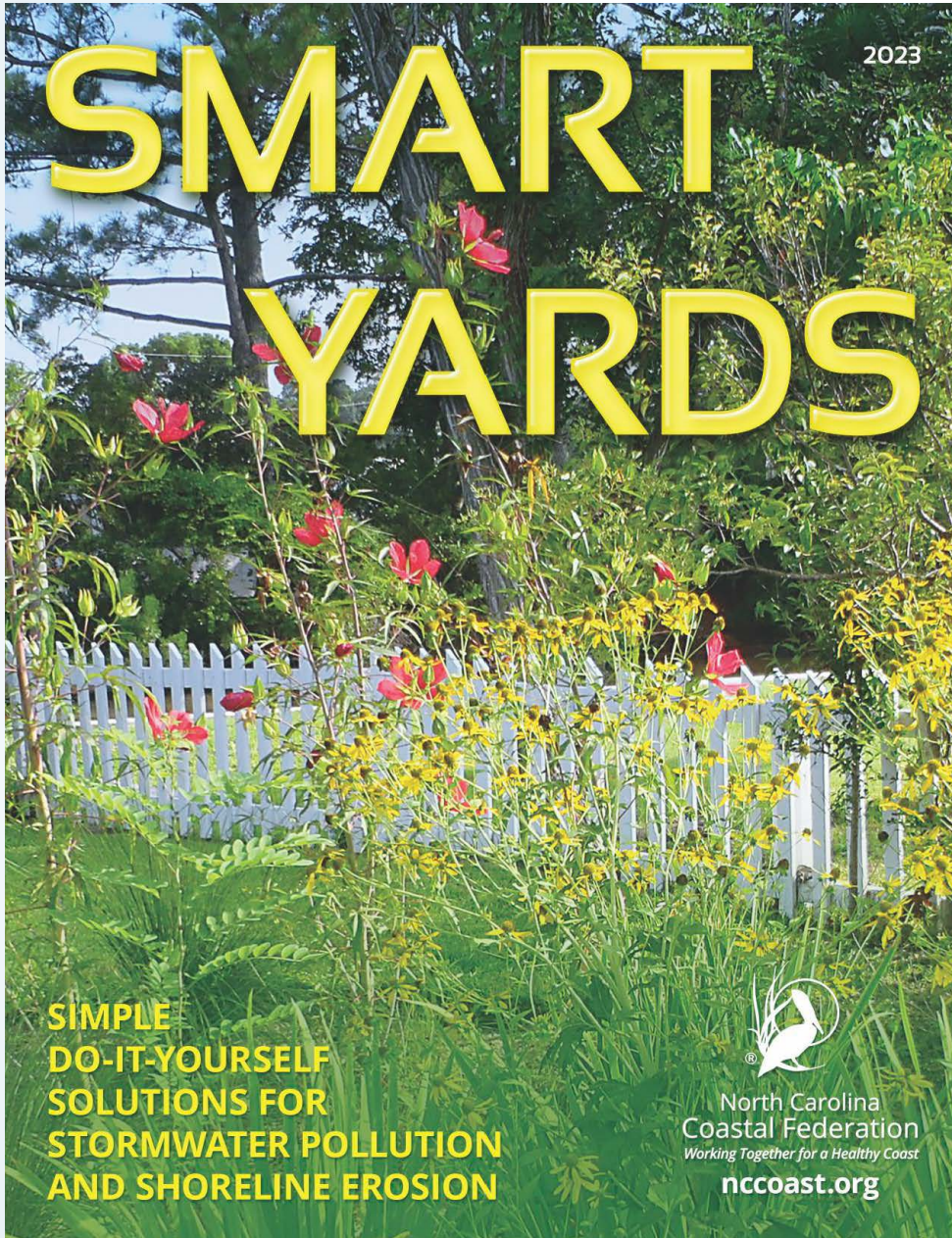




Maximizing Property Values with SmartYards

Presented by: Bonnie Mitchell,
Coastal Education Coordinator



North Carolina
Coastal Federation
Working Together for a Healthy Coast

About Us



501(c)3 Non-Profit

Member Supported

3 Regional Locations
across the coast

Non-partisan



North Carolina
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★★★★
CHARITY NAVIGATOR
Four Star Charity



North Carolina Coastal Federation

Working Together for a Healthy Coast

Programs



Salt Marsh



Oysters



Water Quality



Marine Debris

What We Work For – Our Goals

- ✓ Enhance Coastal Water Quality and Reduce Flooding



Why Have A Smart Yard Guide?

Because you care about keeping our creeks, rivers and sounds healthy for fishing and swimming. This guide includes simple Do-It-Yourself (DIY) Smart Yard projects to reduce stormwater and improve the health of our coastal waters.

