

A monarch butterfly with orange and black wings is perched on a green plant stem. The background is a clear blue sky. The butterfly is positioned on the left side of the frame, facing right. The plant has several green leaves and small buds.

# Environmental Education Program Catalog

Programs and activities for students and  
citizens in the Wilmington, NC area

This resource catalog is the result of  
thoughtful collaboration between several  
agencies who share a common goal of  
making environmental education programs  
accessible for teachers, students and  
citizens.

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## How to Use This Catalog

This program catalog is a compilation of the major environmental education programs available to teachers and public groups in New Hanover County. Several agencies offer the various programs, each with their own unique mission and approach. Sections are organized by agency and include their mission statement, a descriptive list of available programs, and environmental education staff contacts.

Detailed descriptions include target audiences and appropriate age/grade levels, main activities, an approximation of time required, and highlighted topics. If provided, the appropriate curriculum standards are also included so that programs can be aligned to specific lessons focused on core grade-level requirements.

For teachers this guide can be used to explore the environmental education resources available for supplementary lessons or for teacher training. Teachers are encouraged to use provided contact information to inquire about programs for their classrooms. For citizens, this guide can be used for community groups, home owners associations, and more.

We hope you enjoy exploring the fun, interactive environmental programs the Wilmington area has to offer.



## Program Contacts

### CAPE FEAR RIVER WATCH

Kay Lynn Plummer-Hernandez,  
Environmental Education/Project Manager

Call: 910-762-5606

Email: [kaylynn@cfrw.us](mailto:kaylynn@cfrw.us)

OR

Fill out an online form at:

<http://www.capefearriverwatch.org/education/education-overview>

617 Surry Street  
Wilmington, NC 28401

### CITY OF WILMINGTON STORMWATER SERVICES

Jennifer Butler, Stormwater Education  
Program Manager

Call: 910-343-4777  
910-341-5895

Email: [jennifer.butler@wilmingtonnc.gov](mailto:jennifer.butler@wilmingtonnc.gov)

<http://www.wilmingtonnc.gov/departments/public-services/stormwater>

### NEW HANOVER SOIL & WATER CONSERVATION DISTRICT

Elissa Riley, Education Coordinator

Call: 910-798-7137

Email: [eriley@nhcgov.com](mailto:eriley@nhcgov.com)

OR

Fill out an online form at:

<http://soilwater.nhcgov.com/contact-us/>



## Program Contacts (continued)

### NC COASTAL FEDERATION

Ted Wilgis, Coastal Education Coordinator

Call: 910-509-2838

Email: [tedw@nccoast.org](mailto:tedw@nccoast.org)

Fred & Alice Stanback Coastal Education Center

309 W. Salisbury Street

Wrightsville Beach, NC 28480

<http://www.nccoast.org/>

### AIRLIE GARDENS

Environmental Education Coordinator

Call: 910-798-7564

300 Airlie Road  
Wilmington, NC 28403

<http://airliegardens.org/education/>

### NC AQUARIUM AT FORT FISHER

Andy Gould, School Programs Coordinator

Call: 910-772-0560

Email: [andy.gould@ncaquariums.com](mailto:andy.gould@ncaquariums.com)

900 Loggerhead Road  
Kure Beach, NC 28449

[www.ncaquariums.com/fort-fisher/](http://www.ncaquariums.com/fort-fisher/)

### HALYBURTON PARK

Andy Fairbanks, Recreation Supervisor

Call: 910-341-0075

Email: [andy.fairbanks@wilmingtonnc.gov](mailto:andy.fairbanks@wilmingtonnc.gov)

4099 S. 17<sup>th</sup> Street  
Wilmington, NC 28412

[www.halyburtonpark.com](http://www.halyburtonpark.com)

### ADDITIONAL LOCAL ORGANIZATIONS

**Surfrider Foundation, Cape Fear Chapter**

<https://capefear.surfrider.org/>

**NC Coastal Land Trust**

Email: [americorps@coastallandtrust.org](mailto:americorps@coastallandtrust.org)

<http://coastallandtrust.org/>

# Cape Fear River Watch (CFRW)

*“To protect and improve the water quality of the Lower Cape Fear River Basin through education, advocacy, and action.”*

Cape Fear River Watch (CFRW) has been a leader for promoting environmental stewardship in New Hanover County since 1993. Their key focus is to improve water quality within the Lower Cape Fear River Basin through activities and events that inform and involve local stakeholders. CFRW has an active member base that is open to the public.

## School Programs:

- 💧 4th Grade Raindrop Journey Program
- 💧 School Field Trips to Greenfield Lake
- 💧 Custom Presentations
- 💧 8<sup>th</sup> Grade Enviroscape Presentations  
(In collaboration with City of Wilmington and New Hanover Soil & Water Conservation District)

## Community Programs:

- 💧 Striperfest Community Education Day
- 💧 First Saturday Seminars
- 💧 Lock and Dam #1 Field Trips
- 💧 Volunteer Opportunities
- 💧 CreekWatchers Creek Monitoring
- 💧 Storm Drain Marking
- 💧 Summer Eco-Camps
- 💧 Community Paddles

## Contact:

Kay Lynn Plummer-Hernandez,  
Environmental  
Education/Project  
Manager

910-762-5606  
[kaylynn@cfrw.us](mailto:kaylynn@cfrw.us)

617 Surry Street  
Wilmington, NC  
28401

<http://www.capefearriverwatch.org/education/education-overview>



# CFRW School Programs

## 4<sup>th</sup> Grade Raindrop Journey Program

- 💧 Suggested for 4<sup>th</sup> grade
- 💧 \$3/student field activities only, \$5/student all activities
- 💧 Ecosystem 4.L.1, Essential Standard:

“Understand the effects of environmental changes, adaptations and behaviors that enable animals (including humans) to survive in changing habitats.”

### Description:

A combination of pre and post classroom visits and a field trip to Greenfield Lake teaches students about the flow of water within watersheds, and the concerns surrounding polluted stormwater runoff. Students will participate in an interactive, physical game to follow the life cycle of a raindrop. Students learn environmental stewardship through hands-on and fun activities.



💧 Interactive, physical game



💧 Walking eco-tour of lake



💧 Paddleboat field observations



# CFRW School Programs

## School Field Trips – Greenfield Lake

- 💧 Suggested for ages 4+
- 💧 Customizable to core standards of any grade
- 💧 \$3/student, \$5/student with paddle boat ride

### Description:

CFRW hosts interactive and engaging field trips to Greenfield Lake that can be customized to meet core standards of any grade level. All field trips include a walking eco-tour that covers a myriad of environmental topics including water quality, pollution, wildlife identification, and more. A paddleboat ride can be added to the field trip for a small additional cost.

