

Rooted in Nature: Conserving NC's Coast Using Native Plants and Trees



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Changing our Landscaping Philosophy

- How does our yard function in the larger landscape?
- How can we use plants to protect the environment?
- Value ecosystem support over aesthetics
- Work with nature instead of against it



Nature Based Solutions for Coastal Challenges

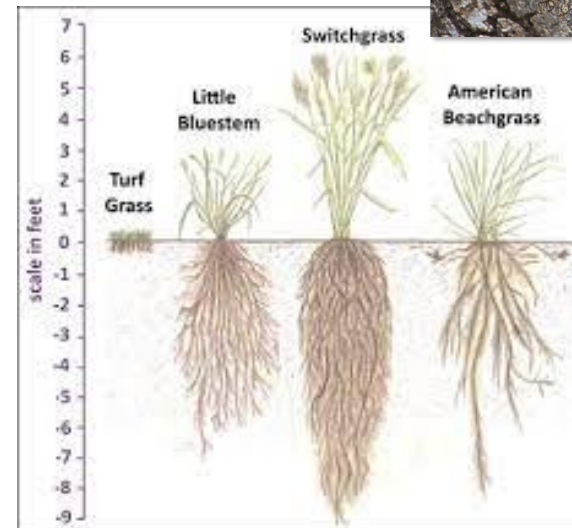
Challenges:

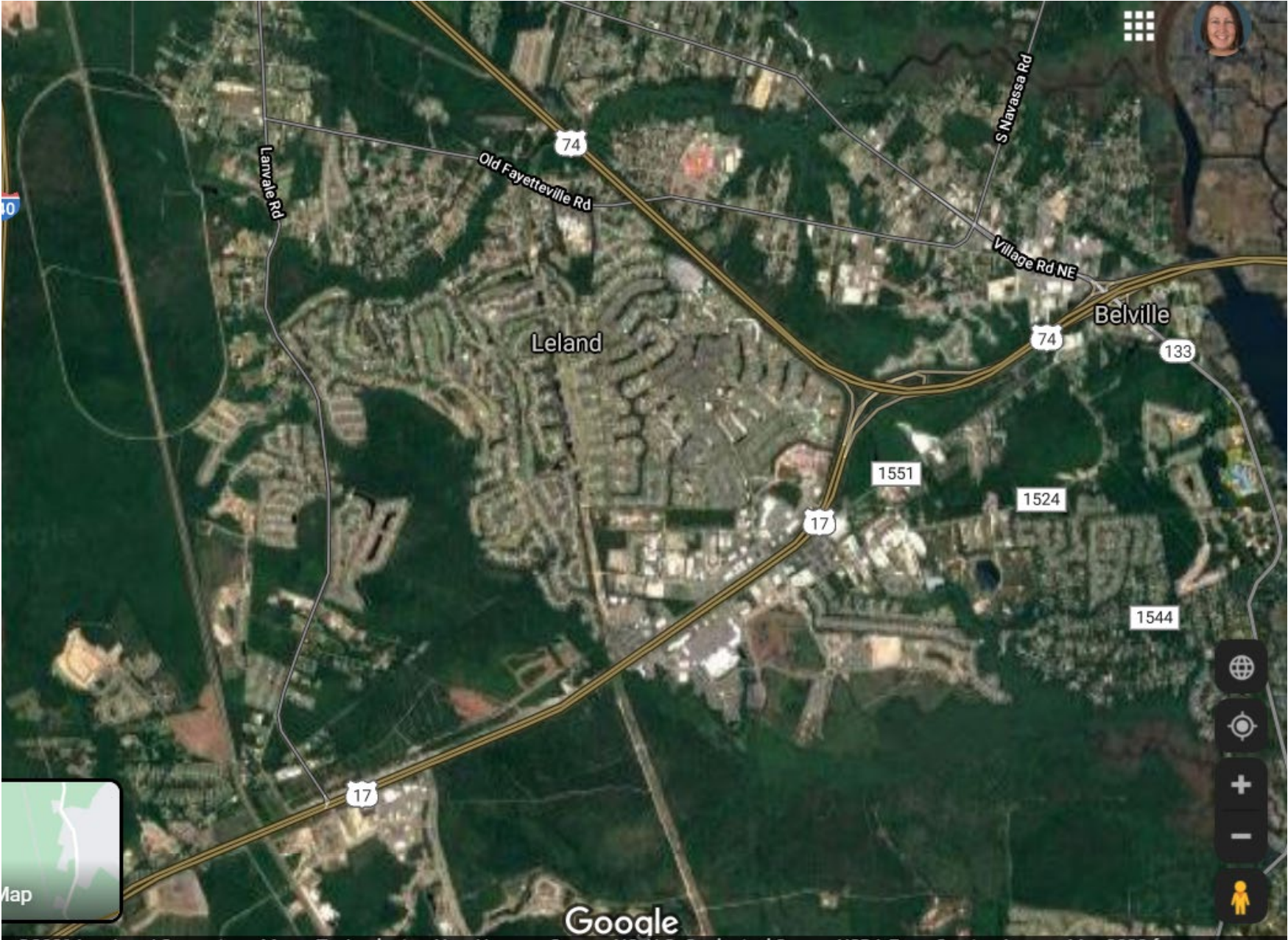
- Increasing storm frequency and intensity
- Stormwater overflows
- Water Quality
- Drought
- Extreme heat
- More air pollution
- Habitat loss