What's the Problem?
Stormwater – it isn't soaking into the ground the way it used to. Rooftops, driveways, parking lots and other hard surfaces now drain stormwater runoff into streets, pipes and ditches that flow into our coastal waters. The polluted stormwater is full of bacteria and other pollutants. That is why we often see signs alerting us not to swim or catch shellfish. Valuable shorelines are also disappearing as more and more bulkheads and hardened structures are built along our coast.

What's the Solution?
Our Smart Yards guide offers simple techniques that can reduce the amount of stormwater running off your property. If you live on the water, you can also make your shoreline a "living shoreline" to reduce erosion and runoff and protect fragile coastal habitat. Collectively, simple things can really make a big difference.

What are Smart Yards and Shorelines?
Smart Yards use the soil, plants and containers (rain barrels) to capture the rain before it has a chance to become polluted runoff. Some techniques such as rain gardens absorb the runoff. Others, like rain barrels, catch the runoff for later use. Living shorelines are a more natural way to tackle shoreline erosion.

Together We Can Do It
If you need help with a project, just contact us at the North Carolina Coastal Federation at www.ncccoast.org or email nccf@ncccoast.org and we will gladly answer your questions and connect you with additional resources.

Even Simple Things Can Make A BIG DIFFERENCE
A downspout disconnection program in Portland, Oregon reduced 1.2 billion gallons of runoff each year by redirecting 56,000 downspouts in the city.

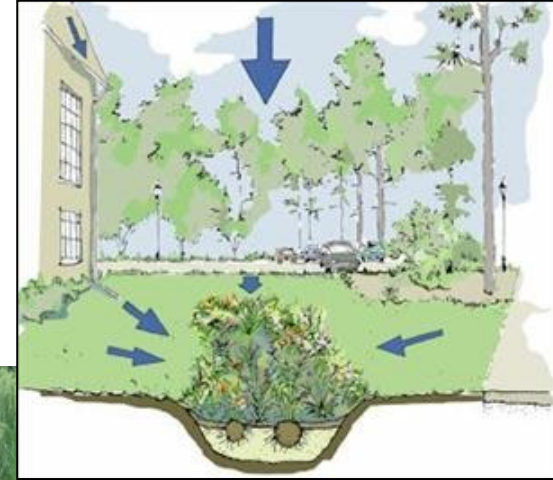


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Simple Do-It-Yourself Solutions to Reduce Stormwater Pollution

Smart Yards:

- Rain Gardens
- Reroute Downspouts
- Rain Barrels
- Native Landscaping and Tree Planting
- Permeable Paving
- Backyard Wetlands
- Living Shorelines

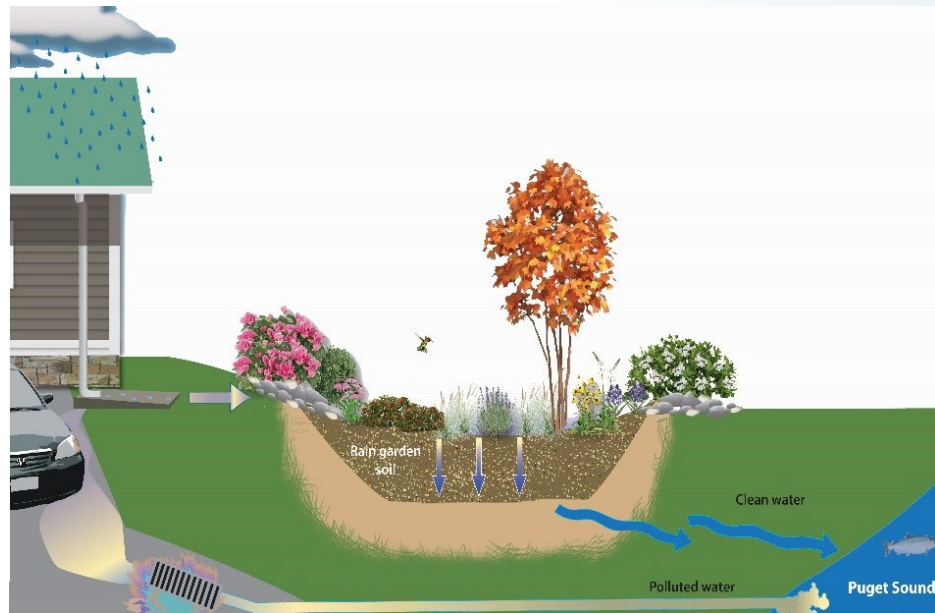
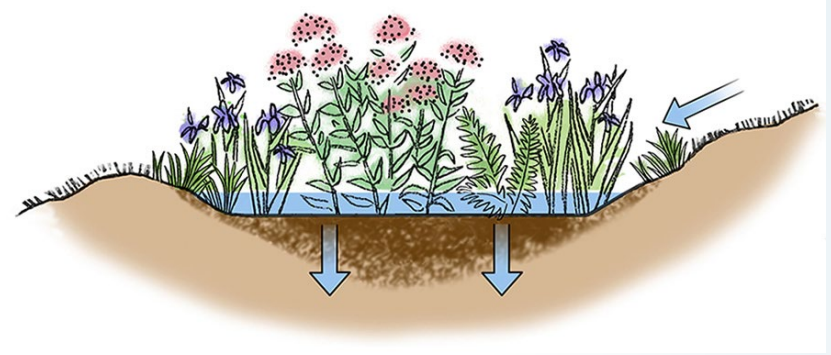


