

# VOLUSIA COUNTY HABITAT PLANTING GUIDELINES

## 1) BEACH & DUNE

| Shrubs                          |                     |                                |                          |
|---------------------------------|---------------------|--------------------------------|--------------------------|
| <i>Chrysobalanus icaco</i>      | Green cocoplum      | <i>Myrcianthes fragrans</i>    | Simpson stopper          |
| <i>Croton punctatus</i>         | Beach croton        | <i>Serenoa repens</i>          | Saw palmetto             |
| <i>Dodonaea viscosa</i>         | Varnish leaf        | <i>Sophora tomentosa</i>       | Necklace pod             |
| <i>Erythrina herbacea</i>       | Coral bean          | <i>Suriana maritima</i>        | Bay cedar                |
| <i>Forestiera segregata</i>     | Florida privet      | <i>Yucca aloifolia</i>         | Spanish bayonet          |
| Groundcovers                    |                     |                                |                          |
| <i>Alternanthera flavescens</i> | Yellow joyweed      | <i>Licania michauxii</i>       | Gopher apple             |
| <i>Alternanthera maritima</i>   | Beach chaff-flower  | <i>Muhlenbergia capillaris</i> | Muhly grass              |
| <i>Ambrosia hispida</i>         | Coastal ragweed     | <i>Opuntia humifusa</i>        | Prickly-pear cactus      |
| <i>Blutaparon vermiculare</i>   | Samphire            | <i>Opuntia stricta</i>         | Prickly-pear cactus      |
| <i>Chamaesyce spp.</i>          | Dune spurge         | <i>Panicum amarum</i>          | Bitter panic grass       |
| <i>Distichlis spicata</i>       | Saltgrass           | <i>Paspalum vaginatum</i>      | Seashore paspalum        |
| <i>Ernodia littoralis</i>       | Golden creeper      | <i>Salicornia spp.</i>         | Glasswort                |
| <i>Hymenocallis latifolia</i>   | Spider lily         | <i>Sesuvium portulacastrum</i> | Sea purslane             |
| <i>Ipomoea imperati</i>         | Beach morning glory | <i>Spartina patens</i>         | Saltmeadow cordgrass     |
| <i>Ipomoea pes-caprae</i>       | Railroad vine       | <i>Sporobolus virginicus</i>   | Seashore dropseed        |
| <i>Iva imbricata</i>            | Beach elder         | <i>Uniola paniculata</i>       | Sea oats                 |
| Vines                           |                     |                                |                          |
| <i>Canavalia rosea</i>          | Beach bean          | <i>Passiflora incarnata</i>    | Purple passionflower     |
| <i>Echites umbellata</i>        | Devil's potato      | <i>Passiflora suberosa</i>     | Corksystem passionflower |
| <i>Ipomoea spp.</i>             | Morning glory       | <i>Pentalinon luteum</i>       | Wild allamanda           |
| Wildflowers                     |                     |                                |                          |
| <i>Borrichia spp.</i>           | Sea oxeye daisy     | <i>Helianthus debilis</i>      | Dune sunflower           |
| <i>Chamaecrista spp.</i>        | Partridge pea       | <i>Ipomopsis rubra</i>         | Standing cypress         |
| <i>Eustoma exaltatum</i>        | Seaside gentian     | <i>Monarda punctata</i>        | Dotted horsemint         |
| <i>Gaillardia pulchella</i>     | Blanket flower      | <i>Oenothera humifusa</i>      | Seaside evening primrose |
| <i>Glandularia maritima</i>     | Beach verbena       | <i>Salvia coccinea</i>         | Tropical sage            |

1) Beach & Dune  
Planting Worksheet

| Table 1      | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Shrubs       | 10              | 20      |
| Groundcovers | 40              | 60      |
| Vines        | 10              | 20      |
| Wildflowers  | 20              | 40      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 1<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Shrubs       |                                          | X |                                                          | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |

## 2) MARITIME FOREST

| Trees                           |                   |                                    |                  |
|---------------------------------|-------------------|------------------------------------|------------------|
| <i>Celtis laevigata</i>         | Sugarberry        | <i>Quercus geminata</i>            | Sand live oak    |
| <i>Diospyros virginiana</i>     | Persimmon         | <i>Quercus myrtifolia</i>          | Myrtle oak       |
| <i>Forestiera segregata</i>     | Florida privet    | <i>Quercus virginiana</i>          | Live oak         |
| <i>Ilex opaca</i>               | American holly    | <i>Sabal palmetto</i>              | Cabbage palm     |
| <i>Juniperus silicicola</i>     | Southern redcedar | <i>Zanthoxylum clava-herculis</i>  | Hercules club    |
| <i>Magnolia grandiflora</i>     | Southern magnolia | <i>Zanthoxylum fagara</i>          | Wild lime        |
| <i>Osmanthus americanus</i>     | Devilwood         |                                    |                  |
| Shrubs                          |                   |                                    |                  |
| <i>Ardisia escallonioides</i>   | Marlberry         | <i>Myrcianthes fragrans</i>        | Simpson stopper  |
| <i>Callicarpa americana</i>     | Beautyberry       | <i>Myrica cerifera</i>             | Wax myrtle       |
| <i>Capparis cynophallophora</i> | Jamaica caper     | <i>Myrsine guianensis</i>          | Myrsine          |
| <i>Eugenia axillaris</i>        | White stopper     | <i>Psychotria nervosa</i>          | Wild coffee      |
| <i>Eugenia foetida</i>          | Spanish stopper   | <i>Serenoa repens</i>              | Saw palmetto     |
| <i>Forestiera segregata</i>     | Florida privet    | <i>Sideroxylon tenax</i>           | Tough buckthorn  |
| <i>Ilex vomitoria</i>           | Yaupon holly      | <i>Vaccinium arboreum</i>          | Sparkleberry     |
| Groundcovers                    |                   |                                    |                  |
| <i>Zamia pumila</i>             | Coontie           |                                    |                  |
| Vines                           |                   |                                    |                  |
| <i>Echites umbellata</i>        | Devil's potato    | <i>Parthenocissus quinquefolia</i> | Virginia creeper |
| <i>Ipomoea spp.</i>             | Morning glory     | <i>Vitis spp.</i>                  | Wild grape       |

