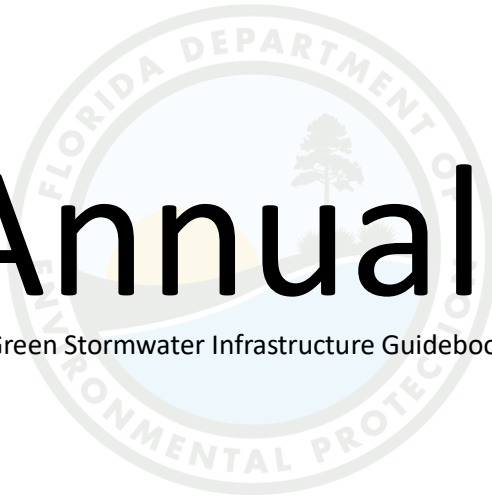



Annuals

Green Stormwater Infrastructure Guidebook




Annual

June 28, 2023

	Scientific Name		Coreopsis leavenworthii
	Common Name		Common Tickseed
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		
	Hardiness Zone		8A-11
	Growth Form		Annual
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Medium
Height	1' - 3'	Spread	1' - 3'
Flood Tolerance	Seasonal	Drought Tolerance	Low
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	None
Soil Moisture	Medium Drained to Wet	Soil Texture	Any Texture
Color	Yellow	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies; provides pollen and nectar for pollinators; common along roadsides in moist areas.		
Notes	Flowers all year long; flowers of the genus Coreopsis are designated as the State of Florida official wildflower.		
Planting Guidelines			
Maintenance	Can be grown from seed; recruits readily in exposed soil.		


Annual

June 28, 2023

	Scientific Name	Eustoma exaltatum	
	Common Name	Seaside Gentian	
	Native	Native	
	Planting Zone	Bank Top to Bank Slope	
	Plant spacing		
	Hardiness Zone	8A-11	
	Growth Form	Annual	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous		Growth Rate	Fast
Height	1' - 3'	Spread	1.5' - 2.5'
Flood Tolerance	Occasional	Drought Tolerance	Low
Soil pH		Salt Tolerance	Yes
Soil Moisture		Soil Texture	Sandy
Color	Purple	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Showy purple flower; flowers all year long; dry-moist-wet areas; salt flats. Marsh gentian is easily propagated by seed. It is salt-tolerant and does well in coastal areas.		
Planting Guidelines			
Maintenance	Can be grown from seed.		

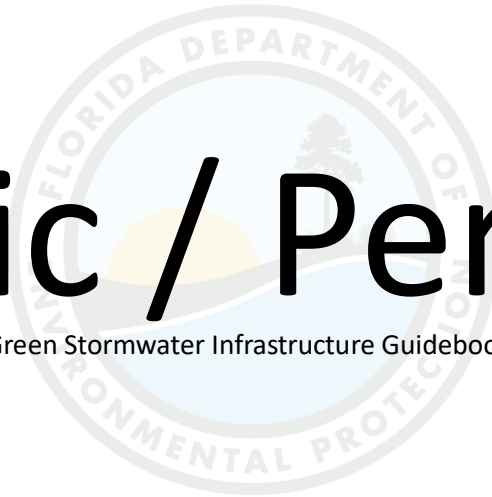
Annual

June 28, 2023

	Scientific Name		Salvia coccinea
	Common Name		Tropical Sage
	Native		Native
	Planting Zone		Bank Slope and Water's Edge
	Plant spacing		2-3 ft.
	Hardiness Zone		6-11
	Growth Form		Annual
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Medium
Height	2' - 4'	Spread	2' - 3'
Flood Tolerance	Occasional	Drought Tolerance	Medium
Soil pH	Acidic; Alkaline	Salt Tolerance	Yes
Soil Moisture	Occasionally Wet	Soil Texture	Clay/Loam/Sand
Color	Red	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts hummingbirds and butterflies.		
Notes	<p>This charming plant may be massed together as a tall ground cover. It also makes a nice red display in a perennial border in full sun. Plant it among other herbaceous perennials for a nice display of soft, red flowers borne terminally on erect stems. Salvia will perform well in full sun, partial shade, or full shade; however, flowering is reduced in partial shade. It prefers a moist, well-drained soil and, unlike many flowering bedding plants, is very drought tolerant. Native salvia is at its best during the hottest summer months when other flowering plants may suffer from the heat. To maintain a neat-looking landscape, cut it back at the end of the year when foliage begins to die.</p>		
Planting Guidelines			
Maintenance	Readily self-seeds and can be fairly aggressive.		


Aquatic / Perennial

Green Stormwater Infrastructure Guidebook




Aquatic / Perennial

June 28, 2023

	Scientific Name		Equisetum hyemale
	Common Name		Horsetail
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		
	Hardiness Zone		9B-10A
	Growth Form		Aquatic / Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement			
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Fast
Height	2' - 4'	Spread	1' - 2'
Flood Tolerance		Drought Tolerance	
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	
Color	Green	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Provides good cover for wildlife at the edge of waterbodies.		
Notes	Interesting foliage.		
Planting Guidelines			
Maintenance	Evergreen; spreading habit.		


Aquatic / Perennial

June 28, 2023

	Scientific Name	Nymphaea mexicana	
	Common Name	Yellow Water Lily	
	Native	Native	
	Planting Zone	Offshore	
	Plant spacing	3-5 ft. apart	
	Hardiness Zone	3-11	
	Growth Form	Aquatic / Perennial	
	GSI Type	Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	Aquatic, Still Water
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	0.5' - 1'	Spread	2' - 4'
Flood Tolerance	High	Drought Tolerance	
Soil pH		Salt Tolerance	Low
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	White (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes			
Planting Guidelines	Plant in a container filled with garden soil or potting mix with fertilizer incorporated.		
Maintenance	It can be aggressive and may need to be pruned to keep it from spreading.		


Aquatic / Perennial

June 28, 2023

	Scientific Name		Nymphaea odorata
	Common Name		Fragrant Water Lily
	Native		Native
	Planting Zone		Offshore
	Plant spacing		2-4 ft. apart
	Hardiness Zone		3-11
	Growth Form		Aquatic / Perennial
	GSI Type		Wetlands
Light Requirement			
Full Sun/Part Shade	Native Habitat		
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	0.5' - 1'	Spread	2' - 4'
Flood Tolerance	High	Drought Tolerance	
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	Low
Soil Moisture		Soil Texture	Clay/Loam/Organic/S and
Color	White (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Turtles, beavers, muskrats, moths, beetles.		
Notes			
Planting Guidelines	Plant in a container filled with garden soil or potting mix with fertilizer incorporated.		
Maintenance	It can be aggressive and may need to be pruned to keep it from spreading.		


Aquatic / Perennial

June 28, 2023

 <p><small>Pontederia Pontederia cordata Photo by Wu Haney © 1997 University of Florida</small></p>	Scientific Name		Pontederia cordata
	Common Name		Pickerel Weed
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		2-4 ft. apart
	Hardiness Zone		3B-11
	Growth Form		Aquatic / Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
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Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	High
Height	3' - 5'	Spread	Depends upon supporting structure
Flood Tolerance	High	Drought Tolerance	None
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	Low
Soil Moisture		Soil Texture	Loam/Sand
Color	Violet-Blue or White (Flower)	Longevity	Long-Lived Perennial
<hr/>			
Bank Stabilization/ Erosion Control	Wave buffering protection; holds down sediments with its vegetative mat.		
Wildlife Benefit	Birds and Fish		
Notes	Nutrient Uptake; reduced turbidity.		
Planting Guidelines			
Maintenance	It can be aggressive and may need to be pruned to keep it from spreading.		

Aquatic / Perennial

June 28, 2023


 <p>© Shirley Denton</p>	Scientific Name	Sagittaria lancifolia
	Common Name	Lance-leaf arrowhead
	Native	Native
	Planting Zone	Water's Edge
	Plant spacing	10-12 in. apart
	Hardiness Zone	4-11
	Growth Form	Aquatic / Perennial
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands

Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Low
Height	1' - 3'	Spread	1' - 3'
Flood Tolerance	High	Drought Tolerance	None
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	Loam/Sand/Organic
Color	White (Flower)	Longevity	Long-Lived Perennial

Bank Stabilization/ Erosion Control	Recommended to plant along pond edges.
Wildlife Benefit	Attracts waterfowl, muskrat and porcupine.
Notes	Nutrient Uptake; reduced turbidity.
Planting Guidelines	
Maintenance	

Aquatic / Perennial

June 28, 2023

	Scientific Name		Saururus cernuus
	Common Name		Lizard's Tail
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		
	Hardiness Zone		8A-10B
	Growth Form		Aquatic / Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement			
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	2' - 4'	Spread	1'
Flood Tolerance	High	Drought Tolerance	Low
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	Loam/Organic/Sand
Color	White (Flowers)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Bank Stabilization/ Erosion Control	Good groundcover, used at pond edges.		
Wildlife Benefit			
Wildlife Benefit	Woodducks and foraging birds.		
Notes			
Notes	Uptake Phosphorus; used in rain gardens.		
Planting Guidelines			
Planting Guidelines	Plant rhizomes at muddy pond edge.		
Maintenance			
Maintenance			


Aquatic / Perennial

June 28, 2023

	Scientific Name	Scirpus californicus	
	Common Name	California bulrush	
	Native	Native	
	Planting Zone	Water's Edge	
	Plant spacing	3-5 ft.	
	Hardiness Zone		
	Growth Form	Aquatic / Perennial	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands	
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous		Growth Rate	Fast
Height	3' - 9'	Spread	4' - 6'
Flood Tolerance		Drought Tolerance	
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	
Color	Brown	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Provides cover and food for wildlife; useful for lake/pond stabilization, water quality improvement, wetland creation/restoration, and as a background plant for wetland ponds.		
Notes			
Planting Guidelines			
Maintenance	Pruning usually not required; has fairly aggressive spreading tendency.		


Aquatic / Perennial

June 28, 2023

	Scientific Name	Thalia geniculata	
	Common Name	Alligator Flag	
	Native	Native	
	Planting Zone	Bank Slope	
	Plant spacing	2-3 ft. apart	
	Hardiness Zone	8-10B	
	Growth Form	Aquatic / Perennial	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement			
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	6' - 9'	Spread	3' - 10'
Flood Tolerance	Occasional	Drought Tolerance	Low
Soil pH		Salt Tolerance	Low
Soil Moisture		Soil Texture	Loam/Organic/Sand
Color	Purple, White (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Bank Stabilization/ Erosion Control	Used for wetland restoration; attractive for planting in surface water management ponds.		
Wildlife Benefit			
Wildlife Benefit	Host plant for Brazilian Skipper; refuge and nesting areas for waterfowl.		
Notes			
Notes			
Planting Guidelines			
Planting Guidelines	Occurs in areas usually high in nutrients and high in light, rarely under a dense canopy.		
Maintenance			
Maintenance			

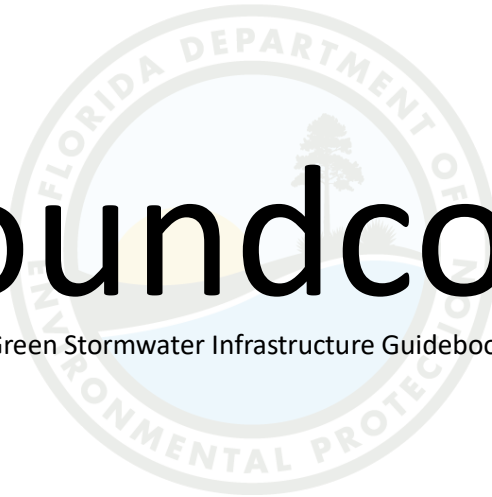
Aquatic / Perennial

June 28, 2023

	Scientific Name		Vallisneria americana
	Common Name		Tape-Grass/Eel-Grass
	Native		Native
	Planting Zone		Offshore
	Plant spacing		
	Hardiness Zone		
	Growth Form		Aquatic / Perennial
	GSI Type		Wetlands
Light Requirement			
Full Sun/Part Shade	Native Habitat		Along Streams
Evergreen/Deciduous		Growth Rate	Fast
Height	1'	Spread	
Flood Tolerance	High	Drought Tolerance	
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	None
Soil Moisture		Soil Texture	
Color	White (Flower); Green (Fruit)	Longevity	Short-lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes			
Planting Guidelines		Plant in tanks with high light levels and little shade. No fertilizer needed.	
Maintenance			


Groundcover

Green Stormwater Infrastructure Guidebook




Groundcover

June 28, 2023

	Scientific Name	Arachis glabrata	
	Common Name	Perennial Peanut	
	Native	Non-Native	
	Planting Zone	Bank Top to Bank Slope	
	Plant spacing		
	Hardiness Zone	8B-11	
	Growth Form	Groundcover	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous		Growth Rate	Slow
Height	0.5'-1'	Spread	
Flood Tolerance	Occasional	Drought Tolerance	High
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	High
Soil Moisture	Well Drained	Soil Texture	Clay/Sandy
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	No nitrogen fertilizer needed; may spread aggressively; withstands foot traffic; damaged by frost in North and Central Florida; flowers are edible.Requires little to no water or fertilizer; little to no pests or diseases; great for right-of-way and medians.		
Planting Guidelines			
Maintenance	Can be mowed to 3" - 4"; does not tolerate shade; not suitable for areas of high foot traffic; thickness/cover may be reduced in the shade.		

