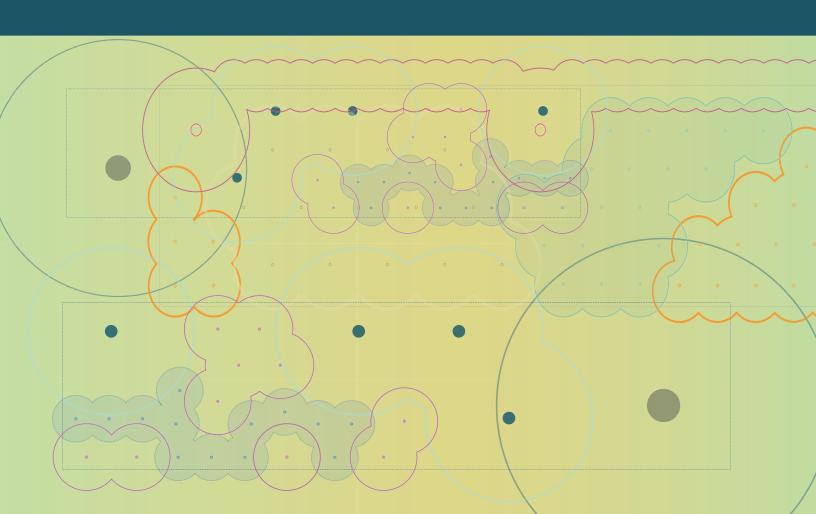


# NC COASTAL LANDSCAPING DESIGNS

NATIVE PLANTING TEMPLATES FROM THE COASTAL LANDSCAPES INITIATIVE



This resource was produced by the Coastal Landscapes Initiative, or CLI, a collaborative effort to address landscaping at every stage of the process, from planning and design to installation and management. Partners come from the public and private sectors, drawing upon a range of North Carolina expertise. The ultimate goal of the CLI is to foster coastal landscapes that are attractive, desirable, functional, manageable and environmentally friendly. Learn more at go.ncsu.edu/CoastalLandscapes.



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# **LANDSCAPING FOR THE COAST**

This document contains landscaping designs intended for anyone interested in growing native North Carolina plants in their gardens and yards. Two types of designs are included in this series: borders and screens. Borders define edges and organize spaces in your yard but also can work as stand-alone gardens. Ideal locations are along walkways, driveways, fences or road frontage. Screening designs block unwanted views and increase privacy. Ideal locations for screens are along the street front, between houses, or in front of fences, air conditioning units, trash cans and gas tanks.

#### **WHY PLANT NATIVE?**

Native plants play important roles in the coastal ecosystem. Incorporating them into developed landscapes is key to sustaining our coastal communities. These plants are attractive, versatile and resilient. Native shrubs and trees are more likely to withstand the effects of storms because they are adapted to harsh coastal conditions. Wildlife also relies on native plants for nourishment and shelter.

#### **USING THESE DESIGNS**

Each template provides the design intent; ideal site conditions; an illustration of the design at maturity; a detailed planting guide; plant quantities; spacing; and seasonal bloom or berry color (gray indicates inconspicuous blooms or berries). Alternative plant suggestions and maintenance tips are included as well.

All designs have the same dimensions and can be modified or combined, such as by adding curves. When combining designs, you may need to move or rearrange plants to address crowding along edges. Also, the suggested number of perennials creates maximum density and effect from the start. If you are comfortable with less dense gardens, use fewer perennials.

When considering planting locations, do not place tall-growing plants below electrical power lines or where they pose hazards to built structures. Avoid installing trees or shrubs above or near septic fields and close to mature trees. At least three days before you start digging, call 811 or 1-800-632-4949 for a free service that will mark your buried publicly managed utility lines.

# SYMBOL KEY SUN EXPOSURE 6+ hours of sun per day 3-6 hours of sun per day ○ < 3 hours of sun per day Areas that are dry and drain quickly Areas that retain moisture but drain well Areas that are typically wet

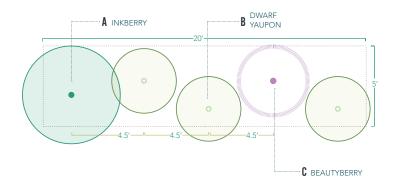
#### **Elevation View**

- Illustrates plant heights, horizontal spacing and visual appearance such as shape, texture and color.
- Shows the garden at maturity. It will take a year or more before a newly planted garden starts filling out.



