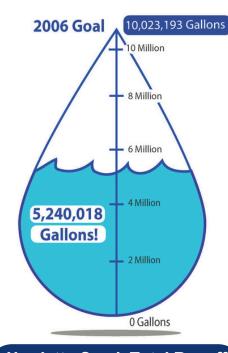
# Annual Summary

Fiscal Year 2024-2025

The Heal Our Waterways Program is a City-led initiative to reduce the volume of stormwater runoff entering Bradley and Hewletts Creeks and improve water



**Bradley Creek Total Runoff Reduced Since 2010** 



Hewletts Creek Total Runoff **Reduced Since 2010** 



**RAIN BARRELS INSTALLED** 



**2 GRANT PARTNERSHIPS** 

IN BRADLEY CREEK



**RAIN GARDENS PLANTED** 



**COMMUNITY MEMBERS INSTALLED CREEK-FRIENDLY PRACTICES** 



159,423

**GALLONS OF** STORMWATER TREATED



**Bradley Creek** 17 PROJECTS INSTALLED

**156,000 GALLONS TREATED** 

**Hewletts Creek 22 PROJECTS INSTALLED** 

**3,423 GALLONS TREATED** 

# About the Program

# What is Heal Our Waterways?

The Heal Our Waterways (HOW) Program is a City of Wilmington program to implement the voluntary Bradley and Hewletts Creeks Watershed Restoration Plan that was adopted by City Council on September 4th, 2012. Guided by the plan, the HOW Program works to install and encourage nature-based Stormwater Control Measures (SCMs) that reduce the volume of stormwater runoff transporting pollutants, namely bacteria, to Bradley Creek and Hewletts Creek. Hewletts Creek and shellfishing waters influenced by Bradley Creek are listed on the Clean Water Act's 303(d) impaired waterways list for not meeting the established water quality standards for safe shellfish harvest. Banks Channel, influenced by Bradley Creek, has also experienced swimming advisories from high bacteria levels.

# Mission

1

Striving to heal Bradley & Hewletts Creeks and soak in polluted stormwater runoff through community engagement and simple solutions.

# Goals

01

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# Restore shellfish and swimming water quality

impaired by unacceptable levels of bacteria in Bradley Creek and Hewletts Creek

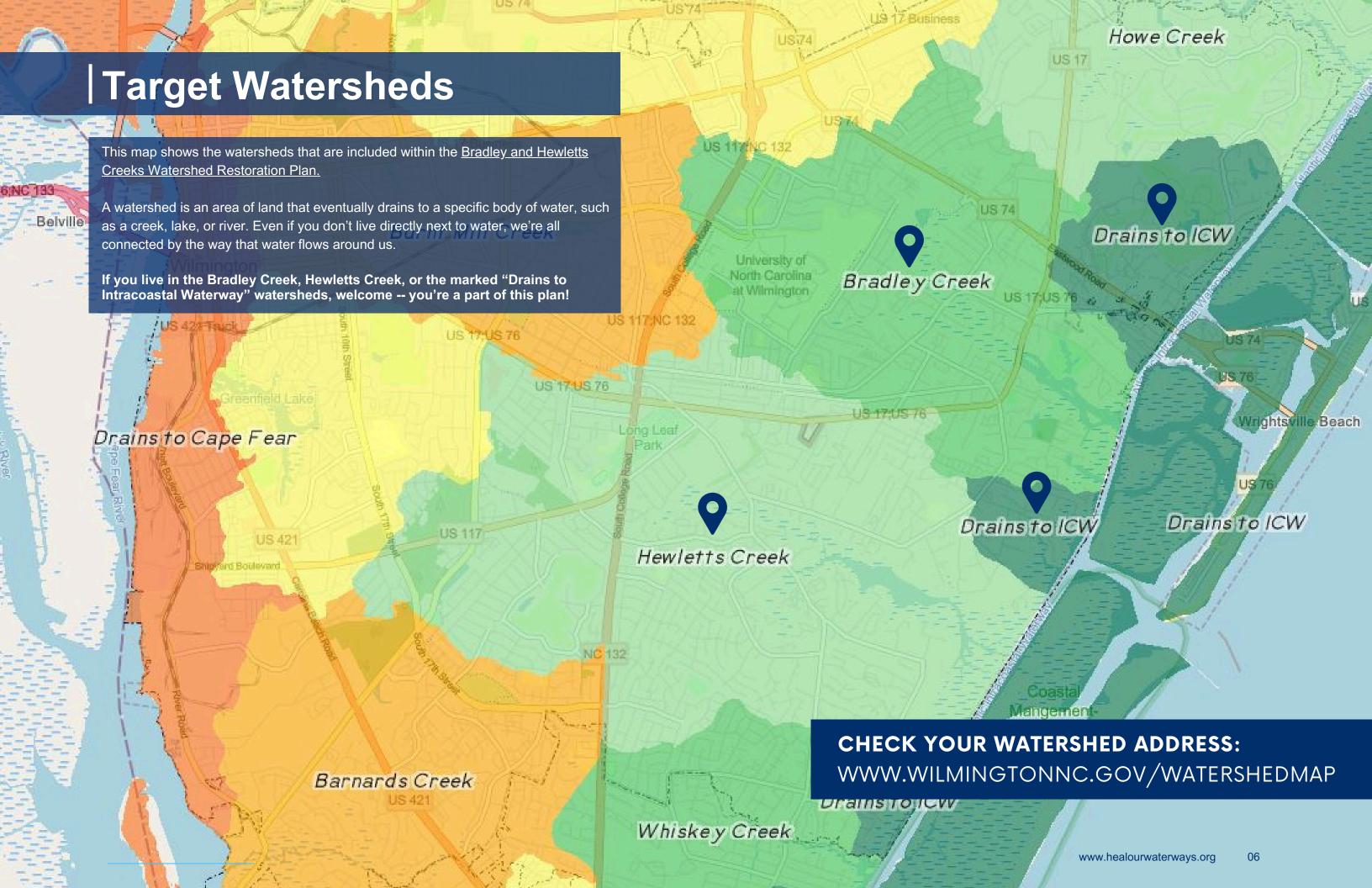
Reduce the transport of bacteria from land to water by reducing the volume of stormwater runoff