Groundcover

June 28, 2023

	Scientific Name		Blechnum serrulatum
	Common Name		Swamp Fern
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		4-6 ft apart
	Hardiness Zone		8A-10B
	Growth Form		Groundcover
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement			
Full Sun/Part Shade	Native Habitat		Swamps, Marshes, and Wet Hammocks
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	1' - 6'	Spread	2' - 6'
Flood Tolerance	High	Drought Tolerance	Low
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	None
Soil Moisture	Wet	Soil Texture	Any Texture
Color	Green-Brown foliage	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control			
Good for groundcover.			
Wildlife Benefit			
Notes			
Planting Guidelines			
Use as groundcover.			
Maintenance			
It can be aggressive and will spread unless contained by physical or environmental limits. Periodic removal of old fronds is recommended.			


Groundcover

June 28, 2023

	Scientific Name	Conoclinium coelestinum	
	Common Name	Blue Mistflower	
	Native	Native	
	Planting Zone	Bank Slope	
	Plant spacing		
	Hardiness Zone	8A-11	
	Growth Form	Groundcover	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	Swamps and Cypress Savannas
Evergreen/Deciduous	Deciduous	Growth Rate	Fast
Height	1.5' - 3'	Spread	
Flood Tolerance	Moderate	Drought Tolerance	Moderate
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	None
Soil Moisture		Soil Texture	Clay/Loam/Organic/S and
Color	Blue/Purple (Flower)	Longevity	Short-lived Perennial
Bank Stabilization/ Erosion Control	Good as a border plant.		
Wildlife Benefit			
Notes			
Planting Guidelines			
Maintenance	Spreads quickly and can take over if not maintained.		


Groundcover

June 28, 2023

	Scientific Name		Dianella tasmanica
	Common Name		Flax Lily
	Native		Non-Native
	Planting Zone		Bank Top
	Plant spacing		2-2.5 ft. apart
	Hardiness Zone		8A-11
	Growth Form		Groundcover
	GSI Type		Green Roof
Light Requirement	Full Sun/Part Shade	Native Habitat	Australia
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	1' - 2'	Spread	1' - 2'
Flood Tolerance		Drought Tolerance	High
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	
Soil Moisture	Well Drained	Soil Texture	Any Texture
Color	Blue (Flower); Blue (Fruits)	Longevity	Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Do not use Dianella ensifolia. Blue/yellow flowers; strappy leaves. Blue fruit. Pests/Diseases: black mildew.		
Planting Guidelines			
Maintenance	Water to establishment and use mulch to help retain moisture and suppress weeds. Divide flax lily in spring if over crowing is occurring. If you notice your established flax lilies have lots of dead leaves, or variegated leaves that have reverted to an all-green form, you can cut them down to the crown in late winter.		


Groundcover

June 28, 2023

	Scientific Name	Dietes iridioides	
	Common Name	African Iris	
	Native	Non-Native	
	Planting Zone	Bank Slope	
	Plant spacing	2-3 ft. apart	
	Hardiness Zone	8A-10B	
	Growth Form	Groundcover	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Slow
Height	2' - 6'	Spread	1' - 2'
Flood Tolerance	Moderate	Drought Tolerance	Moderate
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	Low
Soil Moisture	Well Drained to Wet	Soil Texture	Any Texture
Color	White w/ Yellow and Blue Markings (Flower)	Longevity	Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes			
Planting Guidelines	Best flowering occurs in full Sun; Used as a border in a garden.		
Maintenance	Plants in the full sun or in sandy soil may require irrigation during times of drought. Cold temperatures (below 25°F) cause leaf browning. These leaves can be removed in the spring to clean up the plant.		


Groundcover

June 28, 2023

	Scientific Name	Dyschoriste oblongifolia	
	Common Name	Oblongleaf Snakeherb	
	Native	Native	
	Planting Zone	Bank Top to Bank Slope	
	Plant spacing		
	Hardiness Zone	8A-11	
	Growth Form	Groundcover	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	0.5' - 1'	Spread	0.5' - 1.5'
Flood Tolerance	Low	Drought Tolerance	High
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	None
Soil Moisture	Well Drained	Soil Texture	Any Texture
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts pollinators; larval host for the Common Buckeye butterfly (<i>Junonia coenia</i>).		
Notes			
Planting Guidelines			
Maintenance	Winter dormant; sprawling wildflower groundcover; can be grown from seed.		


Groundcover

June 28, 2023

	Scientific Name	Gaillardia pulchella	
	Common Name	Indian Blanket	
	Native	Non-Native	
	Planting Zone	Bank Top	
	Plant spacing	24"-36" apart	
	Hardiness Zone	8A-11	
	Growth Form	Groundcover	
	GSI Type	Green Roof	
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	High
Height	1' - 2'	Spread	2' - 3'
Flood Tolerance	Low	Drought Tolerance	High
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	High
Soil Moisture	Well Drained	Soil Texture	Loam/Sand
Color	Red/Yellow/Brown(Flower)	Longevity	Short-Lived Annual/Biennial/Perennial
Bank Stabilization/Erosion Control	Recommended as a border plant.		
Wildlife Benefit	Food source for birds.		
Notes	Suitable for growing along the beaches right on the dunes, gaillardia does best in light, very well-drained soils in full sun locations, enduring heat, sandy soil, and drought extremely well. Gaillardia shows well in a mass planting spaced two to three feet apart, as an edging plant along a walk or driveway, or as an accent. Do not over-water since this could induce root rot.		
Planting Guidelines	Plant seed in loose topsoil.		
Maintenance	Gaillardia re-seeds. Do not over-water since this could induce root rot.		


Groundcover

June 28, 2023

	Scientific Name		Glandularia tampensis
	Common Name		Tampa Vervain
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		18-24 in. apart
	Hardiness Zone		9A-11
	Growth Form		Groundcover
	GSI Type		Green Roof
Light Requirement	Full Sun	Native Habitat	Sandy Woodlands
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	1.5'-2'	Spread	1' - 1.5'
Flood Tolerance	Low	Drought Tolerance	High
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	Low
Soil Moisture	Well Drained	Soil Texture	Clay/Sand
Color	Pink/Purple (Flower)	Longevity	Short-lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Host for caterpillars, attracts butterflies.		
Notes			
Planting Guidelines			
Maintenance			


Groundcover

June 28, 2023

	Scientific Name	Helianthus debilis	
	Common Name	Beach Sunflower	
	Native	Native	
	Planting Zone	Bank Top	
	Plant spacing	1.5-2 ft. apart	
	Hardiness Zone	8B-10B	
	Growth Form	Groundcover	
	GSI Type	Green Roof	
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Semi-Evergreen	Growth Rate	High
Height	1'-4'	Spread	2' - 4'
Flood Tolerance	Low	Drought Tolerance	Moderate
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	High
Soil Moisture	Well Drained	Soil Texture	Loam/Sand
Color	Yellow (Flower)	Longevity	Annual/Perennial
Bank Stabilization/ Erosion Control	Nutt. Var. good for dune erosion control.		
Wildlife Benefit	Protection for small wildlife, attracts butterflies, birds.		
Notes	Attracts butterflies, birds Care should be taken to select local subspecies, also called ecotypes. For example, varieties found on the west coast should not be planted on the east coast and vice versa. This is because the non-local ecotype can hybridize with the local subspecies.		
Planting Guidelines			
Maintenance	This plant will not tolerate over-watering or over fertilizing and is very drought tolerant. If they are over-irrigated, these plants can get a defoliating disease called sunflower rust. Beach sunflower is an annual in those areas that have freezing temperatures in the winter; however, it will reseed itself or act as a perennial in central Florida.		


Groundcover

June 28, 2023

	Scientific Name		Juniperus chinensis 'parsonii'
	Common Name		Parson's Juniper
	Native		Non-Native
	Planting Zone		Bank Top
	Plant spacing		
	Hardiness Zone		8-10B
	Growth Form		Groundcover
	GSI Type		Green Roof
<hr/>			
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	2'-3'	Spread	6'
Flood Tolerance	None	Drought Tolerance	High
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	Moderate
Soil Moisture		Soil Texture	Sand
Color	Green (Fruit)	Longevity	Perennial
<hr/>			
Bank Stabilization/ Erosion Control	Good for ground cover.		
Wildlife Benefit			
Notes			
Planting Guidelines	Plant in well-drained soils.		
Maintenance			


Groundcover

June 28, 2023

	Scientific Name		Licania michauxii
	Common Name		Gopher Apple
	Native		Native
	Planting Zone		Bank Top to Bank Slope
	Plant spacing		3-5 ft.
	Hardiness Zone		8B-11
	Growth Form		Groundcover
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
<hr/>			
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous		Growth Rate	Slow
Height	3"-12"	Spread	8' - 10'
Flood Tolerance	Low	Drought Tolerance	High
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	Yes
Soil Moisture	Well Drained	Soil Texture	Loam/Sand
Color		Longevity	
<hr/>			
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Flowers all year long; attracts butterflies/pollinators; provides food and cover for wildlife; the fruits are a favorite of gopher tortoises; fruit is edible.		
Notes	Gopher apple can be used as a ground cover along the coast. It tolerates a wide range of soil pH in any well-drained soil. Gopher apple will grow well in full sun on well-drained, sandy soils. It is quite drought tolerant but may not transplant well. Plants should establish well from containers.		
Planting Guidelines			
Maintenance	Forms large patches by underground stems spreading; ideal for stabilizing sandy banks and roadsides; very hardy groundcover that thrives in nutrient-poor sandy soil.		


Groundcover

June 28, 2023

	Scientific Name	Mimosa strigillosa	
	Common Name	Sunshine Mimosa	
	Native	Native	
	Planting Zone	Bank Top	
	Plant spacing	At least 2 ft. apart	
	Hardiness Zone	8A-11	
	Growth Form	Groundcover	
	GSI Type	Green Roof	
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	0.5'-0.75'	Spread	8' - 10'
Flood Tolerance	Low	Drought Tolerance	Moderate
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	Moderate
Soil Moisture	Well Drained	Soil Texture	Any Texture
Color	Pink (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Powderpuff mimosa is a great plant for erosion control due to its deep roots. Forms an overlapping vegetative mat good for ground cover in a range of soil conditions.		
Wildlife Benefit	Larval host of little sulfur butterfly.		
Notes	As a legume, it has the ability to fix nitrogen via its association with special nitrogen fixing bacteria.		
Planting Guidelines	Not good for heavy foot traffic; Not the best cover from late fall to early spring; can use as turf replacement and can be mowed; Keep hemmed by using a barrier or trimming to prevent too much spreading; Mimosa fields should not be fertilized during first year of planting to reduce weed competition.		
Maintenance	Can be mowed to 4"; spreads easily so should be contained by edging where needed; Despite its rapidly spreading nature mimosa is not overly competitive and aggressive weeds will out compete it. A weed management program is necessary to maintain a uniform look. Can easily be pruned or mowed if it moves into unwanted areas. Grass and mimosa can be mowed together without hurting the low growing mimosa.		


Groundcover

June 28, 2023

	Scientific Name		Mitchella repens
	Common Name		Partridgeberry
	Native		Native
	Planting Zone		Bank Top to Bank Slope
	Plant spacing		
	Hardiness Zone		8A-9B
	Growth Form		Groundcover
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Part Shade/Full Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Slow
Height	1" - 2"	Spread	
Flood Tolerance	Low	Drought Tolerance	Low
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	None
Soil Moisture	Well Drained to Medium Drained	Soil Texture	Loam/Sand
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Birds and small mammals consume the berries which mature in the fall and are retained through the winter and spring. Bumblebees pollinate the flowers. Cross-pollination, required for seed set.		
Notes	Typically grown as a curiosity. This is a very small plant that acts as a groundcover with the caveat that the plants are very small. Keep it in a natural forested setting or establish in such an area. Evergreen; showy white flowers and red fruits; Bumblebees pollinate the flowers. Cross-pollination, required for seed set, is controlled by factors that permit germination of pollen from long anthers only on the stigmas of a different flower with a long styles; conversely, pollen from short anthers can germinate only on the stigmas of a different flower with a short styles. (VNPS).		
Planting Guidelines			
Maintenance	Not an aggressive grower-not appropriate for large, expansive sites; tolerates minimal foot traffic.		


Groundcover

June 28, 2023

	Scientific Name		Paspalum notatum
	Common Name		Bahia
	Native		Non-Native
	Planting Zone		Bank Top to Bank Slope
	Plant spacing		
	Hardiness Zone		
	Growth Form		Groundcover
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
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Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous		Growth Rate	Slow
Height	8"-20"	Spread	
Flood Tolerance	Occasional	Drought Tolerance	Medium
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	
Color		Longevity	
<hr/>			
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Does not require irrigation once established; generally least pest issues than other turf grasses.		
Planting Guidelines			
Maintenance	Can be mowed to 3"-4"; seed heads can grow tall and need regular mowing in spring/summer/fall; open growth habit; can be established via sod or seed.		


Groundcover

June 28, 2023

	Scientific Name	Paspalum vaginatum	
	Common Name	Seashore Paspalum	
	Native	Native	
	Planting Zone	Bank Top to Bank Slope	
	Plant spacing		
	Hardiness Zone		
	Growth Form	Groundcover	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Medium
Height	3.5" - 10"	Spread	1' - 8'
Flood Tolerance	High	Drought Tolerance	Medium
Soil pH		Salt Tolerance	High
Soil Moisture		Soil Texture	
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Evergreen; highly salt tolerant; similar in appearance to St. Augustine Grass; can be used in wet meadows.		
Planting Guidelines			
Maintenance	Must be mowed frequently; does not tolerate heavy foot traffic; can be aquired as sod; spreading habit.		