#### **Plan View**

- Depicts plants, layout and spacing for a 20-foot-by-5foot area.
- Plants are color-coded and labeled with dimensions at maturity. Plants will be smaller when installed.
- Spacing is given "on center" (O.C.), indicating the planting distance between the center of one plant to the center of the next, regardless of plant size at installation.



#### **Plant Selection**

						SEASONAL COLOR										
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING			M	A	M					N	D
А	3	Sweetbay magnolia	Magnolia virginiana	TREE	10' O.C.											
В	31	'Fireworks' goldenrod	Solidago rugosa 'Fireworks'	PERENNIAL	18" O.C.											
С	14	Orange coneflower	Rudbeckia fulgida	PERENNIAL	18" O.C.											

#### **Worksheets and Other Resources**

Gridded worksheets can help you determine where the designs will best fit on your property; three worksheets are available at the end of this packet. Find plant guides and other resources on native plants online at go.ncsu.edu/CoastalLandscapes.

#### **SELECTING PLANTS**

- Check botanical (scientific) names to make sure you are purchasing the correct plants.
- Larger, more mature plants have immediate visual impact in the landscape and typically have more developed root systems. Purchase the largest plants that fit your budget.
- Flowering perennials and grasses may take two growing seasons to reach maturity, while shrubs could take several years. Trees will take even longer.
- Look for trees with a pot size of 7 to 15 gallons and shrubs of 3 to 5 gallons.
- Perennials and grasses typically come in quart, gallon and occasionally 3-gallon sizes. Plug plants may also be an option but will take longer to fill in and may need more care the first year than larger plants.
- When buying perennials in large quantities, smaller
   4-inch pots or 2-inch plugs are more affordable. Note
   that plugs planted in sandy and dry soils will require
   intensive watering during establishment. For cost sav ings, consider purchasing fewer plants and dividing
   them in subsequent years.
- Plan ahead to find plants through your local nursery or other sources so you have them when you are ready to plant.

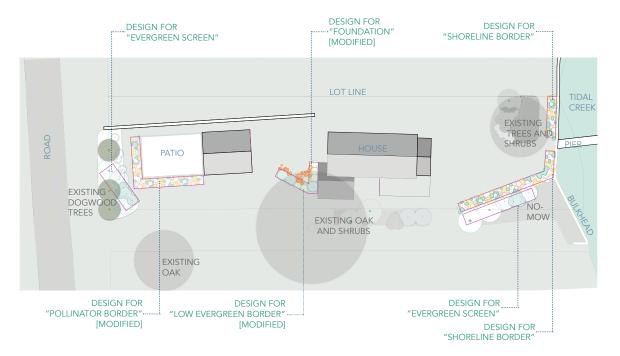
#### **GENERAL MAINTENANCE TIPS**

- During the first year, ensure that all plants receive adequate moisture from rainfall or supplemental watering.
   Most plants require 1 inch of water per week. A thorough soaking is more effective than frequent sprinkling.
   On dry sites, new plants may require watering several times per week.
- Mulch between plants to conserve water and control weeds. About 2 inches is a sufficient amount.
- To encourage reseeding of perennials, remove or thin out mulch around these plants in the autumn.
- Use nonintensive maintenance techniques to increase wildlife habitat value:
  - Tolerate some level of insect damage. Don't use pesticides.
  - Leave dead stems from perennials standing as shelter for pollinators and birds until spring. At that time, cut back by hand or with a string trimmer to 4 to 6 inches.
- Plant between October and early April for optimal success. Plant grasses in the spring.

#### Sample Landscape

This example layout shows how the templates might be adapted to a 0.4-acre residential lot. The plantings by the road and parallel to the house screen out unwanted views. Along the patio, a pollinator border adds beauty and wildlife value. A low, evergreen border and foundation plantings at the end of the house provide year-round

green foliage, direct foot traffic and absorb stormwater. The shoreline border helps stabilize the ground and provides a clean edge behind land that should be mowed only twice a year. This "no-mow" area minimizes landscaping installation and maintenance costs, provides important wildlife habitat and stores a variety of seeds.



# **SCREENING WITH TREES**

FOR SUNNY, MOIST AREAS









#### **DESCRIPTION**

This semi-evergreen tree border can increase privacy or block an unsightly view. Sweetbay magnolia trees have a moderate growth rate. While trees are young, the flowers will get plenty of sun to bloom, attracting pollinators and other beneficial insects. Birds will use the trees for cover and will forage on flower seeds. Magnolias also serve as a host plant for the eastern tiger swallowtail butterfly.