Simple Do-It-Yourself Solutions to Reduce Stormwater Pollution

Rain Gardens:

- Shallow, vegetated areas that capture rain during storms.
- Works like a bowl to collect rain from roofs, driveways and parking lots.
- Native plants and soil soak up the rain before it has a chance to become polluted stormwater runoff.

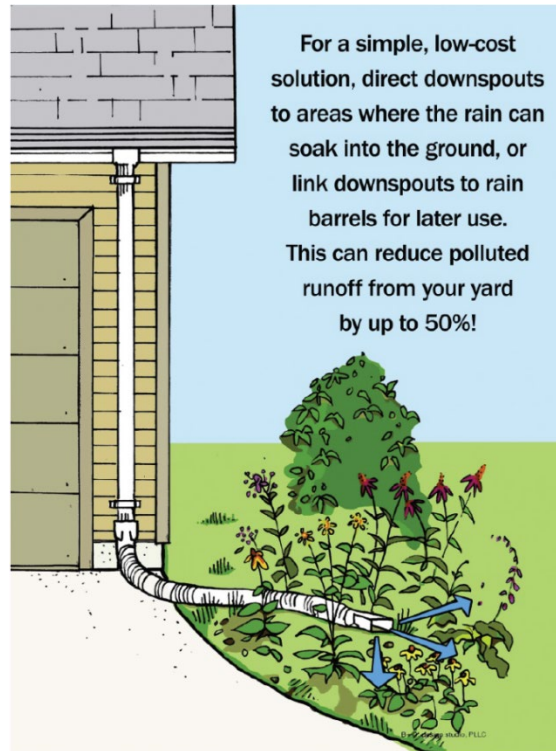
Did You Know?: Rain gardens can reduce stormwater runoff by 90% or more!



Re-route Downspouts:

Simple Do-It-Yourself Solutions to Reduce Stormwater Pollution

- Gutter downspouts pointing to driveways, sidewalks or parking lots direct rain from rooftops to the street, where it ends up as polluted runoff in storm drains and coastal waters.
- Instead direct downspouts to rain gardens, where the native plants and soil soak up and filter the rain.



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Simple Do-It-Yourself Solutions to Reduce Stormwater Pollution

Rain barrels:

- Rain barrels collect and store rainwater from building roofs.
- They help reduce stormwater runoff and provide a free source of water for watering plants and gardens.

Did You Know?:

Just $\frac{1}{4}$ inch of rain produces enough runoff to fill a 50 gallon rain barrel?





[Education & Outreach](#) +

[Land Conservation](#)

[Rain Barrel Sales](#)

[Stormwater Solutions](#) +

[Pages Creek Watershed
Restoration Plan](#)

[Home](#) » [Departments](#) » [Soil & Water Conservation District](#) » [Programs](#) » [Rain Barrel Sales](#)

Rain Barrel Sales

Are you looking for rain barrels in Wilmington? The Ivy Barrel is available at 50% below retail price!

The cost per barrel is \$85. **Cash or check only is accepted.** The barrels are available on a **first come, first serve basis**. If we sellout of rain barrels, then the sale will close early.

Sale Information as follows:

Rain Barrels are sold by appointment only in the months of November-February. Public sales occur in March-October:

- September 17th at the New Hanover Arboretum 8:30am-4pm.
- September 19th at the Wilmington Farmer's Market at Tidal Creek Co-op 8am-1pm

Ivy provides a new era of design innovation at an economical price. All parts are included for simple installation.



Soil & Water Conservation

Physical Address

230 Government Center Drive
Suite 100
Wilmington, NC 28403

Phone: [910-798-7130](tel:910-798-7130)

Fax: 910-798-7282

[Subscribe to
Our Newsletter](#)



- Made in the USA using 100% recycled materials!
- 50-gallon capacity, perfect for homeowners
- Locking child-proof lid, stable when full, mosquito resistant
- Two overflow ports and screened inlet (best in class!)
- .75 inches ball valve connects to garden hose
- Gravity fed-no pumps required
- Easily transport up to three Ivy barrels in a mid-size sedan
- Dimensions 42.5 inches in height by 22 inches in depth.