03

04

Form and maintain local partnerships to carry out the watershed restoration plan and install nature-based stormwater solutions

Connect with the community through existing and new outreach programs that encourage nature-based stormwater solutions



# Stormwater



#### **Stormwater Runoff Transports Pollution**

The <u>Bradley and Hewletts Creeks</u>
<u>Watershed Restoration Plan</u> cites
polluted stormwater runoff as the main
driver behind high bacteria levels in both
creeks. As rain flows over impervious, or
hard, surfaces like parking lots, rooftops,
and driveways, it picks up pollutants, like
bacteria. Stormwater runoff does not get



treated after it flows into storm drains and ditches - it flows directly to local waterways.

# **Areas of Concern**

#### **Impervious Surfaces**

As more impervious surfaces (houses, roads, driveways, parking lots, etc.) replace natural spaces, there are fewer opportunities for rain to soak in and more stormwater runoff is generated.

#### **Pet Waste Pollutes**

A single gram of pet waste can contain **23 million bacteria**, making it a major contributor of bacteria to the environment. Stormwater runoff easily washes bacteria from unmanaged pet waste into local waterways.

#### **Maintaining Status Quo**

Stormwater regulations aim to reduce future pollution from entering waterways. However, if the status quo is maintained by only using minimum treatment requirements, existing water quality issues will persist.

# Solutions



#### **Nature-Based Stormwater Solutions Reduce Runoff**

Nature-based stormwater solutions mimic a site's natural hydrology and characteristics to treat stormwater runoff. The Heal Our Waterways Program actively promotes and installs these practices to reduce the total volume of stormwater runoff that can wash pollutants into Bradley Creek, Hewletts



08

Creek, and downstream shellfish waters in the Intracoastal Waterway. These practices can be used on their own or combined with traditional practices to go above and beyond minimum treatment requirements.

# How do they work?

#### **☑** Slow it down.

Practices like rain barrels and cisterns help to slow down and capture the "first flush" of stormwater runoff flowing from downspouts and rooftops.

#### Spread it out.

Rerouting downspouts into yards or practices such as rain gardens, bioretention areas, and wetlands where runoff can spread out helps to make infiltration easier, reduces erosion, and treats pollution.

#### Soak it in.

Installing practices that infiltrate stormwater runoff is the best method to prevent it from washing pollutants into local waterways. Bioretention, permeable materials, drainage swales, and tree plantings are all great examples.

# **Program Strategies**

The HOW Program actively works to achieve the goals within the <u>Bradley and Hewletts Creeks</u> Watershed Restoration Plan by funding, installing, and promoting nature-based Stormwater Control Measures (SCMs), also referred to as "stormwater solutions". This happens both within the community and internally at the City of Wilmington through interdepartmental partnerships.