Be aware that tree branches will extend beyond the 5-foot by 20-foot planting area. Suggested spacing allows for branch overlap that provides screening. Avoid sites with overhead power lines for this plan, or use much shorter trees if lines are present.

#### **ALTERNATIVE**

Use a variety of trees and adjust for differences in plant spread.

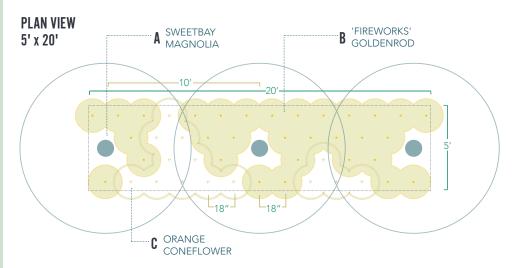
Tree substitutes: fast-growing, evergreen red cedar (*Juniperus virginiana*); moderate-growing, evergreen yaupon holly (*Ilex vomitoria*) or American holly (*Ilex opaca*).

Perennial substitutes: shade-tolerant river oats (Chasmanthium latifolium); dotted horsemint or spotted beebalm (Monarda punctata); sand coreopsis (Coreposis lanceolata).

#### **MAINTENANCE**

When trees mature, their shade can cause perennial flowers to decrease in number. If this happens, you can apply a hardwood mulch to conserve water and prevent weeds in the area or install shade-tolerant plants. If adding plants, consider using plugs or seeds to avoid damaging tree roots.





PLAI	NT SE	LECTION							SE	ASC	NA	L C	ÖLC	)R			
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING	J	F	M	A	M	J	J	A	s	0	N	D
А	3	Sweetbay magnolia	Magnolia virginiana	TREE	10' O.C.												
В	31	'Fireworks' goldenrod	Solidago rugosa 'Fireworks'	PERENNIAL	18" O.C.												
С	14	Orange coneflower	Rudbeckia fulgida	PERENNIAL	18" O.C.												

# **SCREENING: HIGH AND LOW**

FOR SUNNY, MOIST AREAS











#### **DESCRIPTION**

The semi-evergreen sweetbay magnolia and evergreen inkberry used in this design help increase privacy near the home or block unwanted views for most of the year. The combination of taller and shorter plants provides a wide range of habitat for wildlife in a small footprint, while the perennials offer seasonal color as well as nectar for insects. Suggested spacing allows for branch overlap when plants are mature.

Sweetbay magnolia has a moderate growth rate. Inkberry grows slowly.

#### **ALTERNATIVE**

Tree substitutes: fast-growing, evergreen eastern red cedar (Juniperus virginiana); moderate-growing, salt-tolerant, evergreen yaupon holly (Ilex vomitoria) or American holly (Ilex opaca). A taller shrub such as wax myrtle (Morella cerifera) could also be used.

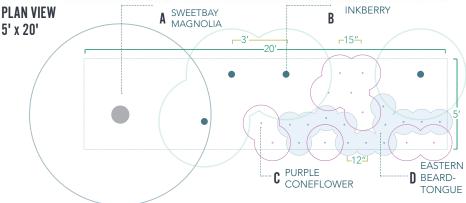
Shrub substitutes: dwarf palmetto (*Sabal minor*) or the eco-regional anise shrub (*Illicium parviflorum*).

Perennial substitutes: For coneflower, try butterfly weed (Asclepias tuberosa) or spring-blooming sand coreopsis (Coreopsis lanceolata). In place of beardtongue, try blazing star (Liatris sp.).

#### **MAINTENANCE**

If needed, prune inkberry in late winter to remove dead wood or to rejuvenate.





PLAI	NT SE	T SELECTION  OTY COMMON NAME BOTANICAL NAME PLANT TYPE SPACING J F M A M J J A S O N  Sweetbay Magnolia virginiana TREE 10' O.C.															
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING	J	F	M	A	M	J	J	A	s	0	N	D
А	1			TREE	10' O.C.												
В	4	Inkberry	llex glabra	SHRUB	3′ O.C.												
С	10	Purple coneflower	Echinacea purpurea	PERENNIAL	15" O.C.												
D	13	Eastern smooth beardtongue	Penstemon laevigatus	PERENNIAL	12" O.C.												

# **EVERGREEN SCREEN**

FOR DRY AREAS WITH SUN TO PART-SHADE











#### **DESCRIPTION**

The dense, bushy habit of these large shrubs provides separation and privacy, making this screening garden ideal for along roads or between houses. When placing this design, avoid blocking long views of the landscape for you and your neighbors.