Top 5 Reasons to Harvest Rainwater

- Protect our local waterways from stormwater runoff pollution
- Utilize natural water while reducing your water bill
- Simple way to grow healthier plants and flowers
- Conserve water during summer months and in times of drought
- Help reduce erosion and flooding caused by runoff



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Simple Do-It-Yourself Solutions to Reduce Stormwater Pollution

Native Landscaping:

- Native landscaping includes the use of hardy native plants that occur naturally in the soils and climate of the southeast coastal region.
- Native plants soak up stormwater and provide habitat for local butterflies, bees and other insects.
- Native plants generally do not require fertilizers, pesticides and irrigation.



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COASTAL
NORTH CAROLINA



PLANT THIS INSTEAD!

Eco-friendly Alternatives to
Harmful Ornamental Plants

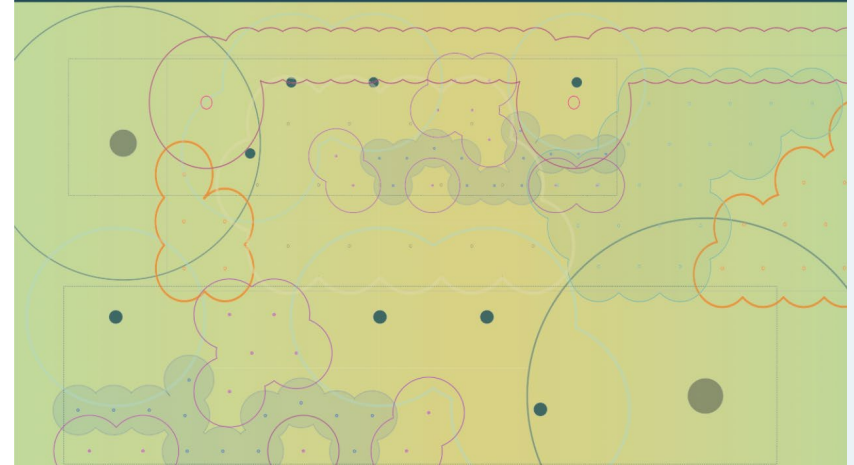


From the
COASTAL
LANDSCAPES
INITIATIVE



NC COASTAL LANDSCAPING DESIGNS

NATIVE PLANTING TEMPLATES FROM THE COASTAL LANDSCAPES INITIATIVE



COASTAL
LANDSCAPES
INITIATIVE

Sea Grant
NORTH CAROLINA



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Cape Fear

Native Plant Festival

Sept. 16 - 20



go.ncsu.edu/nativeplantfestival2026

- Horticultural Speakers
- Local Plant Shopping Day
- Native Garden Tours



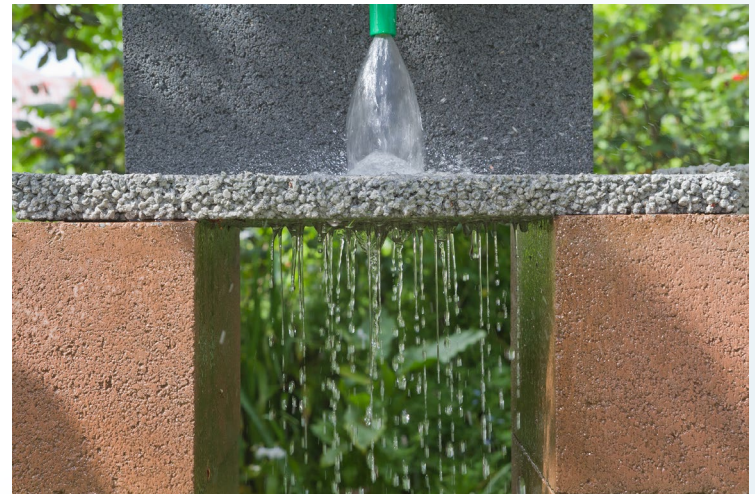
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Simple Do-It-Yourself Solutions to Reduce Stormwater Pollution

Permeable Paving:

- Pervious concrete allows stormwater to filter into the underlying soil vs. flowing off the site as polluted runoff.
- Unlike traditional concrete, pervious concrete lacks sand in its mixture which allows the rain to fill the tiny holes and seep into the ground.

Did you know?: Permeable concrete is now being used at many commercial, residential and institutional projects across the state.



POROUS ASPHALT

It is common to design porous asphalt in the parking stalls of a parking lot. This saves money and reduces wear.

DRAINAGE AREA

The drainage area of the porous asphalt system is the conventional asphalt cartway and the porous asphalt in the parking spaces. Runoff from the conventional asphalt flows into the porous asphalt parking spaces.