#### Education

The HOW Program provides educational resources to help incentivize project installations and educate local stakeholders about stormwater solutions. These resources and more information about the HOW Program can be found in the "Learning" Library" at www.healourwaterways.org.



#### **Funding & Installation**

The HOW Program seeks opportunities to implement projects in the Bradley Creek and Hewletts Creek Watersheds. This includes improving city-owned properties, collaborating with local groups on grants, and offering funding options for private properties, such as a partnership with the New Hanover Soil and Water Conservation District to install rain gardens, swales, cisterns, wetlands, and tree plantings.



#### Community Engagement

The HOW Program also aims to empower the community to implement stormwater solutions on private properties. Hosting workshops, giving talks, participating in events, and offering resources through an educational website are just some of the ways the HOW Program engages the community throughout the year.







The Heal Our Waterways Program partners with New Hanover Soil and Water Conservation District to fully fund and install rain gardens, swales, wetlands, tree plantings, and cisterns on private properties in the Bradley Creek and Hewletts Creek Watersheds. These are some examples of the seven rain gardens that were installed this fiscal year through the program.



# | Measuring Progress: Hydrographs

#### Using Hydrographs To Measure Stormwater Improvements

The goals within the <u>Bradley and Hewletts Watershed Restoration Plan</u> are based on the hydrographs of both creeks. A hydrograph illustrates how quickly and how much stormwater runoff flows over the land and into the receiving waterbody. When more impervious surfaces cover an area, the hydrograph curve spikes higher as more stormwater runoff quickly accumulates. The higher and steeper the curve, the faster stormwater runoff flows into local waterways. The primary strategy to "flatten the curve" of the hydrograph is to create more spaces for stormwater to slow down and soak in. Nature-based stormwater solutions can help achieve these goals.

The original hydrographs are based on impervious surface coverage from 2010, during the development of the restoration plan. This served as a baseline for the stormwater runoff volume entering both creeks. The goal of the restoration plan is to reduce this baseline to runoff volumes observed in years when water quality allowed open shellfish harvesting and swimming. During those years, there was less runoff because more natural areas allowed stormwater to soak into the ground. The total reduction needed was split into smaller milestones for specific years: 2006, 2002, 1998, and 1981. The hydrograph for Bradley Creek below demonstrates this phased approach.

#### 9000 8000 7000 6000 2006 2002 1998 1981 12 13 14 15 16 17 18 19 20 21 22 23 24 25 TIME (HRS)

Figure 1: Hydrograph of the Bradley Creek Watershed with showing benchmark years and volume reduction targets.

#### Overall Progress Towards 2006 Hydrograph Reduction Goals

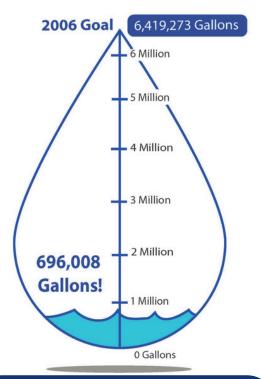
The HOW Program is currently working to reduce the baseline stormwater volume established in 2010 to the levels that were flowing into Bradley Creek and Hewletts Creek in 2006, when there were fewer impervious surfaces. Overall progress towards that goal is included below.

#### **Bradley Creek**

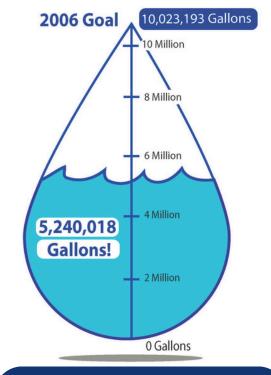
2010 Baseline Volume	105,444,716 Gallons	
2006 Reduction Goal	99,025,889 Gallons	
Reduction Needed To Goal	6,419,273 Gallons	
Volume Reduced	696,008 Gallons	
Remaining To Goal	5,723,265 Gallons	

#### **Hewletts Creek**

Remaining To Goal	4,783,175 Gallons
Volume Reduced	5,240,018 Gallons
Reduction Needed To Goal	10,023,193 Gallons
2006 Reduction Goal	148,861,404 Gallons
2010 Baseline Volume	158,883,898 Gallons



Bradley Creek Total Runoff Reduced Since 2010



Hewletts Creek Total Runoff Reduced Since 2010

# Measuring Progress: Water Quality Monitoring

#### Monitoring Water Quality Trends

While the reduction of stormwater runoff is the main metric of the watershed restoration plan, water quality is also important to measure. In-stream bacteria levels will determine if swimming advisories and shellfish harvest closures continue to occur. While improvements are hard to see on a short-term basis, long-term water quality trends can highlight areas where projects are successful or indicate "hot spot" locations that require more attention. The Aquatic Ecology Lab at the University of North Carolina-Wilmington (UNCW) monitors water quality in creeks across the city to help track these trends.