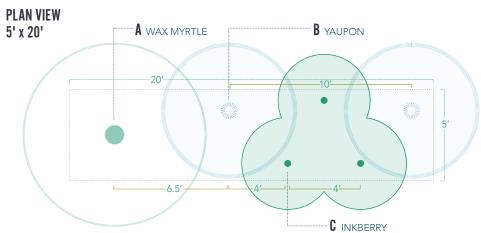
Wax myrtle has a fast growth rate, yaupon has a moderate rate and inkberry grows slowly.

#### **ALTERNATIVE**

The eco-regional anise shrub (*Illicium* parviflorum) is an additional shrub option. If you prefer less height, dwarf varieties also are available for most plants in this design. Dwarf palmetto (*Sabal minor*) would be appropriate for drier sites.

#### **MAINTENANCE**

If needed, prune shrubs in late autumn or winter.



PLAI	NT SE	LECTION							S	EAS	ON/	AL C	OLO	OR.			
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING	J	F	M	A	M	J	J	A	S	0	N	D
А	1	Wax myrtle	Morella cerifera	SHRUB	6.5' O.C. TO YAUPON												
В	2	Yaupon	llex vomitoria	SHRUB	10' O.C.												
С	3	Inkberry	llex glabra	SHRUB	4′ O.C.												

# **BIRD-FRIENDLY SCREEN**

FOR DRY TO MOIST AREAS WITH SUN TO PART-SHADE











#### **DESCRIPTION**

All plants in this design attract birds to the yard. Wax myrtle, inkberry and beautyberry produce abundant berries in late summer and autumn that are irresistible to birds and other backyard wildlife. Many birds also eat the seeds of the orange coneflower.

This design provides a screen to increase privacy or block unwanted views. It also creates a stand-alone garden area for observing wildlife. Only female plants of wax myrtle and inkberry produce berries, so try to select a female plant at the nursery and ensure there are male plants nearby for pollination (in a neighbor's yard or a natural area). This approach is also true for the alternates below.

Wax myrtle and beautyberry are fastgrowing while inkberry is slow-growing.

#### **ALTERNATIVE**

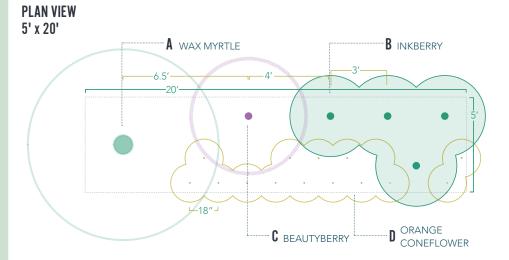
All of these plants should be readily available. If you need less height, dwarf varieties exist for most of the shrubs.

Shrub substitutes: For wax myrtle, try yaupon holly (*Ilex vomitoria*). For beautyberry, choose winterberry holly (*Ilex verticillata*) or red chokeberry (*Aronia arbutifolia*). For inkberry, try dwarf palmetto (*Sabal minor*) or deciduous coralberry (*Symphoricarpos orbiculatus*).

#### **MAINTENANCE**

If needed, shrubs can be pruned in late autumn or winter. Beautyberry can be pruned more than other shrubs if a smaller size is desired, but it also thrives if left to grow. Wax myrtle recovers quickly from minor storm damage, but broken branches or damaged bark should be removed.





PLAI	A 1 Wax myrtle Morella cerifera SHRUB 6.5  13 4 Inkberry Ilex glabra SHRUB 6.5  American Callicarpa								S	EAS	ON	AL C	OLO	OR			
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING	J	F	M	A	M	J	J	A	s	0	N	D
А	1	Wax myrtle	Morella cerifera	SHRUB	6.5′ O.C. TO INKBERRY												
В	4	Inkberry	llex glabra	SHRUB	6.5' O.C.												
С	1	American beautyberry	Callicarpa americana	SHRUB	3′ O.C. TO WAX MYRTLE												
D	15	Orange coneflower	Rudbeckia fuligida	PERENNIAL	18" O.C.												

# SCREENING WITH VINES

FOR SUNNY, DRY AREAS













#### **DESCRIPTION**

Crossvine will create a dense, evergreen screen along an existing fence or a new trellis. This vine can grow up to 15 feet, so a sturdy structure is needed to hold its weight.