SUBGRADE

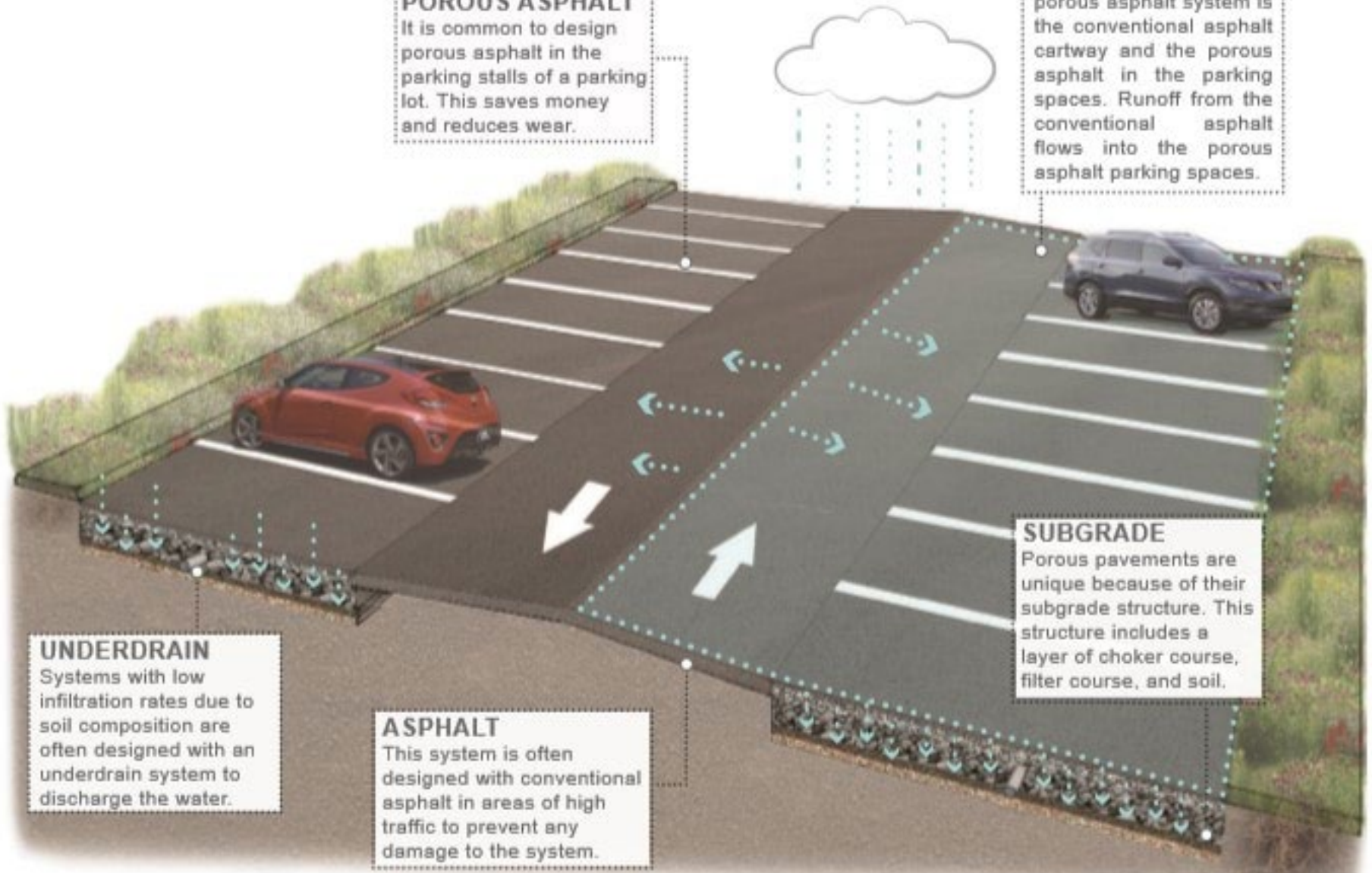
Porous pavements are unique because of their subgrade structure. This structure includes a layer of choker course, filter course, and soil.

UNDERDRAIN

Systems with low infiltration rates due to soil composition are often designed with an underdrain system to discharge the water.

ASPHALT

This system is often designed with conventional asphalt in areas of high traffic to prevent any damage to the system.



Simple Do-It-Yourself Solutions to Reduce Stormwater Pollution

Backyard Wetlands:

- Backyard wetlands are depressed wet areas that are enhanced with native wetland plants.
- They are well suited for yard areas that are usually wet for several days following rain.
- Backyard wetlands are generally in locations with high-water tables and soggy soils.