Groundcover

June 28, 2023

	Scientific Name		Phyla nodiflora
	Common Name		Frogfruit
	Native		Native
	Planting Zone		Bank Top to Bank Slope
	Plant spacing		
	Hardiness Zone		8A-11
	Growth Form		Groundcover
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Medium
Height	0.5' - 1'	Spread	1' - 1.5'
Flood Tolerance	Occasional	Drought Tolerance	Medium
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	low
Soil Moisture	Well Drained to Medium Drained	Soil Texture	Any Texture
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies; great groundcover-forms dense mats; small white and purple flowers.		
Notes	Small, purplish-white flowers; may appear dormant in drought but will come back; occasional mowing improves appearance; excellent butterfly attractor; can become weedy. Fruit is inconspicuous.		
Planting Guidelines			
Maintenance	Can be mowed to 4"-6"; low foot traffic.		


Groundcover

June 28, 2023

 <p>© Shirley Denton</p>	Scientific Name	Sesuvium portulacastrum	
	Common Name	Sea Purslane	
	Native	Native	
	Planting Zone	Bank Slope	
	Plant spacing	3-5 ft. apart	
	Hardiness Zone	9-11	
	Growth Form	Groundcover	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	0.5-1	Spread	3' - 6'
Flood Tolerance	Occasional	Drought Tolerance	High
Soil pH	Slightly Acid to Alkaline (6.0-8.0)	Salt Tolerance	High
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	Pink, Purple (Flower)	Longevity	Perennial
Bank Stabilization/ Erosion Control	Excellent groundcover and candidate for erosion control.		
Wildlife Benefit	Provides habitat for invertebrates used as food for waterbirds.		
Notes	Nutrient Uptake; roots known to help filter and clear water of toxins and other unwanted materials.		
Planting Guidelines			
Maintenance	Virtually no irrigation or fertilizer is needed once the plant is established in the landscape. In many ways it defines a low maintenance plant.		


Groundcover

June 28, 2023

	Scientific Name		Sisyrinchium angustifolium
	Common Name		Blue-Eyed Grass
	Native		Native
	Planting Zone		Bank Top to Bank Slope
	Plant spacing		
	Hardiness Zone		5A-11
	Growth Form		Groundcover
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
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Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Fast
Height	0.5' - 1.5'	Spread	
Flood Tolerance	Seasonal	Drought Tolerance	Low
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	None
Soil Moisture	Medium Drained	Soil Texture	Any Texture
Color		Longevity	
<hr/>			
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Winter-summer flowering season.		
Planting Guidelines			
Maintenance	Winter dormant; can tolerate foot traffic.		

Groundcover

June 28, 2023

	Scientific Name		Stachytarpheta jamaicensis
	Common Name		Blue Porterweed
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		4-5 ft. apart
	Hardiness Zone		9A-11
	Growth Form		Groundcover
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
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Light Requirement	Full Sun/Part Shade	Native Habitat	Coastal Strand, Open areas in dry mesic hardwood forests, Nestled under trees along sandy roadsides
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	4' - 8'	Spread	4' - 8'
Flood Tolerance	None	Drought Tolerance	Moderate
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	High
Soil Moisture	Well Drained	Soil Texture	Any Texture
Color	Green with Blue or Purple (Flower)	Longevity	Short-Lived Perennial/Annual
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Bank Stabilization/ Erosion Control			
Wildlife Benefit	Butterflies		
Notes			
Planting Guidelines	Locate porterweed in a Sunny location in any soil. Provide irrigation during establishment and then in extended drought in the summer. Fertilize about twice each year to maintain foliage color and provide for continuous growth. Tolerant of soil compaction.		
Maintenance	Provide irrigation during establishment and in periods of extended drought during summer. Plants that survive the winter but die back to the ground should be cut back just before new spring growth resumes. Plants that become leggy can be pruned back any time. Deadheading of flowers is not necessary. Lifespan is about 5 years, but it readily self-seeds.		


Ornamental Grass

Green Stormwater Infrastructure Guidebook




Ornamental Grass

June 28, 2023

	Scientific Name		Amphicarpum muhlenbergianu m
	Common Name		Blue Maidencane
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		
	Hardiness Zone		
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement			
Full Sun	Native Habitat		Flatwood and Forests
Evergreen/Deciduous	Deciduous	Growth Rate	Fast
Height	3'	Spread	Extensive Mats
Flood Tolerance	Moderate	Drought Tolerance	Low
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	Low
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color		Longevity	Perennial
Bank Stabilization/ Erosion Control			
Excellent candidate for erosion control.			
Wildlife Benefit			
Notes			
Can be used in freshwater wetland restoration sites and constructed wetlands for wastewater management.			
Planting Guidelines			
Does not need fertilizer or herbicide.			
Maintenance			

Ornamental Grass

June 28, 2023


	Scientific Name	Andropogon glomeratus
	Common Name	Bushy Bluestem
	Native	Native
	Planting Zone	Bank Slope
	Plant spacing	1 per 2-4 sq. ft.
	Hardiness Zone	8A to 9A
	Growth Form	Ornamental Grass
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands

Light Requirement	Full Sun	Native Habitat	Flatwoods
Evergreen/Deciduous	Deciduous	Growth Rate	
Height	3'- 5'	Spread	1' - 3'
Flood Tolerance	Moderate	Drought Tolerance	Low
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	None
Soil Moisture		Soil Texture	Loam/Organic/Sand
Color	Orange/Green (Fruit)	Longevity	Perennial

Bank Stabilization/ Erosion Control	Recommended to plant along ponds and streambanks.
Wildlife Benefit	Seeds are food for small mammals and birds; Host for caterpillars.
Notes	
Planting Guidelines	Does not require fertilizers; Grows in poor nutrient soils; Burn or mow to prevent weediness.
Maintenance	


Ornamental Grass

June 28, 2023

	Scientific Name		Andropogon virginicus
	Common Name		Broomsedge Bluestem
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		
	Hardiness Zone		8A to 10B
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement			
Part Shade	Native Habitat		Seepage Areas, Marshes, and Ruderal Areas
Evergreen/Deciduous	Deciduous	Growth Rate	Fast
Height	2' - 4'	Spread	0.5'
Flood Tolerance	Moderate	Drought Tolerance	High
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	
Soil Moisture		Soil Texture	Sand
Color	Red/Orange (Fruit)	Longevity	Short-Lived Perennial
Bank Stabilization/ Erosion Control			
Found on low fertile soils and prevents erosion when other plants can not be found.			
Wildlife Benefit			
Host for caterpillars.			
Notes			
Broomsedge is considered weed pest by livestock producers who work to rid their pasture of it.			
Planting Guidelines			
In spring by Seed or transplanting; Managed with mowing.			
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name	Distichlis spicata	
	Common Name	Saltgrass	
	Native	Native	
	Planting Zone	Water's Edge	
	Plant spacing	1 per 1-4 sq. ft.	
	Hardiness Zone	8A-11	
	Growth Form	Ornamental Grass	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands	
Light Requirement	Full Sun	Native Habitat	Marshes and Coastlines
Evergreen/Deciduous	Deciduous	Growth Rate	Slow
Height	1' - 2'	Spread	2' - 4'
Flood Tolerance	Moderate	Drought Tolerance	Moderate
Soil pH	Slightly Acid to Alkaline (6.0-8.0)	Salt Tolerance	High
Soil Moisture	Wet	Soil Texture	Any Texture
Color	Gray-Green (Flower)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Food source for birds and Salt Marsh Mole; host for obscure skipper (<i>Panoquina panoquinoides</i>) and saltmarsh skipper (<i>Panoquina panoquin</i>).		
Notes			
Planting Guidelines	Avoid prolonged flooding, may need a water management system to maintain variable conditions.		
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name		Eleocharis interstincta
	Common Name		Jointed Spikerush
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		
	Hardiness Zone		8A-10
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
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Light Requirement	Full Sun	Native Habitat	Flatwoods, Sandhills, and Prairies
Evergreen/Deciduous	Deciduous	Growth Rate	Fast
Height	1' - 4'	Spread	
Flood Tolerance	Low	Drought Tolerance	High
Soil pH		Salt Tolerance	High
Soil Moisture		Soil Texture	Loam/Sand
Color	White (Flower)	Longevity	Short-lived Perennial
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Bank Stabilization/ Erosion Control			
Wildlife Benefit	Food source for birds. Host for zabulon skipper (Poanes zabulon).		
Notes			
Planting Guidelines	Recommended for mass plantings. Can be planted on slopes.		
Maintenance	Aggressive, spreads quickly if not maintained.		

Ornamental Grass

June 28, 2023

	Scientific Name	Eragrostis spectabilis	
	Common Name	Elliott's Lovegrass	
	Native	Native	
	Planting Zone	Bank Top	
	Plant spacing	1 per 1-4 sq. ft.	
	Hardiness Zone	8A-11	
	Growth Form	Ornamental Grass	
	GSI Type	Green Roof	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	High
Height	1' - 3'	Spread	1' - 3'
Flood Tolerance	Low	Drought Tolerance	High
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	None
Soil Moisture	Well Drained to Medium Drained	Soil Texture	Loam/Sand
Color	Tannish/White (Flower)	Longevity	Short-lived Perennial
Bank Stabilization/ Erosion Control	Recommended as a border plant.		
Wildlife Benefit	Food source for birds/Host for caterpillars.		
Notes	Pests/Diseases: none serious.		
Planting Guidelines	Can grow in nutrient poor soils; recommended as a border plant.		
Maintenance	As is true of most grasses, lovegrass is dormant in the winter. If you plan to divide a clump it is best to do so at this time. To prune, cut lovegrass back to a few inches above the ground. This is best done at the end of the dormant season, just before the first flush of growth. The clump will come back again in the spring, green and fresh.		


Ornamental Grass

June 28, 2023

	Scientific Name		Muhlenbergia capillaris
	Common Name		Muhly Grass
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		2-3 ft. apart
	Hardiness Zone		8A-11
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
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Light Requirement	Full Sun	Native Habitat	Flatwoods, Marshes, and Scrub
Evergreen/Deciduous	Semi-Evergreen	Growth Rate	Medium
Height	2' - 5'	Spread	2' - 3'
Flood Tolerance	High	Drought Tolerance	High
Soil pH	Slightly Acid to Alkaline (6.0-8.0)	Salt Tolerance	High
Soil Moisture	Well Drained to Wet	Soil Texture	Clay/Lime/Rock/Sand
Color	Pink (Flower); Purple (Fruit)	Longevity	Long-Lived Perennial
<hr/>			
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Small mammals, amphibians, large mammals (shelter and refuge); small birds eat seeds.		
Notes			
Planting Guidelines	Use as hedges or for mass plantings.		
Maintenance	Plants can be cut back to the ground in late winter before the spring flush of foliage appears. You can also give the plants an application of fertilizer as they begin to grow rapidly in spring. As the plants age, they can be lifted in early spring and divided to create new plants.		


Ornamental Grass

June 28, 2023

	Scientific Name	Panicum amarum	
	Common Name	Panic/Beach Grass	
	Native	Native	
	Planting Zone	Bank Slope	
	Plant spacing	2-3 ft. apart	
	Hardiness Zone	8A-11	
	Growth Form	Ornamental Grass	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun	Native Habitat	Sandy Coastal Shores and Dunes
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	1' - 2'	Spread	
Flood Tolerance	High	Drought Tolerance	High
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	High
Soil Moisture		Soil Texture	Loam/Sand
Color	Yellow (Flower)	Longevity	Perennial
Bank Stabilization/ Erosion Control	Principal use is for coastal dune erosion control but can be used to stabilize dry areas as well.		
Wildlife Benefit	Birds		
Notes			
Planting Guidelines	Restrict traffic during establishment to allow sites to successfull establish.		
Maintenance	An aggressive grower. Plant where that characteristic is appropriate. May look weedy (FNPS).		