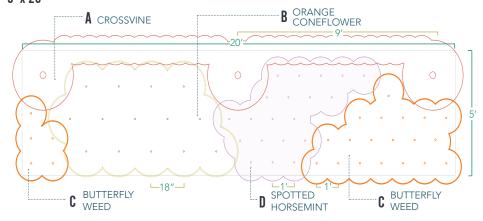
Flowers in this design will attract and provide food for pollinators. Butterfly weed is an important food source for monarch butterfly caterpillars. Spotted horsemint and orange coneflower attract a wide variety of birds, butterflies, bees and other beneficial insects. These perennials may self-seed in favorable growing conditions, so it is OK to start out with fewer plants than suggested and see if they naturally spread.

#### **ALTERNATIVE**

Vine substitutes: Carolina jessamine (Gelsemium sempervirens) or the less densely growing coral honeysuckle (Lonicera sempervirens).

Perennial substitutes: For spotted horsemint, you can substitute eastern smooth beardtongue (*Penstemon laevigatus*). Grasses like switchgrass (*Panicum virgatum*), little bluestem (*Schizachyrium scoparium*) or muhly grass (*Muhlenbergia capillaris*) can also be used. Placing these plants in the back of

### PLAN VIEW 5' x 20'



#### PLANT SELECTION

						SEASONAL COLOR							ハ				
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING	J	F	M	A	M	J	J	A	S	0	N	D
Α	3	Crossvine	Bigonia capreolata	VINE	9' O.C.												
В	16	Orange coneflower	Rudbeckia fulgida	PERENNIAL	18" O.C.												
С	24	Butterfly weed	Asclepias tuberosa	PERENNIAL	1′ O.C.												
D	20	Spotted horsemint	Monarda punctata	PERENNIAL	1′ O.C.												

the bed between the vines would add dimension.

#### **MAINTENANCE**

Tidy the vines up with minor pruning in the winter, but don't cut them all the way back.

CEACONAL COLOR

# POLLINATOR-FRIENDLY BORDER

FOR SUNNY AREAS WITH DRY TO MOIST SOIL















#### **DESCRIPTION**

The combination of flowering perennials, native ornamental grass and shrubs add year-round interest with texture and color. This design also provides important foraging grounds and habitat for birds, bees and butterflies. Butterfly weed (or milkweed) is a host plant for monarch butterflies. It also readily seeds, so patient gardeners can plant less, letting it naturally colonize over time. If exposure to salt spray is a concern, search for more salt-tolerant plants.

#### **ALTERNATIVE**

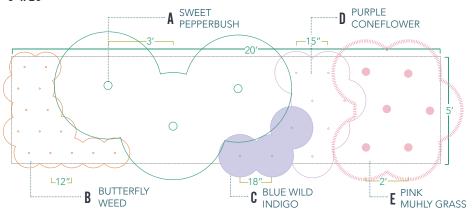
Shrub substitutes: For dry soils, Adam's needle (*Yucca filamentosa*) is a good choice. Otherwise, opt for inkberry (*Ilex glabra*).

Perennial substitutes: eastern smooth beardtongue (*Penstemon laevigatus*), sand coreopsis (*Coreopsis lanceolata*) or more butterfly weed. Also, add a tall (6-foot) semi-evergreen bush like zenobia (*Zenobia pulverulanta*) on the back of the border for year-round structure.

#### **MAINTENANCE**

Prune clethra in winter or early spring, if needed. Cut back grasses in late winter or early spring. Leave an 8-to-12-inch crown on muhly grass.

#### PLAN VIEW 5' x 20'



#### PLANT SELECTION

						J F M A M J J A S O N											
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING	J	F	M	A	M	J	J	A	S	0	N	D
А	3	Sweet pepperbush	Clethera alnifolia	SHRUB	3′ O.C.												
В	14	Butterfly weed	Asclepias tuberosa	PERENNIAL	12" O.C.												
С	3	Blue wild indigo	Baptisia australis	PERENNIAL	18" O.C.												
D	6	Purple coneflower	Echinacea purpurea	PERENNIAL	15" O.C.												
Е	6	Muhly grass	Muhlenbergia capillaris	GRASS	2′ O.C.												

CEACONIAL COLOR

# **FOUNDATION**

#### FOR DRY AREAS WITH SUN TO PART-SHADE











beautyberry

#### **DESCRIPTION**

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.