What We Work For – *Our Goals*

- ✓ Protect and Restore **Salt Marshes** to Foster Thriving Human and Natural Coastal Communities



North Carolina Coastal Federation's Living Shoreline Cost-Share Program

Sarah Bodin, Jacob Boyd, Georgia Busch, Margaux Kerr

Background

- North Carolina's estuarine systems are among the largest and most productive in the U.S., providing vital ecological and economic benefits such as fisheries, recreation, biodiversity, and water quality. However, coastal development and sea-level rise threaten these habitats.
- Traditional structures like seawalls often worsen erosion and harm ecosystems.
- In contrast, living shorelines use native vegetation and natural materials to stabilize coasts, support wildlife, filter water, and adapt to changing conditions.
- These nature-based solutions offer a sustainable, cost-effective alternative, helping to protect estuarine habitats and strengthen coastal resilience for the future.
- The North Carolina Coastal Federation's Living Shoreline Cost-Share Program has been in place for over 10 years with support from North Carolina Land and Water Fund, N.C. General Assembly, National Oceanic and Atmospheric Administration, National Fish and Wildlife Foundation, and Southeast Aquatic Resources Partnership. The education has been installing living shorelines for over 25 years.

Protecting and restoring North Carolina's estuarine habitats through natural shorelines and nature-based techniques is essential for ensuring long-term coastal resilience and the continued health of both the environment and coastal communities.



Program Includes

- Financial Assistance to tidal shoreline property owners looking for nature-based solutions for shoreline erosion control.
- Site Visits to identify erosion issues and propose nature-based solutions.
- Engineered Designs tailored to site conditions and needs.
- Permitting Assistance to streamline compliance.
- Maintenance and Monitoring to support the long-term health of living shorelines.
- Outreach and Education to promote living shorelines down the coast.
- Professional Training to grow the work force of marine contractors, landscapers, and nurseries.



Coastal Benefits

LIVING SHORELINES:

- Serve as critical fish nurseries
- Filter pollutants
- Protect the land from erosion
- Build habitat diversity
- Improve water quality
- Increase storm resiliency

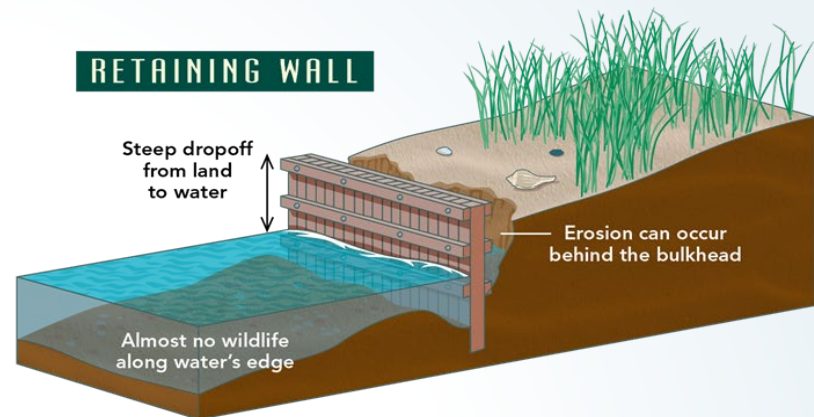
PROGRAM IMPACTS:

- Installed more than 6 miles of living shorelines, providing habitat and reducing erosion.
- Restored over 25 acres of wetland habitats critical to our coastal fisheries.

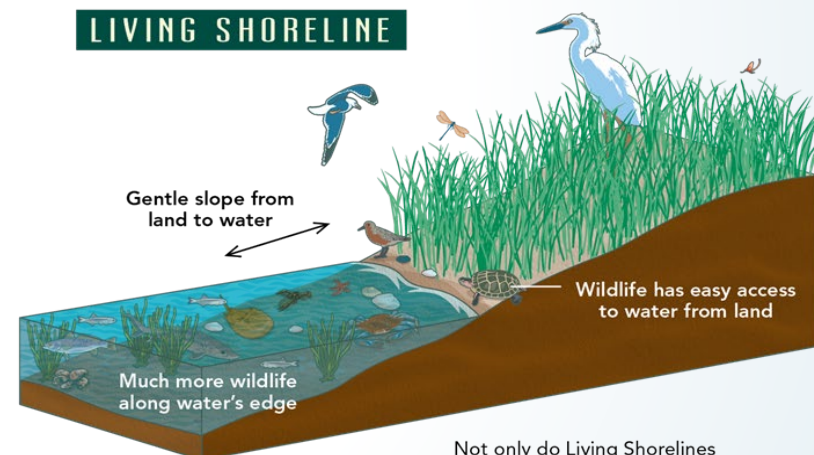
COASTAL JOB CREATION:

- Supports over 21 businesses such as marine contractors, nurseries, landscapers and engineers.
- Trained over a dozen contractors and restoration professionals.

The Coastal Federation's cost-share program for living shorelines provides substantial social, economic, and environmental benefits to coastal communities while enhancing long-term resilience. By reducing the financial burden on property owners, these programs make nature-based erosion control solutions more accessible and widely adopted. This supports the protection of homes, infrastructure, and public spaces from the impacts of storm surge, flooding, and sea-level rise, ultimately reducing long-term recovery costs, insurance premiums, and public expenditures on disaster response.