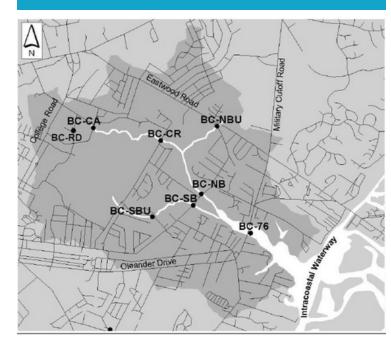
The maps on the following page show the locations of monitoring stations in the Bradley Creek and Hewletts Creek Watersheds. The City of Wilmington works with UNCW to determine which stations to monitor based on available funding and priorities. Note that not all stations on these maps are currently being monitored. Only those stations shown in Figures 1 and 2 have monitoring data available.



The 2024 monitoring report showed increases and decreases in mean fecal coliform concentration throughout the stations monitored. Clear Run Branch, located in upstream Bradley Creek, continued to see high bacteria levels, though downstream stations actually saw some improvements. The city's stream restoration in Clear Run Branch may have contributed to these improvements, and continued monitoring will provide better context. In Hewletts Creek, the mean bacteria levels at station MB-PGR decreased this year, but mean concentrations at other stations slightly increased. The mouth of Hewletts Creek was not monitored in 2024, but shellfish closures in that area continued to remain in place.

These trends are shown in the graphs on the following page.

#### **Bradley Creek Stations**



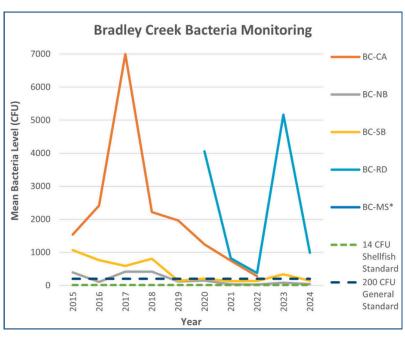
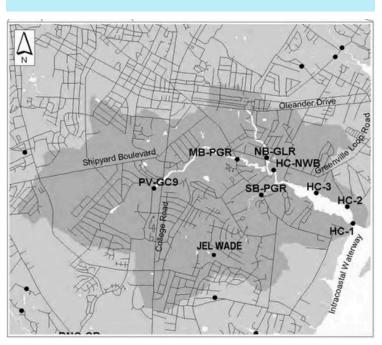


Figure 2: Average colony-forming units (CFU) of fecal coliform measured at select stations in Bradley Creek. Station BC-MS was newly added in 2024.

#### **Hewletts Creek Stations**



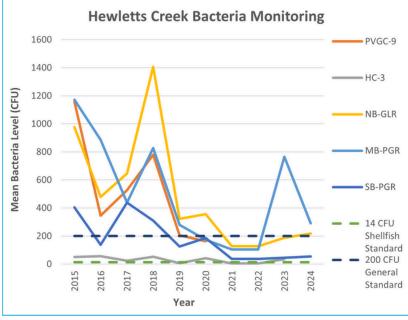


Figure 3: Average colony forming units (CFU) of fecal coliform measured at select stations in Hewletts Creek.