Ornamental Grass

June 28, 2023

	Scientific Name		Schizachyrium maritimum
	Common Name		Gulf Bluestem
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		2-5 ft. apart
	Hardiness Zone		
	Growth Form		Ornamental Grass
	GSI Type		Green Roof
Light Requirement			
Full Sun	Native Habitat		
Evergreen/Deciduous		Deciduous	Growth Rate
Medium	Height	1' - 3'	Spread
Rapid	Flood Tolerance	None	Drought Tolerance
High	Soil pH		Salt Tolerance
Low	Soil Moisture		Soil Texture
Sand	Color	Blue-Gray (Foliage)	Longevity
Perennial	Bank Stabilization/ Erosion Control		
Conservation plant material for coastal beach dune enhancement and stabilization.			
Wildlife Benefit			
Habitat for small mammals, shorebirds and migratory birds.			
Notes			
Planting Guidelines			
Gulf bluestem can be successfully established using container grown or bareroot plant materials; Apply a blended fertilizer broadcast or slow release tablet or packet with each plant when planting.			
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name		Schizachyrium scoparium
	Common Name		Little Bluestem
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		30 Seed/linear foot
	Hardiness Zone		2A-9B
	Growth Form		Ornamental Grass
	GSI Type		Green Roof
Light Requirement			
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	1' - 3'	Spread	1' - 3'
Flood Tolerance	None	Drought Tolerance	High
Soil pH	Slightly Acid (6.0-6.8)	Salt Tolerance	None
Soil Moisture	Well Drained	Soil Texture	Clay/Loam/Sand
Color	Gray-Green with Yellow (Flower)	Longevity	Perennial
Bank Stabilization/ Erosion Control			
Bank Stabilization/ Erosion Control	Useful in revegetation mixes due to its wide tolerance of soil conditions.		
Wildlife Benefit			
Wildlife Benefit	Small birds and mammals, caterpillars.		
Notes			
Notes			
Planting Guidelines			
Planting Guidelines	Should be seeded as early in the spring as possible.		
Maintenance			
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name		Spartina alterniflora
	Common Name		Smooth Cordgrass
	Native		Native
	Planting Zone		Offshore
	Plant spacing		18-72 in. apart
	Hardiness Zone		8A-11
	Growth Form		Ornamental Grass
	GSI Type		Wetlands
Light Requirement			
Full Sun	Native Habitat		Salt Marsh, Tidal Flats, and Beaches
Evergreen/Deciduous	Deciduous	Growth Rate	High
Height	2' - 6'	Spread	Rapid
Flood Tolerance	High	Drought Tolerance	None
Soil pH	Slightly Acid (6.0-6.8)	Salt Tolerance	High
Soil Moisture		Soil Texture	Clay/Organic/Sand
Color	Yellow (Flower); Brown (Fruit)	Longevity	Perennial
Bank Stabilization/ Erosion Control			
Major saltmarsh plant used for shoreline protection; useful for erosion control.			
Wildlife Benefit			
Fiddler crabs, mussels, snow geese, waterfowl, wading birds, shorebirds, commercial fish and shellfish.			
Notes			
Planting Guidelines			
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name		Spartina bakeri
	Common Name		Sand Cordgrass
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		3-5 ft. apart
	Hardiness Zone		8B-11
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
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Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Fast
Height	3' - 4'	Spread	3' - 5'
Flood Tolerance	Occasional	Drought Tolerance	High
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	Low
Soil Moisture	Well Drained to Wet	Soil Texture	Clay/Sandy
Color	Green (Foliage); Brown (Seed)	Longevity	Long-Lived Perennial
<hr/>			
Bank Stabilization/ Erosion Control	Good for erosion control along canals and ponds and bank stabilization due to its tolerance of wetter soils.		
Wildlife Benefit	Caterpillars and grazing for cattle.		
Notes			
Planting Guidelines	Space plants about 3 to 4 feet apart to form a mass of foliage several years after planting. Grow marsh grass in full sun or light shade on medium dry to wet soils. Aggressive, spreading plant.		
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name		Spartina patens
	Common Name		Saltmeadow Cordgrass
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		6 in. apart
	Hardiness Zone		8B-11
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun	Native Habitat	Salt and Brackish Water of Shores, Farmlands, Marshes, Dunes
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	3' - 4'	Spread	3' - 5'
Flood Tolerance	Occasional	Drought Tolerance	Moderate
Soil pH	Slightly Acid to Alkaline (6.0-8.0)	Salt Tolerance	Moderate
Soil Moisture		Soil Texture	Loam/Sand
Color	Green with Yellow (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Good plant for coastal restoration projects; large dense clumps cause it to catch and hold soil.		
Wildlife Benefit	Geese, sandhill cranes, mottled ducks.		
Notes			
Planting Guidelines	Best reproduced vegetatively, keep in 1" of water around 2 feet above mean tide level.		
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name		Spartina spartinae
	Common Name		Gulf Cordgrass
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		6-12 in. apart
	Hardiness Zone		8B-11
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Tidal flats, Lagoons, and Marshes
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	3' - 6'	Spread	3' - 5'
Flood Tolerance	Occasional	Drought Tolerance	Low
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	High
Soil Moisture		Soil Texture	Clay/Sand/Silty
Color	Green (Flower, Foliage); Brown (Fruit)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Used for shoreline protection and tidal marsh restorations, and is often utilized for levee stabilization and dune stabilization plantings near coastal beaches and on barrier islands.		
Wildlife Benefit	Muskrats, nutria, rabbits, ducks, white-footed mouse and meadow vole.		
Notes			
Planting Guidelines	Saltmeadow cordgrass is usually established by vegetative means. Depending on the energy affecting the planting site, either containerized (high impact sites) or bare root (mild impact sites) plants can be utilized.		
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name		Sporobolus virginicus
	Common Name		Seashore DropSeed
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		4-10 in. apart
	Hardiness Zone		8A-11
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	0.5' - 1'	Spread	2' - 4'
Flood Tolerance	Occasional	Drought Tolerance	High
Soil pH	Slightly Acid to Alkaline (6.0-8.0)	Salt Tolerance	High
Soil Moisture		Soil Texture	Clay/Sand
Color	Green with Brown (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Good for dune stabilization, has potential for bank stabilization.		
Wildlife Benefit	Native seabirds and wintering geese.		
Notes			
Planting Guidelines	It is recommended that irrigation be applied during the first 1-2 months after transplanting to help establish plots.		
Maintenance			


Ornamental Grass

June 28, 2023

	Scientific Name		Tripsacum dactyloides
	Common Name		Fakahatchee Grass
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		3-5 ft. apart
	Hardiness Zone		8A-11
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Wetlands, Roadsides, Wet Hammocks, River Banks, Pine Woods, Open Habitats, Flatwoods, Sandhill, and Scrub
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	4' - 6'	Spread	4' - 6'
Flood Tolerance	High	Drought Tolerance	
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	High
Soil Moisture	Well Drained to Medium Drained	Soil Texture	Any Texture
Color	Yellow/Orange/Red (Flower); Yellow/Brown (Fruit)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Used for erosion control.		
Wildlife Benefit	Habitat for small mammals and birds, attracts butterflies.		
Notes			
Planting Guidelines			
Maintenance	Can be trimmed back at the end of winter but it doesn't need this to thrive. Fakahatchee grass can be a great addition to the landscape and requires almost no maintenance.		


Ornamental Grass

June 28, 2023

	Scientific Name		Tripsacum floridanum
	Common Name		Florida Gammagrass
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		
	Hardiness Zone		8A-11
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Pine Rockland
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	2' - 4'	Spread	4' - 6'
Flood Tolerance		Drought Tolerance	
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	Moderate
Soil Moisture	Well Drained to Wet	Soil Texture	Any Texture
Color	Green/Yellow (Flower)	Longevity	Short-lived Perennial
Bank Stabilization/ Erosion Control	Along streams and rivers.		
Wildlife Benefit	Seeds eaten by birds; host to Byssus Skipper (Problema byssus).		
Notes			
Planting Guidelines	Low maintenance		
Maintenance	Can be trimmed back at the end of winter but it doesn't need this to thrive. Fakahatchee grass can be a great addition to the landscape and requires almost no maintenance.		


Ornamental Grass

June 28, 2023

	Scientific Name		Uniola paniculata
	Common Name		Sea Oats
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		2-3 ft. apart
	Hardiness Zone		7B-11
	Growth Form		Ornamental Grass
	GSI Type		Green Roof
Light Requirement	Full Sun	Native Habitat	Beach dunes
Evergreen/Deciduous	Deciduous	Growth Rate	Slow
Height	5' - 8'	Spread	1' - 2'
Flood Tolerance	None	Drought Tolerance	Moderate
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	High
Soil Moisture		Soil Texture	Sand
Color	White/Yellow (Flower); Brown (Fruit)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Sand dune stabilization.		
Wildlife Benefit	Birds and wildlife eats seeds.		
Notes	Plant sea oats several feet apart to stabilize dunes along the beach. It is illegal to collect plants from the wild without special permits.		
Planting Guidelines	Plant from March through November south of Tampa Bay and Cape Canaveral and April through October northward. Plant above the limits of wave uprush. Space plants from four-inch pots one and one-half feet on center.		
Maintenance	Over time established plants will accumulate a lot of dead plant residue. Removal of the excess herbage will stimulate new growth. Does not need fertilization.		

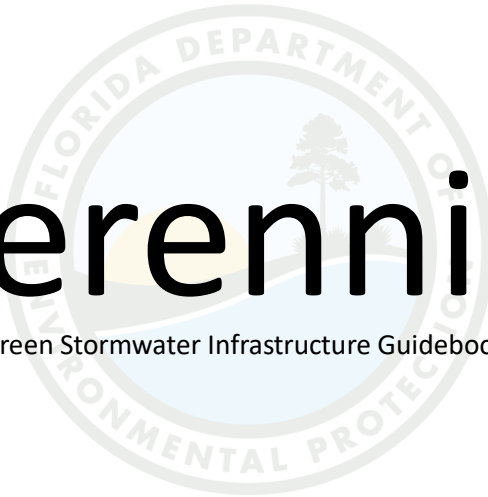
Ornamental Grass

June 28, 2023

	Scientific Name		Vetiveria zizanioides
	Common Name		Vetiver
	Native		Non-Native
	Planting Zone		Water's Edge
	Plant spacing		
	Hardiness Zone		45180
	Growth Form		Ornamental Grass
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement			
		Native Habitat	Marshes
Evergreen/Deciduous		Growth Rate	Fast
Height	7'	Spread	
Flood Tolerance		Drought Tolerance	
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	Moderate
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	Purple (Flower); Brown (Fruit/Seed)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
		Well adapted for erosion control due to its strong, compact root system and numerous stiff stems; used in streambank stabilization.	
Wildlife Benefit			
Notes			
		Has been shown to enhance the degradation of heavy metals and polycyclic aromatic hydrocarbons in the soil; used for wastewater treatment and rehabilitation of old mines.	
Planting Guidelines			
		Fertilizers may need to be applied if soil nutrients are low.	
Maintenance			


Perennial

Green Stormwater Infrastructure Guidebook



Perennial

June 28, 2023

	Scientific Name	Asclepias perennis
	Common Name	Swamp Milkweed
	Native	Native
	Planting Zone	Bank Slope
	Plant spacing	
	Hardiness Zone	3A-9B
	Growth Form	Perennial
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands

Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Slow
Height	3' - 6'	Spread	2' - 3'
Flood Tolerance	High	Drought Tolerance	Low
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	None
Soil Moisture	Medium Drained to Wet	Soil Texture	Loam
Color	White/Dark Pink	Longevity	

Bank Stabilization/ Erosion Control	
Wildlife Benefit	Larval host to the monarch butterfly (Danaus plexippus), queen butterfly (Danaus gilippus) and soldier butterfly, (Danaus eresimus). Attracts various pollinators and hummingbirds.
Notes	
Planting Guidelines	
Maintenance	Needs moist soil; may be toxic if ingested in large quantities.


Perennial

June 28, 2023

	Scientific Name		Asclepias tuberosa
	Common Name		Milkweed (Butterflyweed)
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		
	Hardiness Zone		10-A
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
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Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous		Growth Rate	Fast
Height	2' - 3'	Spread	1' - 3'
Flood Tolerance	Low	Drought Tolerance	Medium
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	None
Soil Moisture	Well Drained to Wet	Soil Texture	Clay/Loam/Sand
Color	Orange	Longevity	
<hr/>			
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Larval host to the monarch butterfly (Danaus plexippus), queen butterfly (Danaus gilippus) and soldier butterfly, (Danaus eresimus). Attracts various pollinators and hummingbirds.		
Notes			
Planting Guidelines			
Maintenance	Plant will not flower freely until well established; may be toxic if ingested in large quantities.		


Perennial

June 28, 2023

	Scientific Name		Bacopa caroliniana
	Common Name		Lemon Bacopa
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		
	Hardiness Zone		9B-10A
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement			
Full Sun	Native Habitat		
Evergreen/Deciduous		Growth Rate	Medium
Height	0.25' - 0.5'	Spread	1.5' - 2'
Flood Tolerance	Seasonal	Drought Tolerance	Low
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	
Color	Blue	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Pleasant lemon fragrance; showy flowers; good as a ground cover for the edges of rain gardens and retention ponds; flowers all year long.		
Planting Guidelines			
Maintenance	Winter dormant; spreading, mat-forming habit; can be grown from cuttings.		


Perennial

June 28, 2023

	Scientific Name		Canna flaccida
	Common Name		Golden Canna
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		1 ft apart
	Hardiness Zone		8-10B
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Edges of Marshes, Ponds, and Lakes
Evergreen/Deciduous	Deciduous	Growth Rate	Fast
Height	3' - 6'	Spread	2' - 3'
Flood Tolerance	Moderate	Drought Tolerance	Low
Soil pH		Salt Tolerance	Low
Soil Moisture		Soil Texture	Clay/Loam/Organic
Color	Yellow (Flower)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control	Good for pond edge to stop soil erosion		
Wildlife Benefit	Protection for fish, amphibians; Host to caterpillars.		
Notes	Can take up nitrogen and phosphorous from the water; shades and cools water.		
Planting Guidelines	Often planted in masses; Planting next to a pond adds color and structure; Dig up and divide rhizomes every 2-4 years.		
Maintenance	The roots may be divided in the spring with each division having one or more eyes.		


Perennial

June 28, 2023

	Scientific Name		Coreopsis lanceolata
	Common Name		Lanceleaf Coreopsis
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		6 to 12 inches
	Hardiness Zone		4-10
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Medium
Height	1' - 3'	Spread	Mats
Flood Tolerance	Occasional	Drought Tolerance	Medium
Soil pH	Acidic	Salt Tolerance	None
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	Yellow	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies and other pollinators; provides food for small animals and birds.		
Notes	Coreopsis requires a sunny position in the landscape. They prefer well-drained soils that are not too rich; rich soils and overwatering cause these plants to topple over. Keep the soil relatively moist and remove dead flowers immediately to prolong blooming. Taller species of coreopsis may need support. Place these plants 6 to 12 inches apart in the garden. The cultivar 'Early Sunrise' flowers sooner than others. Flowers of the genus Coreopsis are designated as the State of Florida official wildflower; shorter bloom period than Coreopsis leavenworthii. Seed is the most common method of propagation for coreopsis. Division can also be accomplished in the spring or fall.		
Planting Guidelines			
Maintenance	Will self-seed; winter dormant; may be selectively thinned to improve appearance; mulching will help keep weeds at bay and conserve moisture; spent flowers can be deadheaded to encourage new blooms.		