## Custom Classroom Presentations

- 💧 Customizable to any grade
- 💧 Free!

### Description:

These presentations can cover a wide range of topics, and aim to ignite student passion for the natural world. Presentations generally run for 1-hour and are suited to a typical classroom-sized group.



💧 Plant and wildlife identification



💧 Eco-tour field observations

# CFRW School Programs

## 8<sup>th</sup> Grade Enviroscape Presentation

- 💧 8<sup>th</sup> grade (In collaboration with City of Wilmington Stormwater Services and New Hanover Soil and Water Conservation District)
- 💧 Available for other grades as availability allows
- 💧 Free!
- 💧 Earth Systems, Structures and Processes 8.E.1, Essential Standards

“Understand the hydrosphere and the impact of humans on local systems and the effects of the hydrosphere on humans.”

### Description:

The 8<sup>th</sup> grade Enviroscape Program is a collaborative effort organized by the City of Wilmington. The interactive presentation uses a scaled-down model of a watershed to demonstrate how water moves through the hydrosphere, what pollutants influence our water quality, and ways for individuals to act as stewards of our environment. **All 8<sup>th</sup> grade Enviroscape presentations are coordinated by the City of Wilmington.** [www.wilmingtonnc.gov/enviroscape](http://www.wilmingtonnc.gov/enviroscape)



### Key Vocabulary for Enviroscape Presentations:

- 💧 Hydrosphere
- 💧 Environmental stewardship
- 💧 Point vs. non-point source pollution
- 💧 Pervious vs. impervious surfaces
- 💧 Watersheds
- 💧 River basins
- 💧 Bioaccumulation
- 💧 Eutrophication & hypoxia
- 💧 Turbidity
- 💧 Essential wetland functions

# CFRW Community Programs

## Striperfest Education Day

- 💧 Typically held in January of each year
- 💧 Suggested for all ages, depending on activity
- 💧 Free! Optional boat trips \$5/person, \$20/family

### Description:

This fun-filled, family event begins with a Fisheries Science Forum led by CFRW Executive Director, and the afternoon is filled with interactive and playful programming. Fun activities for all ages focus on the Cape Fear River's incredible anadromous fish, the Striped Bass, and the importance of restoring our fishery. Vendors and specific activities vary year-to-year.

## First Saturday Seminars

- 💧 Suggested for adults
- 💧 Free! Donations are welcomed.

### Description:

Educational Seminar series featuring a different guest lecturer on the first Saturday of every month. Seminars cover a diverse variety of topics, including local history, local birds, geology, fisheries, and more. CFRW serves a pancake breakfast at 8 a.m. and the seminar starts at 9 a.m. Hosted at Cape Fear River Watch Headquarters, located at 617 Surry Street.



### **Past Striperfest Activities:**

- 💧 Striped bass fishing tactics
- 💧 Fish migration puppet show
- 💧 Arts & craft activities
- 💧 Face painting
- 💧 Boat rides up the river

## Lock and Dam #1 Field Trips

- 💧 Suggested for ages 8+
- 💧 \$3/person

### Description:

Local members of our community can join CFRW at our Education Center on the Cape Fear River for a presentation about migratory fish and then tour the rock arch rapids, interpretive rain garden and elevated boardwalk through a bottomland hardwood forest.

# CFRW Community Programs

## Volunteer Opportunities

- 💧 Suggested for high school to adults
- 💧 Free!

### Description:

**Greenfield Lake Boathouse** - Assist park visitors with the use of a paddleboat, kayak or canoe to explore the 90 acre cypress dome ecosystem.

**CFRW Committees** - Join the Education, Grants, or Advocacy Committee for monthly meetings and planning.

**Monthly Cleanups**- Pull trash and debris out of our urban streams from shore or by boat. CFRW partners with Keep New Hanover Beautiful for our 2nd Saturday cleanups and more.

**Rain Gardens** - Help maintain these BMPs to reduce the amount of pollution entering near-by waterways.

## CreekWatchers Creek Monitoring

- 💧 Suggested for high school to adults
- 💧 Free!

### Description:

A citizen science program established to protect the Cape Fear River and its tributaries through regular inspection, monitoring and trash removal. This effort targets high priority areas identified in cooperation with Stormwater Services. Creek Watch volunteers includes CFRW staff, interns and city residents.



## Storm Drain Marking

- 💧 Best for smaller groups
- 💧 Free!

### Description:

Students, parents, teachers, etc. go to a designated area in the city to place awareness markers on storm drains. Educational door hangers are distributed to surrounding residences and businesses. Participants learn about protecting our waterways and the importance of keeping them clean. Liability release forms are required.

# CFRW Community Programs

## Summer Eco-Camps

- 💧 Ages 9-13
- 💧 Registration fee applies
- 💧 Full and partial scholarships available!

### Description:

Established in 2011, the summer camp program provides local youth with the opportunity to learn how to become better stewards of their environment, while having fun in a carefree summer camp setting. Campers explore the outdoors every day, including trips to Lock and Dam #1 on the Cape Fear River, Carolina Beach State Park and Southport. Each day ends with a cool dip in an Olympic-sized pool. Camper to counselor ratio is 3:1!

## Community Paddles

- 💧 Every 3<sup>rd</sup> Saturday March - November
- 💧 Open to all community members
- 💧 Boat rental fee applies

### Description:

Enjoy lush cypress swamps, untouched back waters and the wildlife that inhabits these unique areas. Distance and technical difficulty vary trip to trip. Check the details of each event as you register online at:

<http://www.capefearriverwatch.org/news-events/register-for-the-paddle-series-now>



💧 A group of eco-campers



💧 CFRW paddlers on the river



# City of Wilmington Stormwater Services (COWSWS)

*“The City of Wilmington Stormwater Services provides comprehensive management of the stormwater drainage system to protect our community and the environment.”*

Stormwater Services (SWS) is a government organization that strives to reduce flooding, improve water quality, and protect the community during major storm events. SWS is dedicated to managing the quality and the quantity of stormwater runoff through preventative maintenance, capital improvement projects, and public outreach and education.