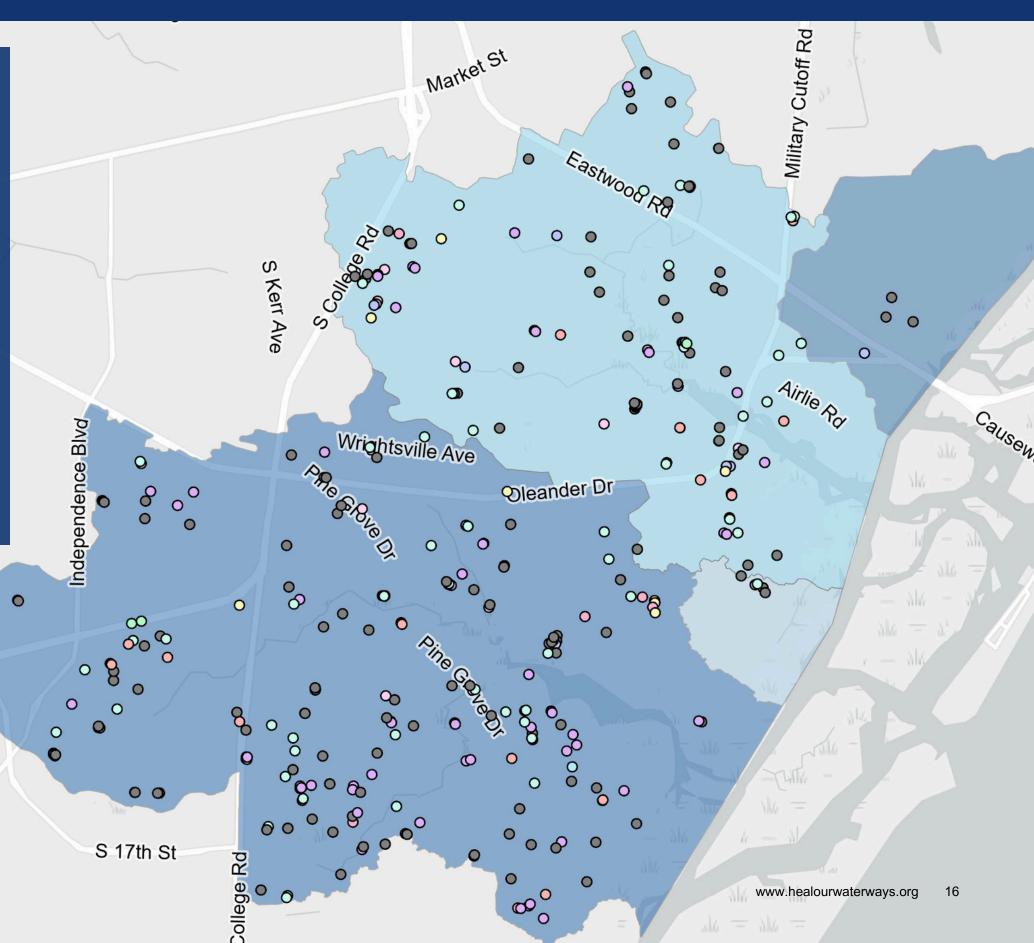
# | Measuring Progress: Community Participation

#### ☐ Tracking Nature-Based Stormwater Solutions

The HOW Program tracks the number of projects installed by stakeholders within the Bradley Creek Watershed, Hewletts Creek Watershed, and areas that drain directly to the Intracoastal Waterway. These projects consist of nature-based stormwater solutions that work to slow down and soak in stormwater runoff. The volume that each project provides is recorded and counted towards achieving the 2006 hydrograph reduction goals (provided on page 12). Projects often range in size and treatment capabilities, so tracking the total number of projects shows the commitment from **all** stakeholders who are working to improve water quality.

This map shows all projects that have been installed and count towards the volume reduction goals within the watershed restoration plan.

346 total projects have been installed as of June 30, 2025.



Shipyard Blvd

# Fiscal Year 2025 Achievements

#### **Volume Reduced**

Stormwater volume reduction, or any runoff that is diverted from Bradley Creek and Hewletts Creek, is the main measure of success for the Bradley and Hewletts Creeks Restoration Plan. Below is a breakdown of incremental goals created to help reach the 2006 hydrographs.

#### **Strategic Planning**

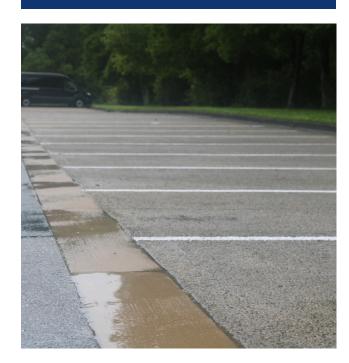
To help encourage progress towards the stormwater volume reduction goals identified within the Bradley and Hewletts Creeks Watershed Restoration Plan, the City of Wilmington's Public Works Strategic Plan includes annual performance measures (goals) to meet for both watersheds:

- Bradley Creek -- Reduce 0.15 acre feet, or 48,878 gallons, of stormwater annually
- Hewletts Creek -- Reduce 1.0 acre feet, or 325,851 gallons, of stormwater annually

These performance measures were estimated and established before having consistent volume reduction data, so there have been some challenges with reaching the annual goal for Hewletts Creek over the years. The HOW Program is working to re-evaluate the goal to make sure that the performance measures within the Strategic Plan are attainable.