Perennial

June 28, 2023

	Scientific Name		Helianthus angustifolius
	Common Name		Swamp Sunflower
	Native		Native
	Planting Zone		Bank Slope and Water's Edge
	Plant spacing		
	Hardiness Zone		5A-9B
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement			
Full Sun	Native Habitat		
Evergreen/Deciduous		Growth Rate	Fast
Height	2' - 4'	Spread	2' - 4'
Flood Tolerance		Drought Tolerance	Meduim
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	High
Soil Moisture	Well Drained to Wet	Soil Texture	Any Texture
Color	Yellow	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies, birds.		
Notes			
Planting Guidelines			
Maintenance			

Perennial

June 28, 2023


	Scientific Name	Heliotropium angiospermum
	Common Name	Scorpion Tail
	Native	Native
	Planting Zone	Bank Slope
	Plant spacing	2-4 ft. apart
	Hardiness Zone	8A-11
	Growth Form	Perennial
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands

Light Requirement	Full Sun/Part Shade	Native Habitat	Disturbed Areas/Hammocks
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	1' - 2'	Spread	1' - 2'
Flood Tolerance	Occasional	Drought Tolerance	High
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	Low
Soil Moisture	Well Drained	Soil Texture	Any Texture
Color	White (Flower)	Longevity	Annual/Perennial

Bank Stabilization/ Erosion Control	Recommended for tall groundcover.
Wildlife Benefit	Hummingbirds, butterflies, Birds.
Notes	Evergreen; white, year-round flowers; seedlings volunteer readily.
Planting Guidelines	Flowers only appear on one side of stalk; Recommended for use as tall groundcover or small shrub.
Maintenance	Can become somewhat weedy if not maintained.

Perennial


June 28, 2023

	Scientific Name	Hibiscus laevis
	Common Name	Halberdleaf Rosemallow
	Native	Native
	Planting Zone	Water's Edge
	Plant spacing	4-6 ft. apart
	Hardiness Zone	8A-10B
	Growth Form	Perennial
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands

Light Requirement	Part Shade	Native Habitat	Bodies of Water, Low Spots
Evergreen/Deciduous	Deciduous	Growth Rate	
Height	4' - 6'	Spread	2' - 3'
Flood Tolerance	High/ Recommended for Rain Gardens	Drought Tolerance	Moderate
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	Low
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	White/Pink (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Hummingbirds		
Notes			
Planting Guidelines			
Maintenance	Trim branches to avoid leggy appearance and to promote bloom production.		


Perennial

June 28, 2023

	Scientific Name		Hibiscus moscheutos
	Common Name		Crimsoneyed Rosemallow
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		2-4 ft. apart
	Hardiness Zone		8A-11
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
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Light Requirement	Full Sun	Native Habitat	Marshes, Swamps, and Riverbanks
Evergreen/Deciduous	Deciduous	Growth Rate	High
Height	6'	Spread	
Flood Tolerance	High	Drought Tolerance	None
Soil pH	Slightly Acid (6.0-6.8)	Salt Tolerance	None
Soil Moisture		Soil Texture	Loam/Organic/Sand
Color	White (Flower)	Longevity	Annual/Perennial
<hr/>			
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Hummingbirds		
Notes			
Planting Guidelines			
Maintenance			


Perennial

June 28, 2023

	Scientific Name		Hymenocallis palmeri
	Common Name		Alligator Lily
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		
	Hardiness Zone		9A-10B
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement			
Full Sun/Part Shade	Native Habitat		
Evergreen/Deciduous		Growth Rate	Medium
Height	1' - 3'	Spread	3' - 5'
Flood Tolerance	Seasonal	Drought Tolerance	Low
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	
Color	White	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Grows well in shade, fragrant flowers; common habitat is in marshes.		
Planting Guidelines			
Maintenance	Plant in a moist setting.		


Perennial

June 28, 2023

	Scientific Name		Iris hexagona
	Common Name		Louisiana Iris
	Native		Non-Native
	Planting Zone		Water's Edge
	Plant spacing		15-18 in. apart
	Hardiness Zone		6A-10B
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Marshes, Wet Prairie, Dome Swamps, and River Swamps
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	2' - 5'	Spread	0.5'
Flood Tolerance	High/ Recommended for Rain Gardens	Drought Tolerance	Low
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	Low
Soil Moisture	Wet	Soil Texture	Loam/Organic/Sand
Color	Lavender or White (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Excellent wetland edge flower.		
Wildlife Benefit			
Notes			
Planting Guidelines			
Maintenance	These hybrids are tolerant to drought but will also endure wet soils. These plants are frozen to the ground in freezing temperatures but will regenerate from the roots with the onset of warm weather.		


Perennial

June 28, 2023

	Scientific Name		Iris virginica
	Common Name		Virginia Iris or Blue Flag
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		2-3 ft. apart
	Hardiness Zone		8A-11
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	4' - 7'	Spread	1' - 3'
Flood Tolerance	High/ Recommended for Rain Gardens	Drought Tolerance	Moderate
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	Low
Soil Moisture	Medium Drained to Wet	Soil Texture	Any Texture
Color	Lavender or White (Flower)	Longevity	Perennial
Bank Stabilization/ Erosion Control	Sturdy plant for water's edge.		
Wildlife Benefit	Birds; Habitat for small aquatic animals.		
Notes	The plant is grown and used for its foliage effect as well as the flower display. The plant flowers for a short period in the spring but the coarse-textured, upright foliage makes this a year-round favorite for a wet garden spot.		
Planting Guidelines	Plant at water's edge in partial shade.		
Maintenance			


Perennial

June 28, 2023

	Scientific Name		Iva frutescens	
	Common Name		Marsh elder	
	Native		Native	
	Planting Zone		Bank Slope	
	Plant spacing			
	Hardiness Zone		10-A	
	Growth Form		Perennial	
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
	Light Requirement		Full Sun	Native Habitat
	Evergreen/Deciduous			Growth Rate
Height		4' - 6'	Spread	
Flood Tolerance		High	Drought Tolerance	
Soil pH		Moderately Alkaline (7.9-8.4)	Salt Tolerance	
Soil Moisture		Well Drained	Soil Texture	
Color		Greenish-White	Longevity	
Bank Stabilization/ Erosion Control				
Wildlife Benefit		Provides food and cover for wildlife; attracts birds.		
Notes		Its native habitat includes the saline grasses and rushes. Flowers are abundant and appear from July to September. Marsh elder adapts well to clipping, so it can be used in the landscape as a low hedge or border plant. Its tolerance to wet soil and compact habit makes it well suited for planting near a foundation of a building. Evergreen; good for habitat restoration and stabilization.		
Planting Guidelines				
Maintenance		Better suited to natural landscapes; high hurricane wind resistance; can be grown from cuttings and seeds; little to no maintenance required.		


Perennial

June 28, 2023

	Scientific Name		Lachnanthes caroliana
	Common Name		Redroot
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		2-3 ft. apart
	Hardiness Zone		8-10A
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Marshes, Wet Depressions, Disturbed Areas, Cutthroat Seeps, and Flatwoods
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	3'	Spread	0.5'
Flood Tolerance	High	Drought Tolerance	Moderate
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	None
Soil Moisture		Soil Texture	Sand
Color	White-Yellow (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Used for groundcover.		
Wildlife Benefit	Seed prized by Sandhill Cranes, used to attract them.		
Notes			
Planting Guidelines	Requires constant moisture.		
Maintenance			


Perennial

June 28, 2023

	Scientific Name		Liatris spp.
	Common Name		Blazing Star
	Native		Native
	Planting Zone		Bank Slope and Water's Edge
	Plant spacing		
	Hardiness Zone		4A - 10B
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Moderate
Height	3'	Spread	0.5' - 1'
Flood Tolerance		Drought Tolerance	Medium
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	Low to None
Soil Moisture	Well Drained to Medium Drained	Soil Texture	Any Texture
Color	Pink, Purple, White	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies		
Notes			
Planting Guidelines			
Maintenance			


Perennial

June 28, 2023

	Scientific Name	Lilium catesbaei	
	Common Name	Pine Lily	
	Native	Native	
	Planting Zone	Bank Slope and Water's Edge	
	Plant spacing		
	Hardiness Zone	9A-10B	
	Growth Form	Perennial	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Medium
Height	2' - 3'	Spread	3' - 6'
Flood Tolerance	Seasonal	Drought Tolerance	Low
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	
Color	Red-Orange	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies		
Notes	Showy flowers; blooms in summer; does tolerate flooding; listed as a threatened species in Florida.		
Planting Guidelines			
Maintenance	Winter dormant; can be difficult to grow from a bulb.		


Perennial

June 28, 2023

	Scientific Name		Lobelia cardinalis
	Common Name		Cardinal Flower
	Native		Native
	Planting Zone		Bank Slope and Water's Edge
	Plant spacing		
	Hardiness Zone		8A - 9B
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Riverine swamps, spring run swamps, bogs, in mats of floating vegetation, wet ditches.
Evergreen/Deciduous		Growth Rate	
Height	2' - 5'	Spread	1'
Flood Tolerance		Drought Tolerance	Medium
Soil pH	Acidic	Salt Tolerance	Low to None
Soil Moisture	Medium Drained to Wet	Soil Texture	Loam/Sand/Muck
Color	Red	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies, Humming Birds, Bees.		
Notes	Wildflower in moist garden, edge of water garden, understory plant in wet woods or stream edges.		
Planting Guidelines			
Maintenance			


Perennial

June 28, 2023

	Scientific Name		Lythrum alatum
	Common Name		Loosestrife
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		
	Hardiness Zone		8A-10B
	Growth Form		Perennial
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous		Growth Rate	Fast
Height	3' - 4'	Spread	1' - 2'
Flood Tolerance	High	Drought Tolerance	Low
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	Loam/Sand
Color	Lavender	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts hummingbirds, butterflies, and pollinators.		
Notes	Showy flowers; good for around ponds, lakes, and ditches.		
Planting Guidelines			
Maintenance	Winter dormant; may spread by rhizomes; pruning occasionally can give the plant a neater appearance; moderately resistant to deer.		


Perennial

June 28, 2023

 <p>© Shirley Denton</p>	Scientific Name	Rhynchospora latifolia	
	Common Name	Sandswamp Whitetop	
	Native	Native	
	Planting Zone	Water's Edge	
	Plant spacing		
	Hardiness Zone		
	Growth Form	Perennial	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Medium
Height	2' - 3'	Spread	1' - 2'
Flood Tolerance	Intermittent	Drought Tolerance	Low
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	
Color	White	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Flowers spring-summer; good for rain gardens; attracts pollinators.		
Planting Guidelines			
Maintenance	Winter dormant.		

Perennial


June 28, 2023

	Scientific Name	Solidago sempervirens
	Common Name	Seaside Goldenrod
	Native	Native
	Planting Zone	Bank Slope and Water's Edge
	Plant spacing	
	Hardiness Zone	8A-11
	Growth Form	Perennial
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands

Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	Medium
Height	3' - 6'	Spread	3' - 5'
Flood Tolerance	Intermittent	Drought Tolerance	Medium
Soil pH		Salt Tolerance	Yes
Soil Moisture	Well Drained to Wet	Soil Texture	Sandy
Color	Yellow	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies, songbirds, and pollinators; deer resistant.		
Notes	Blooms frm August to October.		
Planting Guidelines			
Maintenance	Clumping habit; low maintenance.		

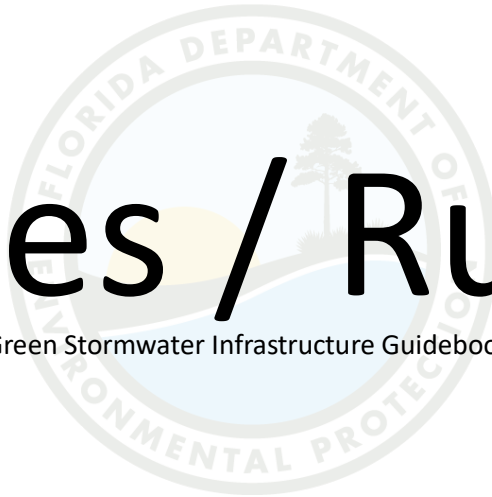
Perennial

June 28, 2023

	Scientific Name	Stokesia laevis	
	Common Name	Stoke's Aster	
	Native	Native	
	Planting Zone	Bank Top to Bank Slope	
	Plant spacing		
	Hardiness Zone	5A - 9B	
	Growth Form	Perennial	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous		Growth Rate	Fast
Height	1' - 2'	Spread	1' - 2'
Flood Tolerance		Drought Tolerance	High
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	Low to None
Soil Moisture	Well Drained	Soil Texture	Loam/Sandy
Color	White, Pink, Blue	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies.		
Notes	Blue/white, summer flowers; many cultivars. Fruit is inconspicuous.		
Planting Guidelines			
Maintenance			


Sedges / Rushes

Green Stormwater Infrastructure Guidebook




Sedges / Rushes

June 28, 2023

	Scientific Name		Cladium jamaicense
	Common Name		Native Sawgrass
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		1 per 9-16 sq. ft.
	Hardiness Zone		8A-11
	Growth Form		Sedges / Rushes
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Part Shade	Native Habitat	Marshes, Swamps, and Coastlines
Evergreen/Deciduous	Evergreen	Growth Rate	Fast
Height	3' - 6'	Spread	Wide-Spreading
Flood Tolerance	High	Drought Tolerance	Low
Soil pH	Tolerates Any Soil pH (4.5- 8.0)	Salt Tolerance	High
Soil Moisture		Soil Texture	Clay/Loam/Organic/S and
Color	Orange/Green (Foliage); Brown (Fruit)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control	Rapid spread, good ground cover.		
Wildlife Benefit	Host for caterpillars.		
Notes			
Planting Guidelines	Typically used in wetland restoration. Also useful for planting in brackish settings where an emergent aquatic is desired. Spreads rapidly to cover large areas. Blades have sharp edges, hence the common name. Best planted where people will not brush by it.		
Maintenance			


Sedges / Rushes

June 28, 2023

	Scientific Name	Eleocharis cellulosa	
	Common Name	Coastal Spikerush	
	Native	Native	
	Planting Zone	Water's Edge	
	Plant spacing	1 per 9-25 sq. ft.	
	Hardiness Zone	8A-10B	
	Growth Form	Sedges / Rushes	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands	
Light Requirement	Full Sun	Native Habitat	Brackish waters near shorelines
Evergreen/Deciduous	Evergreen	Growth Rate	Medium-Fast
Height	2' - 3'	Spread	Large mats
Flood Tolerance		Drought Tolerance	Low
Soil pH	Slightly Acid to Alkaline (6.0-8.0)	Salt Tolerance	Moderate
Soil Moisture		Soil Texture	Moderate to low organic content
Color	Brown (Flower)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Habitats for birds.		
Notes	Recommended for stormwater ponds for water quality treatment.		
Planting Guidelines	Recommended for Stormwater ponds.		
Maintenance	Aggressive, spreads quickly if not maintained.		