How Native Plants Protect our Community

- **Promote Coastal Resiliency**
 - Mitigate heat island effects
 - Higher wind tolerance
 - Salt tolerance
- **Supporting wildlife**
 - Many native plants are host plants for moth and butterfly caterpillars
 - Provide food for birds and wildlife
- **Native Plants protect our waterways**
 - Native plants have reduced needs for fertilizer and supplemental water
 - Native plants have deep root structures to help prevent erosion
 - Natural areas help infiltrate stormwater



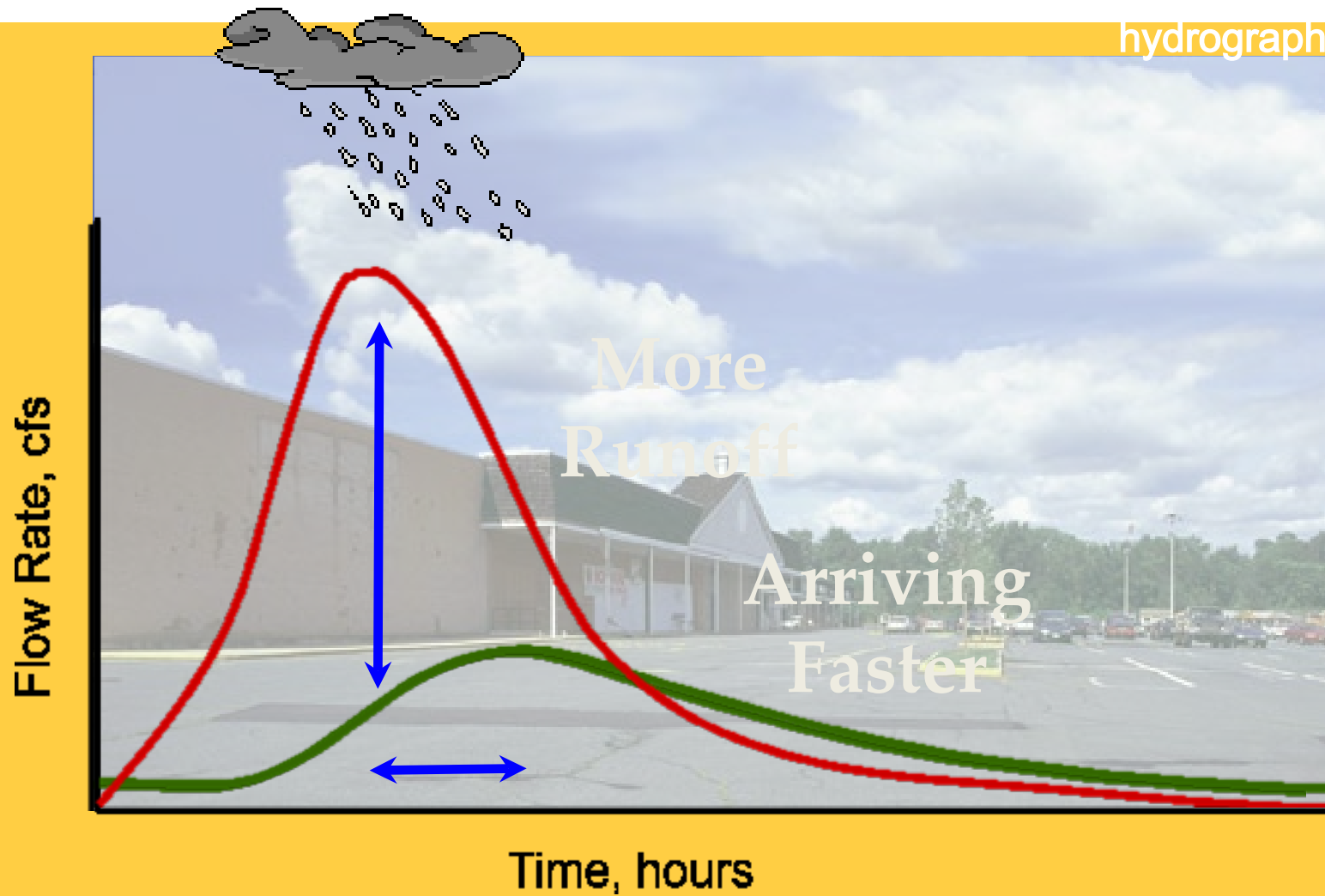


Impervious Surfaces

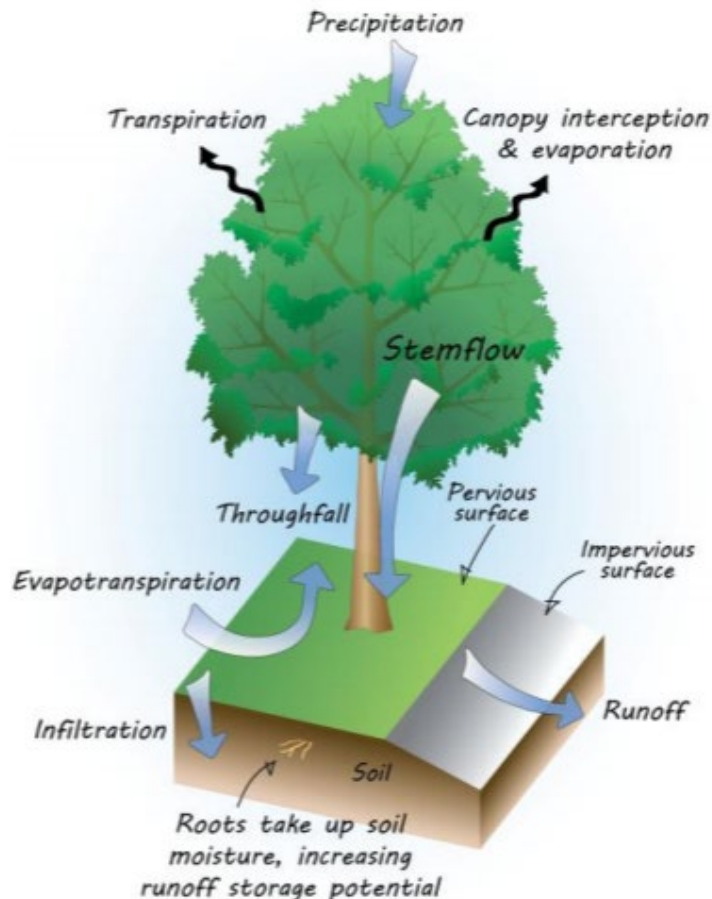


Water Flow

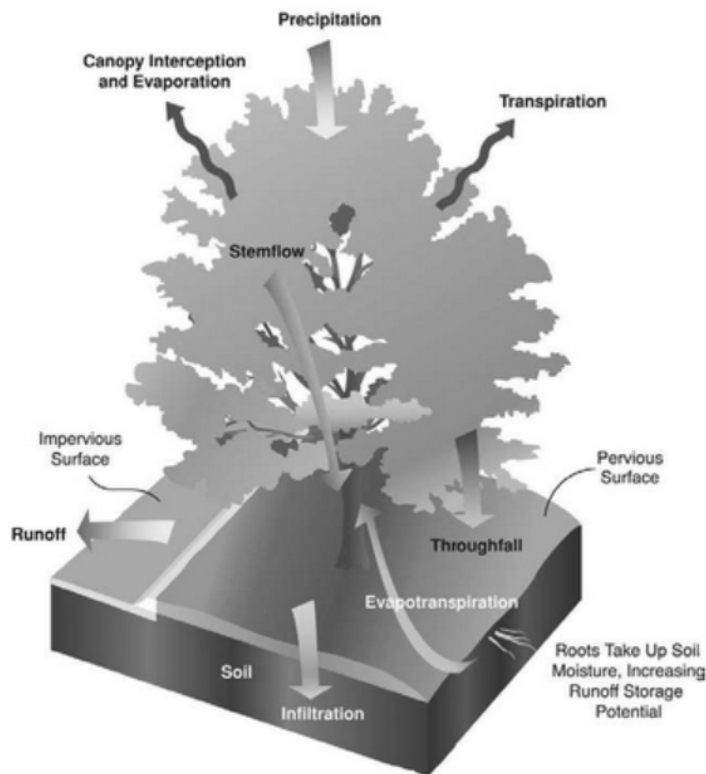
hydrograph



Trees Improve Water Quality, Flooding, and Erosion