2) Maritime Forest  
Planting Worksheet

| Table 2      | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Trees        | 40              | 60      |
| Shrubs       | 40              | 50      |
| Groundcovers | 0               | 20      |
| Vines        | 0               | 20      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 2<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                          | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                          | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |

### 3) PINE FLATWOODS

| Trees                                   |                          |                                    |                       |
|-----------------------------------------|--------------------------|------------------------------------|-----------------------|
| <i>Diospyros virginiana</i>             | Persimmon                | <i>Pinus serotina</i>              | Pond pine             |
| <i>Gordonia lasianthus</i>              | Loblolly bay             | <i>Quercus geminata</i>            | Sand live oak         |
| <i>Ilex cassine</i>                     | Dahoon holly             | <i>Quercus nigra</i>               | Water oak             |
| <i>Pinus elliotii</i> var. <i>densa</i> | North Florida slash pine | <i>Sabal palmetto</i>              | Cabbage palm          |
| <i>Pinus palustris</i>                  | Longleaf pine            |                                    |                       |
| Shrubs                                  |                          |                                    |                       |
| <i>Asimina reticulata</i>               | Pawpaw                   | <i>Lyonia fruticosa</i>            | Staggerbush           |
| <i>Befaria racemosa</i>                 | Tarflower                | <i>Lyonia lucida</i>               | Shiny lyonia          |
| <i>Callicarpa americana</i>             | Beautyberry              | <i>Myrica cerifera</i>             | Wax myrtle            |
| <i>Hypericum galioides</i>              | St. John's wort          | <i>Rhus copallinum</i>             | Winged sumac          |
| <i>Hypericum hypericoides</i>           | St. John's wort          | <i>Serenoa repens</i>              | Saw palmetto          |
| <i>Ilex glabra</i>                      | Gallberry                | <i>Viburnum nudum</i>              | Possum haw            |
| <i>Lyonia ferruginea</i>                | Rusty lyonia             |                                    |                       |
| Groundcovers                            |                          |                                    |                       |
| <i>Andropogon virginicus</i>            | Broomsedge               | <i>Sorghastrum secundum</i>        | Lopsided Indian grass |
| <i>Aristida</i> spp.                    | Wiregrass                | <i>Spartina bakeri</i>             | Sand cordgrass        |
| <i>Lachnanthes caroliana</i>            | Redroot                  | <i>Vaccinium darrowi</i>           | Blueberry             |
| <i>Licania michauxii</i>                | Gopher apple             | <i>Vaccinium myrsinites</i>        | Shiny blueberry       |
| <i>Muhlenbergia capillaris</i>          | Muhly grass              | <i>Woodwardia virginica</i>        | Virginia chain fern   |
| Vines                                   |                          |                                    |                       |
| <i>Gelsemium sempervirens</i>           | Yellow jessamine         | <i>Parthenocissus quinquefolia</i> | Virginia creeper      |
| Wildflowers                             |                          |                                    |                       |
| <i>Asclepias tuberosa</i>               | Butterfly weed           | <i>Lobelia</i> spp.                | Lobelia               |
| <i>Aster concolor</i>                   | Eastern silver aster     | <i>Monarda punctata</i>            | Dotted horsemint      |
| <i>Aster walteri</i>                    | Walter's aster           | <i>Palafoxia integrifolia</i>      | Coastalplain palafox  |
| <i>Carphephorus carnosus</i>            | Star clusters            | <i>Phoebanthus grandiflorus</i>    | Phoebanthus           |
| <i>Carphephorus corymbosus</i>          | Florida paintbrush       | <i>Piloblephis rigida</i>          | Florida pennyroyal    |
| <i>Carphephorus odoratissimus</i>       | Vanilla plant            | <i>Piriqueta caroliniana</i>       | Pitted stripeseed     |
| <i>Chrysopsis scabrella</i>             | Golden asters            | <i>Pityopsis graminifolia</i>      | Golden aster          |
| <i>Dichromena</i> spp.                  | White-top sedge          | <i>Rhexia</i> spp.                 | Meadow beauty         |
| <i>Dyschoriste</i> spp.                 | Twinflower               | <i>Rudbeckia hirta</i>             | Black-eyed Susan      |
| <i>Elephantopus</i> spp.                | Elephant's foot          | <i>Salvia azurea</i>               | Azure blue sage       |
| <i>Flaveria</i> spp.                    | Yellowtop                | <i>Salvia lyrata</i>               | Lyre-leaved sage      |
| <i>Helianthus angustifolius</i>         | Narrow-leaf sunflower    | <i>Sisyrinchium atlanticum</i>     | Blue-eyed grass       |
| <i>Helianthus radula</i>                | Rayless sunflower        | <i>Solidago</i> spp.               | Goldenrod             |
| <i>Justicia angusta</i>                 | Pineland waterwillow     | <i>Vernonia angustifolia</i>       | Ironweed              |
| <i>Liatis</i> spp.                      | Blazing star             | <i>Xyris</i> spp.                  | Yellow-eyed grass     |
| <i>Lilium catesbaei</i>                 | Pine lily                | <i>Zephyranthes atamasco</i>       | Rain lily             |

### 3) Pine Flatwoods

Planting Worksheet

| Table 3      | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Trees        | 10              | 40      |
| Shrubs       | 20              | 40      |
| Groundcovers | 30              | 50      |
| Vines        | 0               | 10      |
| Wildflowers  | 40              | 60      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 3<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                          | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                          | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |

**4)SCRUB**  
**4)SCRUB**

| Trees                           |                     |                                 |                         |
|---------------------------------|---------------------|---------------------------------|-------------------------|
| <i>Carya floridana</i>          | Scrub hickory       | <i>Persea humilis</i>           | Silkbay                 |
| <i>Ilex arenicola</i>           | Scrub holly         | <i>Pinus clausa</i>             | Sand pine               |
| <i>Lyonia ferruginea</i>        | Rusty Lyonia        | <i>Quercus chapmanii</i>        | Chapman's oak           |
| <i>Lyonia fruticosa</i>         | Staggerbush         | <i>Quercus geminata</i>         | Sand live oak           |
| <i>Osmanthus megacarpus</i>     | Scrub devilwood     | <i>Quercus myrtifolia</i>       | Myrtle oak              |
| Shrubs                          |                     |                                 |                         |
| <i>Asimina obovata</i>          | Flag pawpaw         | <i>Sabal etonia</i>             | Scrub palmetto          |
| <i>Asimina pygmaea</i>          | Dwarf pawpaw        | <i>Serenoa repens</i>           | Saw palmetto            |
| <i>Befaria recemosa</i>         | Tarflower           | <i>Sideroxylon tenax</i>        | Tough buckthorn         |
| <i>Garberia heterophylla</i>    | Garberia            | <i>Vaccinium darrowi</i>        | Blueberry               |
| <i>Opuntia spp.</i>             | Prickly-pear cactus | <i>Vaccinium myrsinites</i>     | Shiny blueberry         |
| <i>Palafoxia feayi</i>          | Palafoxia           | <i>Ximenia americana</i>        | Hog plum                |
| Groundcovers                    |                     |                                 |                         |
| <i>Calamintha spp.</i>          | Calamintha          | <i>Piloblephis rigida</i>       | Florida pennyroyal      |
| <i>Conradina spp.</i>           | Scrub mint          | <i>Sideroxylon rufohirtum</i>   | Dwarf buckthorn         |
| <i>Hypericum reductum</i>       | Scrub wort          | <i>Yucca filamentosa</i>        | Adam's needle           |
| <i>Licania michauxii</i>        | Gopher apple        | <i>Zamia pumila</i>             | Coontie                 |
| <i>Nolina brittoniana</i>       | Britton's beargrass |                                 |                         |
| Vines                           |                     |                                 |                         |
| <i>Bonamia grandiflora</i>      | Florida bonamia     | <i>Galactia spp.</i>            | Milk pea                |
| <i>Centrosema spp.</i>          | Butterfly pea       |                                 |                         |
| Wildflowers                     |                     |                                 |                         |
| <i>Asclepias tuberosa</i>       | Butterfly weed      | <i>Liatris spp.</i>             | Blazing star            |
| <i>Balduina angustifolia</i>    | Yellow buttons      | <i>Pityopsis graminifolia</i>   | Golden aster            |
| <i>Chrysopsis floridana</i>     | Florida aster       | <i>Polygonella spp.</i>         | Wireweed                |
| <i>Heterotheca subaxillaris</i> | Camphor weed        | <i>Sisyrinchium xerophyllum</i> | Jeweled blue-eyed grass |

**4) Scrub**  
Planting Worksheet

| <b>Table 4</b> | % of Total Area |         |
|----------------|-----------------|---------|
|                | Minimum         | Maximum |
| Trees          | 20              | 50      |
| Shrubs         | 40              | 60      |
| Groundcovers   | 20              | 40      |
| Vines          | 0               | 10      |
| Wildflowers    | 10              | 20      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 4<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                          | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                          | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |

## 5) SANDHILL

| Trees                                                                                                                                                                                                                                                             |                                                                                                                                                              |                                                                                                                                                                                                                                                                  |                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Crataegus flava</i><br><i>Diospyros virginiana</i><br><i>Pinus elliottii</i>                                                                                                                                                                                   | Summer haw<br>Persimmon<br>Slash pine                                                                                                                        | <i>Pinus palustris</i><br><i>Quercus geminata</i><br><i>Quercus laevis</i>                                                                                                                                                                                       | Longleaf pine<br>Sand live oak<br>Turkey oak                                                                                                        |
| Shrubs                                                                                                                                                                                                                                                            |                                                                                                                                                              |                                                                                                                                                                                                                                                                  |                                                                                                                                                     |
| <i>Asimina obovata</i><br><i>Callicarpa americana</i><br><i>Garberia heterophylla</i><br><i>Lyonia ferruginea</i>                                                                                                                                                 | Flag pawpaw<br>Beautyberry<br>Garberia<br>Rusty lyonia                                                                                                       | <i>Prunus angustifolia</i><br><i>Prunus geniculata</i><br><i>Serenoa repens</i>                                                                                                                                                                                  | Chickasaw plum<br>Scrub plum<br>Saw palmetto                                                                                                        |
| Groundcover                                                                                                                                                                                                                                                       |                                                                                                                                                              |                                                                                                                                                                                                                                                                  |                                                                                                                                                     |
| <i>Aristida beyrichiana</i><br><i>Licania michauxii</i><br><i>Nolina brittoniana</i>                                                                                                                                                                              | Wiregrass<br>Gopher apple<br>Britton's beargrass                                                                                                             | <i>Sorghastrum secundum</i><br><i>Sporobolus junceus</i><br><i>Yucca filamentosa</i>                                                                                                                                                                             | Lopsided Indian grass<br>Pineland dropseed<br>Adam's needle                                                                                         |
| Vines                                                                                                                                                                                                                                                             |                                                                                                                                                              |                                                                                                                                                                                                                                                                  |                                                                                                                                                     |
| <i>Gelsemium sempervirens</i><br><i>Lonicera sempervirens</i>                                                                                                                                                                                                     | Yellow jessamine<br>Coral honeysuckle                                                                                                                        | <i>Passiflora incarnata</i>                                                                                                                                                                                                                                      | Purple passionflower                                                                                                                                |
| Wildflowers                                                                                                                                                                                                                                                       |                                                                                                                                                              |                                                                                                                                                                                                                                                                  |                                                                                                                                                     |
| <i>Asclepias tuberosa</i><br><i>Carphephorus corymbosus</i><br><i>Chrysopsis scabrella</i><br><i>Commelina erecta</i><br><i>Dyschoriste spp.</i><br><i>Elephantopus spp.</i><br><i>Liatris spp.</i><br><i>Penstemon australis</i><br><i>Penstemon multiflorus</i> | Butterfly weed<br>Florida paintbrush<br>Golden aster<br>Dayflower<br>Twintflower<br>Elephant's foot<br>Blazing star<br>Pink beardtongue<br>White beardtongue | <i>Phoebanthus grandiflorus</i><br><i>Piriqueta caroliniana</i><br><i>Pityopsis graminifolia</i><br><i>Polygonella fimbriata</i><br><i>Ruellia caroliniensis</i><br><i>Sisyrinchium xerophyllum</i><br><i>Solidago chapmanii</i><br><i>Vernonia angustifolia</i> | Phoebanthus<br>Pitted stripeseed<br>Golden aster<br>Sandhill wireweed<br>Wild petunia<br>Jeweled blue-eyed grass<br>Chapman's goldenrod<br>Ironweed |