Sedges / Rushes

June 28, 2023

	Scientific Name		Juncus effusus
	Common Name		Soft Rush
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		2 ft. apart
	Hardiness Zone		8-9A
	Growth Form		Sedges / Rushes
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Low-Lying Wet Areas
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	2' - 4'	Spread	2' - 4'
Flood Tolerance	High	Drought Tolerance	Moderate
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	Low
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	Green (Flower); Brown (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Deep roots useful for shoreline stabilization.		
Wildlife Benefit	Birds		
Notes	Filter suspended solids, up-take nutrients, and facilitate substrate oxidation.		
Planting Guidelines			
Maintenance			


Sedges / Rushes

June 28, 2023

	Scientific Name		Juncus roemerianus
	Common Name		Black Rush; Needle Rush
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		2-3 ft. apart
	Hardiness Zone		9A-10
	Growth Form		Sedges / Rushes
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement			
Full Sun	Native Habitat		Salt Marshes
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	1' - 7'	Spread	
Flood Tolerance	High	Drought Tolerance	Low
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	High
Soil Moisture		Soil Texture	Loam/Sand
Color	Dark Green (Flower); Brown (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
		Deep roots useful for shoreline stabilization.	
Wildlife Benefit			
		Birds, small mammals (seeds).	
Notes			
		Filter suspended solids, up-take nutrients, and facilitate substrate oxidation This is a favorite food plant of feral hogs which will dig up large patches overnight.	
Planting Guidelines			
Maintenance			

Sedges / Rushes

June 28, 2023


	Scientific Name	Schoenoplectus americanus
	Common Name	Three-square Rush
	Native	Native
	Planting Zone	Water's Edge
	Plant spacing	6 ft. apart
	Hardiness Zone	
	Growth Form	Sedges / Rushes
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands

Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	
Height	7' - 10'	Spread	
Flood Tolerance	High	Drought Tolerance	Occasional
Soil pH		Salt Tolerance	Moderate
Soil Moisture		Soil Texture	
Color	Yellow or Brown (Flower)	Longevity	Perennial

Bank Stabilization/ Erosion Control	
Wildlife Benefit	Wintering birds, waterfowl, muskrat, birds, small mammals.
Notes	
Planting Guidelines	The best place to initiate new stands is probably in brackish areas where salinities range from 5 to 10 parts per thousand and water depths range from 0 to 4 inches (0-10 cm) [11]. Stands are best established by planting rootstocks 4 to 6 inches (10-15 cm).
Maintenance	

Sedges / Rushes

June 28, 2023

	Scientific Name		Schoenoplectus tabernaemontan i
	Common Name		Softstem Bulrush
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		1 per 25-40 sq. ft.
	Hardiness Zone		4-9
	Growth Form		Sedges / Rushes
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement			
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous		Growth Rate	High
Height	4' - 10'	Spread	3' - 6'
Flood Tolerance	High	Drought Tolerance	None
Soil pH		Salt Tolerance	Low
Soil Moisture		Soil Texture	Organic/Sand
Color	Red (Flower)	Longevity	Perennial
Bank Stabilization/ Erosion Control			
	Typically found on banks of water bodies.		
Wildlife Benefit			
	Fish, muskrats, raccoons, otters, ducks, shorebirds, marsh birds.		
Notes			
Planting Guidelines			
Maintenance			



Shrub

Green Stormwater Infrastructure Guidebook

Shrub

June 28, 2023




Scientific Name	Batis maritima
Common Name	Saltwort; Beachwort
Native	Native
Planting Zone	Water's Edge
Plant spacing	1 per 2-6 sq. ft.
Hardiness Zone	8A-10B
Growth Form	Shrub
GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands

Light Requirement	Full Sun/Part Shade	Native Habitat	Marshes, Saltflats, and Coastlines
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	2' - 4'	Spread	Width exceeds length
Flood Tolerance	Moderate	Drought Tolerance	Moderate
Soil pH		Salt Tolerance	High
Soil Moisture		Soil Texture	Sand
Color	White/Green (Flower)	Longevity	Long-lived Perennial

Bank Stabilization/ Erosion Control	Good for groundcover; Coastal stabilization in shrubland; used along coastlines for erosion.
Wildlife Benefit	Host for caterpillars.
Notes	
Planting Guidelines	Can be planted as groundcover or shrub.
Maintenance	


Shrub

June 28, 2023

	Scientific Name		Borrichia arborescens
	Common Name		Silver Sea Oxeye
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		3-5 ft apart
	Hardiness Zone		10-11
	Growth Form		Shrub
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
<hr/>			
Light Requirement	Full Sun/Part Shade	Native Habitat	Marshes, Coastlines, and Lagoons
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	2' - 4'	Spread	2' - 3'
Flood Tolerance	High	Drought Tolerance	Moderate
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	High
Soil Moisture		Soil Texture	Loam/Sand
Color	Yellow (Flower); Brown (Fruit)	Longevity	Long-lived Perennial
<hr/>			
Bank Stabilization/ Erosion Control	Potential for bank stablization; found on shore side of mangrove swamps.		
Wildlife Benefit	Birds and other wildlife consume seeds.		
Notes			
Planting Guidelines	Use as groundcover. Plant in coastal wetlands on upslope side of mangrove swamps.		
Maintenance			

Shrub

June 28, 2023

	Scientific Name		Clethra alnifolia
	Common Name		Sweet Pepperbush
	Native		Native
	Planting Zone		All Zones
	Plant spacing		1 per 25-62 sq. ft.
	Hardiness Zone		4A-9B
	Growth Form		Shrub
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Permeable Pavement, Wetlands
Light Requirement	Full Sun/Shade/Part Shade	Native Habitat	Swamps, Stream Banks, and Hillside Bogs
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	4' - 8'	Spread	4' - 8'
Flood Tolerance	Moderate	Drought Tolerance	Low
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	High
Soil Moisture	Well Drained to Wet	Soil Texture	Any Texture
Color	White/Pink(Flower); Brown (Fruit)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control	Along streams and ponds; Can provide erosion control due to root system.		
Wildlife Benefit	Seeds eaten by birds and mammals.		
Notes			
Planting Guidelines	Excellent for coastal gardens.		
Maintenance			


Shrub

June 28, 2023

	Scientific Name		Hamelia patens
	Common Name		Firebush
	Native		Native
	Planting Zone		All Zones
	Plant spacing		5-8 ft. apart
	Hardiness Zone		9-11
	Growth Form		Shrub
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Permeable Pavement, Wetlands
Light Requirement	Full sun/Part Shade/Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	5' - 20'	Spread	5' - 8'
Flood Tolerance	Occasional	Drought Tolerance	Moderate
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	Low
Soil Moisture	Well Drained to Medium Drained	Soil Texture	Any Texture
Color	Red (Flower); Black (Fruit)	Longevity	Short-lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Butterflies, hummingbirds, other birds.		
Notes	Orange/red, year-round flowers; susceptible to pests; foliage usually more attractive in shade but flowers best in sun; tolerates occasionally wet soil; dies back in freezes but returns. Black fruit. Pests/Diseases: scales, mites and aphids. attracts butterflies, hummingbirds, other birds.		
Planting Guidelines			
Maintenance	Relatively maintenance and pest free. It can self-seed, but seedlings can be easily moved or pulled out. Trim only if needed, or cut back after a freeze. Do not allow lawn grasses to invade its root zone.		


Shrub

June 28, 2023

	Scientific Name		Hibiscus grandiflorus
	Common Name		Swamp Rosemallow
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		3-4 ft. apart
	Hardiness Zone		8A-8B
	Growth Form		Shrub
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Pine Flatwoods, Marshes, Lakes, Ponds, Rivers, and Swamps
Evergreen/Deciduous	Deciduous	Growth Rate	
Height	6' - 10'	Spread	4'
Flood Tolerance	High/ Recommended for Rain Gardens	Drought Tolerance	None
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	None
Soil Moisture		Soil Texture	Loam/Muck/Sand
Color	Light Pink (Flower)	Longevity	Short-lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes			
Planting Guidelines	Ordinary garden conditions, it will require irrigation; Can also be propagated by dividing roots.		
Maintenance			

Shrub

June 28, 2023


	Scientific Name	Hypericum fasciculatum
	Common Name	St. John's Wort
	Native	Native
	Planting Zone	Water's Edge
	Plant spacing	1 per 34-136 sq. ft.
	Hardiness Zone	8A-10B
	Growth Form	Shrub
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands

Light Requirement	Full Sun	Native Habitat	Cutthroat Seeps, Wet Prairie, Flatwoods Marshes, and Margins of Cypress Swamps;
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	3' - 5'	Spread	
Flood Tolerance	High	Drought Tolerance	Low/Moderate
Soil pH		Salt Tolerance	None
Soil Moisture		Soil Texture	Sand
Color	Yellow (Flower); Brown (Fruit)	Longevity	Short-lived Perennial

Bank Stabilization/ Erosion Control	
Wildlife Benefit	
Notes	
Planting Guidelines	Adapted to edge of marshes; Hyrdrology and water quality must match needs.
Maintenance	


Shrub

June 28, 2023

	Scientific Name		Iva imbricata
	Common Name		Beach Elder
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		
	Hardiness Zone		8A-11
	Growth Form		Shrub
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun	Native Habitat	Coastal Dunes
Evergreen/Deciduous	Evergreen	Growth Rate	Fast
Height	1' - 4'	Spread	4' - 6'
Flood Tolerance	Moderate	Drought Tolerance	High
Soil pH		Salt Tolerance	High
Soil Moisture		Soil Texture	Sand
Color	Green (Flower & Fruit)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Useful for dune stabilization/preventing beach erosion; recommended as groundcover in coastal areas.		
Wildlife Benefit			
Notes			
Planting Guidelines			
Maintenance			


Shrub

June 28, 2023

	Scientific Name		Lantana depressa
	Common Name		Pineland Lantana
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		
	Hardiness Zone		8A-11
	Growth Form		Shrub
	GSI Type		Green Roof
Light Requirement	Full Sun	Native Habitat	Pine Rockland, Florida Endemic
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	3' - 6'	Spread	3' - 6'
Flood Tolerance	None	Drought Tolerance	Moderate
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	High
Soil Moisture		Soil Texture	Limestone/Sand
Color	Yellow (Flower)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies and birds.		
Notes			
Planting Guidelines			
Maintenance	During the growing season, cut back in moderation. At the end of the growing season, however, lantana can be cut back almost to the ground. The next flush of growth will yield even more flowers than before.		

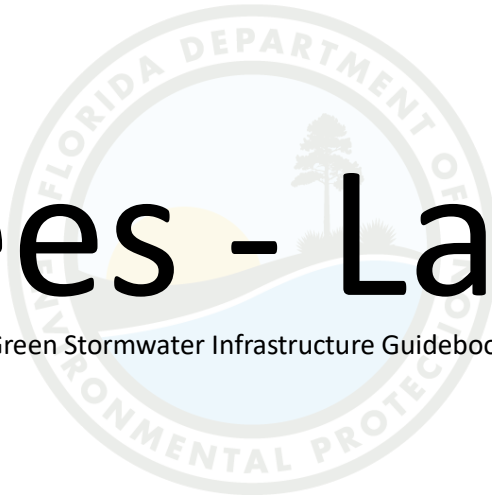
Shrub

June 28, 2023

	Scientific Name		Zamia floridana
	Common Name		Coontie
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		3-5 ft. apart
	Hardiness Zone		8B-11
	Growth Form		Shrub
	GSI Type		Green Roof
Light Requirement	Full Sun/Part Shade	Native Habitat	Upland Hardwood Forests and Coastal Hammocks
Evergreen/Deciduous	Evergreen	Growth Rate	Slow
Height	2' - 4'	Spread	3' - 5'
Flood Tolerance	None	Drought Tolerance	High
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	Moderate
Soil Moisture		Soil Texture	Loam/Sand
Color	Red (Fruit)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Host to atala butterfly (<i>Eumaeus atala florida</i>) and the echo moth (<i>Sierarctia echo</i>).		
Notes			
Planting Guidelines	Mass planting; Used as borders.		
Maintenance			