'Hard' infrastructure like retaining walls abruptly severs the ecological connection between the coast and water.



Not only do Living Shorelines defend land against destructive waves, but they also provide crucial habitat for fish and wildlife.



What We Work For – *Our Goals*

- ✓ Ensure an Abundance of **Oysters** that Support the Environment and Economy







RECYCLING FOR REEFS

A North Carolina Coastal Federation
Oyster Shell Recycling Program

Shells only. No trash. Do not remove shells.

Why Recycle Shells?

- *Recycled oyster shells are a valuable resource.*
- *Shells are returned to the sounds to build reefs.*
- *Baby oysters attach to the reefs and grow more oysters!*



New Oyster Reefs:

- *Provide habitat for fish, crabs, and shrimp.*
- *Help reduce soundside erosion.*
- *Filter water to clean our estuaries.*



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Visit the **North Carolina Coastal Federation** at
nccoast.org/shellrecycling and join our efforts.
Scan code or call 252.393.8185 for more information.

NC OYSTER TRAIL

"Experience the Napa Valley of oysters."

— Rowan Jacobsen, author of
A Geography of Oysters



LOCAL SEAFOOD



FINE DINING



OUTDOOR ADVENTURE



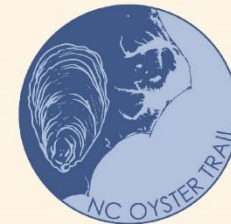
FESTIVALS & EVENTS



Photos: Justin Kase Conder

SHELLFISH FARM TOURS

The NC Oyster Trail
offers unique tourism
experiences centered
on North Carolina's
tasty oysters.



Plan your adventure at NCoystertrail.org



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What We Work For – *Our Goals*

- ✓ Ensure the Coast is Free of **Marine Debris**



Resilient Docks and Piers



Unencapsulated Polystyrene





ORDINANCE NO. 2022-002

AN ORDINANCE OF THE TOWN BOARD OF COMMISSIONERS OF THE TOWN OF TOPSAIL BEACH, NORTH CAROLINA, AMENDING THE TOWN CODE OF ORDINANCES, CHAPTER 6, BUILDINGS AND BUILDING REGULATIONS, ARTICLE III PIERS AND DOCKS, DEFINITIONS AND SECTIONS 98 AND 100, TO PROHIBIT UNENCAPSULATED POLYSTYRENE DOCKS.

WHEREAS, during a coastal debris cleanup sponsored by the Coastal Federation, large quantities of Polystyrene were found in all areas of our waters and marshlands along our coast. Polystyrene is a petroleum product, commonly known as Styrofoam. It is often used in dock floats because of its buoyancy; and

WHEREAS, polystyrene is neither readily recyclable nor biodegradable and takes hundreds of years to degrade in the environment. When exposed to the elements, it fragments into unsightly, small, nonbiodegradable pieces that may be ingested by marine life, wild and domestic water birds and other wildlife blocking the digestive system and killing them through starvation; and

WHEREAS, the deterioration of larger polystyrene floats into beads and smaller pieces create a pollution line along shorelines, intertidal land and other places where buoyant debris collects. Such pollution must be picked up and removed at the expense of the public and private citizens.

WHEREAS, to prevent such degradation, pollution and hazard to water dependent mammals and birds, polystyrene floats should be encapsulated in a hard polyethylene shell, which prevents the deterioration and spread of beads and smaller sections of polystyrene floats.

NOW, THEREFORE, BE IT ORDAINED by the Topsail Beach Town Board of Commissioners that Chapter 6 of the Land Development Code, Article III – Piers and Docks, Definitions and Section 98 and 100 is hereby amended subsequent to read as follows:

1. Section 16-33. Definitions. *(by adding the following definitions to be inserted according to alphabetical order)*

Polystyrene is a thermoplastic polymer or copolymer comprised of at least 80 percent styrene or para-methyl styrene by weight. (Commonly known as Styrofoam)

Unencapsulated polystyrene means polystyrene that is not completely encased within a polyethylene shell or within other comparable materials that protects against cracking, peeling, sloughing, and deterioration from ultraviolet exposure and physical trauma.