**5) Sandhill**  
Planting Worksheet

| <b>Table 5</b> | % of Total Area |         |
|----------------|-----------------|---------|
|                | Minimum         | Maximum |
| Trees          | 40              | 50      |
| Shrubs         | 20              | 40      |
| Groundcovers   | 10              | 30      |
| Vines          | 0               | 20      |
| Wildflowers    | 20              | 30      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 5<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                          | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                          | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |

## 6) CYPRESS SWAMP

| Trees                            |                |                                            |                 |
|----------------------------------|----------------|--------------------------------------------|-----------------|
| <i>Acer rubrum</i>               | Red maple      | <i>Nyssa sylvatica</i> var. <i>biflora</i> | Swamp tupelo    |
| <i>Gleditsia aquatica</i>        | Water-locust   | <i>Taxodium ascendens</i>                  | Pond cypress    |
| <i>Ilex cassine</i>              | Dahoon holly   | <i>Taxodium distichum</i>                  | Bald cypress    |
| Shrubs                           |                |                                            |                 |
| <i>Cephalanthus occidentalis</i> | Buttonbush     | <i>Itea virginica</i>                      | Virginia willow |
| Groundcovers                     |                |                                            |                 |
| <i>Blechnum serrulatum</i>       | Swamp fern     | <i>Peltandra</i> spp.                      | Spoonflower     |
| <i>Ludwigia repens</i>           | Water primrose | <i>Polygonum hydropiperoides</i>           | Smartweed       |
| <i>Orontium aquaticum</i>        | Golden club    | <i>Saururus cernuus</i>                    | Lizard's tail   |
| <i>Osmunda regalis</i>           | Royal fern     | <i>Thelypteris</i> spp.                    | Shield fern     |
| Vines                            |                |                                            |                 |
| <i>Ampelopsis arborea</i>        | Peppervine     | <i>Rosa palustris</i>                      | Swamp rose      |
| <i>Aster carolinianus</i>        | Climbing aster |                                            |                 |
| Wildflowers                      |                |                                            |                 |
| <i>Crinum americanum</i>         | String lily    | <i>Hymenocallis</i> spp.                   | Spider lily     |
| <i>Hydrolea corymbosa</i>        | Skyflower      |                                            |                 |

## 6) Cypress Swamps

Planting Worksheet

| Table 6      | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Trees        | 60              | 100     |
| Shrubs       | 0               | 30      |
| Groundcovers | 30              | 60      |
| Vines        | 0               | 20      |
| Wildflowers  | 0               | 20      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 6<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                          | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                          | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |

## 7) HARDWOOD SWAMP

| Trees                            |                   |                                            |                      |
|----------------------------------|-------------------|--------------------------------------------|----------------------|
| <i>Acer rubrum</i>               | Red maple         | <i>Ilex cassine</i>                        | Dahoon holly         |
| <i>Carya aquatica</i>            | Water hickory     | <i>Nyssa sylvatica</i> var. <i>biflora</i> | Swamp tupelo         |
| <i>Fraxinus caroliniana</i>      | Pop ash           | <i>Salix caroliniana</i>                   | Coastal plain willow |
| <i>Gleditsia aquatica</i>        | Water-locust      | <i>Taxodium ascendens</i>                  | Pond cypress         |
| <i>Magnolia virginiana</i>       | Sweetbay magnolia | <i>Taxodium distichum</i>                  | Bald cypress         |
| Shrubs                           |                   |                                            |                      |
| <i>Cephalanthus occidentalis</i> | Buttonbush        | <i>Itea virginica</i>                      | Virginia willow      |
| <i>Hibiscus coccineus</i>        | Scarlet hibiscus  |                                            |                      |
| Groundcovers                     |                   |                                            |                      |
| <i>Blechnum serrulatum</i>       | Swamp fern        | <i>Osmunda regalis</i>                     | Royal fern           |
| <i>Canna flaccida</i>            | Yellow canna      | <i>Peltandra</i> spp.                      | Spoonflower          |
| <i>Iris hexagona</i>             | Prairie iris      | <i>Polygonum hydropiperoides</i>           | Smartweed            |
| <i>Ludwigia repens</i>           | Water primrose    | <i>Saururus cernuus</i>                    | Lizard's tail        |
| <i>Orontium aquaticum</i>        | Golden club       | <i>Thelypteris</i> spp.                    | Shield fern          |
| Vines                            |                   |                                            |                      |
| <i>Aster carolinianus</i>        | Climbing aster    | <i>Rosa palustris</i>                      | Swamp rose           |
| <i>Ipomoea</i> spp.              | Morning glory     |                                            |                      |
| Wildflowers                      |                   |                                            |                      |
| <i>Crinum americanum</i>         | String lily       | <i>Hymenocallis</i> spp.                   | Spider lily          |
| <i>Hydrolea corymbosa</i>        | Skyflower         |                                            |                      |

## 7) Hardwood Swamps

Planting Worksheet

| Table 7      | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Trees        | 60              | 100     |
| Shrubs       | 0               | 30      |
| Groundcovers | 30              | 60      |
| Vines        | 0               | 20      |
| Wildflowers  | 0               | 20      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 7<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                          | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                          | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |

## 8) HYDRIC HAMMOCKS

| Trees                            |                      |                                |                    |
|----------------------------------|----------------------|--------------------------------|--------------------|
| <i>Acer negundo</i>              | Boxelder             | <i>Liquidambar styraciflua</i> | Sweet gum          |
| <i>Acer rubrum</i>               | Red maple            | <i>Liriodendron tulipifera</i> | Tulip tree         |
| <i>Aesculus pavia</i>            | Red buckeye          | <i>Magnolia grandiflora</i>    | Southern magnolia  |
| <i>Agarista populifolia</i>      | Pipestem             | <i>Magnolia virginiana</i>     | Sweetbay magnolia  |
| <i>Carpinus caroliniana</i>      | Hornbeam             | <i>Morus rubra</i>             | Red mulberry       |
| <i>Carya glabra</i>              | Pignut hickory       | <i>Pinus taeda</i>             | Loblolly pine      |
| <i>Celtis laevigata</i>          | Sugarberry           | <i>Quercus laurifolia</i>      | Laurel oak         |
| <i>Chamaecyparis thyoides</i>    | Atlantic white cedar | <i>Quercus michauxii</i>       | Chestnut oak       |
| <i>Chionanthus virginicus</i>    | Fringe tree          | <i>Quercus nigra</i>           | Water oak          |
| <i>Cornus foemina</i>            | Swamp dogwood        | <i>Sabal palmetto</i>          | Cabbage palm       |
| <i>Crataegus marshallii</i>      | Parsley haw          | <i>Styrax americanus</i>       | Snowbell           |
| <i>Fraxinus pennsylvanica</i>    | Green ash            | <i>Tilia caroliniana</i>       | Basswood           |
| <i>Gordonia lasianthus</i>       | Loblolly bay         | <i>Ulmus alata</i>             | Winged elm         |
| <i>Ilex cassine</i>              | Dahoon holly         | <i>Ulmus americana</i>         | Florida elm        |
| Shrubs                           |                      |                                |                    |
| <i>Amorpha fruticosa</i>         | Wild indigo          | <i>Myrica cerifera</i>         | Wax myrtle         |
| <i>Aronia arbutifolia</i>        | Red chokeberry       | <i>Rhapidophyllum hystrix</i>  | Needle palm        |
| <i>Cephalanthus occidentalis</i> | Buttonbush           | <i>Sabal minor</i>             | Bluestem palmetto  |
| <i>Euonymus americanus</i>       | Hearts-a-burstin'    | <i>Salix floridana</i>         | Florida willow     |
| <i>Illicium parviflorum</i>      | Yellow anise         | <i>Sideroxylon reclinatum</i>  | Florida bully      |
| <i>Leucothoe axillaris</i>       | Dog-hobble           | <i>Tripsacum dactyloides</i>   | Gamagrass          |
| <i>Lyonia ligustrina</i>         | Maleberry            | <i>Vaccinium corymbosum</i>    | Highbush blueberry |
| <i>Lyonia lucida</i>             | Shiny lyonia         | <i>Viburnum dentatum</i>       | Arrowwood viburnum |
| <i>Myrcianthes fragrans</i>      | Simpson stopper      | <i>Viburnum obovatum</i>       | Walter's viburnum  |
| Groundcovers                     |                      |                                |                    |
| <i>Blechnum serrulatum</i>       | Swamp fern           | <i>Osmunda regalis</i>         | Royal fern         |
| <i>Dryopteris ludoviciana</i>    | Southern shield fern | <i>Thelypteris</i> spp.        | Shield fern        |
| <i>Osmunda cinnamomea</i>        | Cinnamon fern        | <i>Woodwardia areolata</i>     | Netted chain fern  |
| Vines                            |                      |                                |                    |
| <i>Ampelopsis arborea</i>        | Peppervine           | <i>Campsis radicans</i>        | Trumpet creeper    |
| <i>Aster carolinianus</i>        | Climbing aster       | <i>Decumaria barbara</i>       | Climbing hydrangea |
| <i>Berchemia scandens</i>        | Alabama supplejack   | <i>Pieris phillyreifolia</i>   | Pieris             |
| <i>Bignonia capreolata</i>       | Cross vine           |                                |                    |
| Wildflowers                      |                      |                                |                    |
| <i>Arisaema triphyllum</i>       | Jack-in-the-pulpit   | <i>Lobelia cardinalis</i>      | Cardinal flower    |
| <i>Conoclinium coelestinum</i>   | Blue mist flower     | <i>Vernonia gigantea</i>       | Giant ironweed     |
| <i>Crinum americanum</i>         | String lily          | <i>Viola affinis</i>           | Florida violet     |

## 8) Hydric Hammocks

Planting Worksheet

| Table 8      | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Trees        | 50              | 100     |
| Shrubs       | 20              | 40      |
| Groundcovers | 10              | 30      |
| Vines        | 0               | 20      |
| Wildflowers  | 10              | 30      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 8<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                          | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                          | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                          | = |                                    | ÷ | 10                                   | = |                                          |

## 9) MANGROVE SWAMP

| Trees                           |                 |                              |                 |
|---------------------------------|-----------------|------------------------------|-----------------|
| <i>Avicennia germinans</i>      | Black mangrove  | <i>Laguncularia racemosa</i> | White mangrove  |
| <i>Conocarpus erectus</i>       | Buttonwood      | <i>Rhizophora mangle</i>     | Red mangrove    |
| Shrubs                          |                 |                              |                 |
| <i>Acrostichum danaeifolium</i> | Leather fern    | <i>Lycium carolinianum</i>   | Christmas berry |
| <i>Baccharis halimifolia</i>    | Saltbush        |                              |                 |
| Groundcovers                    |                 |                              |                 |
| <i>Batis maritima</i>           | Saltwort        | <i>Limonium carolinianum</i> | Sea-lavender    |
| <i>Borrchia frutescens</i>      | Sea oxeye daisy | <i>Salicornia spp.</i>       | Glasswort       |

9) Mangrove Swamps  
Planting Worksheet

| Table 9      | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Trees        | 30              | 50      |
| Shrubs       | 30              | 40      |
| Groundcovers | 30              | 50      |

|              | Total Area to<br>be Planted<br><br>(sq. ft.) |   | % from<br>Table 9<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br><br>(sq. ft.) |   | Spacing<br>Requirements<br><br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|----------------------------------------------|---|----------------------------------------------------------|---|----------------------------------------|---|------------------------------------------|---|------------------------------------------|
| Trees        |                                              | X |                                                          | = |                                        | ÷ | 100                                      | = |                                          |
| Shrubs       |                                              | X |                                                          | = |                                        | ÷ | 30                                       | = |                                          |
| Groundcovers |                                              | X |                                                          | = |                                        | ÷ | 10                                       | = |                                          |