#### **ALTERNATIVE**

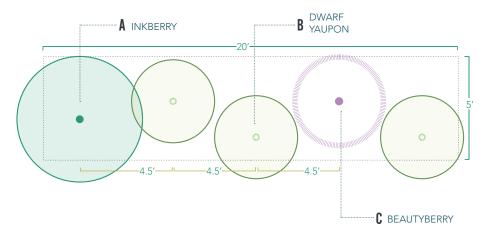
Dwarf palmetto (Sabal minor) is a great substitute for the deciduous beautyberry, if you prefer different leaves and an evergreen plant.

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

#### **MAINTENANCE**

Prune shrubs in late winter as needed.

#### **PLAN VIEW** 5' x 20'



#### PLANT SELECTION SEASONAL COLOR COMMON NAME QTY **BOTANICAL NAME** PLANT TYPE SPACING KEY 4.5' O.C. TO YAUPON 1 Inkberry Α Ilex glabra llex vomitoria В 3 4.5' O.C. Dwarf yaupon 'Nana' American Callicarpa americana 4.5' O.C. С

# **LOW EVERGREEN BORDER**

FOR DRY TO MOIST AREAS WITH SUN TO PART-SHADE











#### **DESCRIPTION**

This design affords an open view and is fitting as a border along a driveway, front sidewalk or walkway to the front door. Dwarf yaupon holly's compact habit lends a refined and formal feel, while the pink feathery texture of muhly grass adds whimsy. Inkberry and dwarf yaupon have slow growth rates.

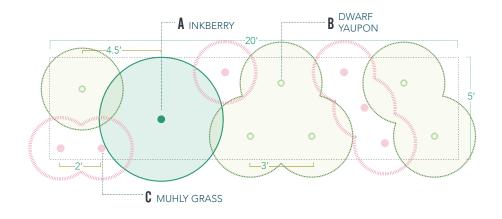
#### **ALTERNATIVE**

Grass substitutes: switchgrass (*Panicum virgatum*), Elliott's lovegrass (*Eragrostis elliottii*) or little bluestem (*Schizachyrium scoparium*).

#### **MAINTENANCE**

To achieve the most ecologically beneficial garden, wait until late winter or early spring to cut back grasses. Leave an 8-to-12-inch crown on muhly grass.

## PLAN VIEW 5' x 20'



#### PLANT SELECTION

						I F M A M I I A S O N I											
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING	J	F	M	A	M	J	J	A	S	0	N	D
А	1	Inkberry	llex glabra	SHRUB	4.5' O.C. TO YAUPON												
В	6	Dwarf yaupon	llex vomitoria 'Nana'	SHRUB	3′ O.C.												
С	6	Muhly grass	Muhlenbergia capillaris	GRASS	2' O.C.												

SEASONAL COLOR

# SHORELINE BORDER

FOR MOIST, SUNNY, SALT-PRONE AREAS













#### DESCRIPTION

Shorelines, especially those hardened with structures such as bulkheads and rip rap revetments, can become more ecologically beneficial by adding a native plant border. A native plant border also will help prevent erosion.

This border design provides habitat and foraging grounds for insect pollinators, birds and other wildlife. It includes long-blooming plants that have moderate to high tolerance of salt aerosols. These plants are suitable for any moist shoreline, such as where the water table is high.

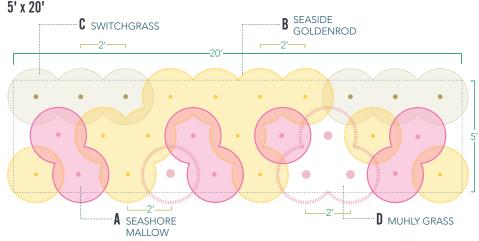
#### **ALTERNATIVE**

Adam's needle (Yucca filamentosa) would be a good substitute for the muhly grass.

#### **MAINTENANCE**

In late winter or early spring, cut back seaside goldenrod to about 4 to 6 inches. Trim muhly grass in mid-March, leaving an 8-to-12-inch crown. Pull out new sprigs of goldenrod to control spread as needed.

#### PLAN VIEW



#### **PLANT SELECTION**

PLAI	AI 2F	LECTION				SEASONAL COLOR  J F M A M J J A S O N											
KEY	QTY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SPACING	J	F	M	A	M	J	J	A	S	0	N	D
А	7	Seashore mallow	Kosteletskya virginica	PERENNIAL	2′ O.C.												
В	12	Seaside goldenrod	Solidago sempervirens	PERENNIAL	2′ O.C.												
С	6	Switchgrass	Panicum virgatum	GRASS	2′ O.C.												
D	4	Muhly grass	Muhlenbergia capillaris	GRASS	2′ O.C.												