Hold the foam? Topsail Island looking at ordinance to prohibit foam docks



Chase Jordan

Wilmington StarNews

Published 6:00 a.m. ET March 18, 2022 | Updated 11:09 a.m. ET March 21, 2022

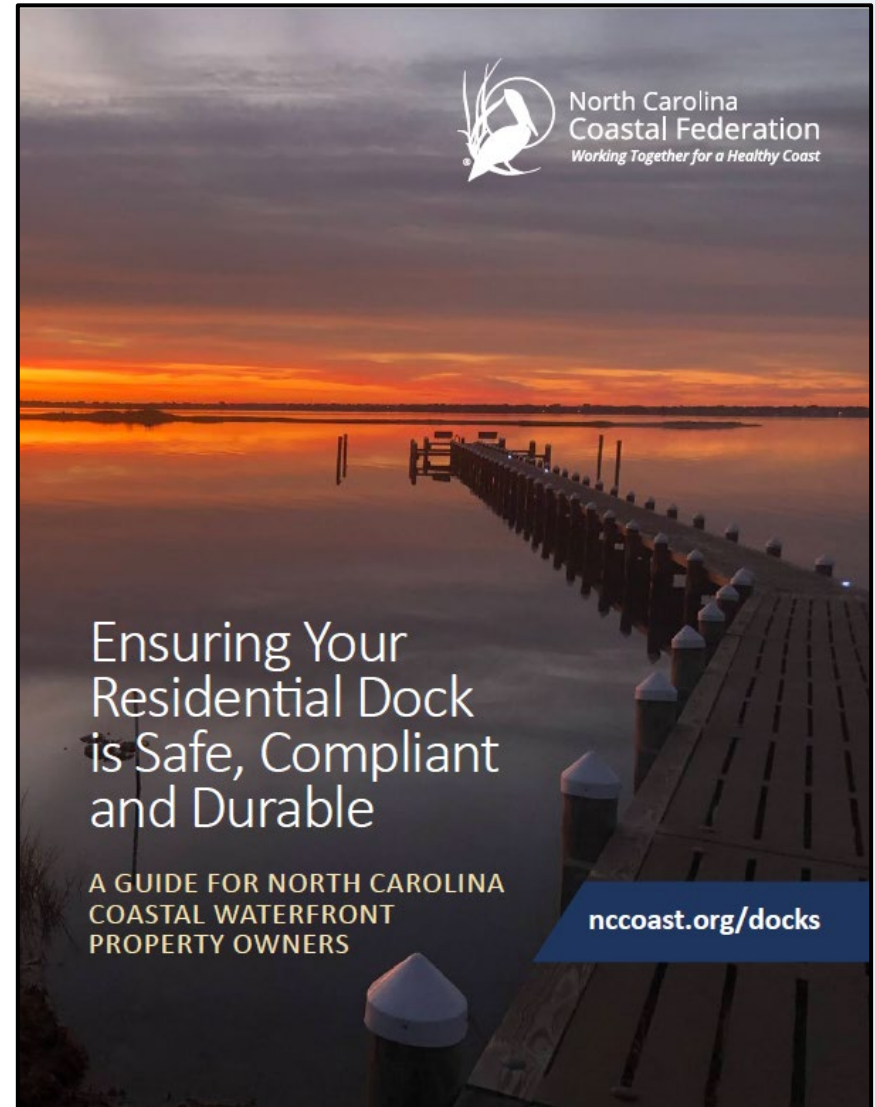
[View Comments](#)



North Carolina is the first state
in the **COUNTRY** to ban
unencapsulated polystyrene in
floating docks!

A Coastwide Effort

- Technical recommendations
- Helping property owners choose a contractor
- Pre-hurricane preparedness
- Coastwide public education campaign
 - Local gov't toolkit
 - Cost benefit analysis
 - Guidebook
 - Video testimonials
 - Social media posts



How SmartYards Enhance Property Values

- Boosts Curb Appeal
- Lowers Utility Bills for Homeowners
- Reduced Risk of Flooding and Erosion
- Increased Wildlife and Diversity
- Environmentally-friendly features attracts buyers
- Long-Term Value and Resale Potential



Want to Get Involved?

- Stay informed and educated
 - Check out nccoast.org
 - Subscribe to our newsletter
 - Subscribe to Coastal Review Online
- Sign up to be a volunteer
- Check out nccoast.org/events
- **Become a member**



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Upcoming Volunteer Opportunity

Shoreline Planting at
Carolina Beach
State Park

Tuesday, October 6
11 am – 1 pm

*Followed by lunch at
Sandspur*



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SAVE & SHARE THE COAST SUMMER MEMBERSHIP DRIVE

Your membership enters you into a raffle to win a two night stay in Ocracoke, NC.

- Two night stay for two with breakfast at Crews Inn
- Gift certificate to Ocracoke Coffee
- Expert local advice from friends of the Coastal Federation

Join or refer a friend by Sept. 26, 2026. nccoast.org/summerdrive



Questions, Comments or Concerns?



Northeast Regional Office

637 Harbor Road, P.O. Box 276
Wanchese, NC 27981
252-473-1607

Headquarters & Central Regional Office

3609 N.C. 24
Newport, NC 28570
252-393-8185

Southeast Regional Office

309 W. Salisbury Street
Wrightsville Beach, NC 28480
910-509-2838

www.nccoast.org