## 10) SALTWATER MARSHES

| Shrubs                          |                   |                                 |                      |
|---------------------------------|-------------------|---------------------------------|----------------------|
| <i>Acrostichum danaeifolium</i> | Leather fern      | <i>Iva frutescens</i>           | Marsh elder          |
| <i>Baccharis halimifolia</i>    | Saltbush          | <i>Lycium carolinianum</i>      | Christmas berry      |
| Groundcovers                    |                   |                                 |                      |
| <i>Bacopa monnieri</i>          | Water hyssop      | <i>Monanthochloe littoralis</i> | Key grass            |
| <i>Batis maritima</i>           | Saltwort          | <i>Paspalum vaginatum</i>       | Knotgrass            |
| <i>Cladium jamaicense</i>       | Sawgrass          | <i>Salicornia spp.</i>          | Glasswort            |
| <i>Cyperus odoratus</i>         | Flat sedge        | <i>Scirpus validus</i>          | Soft-stem bulrush    |
| <i>Distichlis spicata</i>       | Saltgrass         | <i>Sesuvium portulacastrum</i>  | Sea purslane         |
| <i>Eragrostis elliottii</i>     | Elliott lovegrass | <i>Spartina alterniflora</i>    | Smooth cordgrass     |
| <i>Fuirena scirpoidea</i>       | Rush fuirena      | <i>Spartina bakeri</i>          | Sand cordgrass       |
| <i>Juncus roemerianus</i>       | Black rush        | <i>Spartina patens</i>          | Saltmeadow cordgrass |
| <i>Limonium carolinianum</i>    | Sea-lavender      | <i>Sporobolus virginicus</i>    | Seashore dropseed    |
| Wildflowers                     |                   |                                 |                      |
| <i>Aster tenuifolius</i>        | Saltmarsh aster   | <i>Solidago sempervirens</i>    | Seaside goldenrod    |

10) Saltwater Marshes  
Planting Worksheet

| Table 10     | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Shrubs       | 20              | 40      |
| Groundcovers | 70              | 80      |
| Wildflowers  | 0               | 10      |

|              | Total Area to<br>be Planted<br><br>(sq. ft.) |   | % from<br>Table 10<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br><br>(sq. ft.) |   | Spacing<br>Requirements<br><br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|----------------------------------------------|---|-----------------------------------------------------------|---|----------------------------------------|---|------------------------------------------|---|------------------------------------------|
| Shrubs       |                                              | X |                                                           | = |                                        | ÷ | 30                                       | = |                                          |
| Groundcovers |                                              | X |                                                           | = |                                        | ÷ | 10                                       | = |                                          |
| Wildflowers  |                                              | X |                                                           | = |                                        | ÷ | 10                                       | = |                                          |

## 11) MESIC HARDWOOD FOREST

| Trees                          |                       |                                    |                   |
|--------------------------------|-----------------------|------------------------------------|-------------------|
| <i>Aesculus pavia</i>          | Red buckeye           | <i>Magnolia grandiflora</i>        | Southern magnolia |
| <i>Aralia spinosa</i>          | Devil's walking stick | <i>Morus rubra</i>                 | Red mulberry      |
| <i>Carpinus caroliniana</i>    | Hornbeam              | <i>Ostrya virginiana</i>           | Hophornbeam       |
| <i>Celtis laevigata</i>        | Sugarberry            | <i>Prunus caroliniana</i>          | Cherry laurel     |
| <i>Cercis canadensis</i>       | Redbud                | <i>Prunus umbellata</i>            | Flatwoods plum    |
| <i>Chionanthus virginicus</i>  | Fringe tree           | <i>Quercus laurifolia</i>          | Laurel oak        |
| <i>Cornus florida</i>          | Dogwood               | <i>Quercus nigra</i>               | Water oak         |
| <i>Diospyros virginiana</i>    | Persimmon             | <i>Quercus virginiana</i>          | Live oak          |
| <i>Fraxinus americana</i>      | White ash             | <i>Sabal palmetto</i>              | Cabbage palm      |
| <i>Ilex opaca</i>              | American holly        | <i>Sapindus saponaria</i>          | Soapberry         |
| <i>Juniperus silicicola</i>    | Southern redcedar     | <i>Tilia caroliniana</i>           | Basswood          |
| <i>Liquidambar styraciflua</i> | Sweet gum             | <i>Ulmus alata</i>                 | Winged elm        |
| Shrubs                         |                       |                                    |                   |
| <i>Callicarpa americana</i>    | Beautyberry           | <i>Ilex vomitoria</i>              | Yaupon holly      |
| <i>Erythrina herbacea</i>      | Coralbean             | <i>Rhapidophyllum hystrix</i>      | Needle palm       |
| <i>Forestiera ligustrina</i>   | Upland swampprivet    | <i>Rhododendron canescens</i>      | Wild azalea       |
| <i>Hamamelis virginiana</i>    | Witch hazel           | <i>Sabal minor</i>                 | Bluestem palmetto |
| Groundcovers                   |                       |                                    |                   |
| <i>Dichanthelium</i> spp.      | none                  | <i>Thelypteris</i> spp.            | Shield fern       |
| <i>Mitchella repens</i>        | Partridge berry       | <i>Zamia pumila</i>                | Coontie           |
| <i>Oplismenus setarius</i>     | Basketgrass           |                                    |                   |
| Vines                          |                       |                                    |                   |
| <i>Bignonia capreolata</i>     | Cross vine            | <i>Lonicera sempervirens</i>       | Coral honeysuckle |
| <i>Gelsemium sempervirens</i>  | Yellow jessamine      | <i>Parthenocissus quinquefolia</i> | Virginia creeper  |
| Wildflowers                    |                       |                                    |                   |
| <i>Justicia cooley</i>         | none                  | <i>Salvia lyrata</i>               | Lyre-leaved sage  |
| <i>Phlox floridana</i>         | Florida phlox         | <i>Vernonia gigantea</i>           | Giant ironweed    |
| <i>Ruellia caroliniensis</i>   | Wild petunia          | <i>Viola affinis</i>               | Florida violet    |