- The tree canopy buffers precipitation, capturing some and allowing the rest to lightly drip to the ground
- Tree roots also slow down stormwater runoff flow while helping to hold soil in place
- In wooded areas decaying leaves form an organic layer on the ground allowing water to percolate into the soil, which also helps to reduce runoff and soil erosion



Your 30 inch Live oak will intercept 11,935 gallons of stormwater runoff this year.

Urban stormwater runoff (or "non-point source pollution") washes chemicals (oil, gasoline, salts, etc.) and litter from surfaces such as roadways and parking lots into streams, wetlands, rivers and oceans. The more impervious the surface (e.g., concrete, asphalt, rooftops), the more quickly pollutants are washed into our community waterways. Drinking water, aquatic life and the health of our entire ecosystem can be adversely effected by this process.

Trees act as mini-reservoirs, controlling runoff at the source. Trees reduce runoff by:

- Intercepting and holding rain on leaves, branches and bark
- Increasing infiltration and storage of rainwater through the tree's root system
- Reducing soil erosion by slowing rainfall before it strikes the soil

For more information visit: [The Center for Urban Forest Research](http://www.treebenefits.com/calculator/)

<http://www.treebenefits.com/calculator/>









Lean into what your yard is telling you...

- How can I work with nature?
- **Right Plant, Right Place!**
- Do I have a wet area in my yard?
- Can I move water to a rain garden to capture it before it runs off?