#### **Highlights**

- 151,864 gallons of stormwater runoff now being treated by new permeable pavement in UNCW's Randall Lot
- Over 6000 gallons of stormwater runoff now being treated by projects installed through the Heal Our Waterways full funding program
- Creek Watershed exceeded the city's Strategic Plan 0.15 acre feet target by 319%!!



#### **Projects Installed**

While tracking total stormwater volume helps measure progress toward hydrograph goals, it doesn't capture the full story - especially since not all projects are largescale. Counting the total number of projects gives a clearer view of the community's collective impact, no matter how big or small. Below are the funding sources that helped make these projects possible.

#### **Funding Sources**

**City of Wilmington** -- any projects funded by the City of Wilmington, with the exception of the City-funded HOWBMP Program.

**Grant-funded** -- any projects installed through a grant partnership.

Rain Barrel Sales -- includes all rain barrels sold through New Hanover Soil and Water Conservation District's monthly rain barrel sales that indicated either Bradley Creek or Hewletts Creek as the final installed location.

**Self-Reported** -- any projects reported using the "Take Action" form through the HOW Program website, identified during site visits, or otherwise shared with the HOW Program as self-installed by the property owner.

**HOWBMP** -- any projects installed through the "HOWBMP" contract with New Hanover Soil and Water Conservation District.

#### **Highlights**

- 17 Stormwater Solutions
  Installed in the Bradley Creek
  Watershed
- 22 Stormwater Solutions
  Installed in the Hewletts Creek
  Watershed
- A success story from the Environmental Protection Agency and NC Department of Environmental Quality recognizing the progress and work so far by the city and community in the Hewletts Creek Watershed!



18

### Fiscal Year 2025 Achievements

#### **Education**

One of the pillars of the Heal Our Waterways Program is serving as an educational resource for the community, as outlined within Objectives One, Four, and Five of the Bradley and Hewletts Creeks
Watershed Restoration Plan. Below are several ways the program works to provide education throughout the community.

#### **Educational Resources**

www.healourwaterways.org -- contains updates about program activities, information about the watershed restoration plan, educational handouts in the Learning Library, and descriptions of stormwater solutions.

Presentations -- the Heal Our Waterways Program is available for presentations to groups, HOAs, and neighborhoods within the City of Wilmington. To request a presentation, email:

healourwaterways@wilmingtonnc.gov.

Quarterly E-newsletter – includes
program updates, local events, native
plants, and articles about stormwater
solutions.

Educational Events -- Heal Our Waterways regularly attends local environmental events, including the Native Plant Festival and the Wilmington Earth Day Festival, with educational handouts and displays.

#### **Highlights**

A big thank you to everyone that listened to one of our talks this year!

- Rolled out the new "Stormwater Wheel" game at the Wilmington Earth Day Festival!
- Presented to the Eastwood
  Village HOA with info on how to
  reroute a downspout
- Tabled and spoke at the Cape Fear Native Plant Festival
- Presented to and led a tour at
  Wade Park for the North Carolina
  Water Resources Association
  Spring Workshop



#### **Engagement**

Restoring local waterways depends on community involvement. Therefore, actively involving community members and stakeholders is crucial for the success of the Heal Our Waterways Program. While not an exhaustive list, below are some of the main engagement strategies used by the Heal Our Waterways Program.

#### **Methods of Engagement**

Take Action Form -- an application form at <a href="https://www.wilmingtonnc.gov/takeaction">www.wilmingtonnc.gov/takeaction</a>
where community members can apply for funding, report installed stormwater solutions, or get more information

Wilmington Farmers Markets-- with its central location in the Bradley and Hewletts Creeks Watersheds, Heal Our Waterways attends the market at Tidal Creek Co-op monthly from spring to late fall.

Workshops & Volunteer Events – often joining local partners, the Heal Our Waterways program occasionally co-hosts workshops and volunteer events focused on installation and maintenance of nature-based stormwater solutions

Neighborhood Campaigns -- direct engagement with neighborhoods is vital to program success, with topics ranging from pet waste to rerouting downspouts and more.