## School Programs:

- 💧 8<sup>th</sup> Grade Enviroscape  
(COWSWS lead agency; in collaboration with Cape Fear River Watch and New Hanover Soil and Water Conservation District)

## Community Programs:

- 💧 Storm Drain Marking
- 💧 Stormwater 101 Speakers Bureau
- 💧 Canines for Clean Water
- 💧 Heal Our Waterways
- 💧 Monthly Rain Barrel Sale (In partnership with New Hanover Soil and Water Conservation District)

## Contact:

Jennifer Butler,  
Stormwater  
Education Program  
Manager

**\*Primary  
Enviroscape  
Contact**

910-343-4777  
[jennifer.butler@wilmingtongtonnc.gov](mailto:jennifer.butler@wilmingtongtonnc.gov)

<http://www.wilmingtonnc.gov/stormwater>



# COWSWS School Programs

## 8<sup>th</sup> Grade Enviroscape Presentation

- 💧 8<sup>th</sup> grade (In collaboration with Cape Fear River Watch and New Hanover Soil and Water Conservation District)
- 💧 Available for other grades as availability allows
- 💧 Free!
- 💧 Earth Systems, Structures and Processes 8.E.1, Essential Standards

“Understand the hydrosphere and the impact of humans on local systems and the effects of the hydrosphere on humans.”

### Description:

The 8<sup>th</sup> grade Enviroscape Program is a collaborative effort organized by the City of Wilmington. The interactive presentation uses a scaled-down model of a watershed to demonstrate how water moves through the hydrosphere, what pollutants influence our water quality, and ways for individuals to act as stewards of our environment. **All 8<sup>th</sup> grade Enviroscape presentations are coordinated by the City of Wilmington.** [www.wilmingtonnc.gov/enviroscape](http://www.wilmingtonnc.gov/enviroscape)



### Key Vocabulary for Enviroscape Presentations:

- 💧 Hydrosphere
- 💧 Environmental stewardship
- 💧 Point vs. non-point source pollution
- 💧 Pervious vs. impervious surfaces
- 💧 Watersheds
- 💧 River basins
- 💧 Bioaccumulation
- 💧 Eutrophication & hypoxia
- 💧 Turbidity
- 💧 Essential wetland functions



# COWSWS Community Programs

## Stormwater 101 Presentation

- 💧 Suggested for HOAs, civic groups, and other community groups
- 💧 Free!

### Description:

Speaker led crash course on the basic concepts surrounding stormwater runoff, pollution, and water quality. Topics discussed include types of pollution, watersheds, water systems, and how polluted runoff impacts our waterways. Simple, low-cost, effective solutions that can be implemented by homeowners are also emphasized.

## Storm Drain Marking

- 💧 Best for smaller groups
- 💧 Free!

### Description:

Students, parents, teachers, etc. go to a designated area in the city to place awareness markers on storm drains. Educational door hangers are distributed to surrounding residences and businesses. Participants learn about protecting our waterways and the importance of keeping them clean. Liability release forms are required.

## Canines for Clean Water

- 💧 Suggested for all ages, families
- 💧 Free!

### Description:

Educates pet owners on the importance of picking up pet waste to reduce fecal bacteria entering our waterways- even in your own backyard! Dog owners participate by signing the 'Canines for Clean Water Pledge' at local events to receive FREE doggie bandana and other goodies. Photos of dogs proudly sporting their bandanas can be viewed at:

[www.wilmingtonnc.gov/canines](http://www.wilmingtonnc.gov/canines)



# COWSWS Community Programs

## Heal Our Waterways (HOW)

### Description:

Heal Our Waterways is a City of Wilmington-led program aiming to restore water quality in Bradley and Hewletts Creeks. HOW education & outreach initiatives focus on encouraging and assisting community members to take simple, low-cost measures like installing rain barrels, rain gardens, or rerouting downspouts to help improve local water quality and heal our waterways. The HOW program is part of a 5-year, watershed restoration plan to reduce the volume of polluted stormwater runoff reaching our waterways, and in doing so, restore the water quality and intended uses of Bradley and Hewletts Creeks. HOW installations are carried out in partnership with the NC Coastal Federation, NWSWCD, and other local partnerships and volunteers.

## Monthly Rain Barrel Sale

- 💧 Adults, property owners
- 💧 2nd Thursday of each month, year-round
- 💧 9 a.m. to 4:30 p.m. at the New Hanover County Government Center

### Description:

The City of Wilmington Stormwater Services and New Hanover Soil & Water Conservation District partner to bring discounted rain barrels to the public. Benefits of installing a rain barrel include reducing stormwater runoff, collecting free water all year long, and reducing your water bill!



💧 HOW staff at Wilmington's Earth Day Festival



Rain Barrel USA barrels available in two sizes:

- 💧 60 gallon - \$90
- 💧 80 gallon - \$110



# New Hanover Soil and Water Conservation District (NHSWCD)

*"...to protect and enhance water quality throughout New Hanover County through land conservation, stormwater management, technical support to citizens and organizations, and conservation education and outreach activities."*

New Hanover Soil and Water Conservation District (NHSWCD) is a Government organization with the overall goal to improve water quality within New Hanover County. NHSWCD cooperates with multiple organizations to share resources and establish collaborative relationships with interested citizens and working groups.

## School Programs:

- 8<sup>th</sup> Grade Enviroscape  
(In collaboration with City of Wilmington Stormwater Services and Cape Fear River Watch)
- Natural Resource-Related Programs
- Field Day (4<sup>th</sup> & 6<sup>th</sup> grade specific)
- Envirothon
- Contests for Elementary thru High School

## Community Programs:

- Storm Drain Marking
- Stormwater 101
- Teacher Workshops
- Stormwater Solutions (BMPs)
- Canines for Clean Water
- Monthly Rain Barrel Sale (In partnership with City of Wilmington Stormwater Services)

### Contact:

Elissa Riley,  
Education  
Coordinator

910-798-7137  
[eriley@nhcgov.com](mailto:eriley@nhcgov.com)

<http://soilwater.nhcgov.com/>



# NHSWCD School Programs

## 8<sup>th</sup> Grade Enviroscope Presentation

- 💧 8<sup>th</sup> grade (In collaboration with City of Wilmington Stormwater Services and Cape Fear River Watch)
- 💧 Available for other grades as availability allows
- 💧 Free!
- 💧 Earth Systems, Structures and Processes 8.E.1, Essential Standards

“Understand the hydrosphere and the impact of humans on local systems and the effects of the hydrosphere on humans.”