Trees - Large

Green Stormwater Infrastructure Guidebook



Trees - Large

June 28, 2023

	Scientific Name		Acer rubrum																												
	Common Name		Red Maple																												
	Native		Native																												
	Planting Zone		All Zones																												
	Plant spacing		1 per 36-256 sq. ft.																												
	Hardiness Zone		4A to 10B																												
	Growth Form		Trees - Large																												
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Wetlands																												
<table border="1"> <tr> <td>Light Requirement</td> <td>Full Sun/Part Shade</td> <td>Native Habitat</td> <td>Freshwater wetlands</td> </tr> <tr> <td>Evergreen/Deciduous</td> <td>Deciduous</td> <td>Growth Rate</td> <td>Medium</td> </tr> <tr> <td>Height</td> <td>35'- 80'</td> <td>Spread</td> <td>25' - 35'</td> </tr> <tr> <td>Flood Tolerance</td> <td>Moderate</td> <td>Drought Tolerance</td> <td>Moderate</td> </tr> <tr> <td>Soil pH</td> <td>Acid to Slightly Acid (4.5-6.5)</td> <td>Salt Tolerance</td> <td>None</td> </tr> <tr> <td>Soil Moisture</td> <td>Well Drained to Wet</td> <td>Soil Texture</td> <td>Clay/Loam/Sand</td> </tr> <tr> <td>Color</td> <td>Green (Spring/Summer); Red, Orange, Yellow Foliage (Fall)</td> <td>Longevity</td> <td>Long-lived Perennial</td> </tr> </table>				Light Requirement	Full Sun/Part Shade	Native Habitat	Freshwater wetlands	Evergreen/Deciduous	Deciduous	Growth Rate	Medium	Height	35'- 80'	Spread	25' - 35'	Flood Tolerance	Moderate	Drought Tolerance	Moderate	Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	None	Soil Moisture	Well Drained to Wet	Soil Texture	Clay/Loam/Sand	Color	Green (Spring/Summer); Red, Orange, Yellow Foliage (Fall)	Longevity	Long-lived Perennial
Light Requirement	Full Sun/Part Shade	Native Habitat	Freshwater wetlands																												
Evergreen/Deciduous	Deciduous	Growth Rate	Medium																												
Height	35'- 80'	Spread	25' - 35'																												
Flood Tolerance	Moderate	Drought Tolerance	Moderate																												
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	None																												
Soil Moisture	Well Drained to Wet	Soil Texture	Clay/Loam/Sand																												
Color	Green (Spring/Summer); Red, Orange, Yellow Foliage (Fall)	Longevity	Long-lived Perennial																												
Bank Stabilization/ Erosion Control	Valuable riparian buffer plant due mostly to it's tolerance of wetter soils.																														
Wildlife Benefit	Flowers and seeds are food to small mammals and birds. Buttonbush's seeds offer food for wetland-dwelling birds, and its leaves provide shelter for ducks, aningas, and other native birds.																														
Notes	Shallow-rooted; does best in rich, organic soils; good for wet sites. Red fruit. Foliage red in fall. Pests/Diseases: susceptible to aphids, cottony maple scale, gall mites, and verticillium wilt, but rarely cause major problems.																														
Planting Guidelines	Purchase trees with a single leader to prevent future splitting. The tree makes the best growth in wet places and has no other particular soil preference, except chlorosis may develop on alkaline soil where it also grows poorly.																														
Maintenance	The bark is thin and easily damaged by mowers. Irrigation may needed to support street tree plantings in well-drained soil in the south. Roots can raise sidewalks and surface roots beneath the canopy can make mowing difficult. Branches often grow upright through the crown, forming poor attachments to the trunk. These should be removed in the nursery or after planting in the landscape.																														


Trees - Large

June 28, 2023

	Scientific Name	Betula nigra	
	Common Name	River Birch	
	Native	Native	
	Planting Zone	All Zones	
	Plant spacing		
	Hardiness Zone	4A - 9B	
	Growth Form	Trees - Large	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Wetlands	
	Light Requirement	Full Sun/Part Shade	Native Habitat
Evergreen/Deciduous	Deciduous	Growth Rate	Fast
Height	40' - 50'	Spread	25' - 35'
Flood Tolerance		Drought Tolerance	Low
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	Low to None
Soil Moisture	Well Drained to Wet	Soil Texture	Any Texture
Color	Yellow, Green	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	Needs soil space for root expansion; grows best with high soil moisture; chlorosis develops in alkaline soil; tolerates periodic flooding but not long periods of drought.		
Planting Guidelines			
Maintenance			


Trees - Large

June 28, 2023

	Scientific Name	Carya glabra	
	Common Name	Pignut Hickory	
	Native	Native	
	Planting Zone	Bank Slope	
	Plant spacing		
	Hardiness Zone	5A-9B	
	Growth Form	Trees - Large	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Green Roof, Swale, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Moderate
Height	50' - 60'	Spread	
Flood Tolerance	Occasional	Drought Tolerance	High
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	Moderate
Soil Moisture	Well Drained to Occasionally Wet	Soil Texture	Clay/Loam/Sand
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	This is an under-utilized native tree with potential for much wider use.		
Planting Guidelines			
Maintenance	Maintain with a central leader, remove co-dominant stems with leader or laterals larger than 1/2 diameter of the central leader.		


Trees - Large

June 28, 2023

	Scientific Name	Celtis laevigata	
	Common Name	Sugarberry	
	Native	Native	
	Planting Zone	Bank Slope	
	Plant spacing		
	Hardiness Zone	5A-10B	
	Growth Form	Trees - Large	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Fast
Height	50' - 70'	Spread	35' - 50'
Flood Tolerance	Extended	Drought Tolerance	High
Soil pH	Acidic; Alkaline	Salt Tolerance	Low
Soil Moisture	Well Drained to Wet	Soil Texture	Clay/Loam/Sand
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit			
Notes	It will grow rapidly and require regular pruning and training to develop a strong branch structure and to keep it looking neat in the nursery. Lack of popularity may be due to the open, awkward appearance of young trees and susceptibility to trunk rot in mature trees. But it appears to be no more sensitive to trunk rot than laurel oak. Avoid injury to the trunk and existing trees will serve you for many years.		
Planting Guidelines			
Maintenance	Maintain with a central leader, remove co-dominant stems with leader or laterals larger than 1/2 diameter of the central leader.		


Trees - Large

June 28, 2023

	Scientific Name	Gordonia lasianthus	
	Common Name	Loblolly Bay	
	Native	Native	
	Planting Zone	All Zones	
	Plant spacing		
	Hardiness Zone	7A-9B	
	Growth Form	Trees - Large	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Permeable Pavement, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	Wetlands
Evergreen/Deciduous	Evergreen	Growth Rate	Slow
Height	30' - 60'	Spread	20' - 30'
Flood Tolerance	High	Drought Tolerance	Low
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	Low
Soil Moisture	Medium Drained to Wet	Soil Texture	Clay/Loam
Color	White (Flowers); Brown (Fruit)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Habitat for wildlife.		
Notes	White, spring through summer flowers; good for retention pond edges; can tolerate full sun only with sufficient moisture; does best in rich, organic soils; susceptible to nematodes. Green fruit. Pests/Diseases: fungal and bacterial leaf spot.		
Planting Guidelines	Sensitive to drying out; Used in residential areas along streets.		
Maintenance	Loblolly-Bay has a shallow root system and will die if not watered during periods of drought.		


Trees - Large

June 28, 2023

	Scientific Name	Magnolia virginiana	
	Common Name	Sweetbay Magnolia	
	Native	Native	
	Planting Zone	Bank Slope and water's edge	
	Plant spacing		
	Hardiness Zone	5A-9B	
	Growth Form	Trees - Large	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Moderate
Height	40' - 60'	Spread	30' - 40'
Flood Tolerance	Extended	Drought Tolerance	Low
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	None
Soil Moisture	Medium Drained to Wet	Soil Texture	Any Texture
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies and birds.		
Notes			
Planting Guidelines			
Maintenance	Maintain with a central leader, remove co-dominant stems with leader or laterals larger than 1/2 diameter of the central leader.		

Trees - Large

June 28, 2023

	Scientific Name	Nyssa sylvatica	
	Common Name	Tupelo	
	Native	Native	
	Planting Zone	Bank Slope	
	Plant spacing		
	Hardiness Zone	4A-9A	
	Growth Form	Trees - Large	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Slow
Height	65' - 70'	Spread	20' - 25'
Flood Tolerance	Extended	Drought Tolerance	High
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	Unknown
Soil Moisture	Well Drained to Wet	Soil Texture	Any Texture
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Birds		
Notes			
Planting Guidelines			
Maintenance	Maintain with a central leader, remove co-dominant stems with leader or laterals larger than 1/2 diameter of the central leader.		


Trees - Large

June 28, 2023

	Scientific Name		Pinus elliottii
	Common Name		Slash Pine
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		
	Hardiness Zone		9A-11
	Growth Form		Trees - Large
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Fast
Height	75' - 100'	Spread	25' - 35'
Flood Tolerance	Occasional	Drought Tolerance	High
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	Low
Soil Moisture	Well Drained to Medium Drained	Soil Texture	Any Texture
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Birds		
Notes	Flammable - in wildfire prone areas, plant minimum 30' from buildings; medium to low wind resistance; seeds provide food for wildlife; tolerates occasionally wet soil; declines if roots and surrounding areas are compacted or disturbed; susceptible to pests.		
Planting Guidelines			
Maintenance	No pruning necessary.		

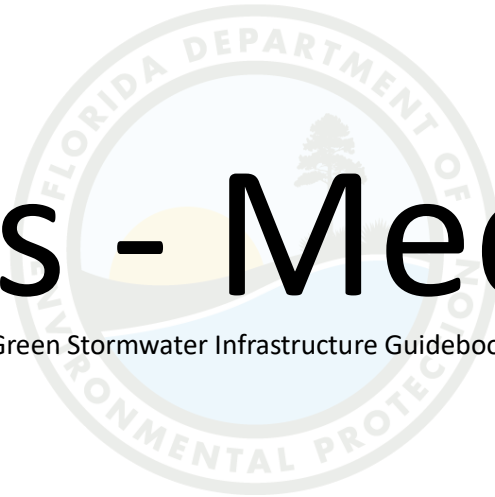
Trees - Large

June 28, 2023

	Scientific Name		Taxodium distichum
	Common Name		Baldcypress
	Native		Native
	Planting Zone		All Zones
	Plant spacing		1 per 55-145 sq. ft.
	Hardiness Zone		5A-10B
	Growth Form		Trees - Large
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Permeable Pavement, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Swamps, Lakes, and Floodplains
Evergreen/Deciduous	Deciduous	Growth Rate	High
Height	60' - 80'	Spread	25' - 35'
Flood Tolerance	High	Drought Tolerance	High
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	High
Soil Moisture	Well Drained to Wet	Soil Texture	Any Texture
Color	Brown (Fruit)	Longevity	Perennial
Bank Stabilization/ Erosion Control	Reduce flood damage and act as sediment/pollutant traps; tolerant of root disturbance.		
Wildlife Benefit	Seeds food for waterfowl, wading birds and squirrels; cypress domes both watering places and breeding sites for variety of birds, mammals, amphibians and reptiles; yellow-throated warblers forage in Spanish moss.		
Notes			
Planting Guidelines	In wet/swamp conditions, seed germination best occurs on a sphagnum moss or wet-muck seedbed. Soil saturation for 1-3 months after seedfall is required.		
Maintenance	Baldcypress is relatively maintenance-free, requiring pruning only to remove dead wood and unwanted lower branches which persist on the tree. When the tree is stressed Twig blight can kill branch tips do not let dead or diseased branches remain on the tree. Bagworms can defoliate portions of the tree. Mites can be particularly troublesome in dry summers without irrigation, causing early leaf browning and defoliation in mid to late summer. Plant 6-8 ft from any hardscape, Remove dead lower limbs as necessary.		


Trees - Medium

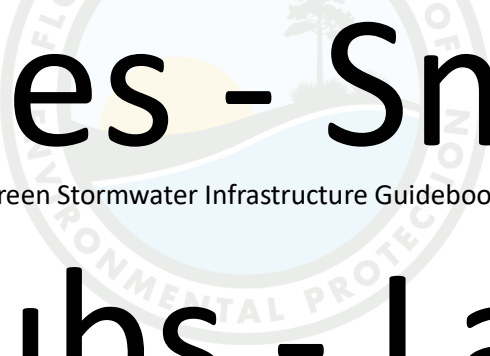
Green Stormwater Infrastructure Guidebook



Trees - Medium

June 28, 2023

	Scientific Name		Ilex cassine
	Common Name		Dahoon Holly
	Native		Native
	Planting Zone		All Zones
	Plant spacing		15-20 ft. apart
	Hardiness Zone		7A-11
	Growth Form		Trees - Medium
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Permeable Pavement, Wetlands
Light Requirement	Full Sun/Part Shade/Shade	Native Habitat	Dome Swamps, Coastal Flatwoods, Bay Swamps, and Cutthroat Seep
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	20' - 30'	Spread	15' - 20'
Flood Tolerance	Moderate	Drought Tolerance	Moderate
Soil pH	Acid to Slightly Acid (4.5-6.5)	Salt Tolerance	Moderate
Soil Moisture	Medium Drained to Wet	Soil Texture	Clay/Loam/Sand
Color	m	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Sturdy plant for water's edge.		
Wildlife Benefit	Birds, small mammals, caterpillars, butterflies.		
Notes	White, spring flowers; provides pollen for bees and berries for variety of wildlife; does best in rich, organic soils; high wind resistance. Red or yellow fruit. Pests/Diseases: none serious. Attracts butterflies and birds.		
Planting Guidelines	Although naturally wetland plant, can survive in a variety of conditions; High anaerobic tolerance.		
Maintenance	It is not recommended in the southern part of its range in a dry, exposed site unless irrigation is provided. Bark is thin and easily damaged from mechanical impact; droop as the tree grows, and will require pruning. Little pruning is needed to create a well-structured, strong tree. Adding organic soils or mulches may also help keep the tree healthy.		