# **11) Mesic Hardwood Hammocks** Planting Worksheet

| <b>Table 11</b> | % of Total Area |         |
|-----------------|-----------------|---------|
|                 | Minimum         | Maximum |
| Trees           | 50              | 100     |
| Shrubs          | 20              | 40      |
| Groundcovers    | 10              | 30      |
| Vines           | 0               | 20      |
| Wildflowers     | 10              | 30      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 11<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|-----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                           | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                           | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |

12) CABBAGE PALM HAMMOCK

| Trees                       |              |                           |          |
|-----------------------------|--------------|---------------------------|----------|
| <i>Sabal palmetto</i>       | Cabbage palm | <i>Quercus virginiana</i> | Live oak |
| Shrubs                      |              |                           |          |
| <i>Callicarpa americana</i> | Beautyberry  |                           |          |

12) Cabbage Palm Hammock  
Planting Worksheet

| Table 12 | % of Total Area |         |
|----------|-----------------|---------|
|          | Minimum         | Maximum |
| Trees    | 70              | 80      |
| Shrubs   | 20              | 30      |

|        | Total Area to<br>be Planted<br><br>(sq. ft.) |   | % from<br>Table 12<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br><br>(sq. ft.) |   | Spacing<br>Requirements<br><br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------|----------------------------------------------|---|-----------------------------------------------------------|---|----------------------------------------|---|------------------------------------------|---|------------------------------------------|
| Trees  |                                              | X |                                                           | = |                                        | ÷ | 100                                      | = |                                          |
| Shrubs |                                              | X |                                                           | = |                                        | ÷ | 30                                       | = |                                          |

### 13) FRESHWATER MARSH

| Trees                                                                                                                                                                                                                                                                   |                                                                                                                                        |                                                                                                                                                                                                                                                      |                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <i>Acer rubrum</i><br><i>Liquidambar styraciflua</i><br><i>Nyssa aquatica</i>                                                                                                                                                                                           | Red maple<br>Sweet gum<br>Water tupelo                                                                                                 | <i>Salix caroliniana</i><br><i>Taxodium distichum</i><br><i>Taxodium ascendens</i>                                                                                                                                                                   | Coastal plain willow<br>Bald cypress<br>Pond cypress                                                                             |
| Shrubs                                                                                                                                                                                                                                                                  |                                                                                                                                        |                                                                                                                                                                                                                                                      |                                                                                                                                  |
| <i>Baccharis halimifolia</i><br><i>Cephalanthus occidentalis</i><br><i>Hibiscus coccineus</i>                                                                                                                                                                           | Saltbush<br>Buttonbush<br>Scarlet hibiscus                                                                                             | <i>Hibiscus grandiflorus</i><br><i>Sambucus canadensis</i>                                                                                                                                                                                           | Swamp hibiscus<br>Elderberry                                                                                                     |
| Groundcovers                                                                                                                                                                                                                                                            |                                                                                                                                        |                                                                                                                                                                                                                                                      |                                                                                                                                  |
| <i>Bacopa</i> spp.<br><i>Canna flaccida</i><br><i>Cladium jamaicense</i><br><i>Eleocharis</i> spp.<br><i>Equisetum hyemale</i><br><i>Juncus</i> spp.<br><i>Lachnanthes caroliniana</i><br><i>Ludwigia repens</i><br><i>Osmunda cinnamomea</i><br><i>Osmunda regalis</i> | Water hyssop<br>Yellow canna<br>Sawgrass<br>Spikerush<br>Horsetail<br>Rush<br>Redroot<br>Water primrose<br>Cinnamon fern<br>Royal fern | <i>Panicum hemitomon</i><br><i>Peltandra</i> spp.<br><i>Polygonum hydropiperoides</i><br><i>Pontederia cordata</i><br><i>Sagittaria</i> spp.<br><i>Scirpus</i> spp.<br><i>Spartina bakeri</i><br><i>Thalia geniculata</i><br><i>Zizania aquatica</i> | Maidencane<br>Spoonflower<br>Smartweed<br>Pickerel weed<br>Arrowhead<br>Bulrush<br>Sand cordgrass<br>Alligator flag<br>Wild rice |
| Vines                                                                                                                                                                                                                                                                   |                                                                                                                                        |                                                                                                                                                                                                                                                      |                                                                                                                                  |
| <i>Ipomoea</i> spp.                                                                                                                                                                                                                                                     | Morning glory                                                                                                                          |                                                                                                                                                                                                                                                      |                                                                                                                                  |
| Wildflowers                                                                                                                                                                                                                                                             |                                                                                                                                        |                                                                                                                                                                                                                                                      |                                                                                                                                  |
| <i>Bidens mitis</i><br><i>Canna flaccida</i><br><i>Crinum americanum</i><br><i>Hydrolea corymbosa</i>                                                                                                                                                                   | Marsh beggar-ticks<br>Yellow canna<br>String lily<br>Skyflower                                                                         | <i>Hymenocallis palmeri</i><br><i>Iris hexagona</i><br><i>Pluchea rosea</i><br><i>Xyris</i> spp.                                                                                                                                                     | Alligator lily<br>Prairie iris<br>Rosy camphorweed<br>Yellow-eyed grass                                                          |
| Aquatics                                                                                                                                                                                                                                                                |                                                                                                                                        |                                                                                                                                                                                                                                                      |                                                                                                                                  |
| <i>Nelumbo lutea</i><br><i>Nuphar luteum</i><br><i>Nymphaea mexicana</i>                                                                                                                                                                                                | American lotus<br>Spatterdock<br>Yellow water lily                                                                                     | <i>Nymphaea odorata</i><br><i>Nymphoides aquatica</i><br><i>Vallisneria americana</i>                                                                                                                                                                | White water lily<br>Floating hearts<br>Tapegrass                                                                                 |