### Description:

The 8<sup>th</sup> grade Enviroscope Program is a collaborative effort organized by the City of Wilmington. The interactive presentation uses a scaled-down model of a watershed to demonstrate how water moves through the hydrosphere, what pollutants influence our water quality, and ways for individuals to act as stewards of our environment. **All 8<sup>th</sup> grade Enviroscope programs are coordinated by the City of Wilmington.**



### Key Vocabulary for Enviroscope Presentations:

- 💧 Hydrosphere
- 💧 Environmental stewardship
- 💧 Point vs. non-point source pollution
- 💧 Pervious vs. impervious surfaces
- 💧 Watersheds
- 💧 River basins
- 💧 Bioaccumulation
- 💧 Eutrophication & hypoxia
- 💧 Turbidity
- 💧 Essential wetland functions

# NHSWCD School Programs

## Natural Resource-Related Programs

- 💧 Customizable to all grades
- 💧 Free, but limited by staff availability and number of inquiries
- 💧 Align with N.C. essential standards for all grades

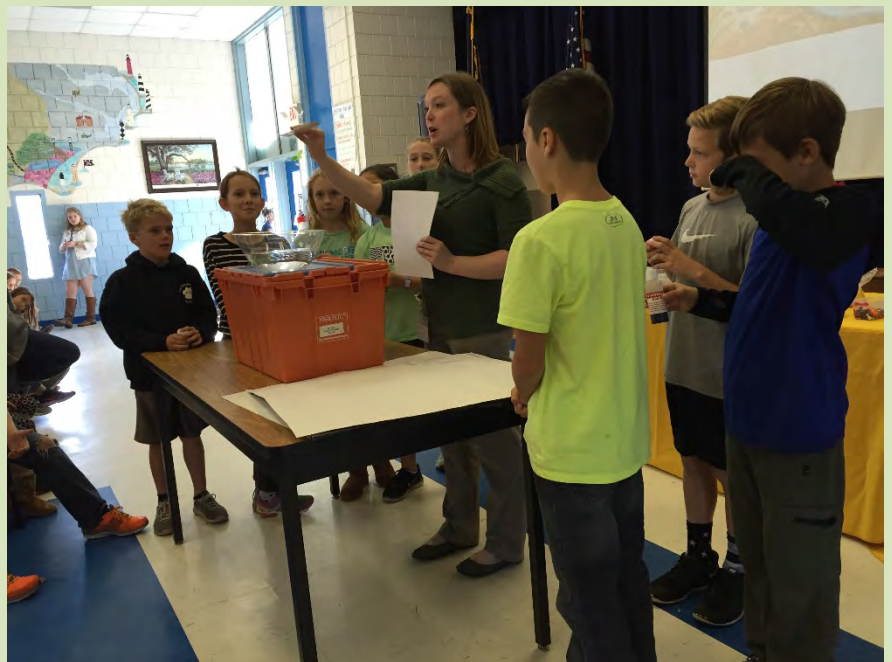
### Description:

NHSWCD offers natural resources-related programming that is aligned to the N.C. Essential standards for all grades. Some of the topics covered include: Non-point source pollution, rocks & minerals, wildlife, soils & plants, forestry, water quality, erosion & weathering, coastal geology, and more! Please refer to the website for more natural resource program info at:

<http://soilwater.nhcgov.com/programs/education-and-outreach/>.

### Choose from a range of topics:

- 💧 Non-point source pollution
- 💧 Rocks and minerals
- 💧 Wildlife
- 💧 Soils and plants
- 💧 Forestry
- 💧 Water Quality
- 💧 Erosion and weathering
- 💧 Coastal Geology



# NHSWCD School Programs

## Environmental Field Days

- 💧 4th grade (at the school) and 6th grade (at Greenfield Lake)
- 💧 Free, but offered on a first come, first serve basis to eligible schools. Contact the District to see if your school is eligible!

### Description:

One of the major school programs NHSWCD provides is an environmental field day. These field days are exclusive to NHC schools. Field days are usually a half day and can reach up to 300 students. Field Day stations include topics related to forestry, water quality, wildlife, plants and soils, etc. This is an excellent way to engage an entire grade in one day!

## Envirothon Competition

- 💧 Middle and High School Students
- 💧 Regional competition = Free
- 💧 State competition requires sponsorship from local SWCD, registration fee applies

### Description:

The Envirothon is a team-based competition for middle and high school students that are interested in natural resources and ecology. Teams of 5 participate in the event, which is set up as a field day with testing stations related to different natural resource subjects. NHSWCD aids students by providing resources and forming teams.



Pre-competition materials available at:

- 💧 [www.ncenvirothon.org](http://www.ncenvirothon.org)
- 💧 Your local SWCD

Additional contests include:

- 💧 Poster Contest
- 💧 Essay Contest
- 💧 Public Speaking Contest
- 💧 PowerPoint Contest
- 💧 Computer Poster Contest
- 💧 TreeFest Poetry Contest

# NHSWCD Community Programs

## Stormwater 101 Presentation

- 💧 Suggested for HOAs, civic groups, and other community groups
- 💧 Free!

### Description:

Speaker led crash-course on the basic concepts surrounding stormwater runoff, pollution, and water quality. Topics discussed include types of pollution, watersheds, water systems, and how polluted runoff impacts our waterways. Simple, low-cost, effective solutions that can be implemented by homeowners are also emphasized.

## Teacher Workshops

- 💧 Teachers of all levels
- 💧 Registration fee applies

### Description:

Throughout the year, NHSWCD frequently offers workshops to provide resources and training to New Hanover County teachers. The workshops are led by trained facilitators with backgrounds in natural resource management. Workshop activities include:

- Guest Lecturers
- Presentations
- Group Activities
- Hands-on Lessons

## Storm Drain Marking

- 💧 Free!
- 💧 Best for smaller groups

### Description:

Students, parents, teachers, etc. go to a designated area in the city to place awareness markers on storm drains. Educational door hangers are distributed to surrounding residences and businesses. Participants learn about protecting our waterways and the importance of keeping them clean. Liability release forms are required.





# NHSWCD Community Programs

## Stormwater Solutions (BMPs)

- Available to New Hanover County landowners
- Available to New Hanover County agricultural operations

### Description:

NHSWCD offers two voluntary, incentive-based conservation programs to New Hanover County landowners. These programs are the Community Conservation Assistance Program (CCAP) and the Agriculture Cost Share Program (ACSP). Both programs allow NHSWCD to use State appropriated funds to assist landowners in the design and implementation of stormwater best management practices (BMPs).