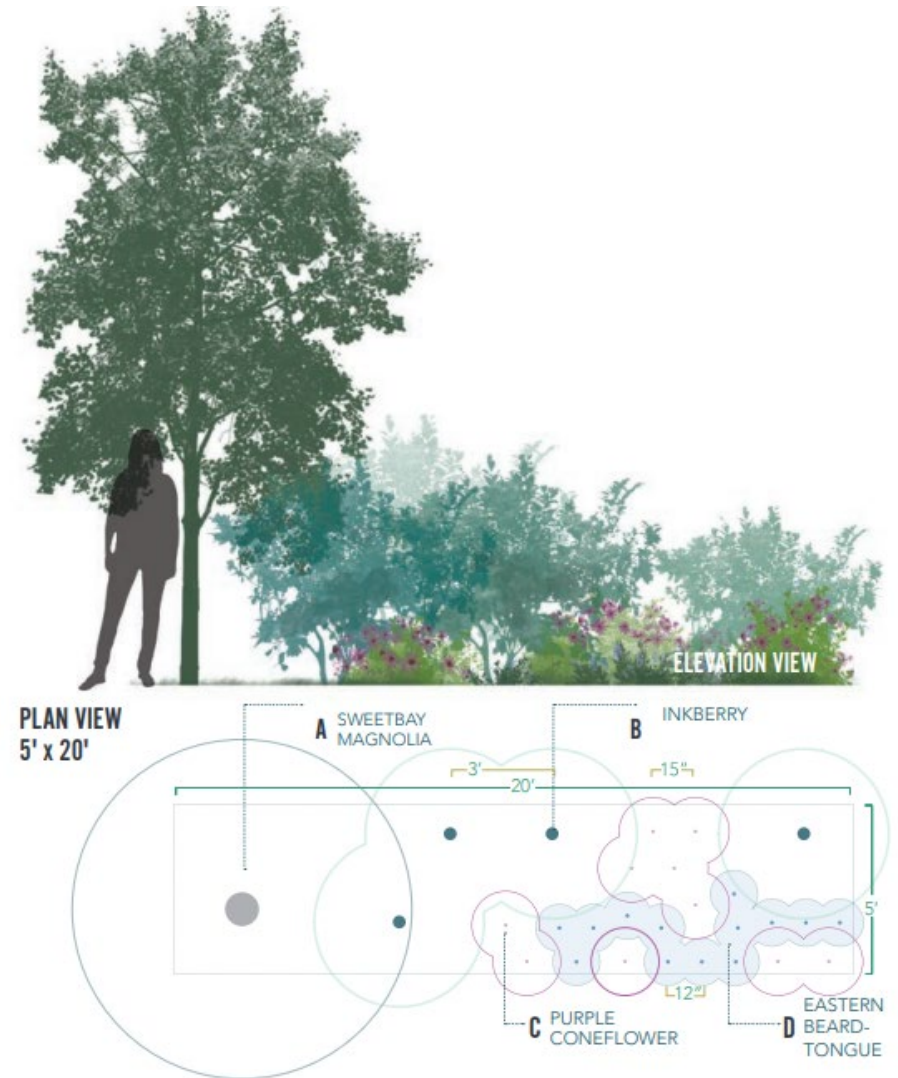


Rain Garden at UNCW

Rain Gardens



Use a Diversity of Plants for your Landscape



Coastal Landscapes Initiative template



Sweetbay Magnolia
Magnolia virginiana



Inkberry
Ilex glabra



Purple Coneflower
Echinacea purpurea



Beardtongue
Penstemon digitalis 'Huskers Red'

FOR DRY AREAS WITH SUN TO PART-SHADE

SUN:  
SOIL MOISTURE: 
SEASONAL COLOR: AUG-FEB



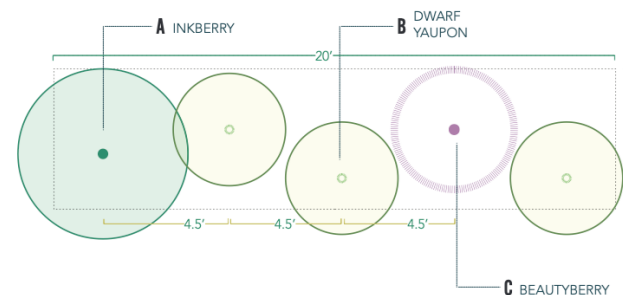
This design can be used for a foundation planting, stand-alone bed or as a border along a road, driveway, walkway or patio. The number of coastal N.C. native plants that thrive in the dry, hot conditions around a building's foundation is limited, but the species in this design should be suitable for most buildings that have rain gutters. In addition, these plants produce pollinator-friendly flowers and berries that will attract birds to your yard. The evergreen inkberry and dwarf yaupon are slow growing. As they mature, they will improve building energy efficiency.

Dwarf palmetto (*Sabal minor*) is a great substitute for the deciduous beautyberry, if you prefer different leaves and an evergreen plant.

You also can plant lower-growing perennials, like orange coneflower (*Rudbeckia fulgida* 'Goldsturm'), at the front of the border.

