The Low Impact Homeowner

Here you will find guidelines on how to be an environmentally responsible homeowner. As a community, we need to help preserve beneficial ecosystem services provided by our waterways, wetlands, forests, and other natural areas. Our health, economy, and recreation depend on it.

If you would like to arrange a demonstration, workshop, or seminar on water quality, rain gardens, rainwater harvesting, etc., contact our Natural Resources Agent at Sabrina_Woofter@ncsu.edu.

Rain Garden at the New Hanover County Arboretum

GENERAL STORMWATER

Stormwater runoff is rain that runs over hard surfaces, picks up pollutants on the ground, and flows into our waterbodies untreated. This source of pollution is a very real problem for Brunswick County. It leads to poor water quality that affects the health of people, plants, and animals. Rainscapes are landscape enhancements (or Best Management Practices or Stormwater Control Measures) that reduce potentially harmful stormwater runoff.

Here is 12-page booklet from the NC Coastal Federation, specified for Brunswick County, on what you can do as a homeowner to help improve our water quality: SmartYards for Brunswick County

Here you will find a more detailed, 26-page guide on adjusting your landscape for water quality: Rainscaping
Please peruse the water-related publications listed on this NCSU Bio&AG Engineering site to learn more about the various ways biological engineering is improving our water quality.
The NCSU Stormwater Publications site lists more stormwater-specific publications that will be beneficial for homeowners, builders, and developers looking to improve local water quality.

RAIN GARDENS

Building a Rain Garden Although they can be complex, a rain garden is basically a vegetated bowl, or depression, in your yard that captures rain water and allows it to soak into the ground rather than run off your property. They generally follow the 10/10 rule: they are sized at 10% of the watershed flowing to them and are deep enough to hold 10 inches of rainwater. The link above will take you to a website that will explain everything you need to know about creating a rain garden of your own.
The Backyard Rain Garden Manual is a condensed, printable version of the above website. It will guide you through planning, installing, and maintaining a basic rain garden.

NATIVE PLANTS

Native Plants for Yards & Rain Gardens This is a list of plants that love the conditions of our Carolina coast: sometimes really dry and sometimes really wet. These plants are not only great to use in rain gardens but, depending on site conditions, can be used throughout your yard. Also, all of these plants are native!

Native Pink Muhly Grass

Why use native plants? They:

- decrease the amount of water needed for landscape maintenance
- require very little long-term maintenance if they are properly planted and established
- add beauty to the landscape and preserve our natural heritage
- provide food and habitat for native wildlife
- help slow down the spread of fire by staying greener longer
- produce long root systems to hold soil in place
- protect water quality by controlling soil erosion and moderating floods and droughts

Here is a more comprehensive list (with accompanying details) of beautiful, native trees, shrubs, and woody vines: Showy Native Plants Want to save water and time? Reduce the water needs of your garden (and be prepared for a drought!): Drought Tolerant Native Plants

INVASIVE PLANTS

Most invasive species came from far-away habitats. Our native plants did not develop defenses for these exotic species. Without natural checks, an exotic species can invade the native habitat, crowd out native plants, and reduce the diversity of foods available to birds and other wildlife.

Invasive Ligustrum Species

Check out this website if you think you may have an invasive species lurking in your yard: Invasive, Exotic Plants of the Southeast

OTHER WAYS TO RESPONSIBLY GARDEN

A Gardener's Guide to Protecting Water Quality This 12-page publication explains the water cycle and its connection to gardening, water absorption, soil erosion, fertilizers, and yard waste. Start cultivating better water quality today! Want to attract wildlife to your yard and help improve local biodiversity? Check out these guides: Landscaping for Wildlife with Native Plants Managing Backyards and Other Urban Habitats for Birds Butterflies in Your Backyard

PONDS & WETLANDS

Ponds and wetlands – stormwater and otherwise – pepper our landscape as they hold excess rainwater and provide habitat for plants and critters that add to the biodiversity of the Cape Fear Region. The health of these aquatic areas is greatly affected by development and human actions. Below are some resources that will help keep these resources vibrant.

A robust vegetative buffer improves water quality and can be quite attractive.

The Sea Grant Wet Pond Fact Sheet 2013 is an easy-to-read document that describes a few ways to keep stormwater ponds healthy.

To supplement the fact sheet above, Plants for Ponds and Plants for Backyard Wetlands are great lists of aquatic (and nearly aquatic) plants that will add beauty, erosion control, habitat, and nutrient management to ponds and wetlands.

The NC Pond Management Guide provides 30 pages of information on how to successfully manage a pond for general water quality and healthy fish populations.

Small Pond Weed Management provides a good, quick overview of various methods of aquatic weed control, including information on the use of grass carp and herbicides.

Stormwater Pond and Wetland Maintenance explains why and how these stormwater practices must be kept in proper working order to maintain their intended functions and aesthetic appeal.

Visit the Southern Regional Aquaculture Center website for numerous fact sheets, mostly aquacultural, that may be helpful.

Stormwater Wetlands for Golf Courses, Wetland Ecosystem Services, and Wetlands and Water Quality explain the benefits and some logistics of natural and stormwater wetlands.

Worried about mosquitoes? As long as you provide a robust ecosystem where skeeter eaters can thrive, you shouldn't have any mosquito issues. Read this for information: Mosquito Control for Stormwater Facilities

Please visit the NCSU Stormwater Publications site for more information on specific stormwater control measures.

RAINWATER HARVESTING & OTHER BEST MANAGEMENT PRACTICES

Permeable pavements, green roofs, and cisterns are great ways to reduce your impact on the local ecosystem. Learn more here: Best Management Practices for Low Impact Development Rainwater Harvesting for Homeowners is a great overview for homeowners interested in capturing rain with rain barrels or cisterns.

COMPOSTING

Visit the following website to learn about the ins and outs of composting: http://www.bae.ncsu.edu/topic/composting/ NCSU Composting Guide explains managing organic yard wastes. Let worms recycle your garbage! Vermicomposting is a great way to reduce your waste stream while creating your own nutrition-packed compost. This composing system is very easy to set up and maintain and is usually non-smelly and bug-free. Click the links below for more information. Worms Can Recycle Your Garbage NCSU Vermicomposting

Six different kinds of worm bins

Simple Ways to Protect Our Resources Growing populations led to the agricultural and industrial revolutions. “We are now in the throes of the third revolution. This time the spur is not resource shortage, but the impact of waste and wasting.” – Paul Harrison, The Third Revolution. Little personal changes can make a huge difference for our natural resources. Click the link above for a list of many easy changes you can make today.

Was the information on this page helpful?

Yes

No