\*Applications for Community Conservation Cost Share and Agricultural Cost Share grants are available at:

<http://soilwater.nhcgov.com/programs/stormwater-solutions/>

## Canines for Clean Water

- Provided in collaboration with City of Wilmington Stormwater Services
- Free!
- Suggested for all ages, families

### Description:

Educates pet owners on the importance of picking up pet waste to reduce fecal bacteria entering our waterways- even in your own backyard! Dog owners participate by signing the 'Canines for Clean Water Pledge' at local events to receive FREE doggie bandana and other goodies. Photos of proud dogs sporting their bandanas can be viewed at:

[www.wilmingtonnc.gov/canines](http://www.wilmingtonnc.gov/canines)

## Monthly Rain Barrel Sale

- Adults, property owners
- 2nd Thursday of each month, year-round
- 9 a.m. to 4:30 p.m.
- Rain Barrel USA 60/90 gal barrels available



### Description:

The City of Wilmington Stormwater Services and New Hanover Soil & Water Conservation District partner to bring discounted rain barrels to the public. Benefits of installing a rain barrel include reducing stormwater runoff, collecting free water all year long, and reducing your water bill! Located at NHC Government Center (230 Government Center Dr)



# North Carolina Coastal Federation (Federation)

*“The N.C. Coastal Federation empowers coastal residents and visitors from all walks of life to protect and restore the water quality and critically important natural habitats of the N.C. coast.”*

The North Carolina Coastal Federation (NCCF) is an organization dedicated to protecting the NC coast through restoration, conservation, and education. Supported by its members, NCCF takes an active role in local communities to bring together vital stakeholders and empower residents to participate in water quality improvement projects.

## School Programs:

- 💧 Schoolyard Rain Gardens
- 💧 Oyster Education Program
- 💧 Walk the Loop Field Trip
- 💧 Salt Marsh Explorations

## Community Programs:

- 💧 Summer Group Programs
- 💧 Teacher Workshops
- 💧 Touch Tank Tuesdays
- 💧 Volunteer Opportunities & Service Learning

### Contact:

Ted Wigis, Coastal  
Education  
Coordinator

910-798-7137  
[tedw@nccoast.org](mailto:tedw@nccoast.org)

Fred & Alice  
Stanback Coastal  
Education Center  
309 W. Salisbury St.  
Wrightsville Beach,  
NC 28480



# Federation School Programs

## Schoolyard Rain Gardens

- 💧 All grade levels
- 💧 Free!

### Description:

Students, teachers, parents and local volunteers team up to design, install and maintain rain gardens on school campuses. The federation also offers rain garden education programs for schools that already have gardens, in addition to maintaining them and doing volunteer events. These activities can range from percolation tests with high schoolers to scavenger hunts with kindergarteners.

## Oyster Education Program

- 💧 2<sup>nd</sup> – 12<sup>th</sup> grade
- 💧 Free!

### Description:

The Oyster Education Program connects students to the coast using oysters in the classroom and in the field to create knowledge and awareness about their importance. Dissection activities are correlated to the N.C. Essential Standards to help teachers integrate the program into their courses. High school students are encouraged to join the federation in oyster monitoring at their reefs.



💧 Schoolyard rain garden



💧 Oyster show and tell



💧 Students studying native plants

# Federation School Programs

## Walk the Loop for Clean Water

- 💧 All grades
- 💧 Free!

### Description:

Join the Federation on a 0.5 mile walking tour of the stormwater reduction projects constructed at Wrightsville Beach, and see how they help to keep our waters clean. The tour begins and ends at the Fred & Alice Stanback Coastal Education Center and passes 7 educational stormwater reduction stations along the way. These functional projects include rain gardens, pervious pavement, cisterns, and more!

## Salt Marsh Exploration

- 💧 All grades, activities vary
- 💧 Free!

### Description:

Join the federation to pull seine nets or toss cast nets and see some of the amazing animals that call our local waters home! Students will be amazed at the great diversity of creatures in our creeks and bays! Younger students pull nets, explore the diversity of the salt marsh, play salt marsh games and do a scavenger hunt. Older students perform water quality testing and learn how to identify coastal species, in addition to other activities.



💧 Native Plant Garden at the Stanback Coastal Education Center



### Salt Marsh Exploration Activities include:

- 💧 Planting marsh grasses
- 💧 Monitoring living shorelines
- 💧 Bagging recycled oyster shells (high school)
- 💧 Building reefs (high school)

# Federation Community Programs

## Summer Group Programs

- 💧 Available to pre-arranged groups
- 💧 Customizable to age range

### Description:

Private group programs are available to certain groups that meet in the summer (community groups, church groups, year-round schools, etc.) and are offered on a case-by-case availability basis. Field and educational activities may be tailored to cover a wide range of specific topics, however arrangements must be made in advance! Contact the Federation directly for specific options.

## Teacher Workshops

- 💧 K-12 educators
- 💧 Registration fee applies

### Description:

Public school teacher training programs serve as opportunities for enriched learning and reinforcement of crucial lessons. The weeklong cross-disciplinary seminars allow teachers from across the state to immerse themselves in a wide range of experiential studies and return to their classrooms recharged with energy and resources. NCCF's educators are experts in teaching about watersheds and the importance of estuaries through hands-on techniques.



💧 "Community cleanup



💧 Past summer camp



💧 Educating the educators

# Federation Community Programs

## Touch Tank Tuesdays

- 💧 All ages
- 💧 Free!
- 💧 10 a.m. to 1 p.m. every Tuesday from June-August

### Description:

What's better than seeing shells at the beach? Being able to touch, interact and learn about the living creatures inside. From slimy kelps to cute, shy hermit crabs to friendly whelks, our weekly touch tanks will introduce you to some of the most interesting creatures that roam the North Carolina coast.



💧 Touch Tank Tuesday

## Volunteer Opportunities & Service Learning

- 💧 All ages
- 💧 Various durations and activities

### Description:

Federation volunteers have the opportunity to meet new people, learn new skills and contribute to the community. Field activities can also be incorporated in school programs, and include:

- Wetland restoration
- Oyster restoration
- Project maintenance
- Coastal cleanups, and more!