Prune shrubs in late winter as needed.

PLAN VIEW
5' x 20'



PLANT SELECTION

[illegible]



Inkberry
Ilex glabra



Dwarf Yaupon Holly
Ilex vomitoria 'Nana'



Beautyberry
Callicarpa americana



Dwarf Palmetto
Sabal minor

What should I plant in my yard?

Right Plant/Right Place

- Determine what is already growing well in your neighborhood, nearby forest, ponds
- Choose native plants that are well adapted to our coastal climate and soil conditions



Hiking Trail through Fort Fisher
State Recreation Area



Dwarf Palmetto
Sabal palmetto



Dwarf Yaupon Holly
Ilex vomitoria 'Nana'



Yaupon Holly
Ilex vomitoria



Little Gem Magnolia
Magnolia grandiflora 'Little Gem'



Live Oak
Quercus virginiana



Eastern Red Cedar
Juniperus virginiana



Gitta Hasing



Shumard Oak

Quercus shumardii

40-80' tall, 40-50' spread

Adaptable to wide variety of soils, very stress tolerant

Great tree for urban settings

Wildlife value





Sweetbay Magnolia

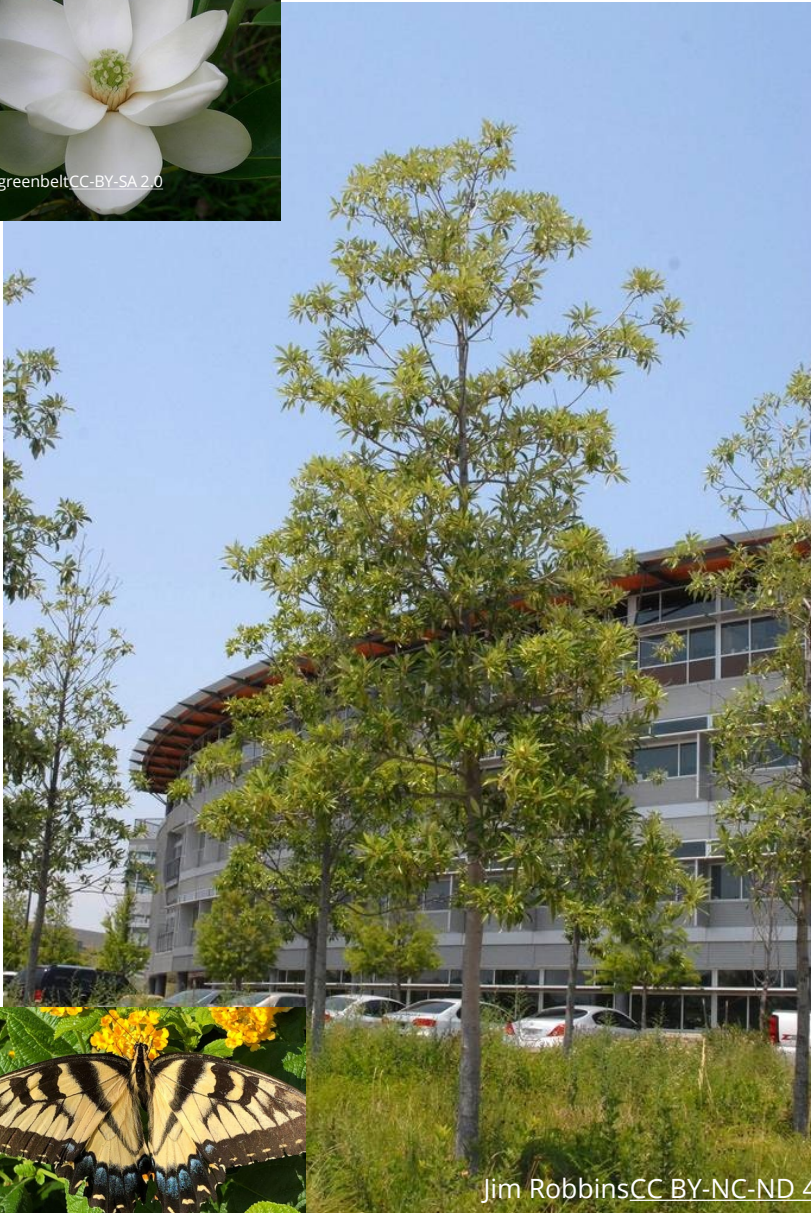
Magnolia virginiana

20+' tall, semi-evergreen tree
or multi-stemmed shrub, deer
resistant

Fragrant flowers

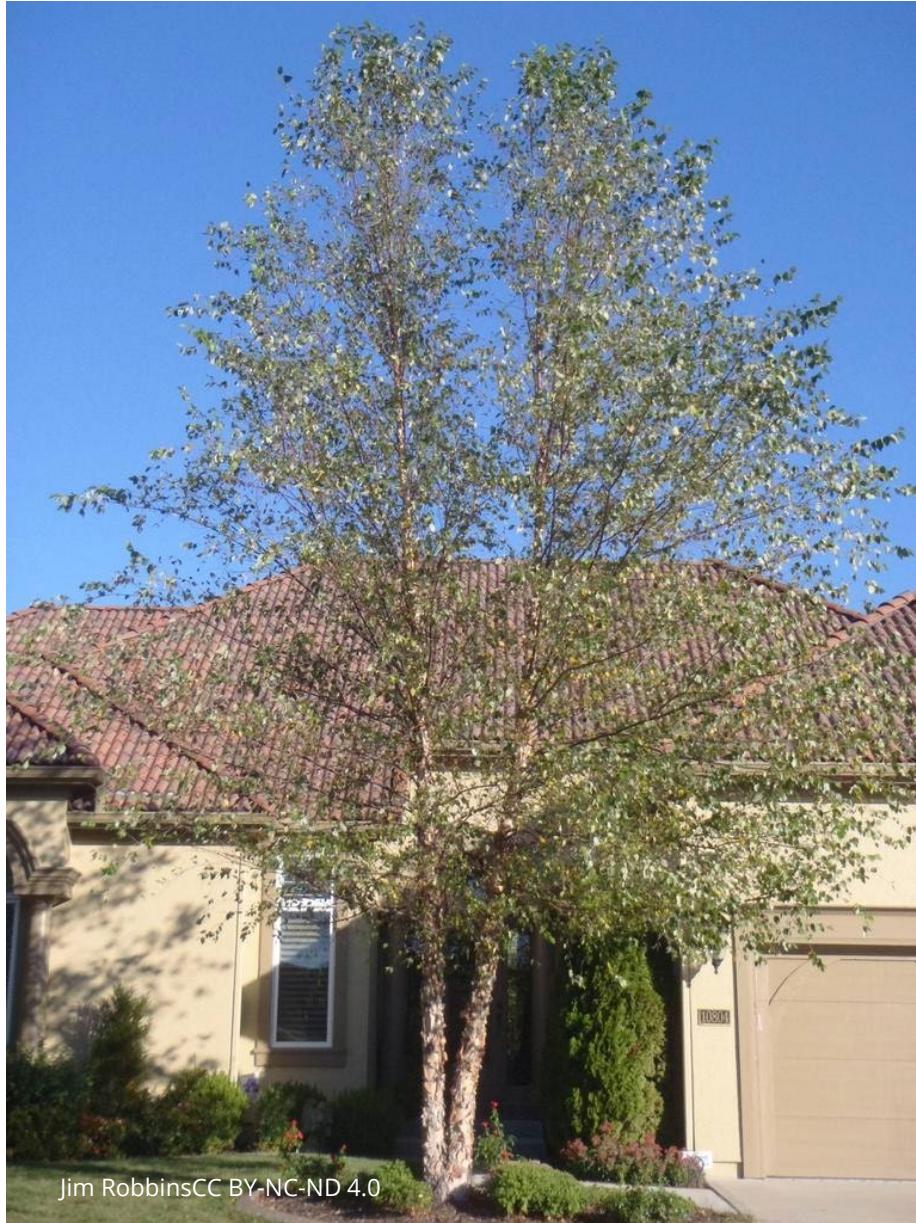
Larval host for Spicebush
Swallowtail and Eastern Tiger
Swallowtail butterflies

Medium-high wind resistance





Sweetbay Magnolia and Longleaf Pine at UNCW



Jim RobbinsCC BY-NC-ND 4.0

‘Heritage’

River Birch

Betula nigra

40-60' tall

Prefers wetter sites, but is very adaptable

Exfoliating bark, Yellow fall color

Heat tolerant and moderately salt tolerant

Medium-high wind resistant

Don't plant this...