#### **Highlights**

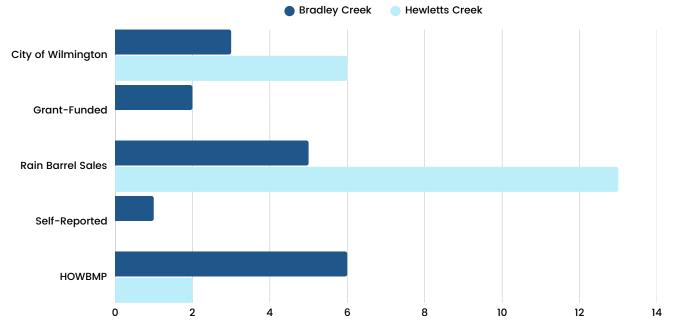
Speaking 1-1 with the community is one of the best parts of this program.

- Piloted a new downspout reroute campaign in two neighborhoods stay tuned to see where we take it next!
- Joined the Wilmington Farmer's
  Market at Tidal Creek Co-op
  once a month from April November
- Joined NC Cooperative Extension to host a Rain Garden Workshop at the Arboretum during Cape Fear Creek Week

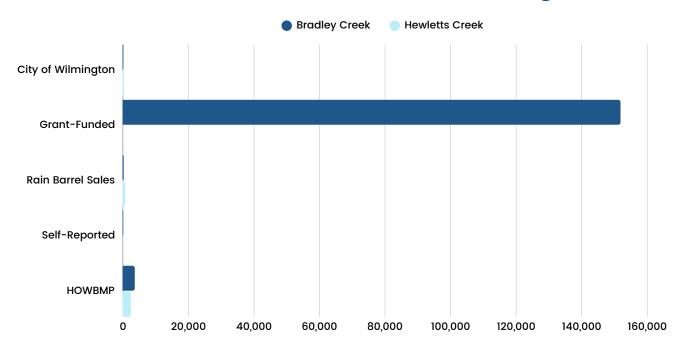


# FY25 Projects Summary

#### **FY25 Number of Projects Installed Per Funding Source**



#### **FY25 Gallons of Stormwater Reduced Per Funding Source**











# **Bradley Creek: FY25 Projects Installed**

Watershed	Funding Source	Property Type	SCM Type	Gallons
Bradley Creek	City of Wilmington	Residential	Rain Barrel Raffle	50.00
Bradley Creek	City of Wilmington	Residential	Rain Barrel Raffle	50.00
Bradley Creek	City of Wilmington	Residential	Rain Barrel Raffle	50.00
Bradley Creek	Grant	State/University	Permeable Pavement	81542.90
Bradley Creek	Grant	State/University	Permeable Pavement	70321.40
Bradley Creek	HOWBMP	Residential	Rain Garden	1256.81
Bradley Creek	HOWBMP	Residential	Rain Garden	1004.47
Bradley Creek	HOWBMP	Residential	Rain Garden	513.05
Bradley Creek	HOWBMP	Residential	Rain Garden	650.85
Bradley Creek	HOWBMP	Residential	Swale	201.99
Bradley Creek	HOWBMP	Residential	Tree Planting	1.12
Bradley Creek	NHSWCD Rain Barrel Assistance Program	Residential	Rain Barrel	50.00
Bradley Creek	NHSWCD Rain Barrel Assistance Program	Residential	Rain Barrel	50.00
Bradley Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Bradley Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Bradley Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Bradley Creek	Self-Reported (UNCW)	State/University	Tree Planting	107.50

# Hewletts Creek: FY25 Projects Installed

Watershed	Funding Source	Property Type	SCM Type	Gallons
Hewletts Creek	City of Wilmington	Residential	Rain Barrel	50.00
Hewletts Creek	City of Wilmington	Residential	Rain Barrel	50.00
Hewletts Creek	City of Wilmington	Residential	Rain Barrel	50.00
Hewletts Creek	City of Wilmington	Residential	Rain Barrel	50.00
Hewletts Creek	City of Wilmington	Residential	Rain Barrel Raffle	50.00
Hewletts Creek	City of Wilmington	Residential	Rain Barrel Raffle	50.00
Hewletts Creek	HOWBMP	Residential	Rain Garden	1802.47
Hewletts Creek	HOWBMP	Residential	Rain Garden	620.92
Hewletts Creek	NHSWCD Rain Barrel Assistance Program	Residential	Rain Barrel	50.00
Hewletts Creek	NHSWCD Rain Barrel Assistance Program	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00
Hewletts Creek	Rain Barrel Sale	Residential	Rain Barrel	50.00

# ABBREVIATIONS, ACRONYMS, & GLOSSARY

**303(d)** List - Under section 303(d) of the Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters. These are waters that are too polluted or otherwise degraded to meet the water quality standards set by states, territories, or authorized tribes. Waters on this list eventually require stakeholders to develop plans to clean up pollution, either through voluntary or regulatory methods.