All volunteer events can be found at:

<http://www.nccoast.org/events/>



💧 Rain garden constructed by volunteers





# Airlie Gardens

Few places in the Cape Fear region capture as much natural beauty and ecological diversity as the 67-acres which define Airlie Gardens. Airlie's Environmental Education (EE) Program provides inquiry-based learning and experiential, hands-on activities to teach concepts in wildlife, soil stewardship, water quality and more. Education offerings are diverse and range from curriculum correlated field trips to citizen science and bird hikes.

## School Programs:

- 💧 Habitat Walk Field Trip
- 💧 2<sup>nd</sup> Grade Life Cycles Field Trip
- 💧 3<sup>rd</sup> Grade Plants & Soils Field Trip
- 💧 4<sup>th</sup> Grade Adaptations Field trip
- 💧 8<sup>th</sup> Grade Water Quality Field trip

## Community Programs:

- 💧 Butterfly House
- 💧 Educator in the Garden
- 💧 Summer Programs & Visiting Camp Programs

### Contact:

Environmental  
Education Coordinator

910-798-7564

Online form at:

[http://airliegardens.org/  
contact/](http://airliegardens.org/contact/)

300 Airlie Road  
Wilmington, NC 28403



# Airlie Gardens School Programs

## Habitat Walk Field Trip

- 💧 Pre-K, kindergarten and 1<sup>st</sup> grade
- 💧 1-1.5 hours

### Description:

Students will visit various areas of the garden and look for different aspects of habitats for plants and animals. During this nature walk, our educators will interpret the plants and animals we see, such as comparing different types of birds, investigating how plants are adapted to their environment, and seeing how plants and animals interact. Field trips scheduled between mid-May and mid-October will include a visit to the Butterfly House.

## 2<sup>nd</sup> Grade Life Cycles Field Trip

- 💧 2<sup>nd</sup> grade
- 💧 2 hours

### Description:

This program focuses on the life cycle of butterflies. It is best suited for late summer/early fall, or late spring/early summer so students can get up close and personal with living butterflies in Airlie's 2,700 square foot butterfly house (open seasonally from mid-May through mid-October). Students will view a short slide show, then venture into the garden to look for butterflies, caterpillars, or the plants they use to survive.



💧 Plant and wildlife identification



💧 Educational presentation



💧 Eco tour field observations

# Airlie Gardens School Programs

## 3<sup>rd</sup> Grade Plants & Soils Field Trip

- 💧 3<sup>rd</sup> grade
- 💧 2-2.5 hours

### Description:

Students will search for decomposers in the Airlie Woods, experiment with different soil textures, discover what we can learn about the environment by looking at the growth rate of trees, and learn how pollinators do their important jobs.

## 4<sup>th</sup> Grade Adaptations Field Trip

- 💧 4<sup>th</sup> grade
- 💧 2-2.5 hours

### Description:

Students will search for decomposers in the Airlie Woods, experiment with different soil textures, discover new information about trees, and learn how pollinators do their important jobs.

## 8<sup>th</sup> Grade Water Quality Field Trip

- 💧 8<sup>th</sup> grade, EnviroScape is a good pre-visit activity
- 💧 3 hours
- 💧



### Description:

Using our unique ability to see both freshwater and saltwater ecosystems, eighth graders will explore the biodiversity of the plankton, macroinvertebrates and mollusks that call Airlie Gardens home. Students will conduct water quality testing, then use their knowledge of the sources of water pollution and the ways we can prevent water pollution to predict the safety of the water at Airlie and throughout our community.

# Airlie Gardens Community Programs

## Butterfly House

- 💧 All ages
- 💧 Cost included with general admission
- 💧 Open daily May 15-October 15

### Description:

Surround yourself in serenity by walking through the Tranquility Garden, home to Airlie's 2,700-square foot native butterfly house. Hundreds of butterflies, all native to North Carolina, can be found flying about inside this open-air structure. In addition to butterflies, The Butterfly House, built entirely with private funds, is laden with plant species that support the habitat needs of these animals. Releases scheduled throughout the summer.

## Summer Programs & Camps

- 💧 Available to visiting camps ages 5 - 11
- 💧 Available to families

### Description:

Join Airlie Gardens and several local co-sponsors and hosts to see the variety of summer experiences that Airlie Gardens has to offer. Examples include monthly bird hikes, weekly butterfly releases, family fun nights, and special programs for visiting summer camps. Programs for visiting camps are by reservation and a fee applies. Field Trip Request Form available at:

<http://airliegardens.org/education/field-trips-offered/book-your-field-trip/>

## Educator in the Garden

- 💧 All ages
- 💧 Free for members, or included with general admission
- 💧 Third Thursday each month, 2 - 4 p.m.

### Description:

Each month, Airlie's education staff set up displays and interactive activities on topics that vary seasonally. Ask the ticket agent for the location, as it will vary from month to month. Made possible by the North Carolina GlaxoSmithKline Foundation Ribbon of Hope Grant for science education.



Photo by Charlie English



# NC Aquarium at Fort Fisher (NCAFF)

*“Inspiring appreciation and conservation of North Carolina’s aquatic environments”*

The N.C. Aquarium at Fort Fisher connects visitors with the wonders of nature and aquatic wildlife. All three N.C. Aquariums and Piers are owned by the state of North Carolina and are administered by the Department of Natural and Cultural Resources (NCDNCR). The N.C. Aquarium at Fort Fisher is one of only 230 accredited members of the Association of Zoos and Aquariums (AZA), a non-profit organization dedicated to the highest standards in the areas of conservation, animal welfare, education, science and recreation. In addition, the Aquarium is an AZA partner in SAFE: Saving Animals from Extinction.

## School Programs:

- 💧 Self-Guided Tours
- 💧 Animal Programs
- 💧 Behind the Scenes Tours
- 💧 Sea Turtle STEM Curriculum
- 💧 Job Shadow, Senior Projects and Volunteering
- 💧 Distance Learning
- 💧 Salt Marsh Exploration
- 💧 Outreach

## Community Programs:

- 💧 FrogWatch USA
- 💧 Summer and Day Camps
- 💧 Scout Programs

## Contact:

Andy Gould,  
School Programs  
Coordinator

910-772-0560

[Andy.gould@ncaquariums.com](mailto:Andy.gould@ncaquariums.com)

900 Loggerhead Road  
Kure Beach, NC 28449

[www.ncaquariums.com/fort-fisher](http://www.ncaquariums.com/fort-fisher)



# NCAFF School Programs

## Self-Guided Tours

- 💧 All, customizable to grade level
- 💧 Free!