Plant this instead!



Pampas Grass
Cortaderia selloana



Muhly Grass *Muhlenbergia capillaris*



Switchgrass
Panicum virgatum



Little Bluestem
Schizachyrium scoparium

Don't plant this...



Nandina
Nandina domestica

Plant this instead!



Yaupon Holly
Ilex vomitoria

Blueberries
Vaccinium spp.

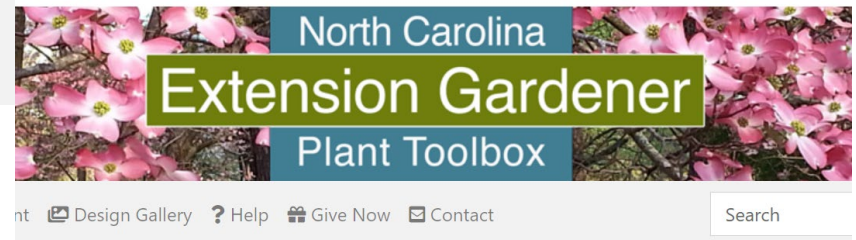


Yucca
Yucca filamentosa

Native Trees, Shrubs, and Grasses for Urban Landscapes

Large Trees- 50+' tall at maturity

Common Name	Scientific Name	Height	Spread	Form	Notes
Bald Cypress	<i>Taxodium distichum</i>	50-70'	20-30'	Columnar	Drought tolerant once established
Pond Cypress	<i>Taxodium distichum</i> var. <i>imbricarium</i>	30-50'	15-20'	Columnar	More narrow and shorter than Bald Cypress
Long Leaf Pine	<i>Pinus palustris</i>	60-100'	30-40'	Rounded	Best planted in groupings
Overcup Oak	<i>Quercus lyrata</i>	35-60'	35-60'	Rounded	Very urban tolerant
Nutall Oak	<i>Quercus texana</i>	30-60'	30-60'	Rounded	Works as a street or shade tree
Live Oak	<i>Quercus virginiana</i>	40-80'	30-100'	Spreading	Iconic SE NC tree, 'Cathedral' cultivar is smaller



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Quercus bicolor

Common Name(s): Bicolor Oak; Oaks; Swamp White Oak

Cape Fear Native Plant Festival **Calendar of Events**

Arboretum Evening Speaker Series

WED 9/16

*How Native Salt
Marsh Plants Build a
Resilient Coast with
Dr. Lori Sutter*

FREE

THURS 9/17

*Native Plants for
Climate Change with
Barbara Sullivan*

FREE

FRI 9/18

*Landscapes That
Save the World with
Bryce Lane*

\$10

Saturday Shopping Day - 9/19

Visit local vendors to buy native plants!
See list of participating vendors at
go.ncsu.edu/nativeplantfestival2026

Sunday Garden Tours - 9/20

Visit local residential gardens to learn how
you can bring nature home!



Cape Fear Native Plant Festival

NATIVE PLANT SHOPPING

September 19, 2026

Five Oaks Nursery

5523 Oleander Drive, Wilmington, 28403

Farmers Supply Co

2025 Oleander Dr, Wilmington, NC 28403

The Garden Shop on Moss*

1942 Moss Street, Wilmington, 28403

Wild Bird & Garden*

3501 Oleander Drive, Wilmington, 28403

Shelton Herb Farm*

340 Goodman Road NE, Leland, 28451

Pender Pines Garden Center

20949 Hwy 17, Hampstead, 28443

* Hosting
Multiple Vendors

go.ncsu.edu/nativeplantfestival2026