# <u>FILTER STRIP</u>

#### FOR SUNNY AREAS WITH DRY TO MOIST SOIL











Sand

coreopsis

C 22

Coreopsis

lanceolata

#### **DESCRIPTION**

This simple, naturalistic design works well along roads, driveways, ditches, swales, pond shores or bulkheads. The plants filter out sediment, nutrients and other pollutants from stormwater and also attract native pollinators and birds.

#### **ALTERNATIVE**

Grass substitutes: Elliott's lovegrass (*Eragrostis elliottii*) and the perennial goldenrod cultivar *Solidago rugosa* 'Fireworks,' which blooms in autumn.

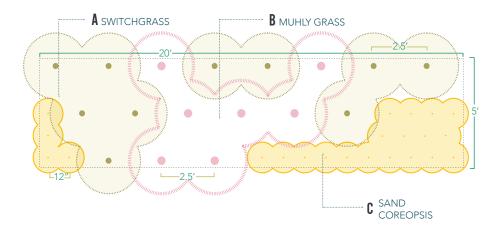
Perennial substitutes: For autumn interest and pollinator support, use calico aster (Symphyotrichum lateriflorum) and Solidago rugosa 'Fireworks.'

For early season color, use blue wild indigo (*Baptisia australis*) or bluestar (*Amsonia tabernaemontana*).

#### **MAINTENANCE**

Cut back grasses in late winter or early March. Leave an 8-to-12-inch crown on the muhly grass.

## PLAN VIEW 5' x 20'



#### PLANT SELECTION COMMON NAME QTY BOTANICAL NAME PLANT TYPE SPACING KEY Panicum Α 10 Switchgrass **GRASS** 2.5' O.C. virgatum Muhlenbergia В 7 Muhly grass GRASS 2.5' O.C. capillaris

PERENNIAL

12" O.C.

# **NOTES**

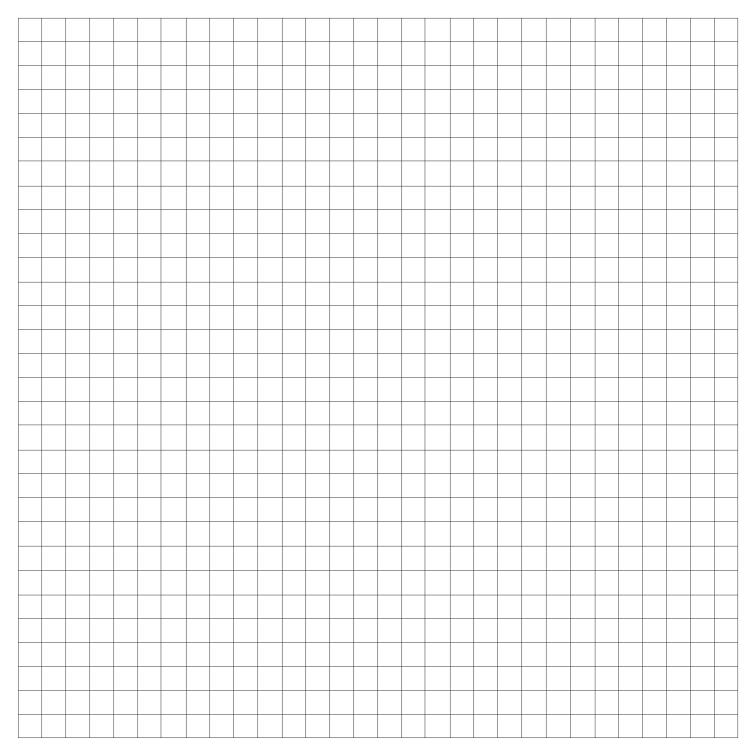
# LANDSCAPE WORKSHEET



Use the grid below to see which coastal landscape designs will best fit on your property. Follow these steps:

- Measure your property boundaries and outline them on the grid. Use a drawing scale appropriate for your lot, for example 1 square equals 5 feet. The worksheet is 30-squares-by-30-squares.
   Measure and outline buildings, driveways, impervious surfaces (e.g. paving or patios). Refer to a deed map, if
- one is available, for building dimensions.
- 3. Measure and draw existing trees, shrubs, perennials, vegetable gardens and other features you want to retain.

  4. Make several copies of your drawing to use for preparing your final plan.
- 5. Sketch in locations and configurations of new landscaping. Be sure you know the sun and soil conditions on your property before choosing designs and plants to use.