**Bioretention Areas** - Also known as rain gardens, these are vegetated depressions in the ground engineered to collect, store, and infiltrate runoff. Different from rain gardens, they can also have an underdrain to provide an overflow path for heavier storms.

**BMP** - Best Management Practice. Any action or on-the-ground practice that reduces the amount of stormwater and pollution flowing into waterways. For example, rain gardens and rain barrels are structural BMPs, and picking up pet waste is an active BMP.

**CFU** - Colony Forming Unit, used to measure fecal coliform concentrations.

**Cisterns** - Storage tanks for rain that has been collected from a roof or other impervious surface. Can be above or below ground.

CWA - Clean Water Act

**EPA** - US Environmental Protection Agency

**Fecal Coliform** - Bacteria present in the intestines and feces of warm-blooded animals. High levels of fecal coliform bacteria in a waterway can indicate the presence of other disease-causing organisms.

**Flow** - The volume of water, often measured in cubic feet per second (cfs), flowing in a stream or through a stormwater conveyance system.

**FY** - Fiscal Year, i.e., FY25 = Fiscal Year 2025. Fiscal Years occur annually from July 1 to June 30 of the following year.

**Green Infrastructure** - Stormwater treatment that mimics natural processes to treat and soak in stormwater runoff at the source. Examples include rain gardens, rain barrels, and permeable pavement. Can be used interchangeably with nature-based stormwater solutions.

**HOA** - Homeowners Association

**HOW** - Heal Our Waterways

**HOWBMP** - Heal Our Waterways Best Management Program, the official name of the full funding program available through a partnership with New Hanover Soil & Water Conservation District.

**Hydrograph** - A graph showing flow rates of waterways over time.

**Hydrology -** The study of all states of water and the water cycle. Can also refer to the natural drainage patterns of a site.

ICW - Intracoastal Waterway

**Impaired Waters-** Water bodies that do not meet their intended use due to pollution or other stressors. Uses are determined by states, territories, and authorized tribes through water classifications and can include recreation, shellfish harvest, wildlife habitat, etc.

**Impervious Cover** - A hard surface area, such as a parking lot or rooftop, that prevents water from soaking into the ground and creates stormwater runoff.

**Infiltration** - The process of water entering and flowing downward into the soil, where it can then replenish groundwater or be taken up by plant roots.

**Nature-Based Stormwater Solution -** A practice that mimics a site's natural hydrology to treat and infiltrate stormwater runoff at the source, such as a rain garden or constructed wetland.

NHSWCD – New Hanover Soil & Water Conservation District

**Permeable/Pervious** - A surface that water can soak through, such as grass, sand, or permeable pavement.

**Prohibited Area** - An area unsuitable for the harvesting of shellfish for direct market purposes.

Rain Barrels - Barrels designed to collect and store runoff from roofs.

**Rain Gardens** - See bioretention area. Synonymous with bioretention area, this term is typically used for general audience discussions.

**Retrofitting** - The process of adding improvements to an established site that were not already there, such as converting a parking lot into permeable materials or adding a rain garden to a residential property.

**SCM** - Stormwater Control Measure, more commonly used now than BMP, describes any practice used to manage and/or treat stormwater runoff. Nature-based practices are also SCMs, but not all SCMs are nature-based practices.

**Stormwater Runoff** - Water from rain that flows over the land surface, picking up pollutants that are on the ground.

**Swale** - A wide, shallow, V-shaped channel typically planted with grass that slows down and infiltrates stormwater runoff as it flows through.

**Tidal Creek** - A shallow estuary that is affected by the ebb and flow of ocean tides.

**UNCW** – University of North Carolina at Wilmington

**Watershed** – An area of land, governed by the topography, that drains to a specific body of water such as a creek, lake, or river.

**Wetland** - An area of land that is wet periodically or permanently and supports diverse vegetation and wildlife. Can be naturally occurring or man-made.



#### We can't do this work without you!

We look forward to continued progress towards restoring Bradley Creek and Hewletts Creek! Every small change makes a difference, and these changes would not be possible without community support. Visit our website or social media to learn more about the projects highlighted in this report and discover ways you can get involved. Together, we can make a difference!



Heal Our Waterways





Telephone

Email

(910) 765-0629

healourwaterways@wilmingtonnc.gov



Website