### Description:

The North Carolina Aquariums provide admission to all North Carolina schools who pre-register for a trip during normal school session. Daily programs are offered at no charge, including dive presentations, animal feedings, and animal presentations. Grade level specific scavenger hunts are also available on the aquariums website.

## Animal Programs

- 💧 All, customizable to grade level
- 💧 \$4/student
- 💧 1 hour

### Description:

School groups can request more in depth animal programs on topics such as sharks, invertebrate, whales, and reptiles. Programs include hands on activities, animal artifacts, and live animals when possible. Appropriate for first grade through university students.



💧 Self-guided tour



💧 Behind the scenes



💧 Sea turtle in the aquarium

# NCAFF School Programs

## Behind the Scenes Tours

- 💧 6<sup>th</sup> grade – University
- 💧 1 hour
- 💧 \$7/student

### Description:

Join staff on a behind the scenes tour and see what it is like to be responsible for the aquarium's animals. Learn about water quality, animal care best practices, and see examples of the many animals born in aquarium care. This tour will take you places many guests never get to see!

## Sea Turtle STEM Curriculum

- 💧 Kindergarten – 5<sup>th</sup> grade
- 💧 Free!

### Description:

[Seaturtleexploration.com](http://Seaturtleexploration.com) offers a STEM curriculum created by the North Carolina Aquarium at Fort Fisher focused on turtles native to North Carolina. The curriculum includes a variety of hands on activities, facts and information about turtles, a regularly updated blog featuring professionals who work with turtles around the world, and the ability to adopt one of our juvenile loggerhead turtles for free! We offer interactive workshops several times a year to introduce teachers to the curriculum.

## Job Shadow, Senior Projects, and Teen Volunteers

- 💧 High School

### Description:

Students completing their senior project, or short-term, school required community service, assist in the Education and Husbandry departments to gain a broad overview of Aquarium operations and exhibits. In the year-round program, high school students, ages 14-17, volunteer 8 hours per month for 6 months in the Education Department. During the summer program, teens volunteer 8 hours per week for 10 weeks from June through August. Both programs allow volunteers to interact with and educate visitors at two touch pools, a sea turtle exhibit, and an eagle exhibit. For more information, please visit [www.ncaquariums.com/fort-fisher-teen-volunteers](http://www.ncaquariums.com/fort-fisher-teen-volunteers).



# NCAFF School Programs

## Distance Learning

- 💧 Various grade levels
- 💧 45 minutes
- 💧 \$100 for North Carolina schools

### Description:

Connect with the Aquariums virtually through Skype, Google hangouts, and other virtual learning technologies. NCAFF offers programs on American alligators as well as ocean acidification. This program is only available during the traditional school calendar.

## Salt Marsh Exploration

- 💧 2<sup>nd</sup> grade – University
- 💧 2 hours
- 💧 \$8/student

### Description:

Join us for a hands-on program that introduces students to the fun of catching blue crabs. Activities include lessons in the biology of crustaceans, crab rigs, bait, exploring a shrub thicket, pulling a seine or dip net through the salt marsh, and the importance of dunes, marsh grasses, and food webs. Available April 1st to September 30th.

## Outreach

- 💧 All, customizable to grade level
- 💧 Fee dependent on location
- 💧 NC Essential Science Standards

### Description:

Bring the Aquarium to you! We offer a wide variety of animal and ecosystem based programming, aligned with NC Essential Science Standards. Each program includes hands on actives, animal artifacts, and live animals when possible. Programs fees dependent on number of students and distance traveled. Please contact the aquarium for more details!



# NCAFF Community Programs

## FrogWatch USA

- 💧 All Ages
- 💧 Voluntary, Free

### Description:

National citizen science program that monitors frog and toad populations, with volunteers trained to identify the breeding calls of local species and report them through the spring and summer. Volunteers are encouraged to select their own sites to monitor, and requirements to volunteer are minimal. The Aquarium offers trainings for new volunteers each spring. Please contact the aquarium for more details!

## Scout Programs

- 💧 Customizable to age group
- 💧 Prices available online

### Description:

Join Aquarium instructors on an adventure that fosters creative exploration, scientific theory and hands-on fun! The aquarium offers several in depth programs for scout groups on topics varying from oceanography and water quality to reptiles and amphibians. Many scout groups also take advantage of our “sleep with the fishes” sleepover option. Contact us for more information!

## Summer & Day Camps

- 💧 Ages 4-16
- 💧 Prices available online

### Description:

Each summer, and on special days throughout the year, the Aquarium offers fun, hands on learning experience through our camp programs. Options are available for ages 4-16 years old, and each camp is themed to offer different experiences throughout the summer and school year.





# Halyburton Park

The Halyburton Park Nature Preserve is a 58-acre tract of land that is owned by the City of Wilmington and managed by the Parks & Recreation Department. The land is 70% undeveloped, with a handicap-accessible 1.3 mile hike and bike trail circling its perimeter and natural hiking trails delving into the heart of the parks natural areas. Environmental Education programs are offered for kids, adults, families and groups.

**All program pre-registration!** See seasonal activity list at [www.halyburtonpark.com](http://www.halyburtonpark.com) or call 910-341-0075 for more information.

## School Programs:

- 💧 Sensory Safari
- 💧 Shapes and Colors of Nature
- 💧 Animal Habits and Habitats
- 💧 Treemendous Trees
- 💧 Incredible Insects
- 💧 Pond Study

## Community Programs:

- 💧 Little Explorers
- 💧 Educational Workshops
- 💧 NC Birding trail Hikes
- 💧 Kayaking
- 💧 Summer Evening Series

## Contact:

Andy Fairbanks,  
Recreation Supervisor

910-341-0075

[andy.fairbanks@wilmingtonnc.gov](mailto:andy.fairbanks@wilmingtonnc.gov)

4099 South 17th Street  
Wilmington, NC

[www.halyburtonpark.com](http://www.halyburtonpark.com)



# Halyburton Park School Programs

## Sensory Safari

- 💧 Pre-K thru 1<sup>st</sup> grade
- 💧 \$2/person per program
- 💧 Pre-registration required

### Description:

Students explore the park using their five senses to develop a basic understanding of seasonal change and how it can affect the plants and animals in our area. Includes: introduction to naturalist, park and program, discussion of 5 senses and 4 seasons, discussion of weather and seasons, and a trail walk to explore the plants and animals in the park. Students use their senses to discover the season and use descriptive/sensory words to describe their experience in a silent, listening activity.