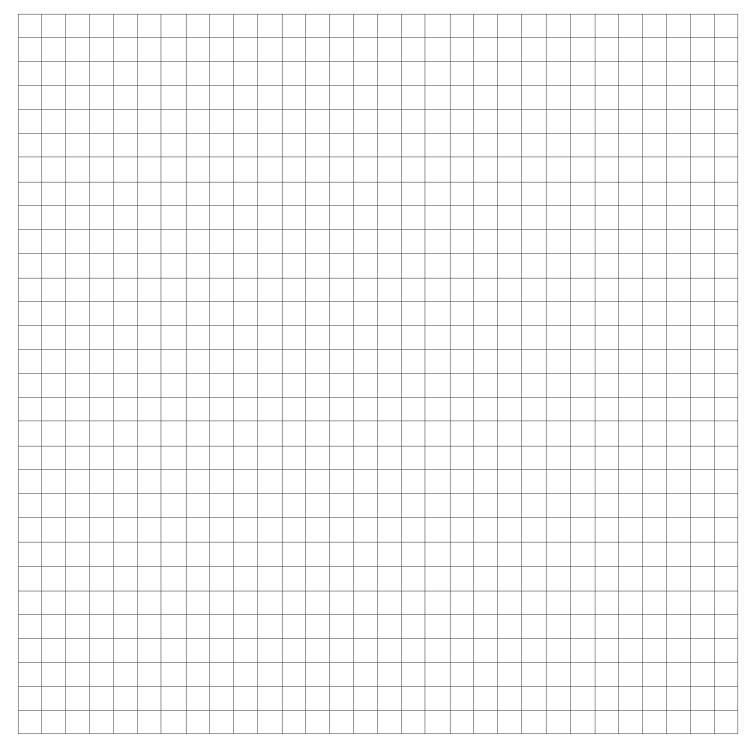
# LANDSCAPE WORKSHEET



Use the grid below to see which coastal landscape designs will best fit on your property. Follow these steps:

- Measure your property boundaries and outline them on the grid. Use a drawing scale appropriate for your lot, for example 1 square equals 5 feet. The worksheet is 30-squares-by-30-squares.
   Measure and outline buildings, driveways, impervious surfaces (e.g. paving or patios). Refer to a deed map, if
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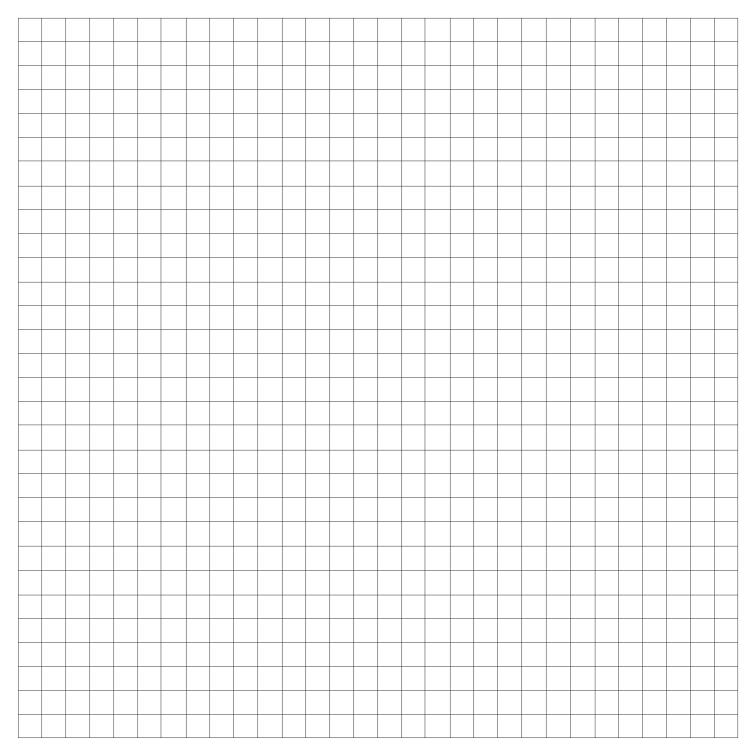
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#### **CONTACT INFORMATION**

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#### **ADDITIONAL RESOURCES**

- More on native plants and sustainable landscaping: <u>go.ncsu.edu/CoastalLandscapes</u>.
- Soil test kits and native plant gardening advice:
   NC State County Extension County Centers (ces.ncsu.edu/local-county-center/)
   and NC State Extension Gardener Handbook, Chapter 12
   (content.ces.ncsu.edu/extension-gardener-handbook/12-native-plants)