Trees - Small

Green Stormwater Infrastructure Guidebook

Shrubs - Large


Trees - Small / Shrubs - Large

June 28, 2023

	Scientific Name	Callicarpa americana	
	Common Name	Beautyberry	
	Native	Native	
	Planting Zone	Bank Top to Bank Slope	
	Plant spacing		
	Hardiness Zone	7A - 10B	
	Growth Form	Trees - Small / Shrubs - Large	
	GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Permeable Pavement, Wetlands	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Moderate
Height	6' - 8'	Spread	6' - 8'
Flood Tolerance		Drought Tolerance	High
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	Low to None
Soil Moisture	Well Drained	Soil Texture	Any Texture
Color	White	Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Birds and pollinators.		
Notes	Attracts wildlife; small purplish fruits provide food for wildlife in late winter; need to prune old wood since flowers and fruit are produced on new growth; good for use in naturalized garden beds. Purple fruit. Foliage yellow in fall.		
Planting Guidelines			
Maintenance			


Trees - Small / Shrubs - Large

June 28, 2023

	Scientific Name		Cephalanthus occidentalis
	Common Name		Buttonbush
	Native		Native
	Planting Zone		All Zones
	Plant spacing		1 per 16-25 sq. ft.
	Hardiness Zone		4A-10A
	Growth Form		Trees - Small / Shrubs - Large
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	Shorelines and Swamps
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	6' - 20'	Spread	6' - 8'
Flood Tolerance	High	Drought Tolerance	Moderate
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	Low
Soil Moisture	Medium Drained to Wet	Soil Texture	Clay/Loam/Organic/S and
Color	White or Pale-Pink (Flower); Brown (Fruit)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control	Along shorelines		
Wildlife Benefit	Seeds eaten by birds and mammals; Hosts to moths.		
Notes	Flammable, in wildfire prone areas, plant minimum 30' from buildings; grows well in retention ponds, swales, and canal banks; well adapted to disturbed soils. Red fruit. Pests/Diseases: none serious attracts butterflies, hummingbirds, pollinators.		
Planting Guidelines	Planted as a shrub border or on the edge of water bodies; Needs periodic pruning; Susceptible to herbicides.		
Maintenance	Buttonbush benefits from pruning, this keeps the plant smaller and more manageable in the landscape. Without pruning, buttonbush develops a round form. It has multiple, sprawled-out stems with protruding branches. Without maintenance, it will occupy a considerable amount of border space along a freshwater shoreline.		


Trees - Small / Shrubs - Large

June 28, 2023

	Scientific Name		Coccoloba uvifera
	Common Name		Sea Grape
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		1 per 62-145 sq. ft.
	Hardiness Zone		9B-11
	Growth Form		Trees - Small / Shrubs - Large
	GSI Type		Green Roof
Light Requirement	Full Sun/Part Shade	Native Habitat	Coastal Hammocks and Beach Strands
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	10' - 50'	Spread	3' - 1'
Flood Tolerance	Low	Drought Tolerance	High
Soil pH	Acid to Slightly Alkaline (4.5-7.2)	Salt Tolerance	High
Soil Moisture	Well Drained	Soil Texture	Clay/Sand
Color	White (Flower); Red/Blue/Purple/Black (Fruit)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Seeds eaten by birds and mammals. Attracts birds , butterflies.		
Notes	Semi-evergreen; fragrant, white, spring flowers; provides food for large wildlife; susceptible to weevils; grows as shrub on coastal dunes and as tree inland; medium to high wind resistance. Purple and blue fruit. Pests/Diseases: none serious. attracts butterflies, birds.		
Planting Guidelines	Needs Routine Pruning.		
Maintenance	Pruning is required two or three times during the first 10 years after planting to train the multiple trunks so they are well-attached to the tree. Be sure branches do not develop embedded bark, since they will be poorly attached to the trunk and could split from the trunk. The tree will then perform well with little care, except for occasional pruning of lower branches to create clearance for vehicles. Some people object to the litter created by the large, slowly-decomposing leaves which fall from the tree during the year.		


Trees - Small / Shrubs - Large

June 28, 2023

	Scientific Name		Conocarpus erectus
	Common Name		Buttonwood
	Native		Native
	Planting Zone		Water's Edge
	Plant spacing		
	Hardiness Zone		10B-11
	Growth Form		Trees - Small / Shrubs - Large
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Wetlands
Light Requirement	Full Sun/Part Shade/Shade	Native Habitat	Mangroves and Coastal Hammocks
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	5' - 50'	Spread	15' - 20'
Flood Tolerance	Moderate	Drought Tolerance	High
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	High
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	White/Yellow/Green (Flower); Brown (Fruit)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Habitat for wildlife; host for martial scrub hairstreak (<i>Strymon martialis</i>) and tantalus sphinx (<i>Aellopos tantalus</i>), crabs and bald eagles, Birds.		
Notes			
Planting Guidelines			
Maintenance			


Trees - Small / Shrubs - Large

June 28, 2023

	Scientific Name		Myrica cerifera
	Common Name		Southern Wax Myrtle
	Native		Native
	Planting Zone		Bank Slope
	Plant spacing		
	Hardiness Zone		6A-10B
	Growth Form		Trees - Small / Shrubs - Large
	GSI Type		Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Fast
Height	10' - 40'	Spread	20' - 50'
Flood Tolerance	Extended	Drought Tolerance	Moderate
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	High
Soil Moisture	Well Drained to Wet	Soil Texture	Any Texture
Color		Longevity	
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Attracts butterflies and birds.		
Notes			
Planting Guidelines			
Maintenance	Maintain as a multi-stemmed tree.		


Trees - Small / Shrubs - Large

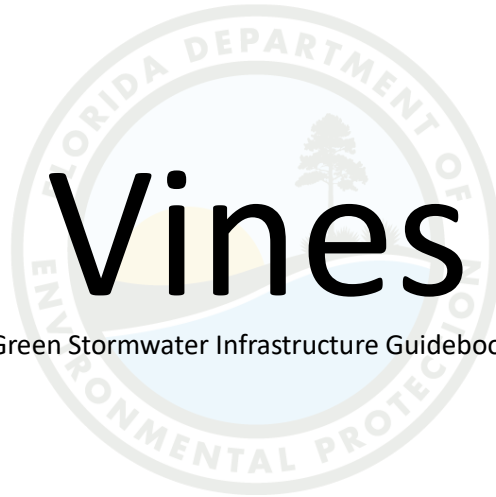
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	Scientific Name	Sambucus nigra	
	Common Name	Elderberry	
	Native	Native	
	Planting Zone	Bank Top	
	Plant spacing	1 per 25-62 sq. ft.	
	Hardiness Zone	4A-10B	
	Growth Form	Trees - Small / Shrubs - Large	
	GSI Type	Bioretention, Green Roof	
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	High
Height	5' - 12'	Spread	6' - 10'
Flood Tolerance		Drought Tolerance	None
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	None
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	White (Flower); Dark Purple (Fruit)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control			
Wildlife Benefit	Birds and mammals.		
Notes			
Planting Guidelines			
Maintenance	Elderberry has a leggy form that doesn't do well with hedging or shaping. In nature it forms thickets, dense stands of shoots without a central trunk. With some careful pruning the form can be made stronger and tidier. Although a fairly hardy plant, it is prone to a few pests and diseases. You can reduce the chance of infection by removing old stems and leaves.		

Trees - Small / Shrubs - Large

June 28, 2023


	Scientific Name		Sophora tomentosa
	Common Name		Necklace Pod
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		30-36 in. apart
	Hardiness Zone		10A-11
	Growth Form		Trees - Small / Shrubs - Large
	GSI Type		Green Roof
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Deciduous	Growth Rate	Medium
Height	6' - 10'	Spread	8' - 12'
Flood Tolerance	None	Drought Tolerance	High
Soil pH	Tolerates Any Soil pH (4.5-8.0)	Salt Tolerance	High
Soil Moisture	Well Drained	Soil Texture	Loam/Sand
Color	Yellow (Flower); Brown (Fruit)	Longevity	Long-Lived Perennial
Bank Stabilization/ Erosion Control	Dune stabilization and potential for bank stabilization.		
Wildlife Benefit	Small birds, caterpillar larvae, butterflies, hummingbirds.		
Notes	Seeds are poisonous		
Planting Guidelines	Low nutrient requirements.		
Maintenance	The plant's rangy growth habit and terminal flower cluster makes it unsuitable as a formal, clipping hedge. Once established, little care is required other than occasional pruning. In extremely dry times be sure to irrigate the plant.		



Green Stormwater Infrastructure Guidebook


Vine

June 28, 2023

	Scientific Name	Canavalia rosea	
	Common Name	Beach Bean	
	Native	Native	
	Planting Zone	Bank Top	
	Plant spacing	2-3 ft apart	
	Hardiness Zone	10B-11	
	Growth Form	Vine	
	GSI Type	Green Roof	
Light Requirement	Full Sun	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Fast
Height	0.5' - 1'	Spread	
Flood Tolerance	Low	Drought Tolerance	High
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	High
Soil Moisture		Soil Texture	Loam/Sand
Color	Pink with White Markings (Flower); Green/Brown (Fruit)	Longevity	Long-lived Perennial
Bank Stabilization/ Erosion Control	Used as groundcover; stabilizes sandy soils		
Wildlife Benefit			
Notes	This ground cover resists erosion by wind and light surf and is ideal for coastal landscapes. The bright green leaves and showy flowers of this plant are sure eye-catchers. It is a wonderful utility plant for stabilizing sandy soils and makes a nice bed for trees and shrubs. It might climb up onto dense shrubs and the trunks of trees. This could be a maintenance problem for some landscapes. Beach bean, as the name implies, has a high drought and salt spray tolerance. It prefers well-drained soils and full sun exposures. No pests or diseases are of major concern.		
Planting Guidelines	Use as groundcover; can vine.		
Maintenance	It can be aggressive and may need to be pruned to keep it from climbing onto shrubs and trees in the landscape.		


Vine

June 28, 2023

	Scientific Name		Imperati
	Common Name		Beach Morning Glory
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		1-3 ft. apart
	Hardiness Zone		8A-11
	Growth Form		Vine
	GSI Type		Green Roof
<hr/>			
Light Requirement	Full Sun	Native Habitat	Beach Dunes
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	0.5'	Spread	30'
Flood Tolerance	Low	Drought Tolerance	High
Soil pH		Salt Tolerance	High
Soil Moisture		Soil Texture	Sand
Color	White (Flower)	Longevity	Long-Lived Perennial
<hr/>			
Bank Stabilization/ Erosion Control	Prevents beach erosion.		
Wildlife Benefit	Hummingbirds and Bees		
Notes			
Planting Guidelines	Railroad vine may be used on slopes up to 20°, and on steeper slopes if stable. Space small plants 2 to 3 feet apart, and 3 to 5 feet apart for larger plants. Plant with the top of the root ball slightly below the soil's surface. Irrigate at the time of planting.		
Maintenance	Beach Morning Glory grows very rapidly and needs to be pruned and contained if planted in a landscape.		


Vine

June 28, 2023

	Scientific Name	Ipomoea pes-caprae	
	Common Name	Railroad Vine	
	Native	Native	
	Planting Zone	Bank Top	
	Plant spacing	2-3 ft. apart	
	Hardiness Zone	10B-11	
	Growth Form	Vine	
	GSI Type	Green Roof	
Light Requirement	Full Sun	Native Habitat	Beach Dunes
Evergreen/Deciduous	Evergreen	Growth Rate	High
Height	Depends upon supporting structure	Spread	Depends upon supporting structure
Flood Tolerance	Low	Drought Tolerance	High
Soil pH	Slightly Acid to Slightly Alkaline (6.0-7.2)	Salt Tolerance	High
Soil Moisture		Soil Texture	Loam/Sand
Color	Purple (Flower)	Longevity	Perennial
Bank Stabilization/ Erosion Control	Prevents beach erosion		
Wildlife Benefit	Birds and hummingbirds		
Notes			
Planting Guidelines	Railroad vine may be used on slopes up to 20°, and on steeper slopes if stable. Space small plants 2 to 3 feet apart, and 3 to 5 feet apart for larger plants. Plant with the top of the root ball slightly below the soil's surface. Irrigate at the time of planting.		
Maintenance	For best growth as a groundcover, the soil must be free-draining and irrigation kept to a minimum once the plants are established. Provide plenty of space and avoid interplanting with other small, low-growing species. Otherwise, fast-growing railroad vine is likely to overgrow smaller plants and require frequent pruning to keep it in bounds. In the landscape, railroad vine can tolerate occasional pruning, which encourages more branching. It does not tolerate shade and is easily out-competed by large plants that exclude light. In the drier winter and spring months, the plants may appear scraggly, but they will quickly recover at the start of the rainy season.		

Vine

June 28, 2023

	Scientific Name		Passiflora incarnata
	Common Name		Passion Vine
	Native		Native
	Planting Zone		Bank Top
	Plant spacing		
	Hardiness Zone		7A-11
	Growth Form		Vine
	GSI Type		Green Roof
Light Requirement			
Full Sun	Native Habitat		
Evergreen/Deciduous		Deciduous	Growth Rate
High	Spread		5' - 10'
5' - 8'	Drought Tolerance		High
Flood Tolerance		None	Salt Tolerance
Tolerates Any Soil pH (4.5-8.0)		Moderate	
Soil Moisture		Medium Drained	Soil Texture
Any Texture		Longevity	
Purple (Flower)		Short-lived Perennial	
Bank Stabilization/ Erosion Control			
Wildlife Benefit		Songbirds, butterflies, hummingbirds.	
Notes			
Planting Guidelines		It is best to plant the seed directly into an outdoor seedbed. Cuttings should be taken in the early spring.	
Maintenance		Due to aggressive growth, remove suckers regularly to control spread. Heavy pruning may be necessary.	