## Shapes and Colors of Nature

- 💧 Pre-K
- 💧 \$2/person per program
- 💧 Pre-registration required

### Description:

Students will discuss familiar shapes and colors and compare them with the shapes and colors found in nature. The activity will start with a trail walk to explore the world of the outdoors to discover shapes and colors in plants, rocks, leaves, trees and logs. The lesson concludes with a review of the walk and the objects, shapes and colors that students found.



💧 Park Naturalists lead nature programs



💧 Combination of classroom & hands-on learning

# Halyburton Park School Programs

## Animal Habits and Habitats

- 💧 Kindergarten, 1<sup>st</sup> grade
- 💧 \$2/person per program
- 💧 Pre-registration required

### Description:

Students will gain a general knowledge of animals found in the area and how they survive in the environment. The group and park naturalist will discuss common animals found in the park, investigate their different needs (air, water, food, shelter, space) and compare and contrast the physical characteristics, development, movement, habitats, and eating habits of animals. A hands-on activity to observe and collect leaf litter critters is conducted and discussed.

## Treemendous Trees

- 💧 1<sup>st</sup> and 3<sup>rd</sup> grade
- 💧 \$2/person per program
- 💧 Pre-registration required

### Description:

The Treemendous program introduces students to basic tree biology to discuss trees as a resource which are valuable to animals and people, including how certain trees benefit from fire. Students play “build a tree” game to learn the parts of a tree and their functions. The program culminates with a trail walk to identify some common trees and learn about leaf shapes, twig structure and bark.

### **General Field Trip Info:**

- 💧 Requests must be made 2 weeks in advance
- 💧 Minimum group size of 6 participants (\$20 minimum)
- 💧 Programs are best enjoyed by groups smaller than 25 students



# Halyburton Park School Programs

## Incredible Insects

- 💧 2<sup>nd</sup> grade
- 💧 \$2/person per program
- 💧 Pre-registration required

### Description:

Park naturalist introduces the parts of an insect and discusses metamorphosis with a “life cycles” poster and students discuss insects’ needs: food, air, and space to grow. Students then hike to collection area and catch and release insects. The activity concludes with identification, comparison, and discussion of the importance of insects in certain ecosystems.

## Pond Study

- 💧 4<sup>th</sup> and 5<sup>th</sup> grade
- 💧 \$2/person per program
- 💧 Pre-registration required

### Description:

Students learn the basic components of a pond ecosystem by discussing the types of ponds found in the park (permanent and vernal). A park naturalist leads the group in collection, identification of pond animals, insects, invertebrates, and macroinvertebrates in and around the pond and their roles in the different pond ecosystems are discussed.



# Halyburton Park Community Programs

## Little Explorers Program

- 💧 Preschool
- 💧 \$3/participant, pre-registration required
- 💧 Thursday & Friday 10 - 11 a.m.

### Description:

Bring your “Little Explorers” out to the park and discover nature through stories, songs, hands-on activities, hikes and crafts. Your children will delight in the many nature themes we explore each month. Space is limited! Check online event calendar for details.

## NC Birding Trail Hikes

- 💧 All ages, families
- 💧 Pre-registration required, \$10/participant

### Description:

The NC Birding Trail is a driving trail to link birders with great birding sites across the state and the local communities in which they are found. Each month generally on the third Thursday we will explore a different site along the Coastal Plain Trail. Transportation is provided.

## Educational Workshops

- 💧 All ages, families
- 💧 Pre-registration required, fee may apply

### Description:

A variety of environmental education workshops are held throughout the year and include Spring Migratory Bird Identification, Birding By Ear, Coastal Wildlife Workshop, Fall Migratory Bird Identification, Black Bear Eco-tour to Pocosin Lakes NWR, Outer Banks Birding Trip and Winter Bird Identification. Other workshops may include Project WET, WILD, Learning Tree and Flying Wild.



North Carolina Native Plant Society & Wake Audubon



# Halyburton Park Community Programs

## Kayaking Eco-Adventures

- 💧 Pre-registration required, fees vary
- 💧 Monthly, May - October

### Description:

Kayaking eco-adventures are scheduled May through October with one trip each month. Trips will be offered along the Black River, Masonboro Island, Shark's Tooth Island, Eagle Island and occasionally Rice or Town Creek. These adventures focus on a combination of outdoor adventure and education. Participants will explore and learn about the local flora and fauna that is unique to Southeastern North Carolina found in swamps, Blackwater Rivers and estuarine waters.

## Summer Evening Nature Series

- 💧 Ages 5 +, families
- 💧 Wednesday evenings, times varies (seasonal)
- 💧 Pre-registration required, \$5/participant

### Description:

Enjoy a Wednesday evening in the park with your family learning about nature. Each week a new theme will be presented. Example themes include bees, snakes of NC, alligators, and more!



💧 Kayakers on the Black River



💧 A past Summer Evening Series featuring bats



## Additional Organizations

### Surfrider Foundation—Cape Fear Chapter

The Surfrider Foundation is a community of everyday people who passionately volunteer their time to protect our playground - the ocean, waves, and beaches -that provide us so much enjoyment. The Cape Fear Chapter has been protecting the coastal areas of North Carolina since 1993. With your help we can do more! Check out our local chapter's website for membership info and volunteer opportunities: <https://capefear.surfrider.org/>. Surfrider is also available for ocean-related classroom and community visits by request!

Ongoing local and national campaigns include:

- 💧 Offshore Drilling Campaign
- 💧 Smoke-Free Beaches
- 💧 Ocean-Friendly Gardens
- 💧 Ocean-Friendly Establishments



### North Carolina Coastal Land Trust

The Coastal Land Trust works with landowners to conserve lands with scenic, recreational, historic and/or ecological value. Our mission is to enrich the coastal communities of our state through conservation of natural areas and working landscapes, education, and the promotion of good land stewardship. Information available at: <http://coastallandtrust.org/>



Volunteer opportunities are coordinated by AmeriCorps and include:

- 💧 Stewardship Volunteers (trail work, planting, invasive species removal, field trips)
- 💧 Office Volunteers (office work, mailings)
- 💧 Event Volunteers (events, parties)

Email [americorps@coastallandtrust.org](mailto:americorps@coastallandtrust.org) for additional information!



Updated Spring 2017  
For edits to this document contact:  
City of Wilmington Stormwater Services  
(910) 343- 4777