### 13) Freshwater Marsh

Planting Worksheet

| Table 13     | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Trees        | 10              | 40      |
| Shrubs       | 0               | 30      |
| Groundcovers | 50              | 60      |
| Vines        | 0               | 10      |
| Wildflowers  | 20              | 40      |
| Aquatics     | 10              | 30      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 13<br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|-------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                       | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                       | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                       | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                       | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                       | = |                                    | ÷ | 10                                   | = |                                          |
| Aquatics     |                                          | X |                                                       | = |                                    | ÷ | 10                                   | = |                                          |

## 14) COASTAL SCRUB

| Trees                           |                     |                                    |                     |
|---------------------------------|---------------------|------------------------------------|---------------------|
| <i>Celtis laevigata</i>         | Sugarberry          | <i>Quercus geminata</i>            | Sand live oak       |
| <i>Diospyros virginiana</i>     | Persimmon           | <i>Quercus myrtifolia</i>          | Myrtle oak          |
| <i>Ilex opaca</i>               | American holly      | <i>Quercus virginiana</i>          | Live oak            |
| <i>Juniperus silicicola</i>     | Southern redcedar   | <i>Sabal palmetto</i>              | Cabbage palm        |
| <i>Magnolia grandiflora</i>     | Southern magnolia   | <i>Zanthoxylum clava-herculis</i>  | Hercules club       |
| <i>Osmanthus americanus</i>     | Devilwood           | <i>Zanthoxylum fagara</i>          | Wild lime           |
| Shrubs                          |                     |                                    |                     |
| <i>Ardisia escallonioides</i>   | Marlberry           | <i>Ilex vomitoria</i>              | Yaupon holly        |
| <i>Baccharis halimifolia</i>    | Saltbush            | <i>Myrcianthes fragrans</i>        | Simpson stopper     |
| <i>Callicarpa americana</i>     | Beautyberry         | <i>Myrica cerifera</i>             | Wax myrtle          |
| <i>Capparis cynophallophora</i> | Jamaica caper       | <i>Myrsine guianensis</i>          | Myrsine             |
| <i>Coccoloba uvifera</i>        | Sea grape           | <i>Psychotria nervosa</i>          | Wild coffee         |
| <i>Eugenia axillaris</i>        | White stopper       | <i>Serenoa repens</i>              | Saw palmetto        |
| <i>Eugenia foetida</i>          | Spanish stopper     | <i>Sideroxylon tenax</i>           | Tough buckthorn     |
| <i>Forestiera segregata</i>     | Florida privet      | <i>Vaccinium arboreum</i>          | Sparkleberry        |
| Groundcovers                    |                     |                                    |                     |
| <i>Distichlis spicata</i>       | Saltgrass           | <i>Opuntia humifusa</i>            | Prickly pear cactus |
| <i>Ipomoea pes-caprae</i>       | Railroad vine       | <i>Spartina bakeri</i>             | Sand cordgrass      |
| <i>Ipomoea stolonifera</i>      | Beach morning glory | <i>Sporobolus virginicus</i>       | Seashore dropseed   |
| <i>Licania michauxii</i>        | Gopher apple        | <i>Zamia pumila</i>                | Coontie             |
| <i>Muhlenbergia capillaris</i>  | Muhly grass         |                                    |                     |
| Vines                           |                     |                                    |                     |
| <i>Echites umbellata</i>        | Devil's potato      | <i>Parthenocissus quinquefolia</i> | Virginia creeper    |
| <i>Ipomoea spp.</i>             | Morning glory       | <i>Vitis spp.</i>                  | Wild grape          |
| Wildflowers                     |                     |                                    |                     |
| <i>Borrichia spp.</i>           | Sea oxeye daisy     | <i>Helianthus debilis</i>          | Dune sunflower      |
| <i>Gaillardia pulchella</i>     | Blanket flower      | <i>Monarda punctata</i>            | Dotted horsemint    |
| <i>Glandularia maritima</i>     | Beach verbena       |                                    |                     |

### 14) Coastal Scrub

Planting Worksheet

| Table 14     | % of Total Area |         |
|--------------|-----------------|---------|
|              | Minimum         | Maximum |
| Trees        | 10              | 80      |
| Shrubs       | 20              | 70      |
| Groundcovers | 10              | 40      |
| Vines        | 0               | 20      |
| Wildflowers  | 0               | 30      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 14<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|-----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                           | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                           | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |

### 15) BAY SWAMP

| Trees                                                                                                       |                                                           |                                                                                                                    |                                                                   |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| <i>Acer rubrum</i><br><i>Ilex cassine</i>                                                                   | Red maple<br>Dahoon holly                                 | <i>Magnolia virginiana</i><br><i>Pinus serotina</i>                                                                | Sweet bay<br>Pond pine                                            |
| Shrubs                                                                                                      |                                                           |                                                                                                                    |                                                                   |
| <i>Cephalanthus occidentalis</i>                                                                            | Buttonbush                                                | <i>Itea virginica</i>                                                                                              | Virginia willow                                                   |
| Groundcovers                                                                                                |                                                           |                                                                                                                    |                                                                   |
| <i>Blechnum serrulatum</i><br><i>Ludwigia repens</i><br><i>Orontium aquaticum</i><br><i>Osmunda regalis</i> | Swamp fern<br>Water primrose<br>Golden club<br>Royal fern | <i>Peltandra spp.</i><br><i>Polygonum hydropiperoides</i><br><i>Saururus cernuus</i><br><i>Woodwardia areolata</i> | Spoonflower<br>Smartweed<br>Lizard's tail<br>Dimorphic chain fern |
| Vines                                                                                                       |                                                           |                                                                                                                    |                                                                   |
| <i>Ampelopsis arborea</i><br><i>Aster carolinianus</i>                                                      | Peppervine<br>Climbing aster                              | <i>Rosa palustris</i>                                                                                              | Swamp rose                                                        |
| Wildflowers                                                                                                 |                                                           |                                                                                                                    |                                                                   |
| <i>Crinum americanum</i><br><i>Hydrolea corymbosa</i>                                                       | String lily<br>Skyflower                                  | <i>Hymenocallis spp.</i>                                                                                           | Spider lily                                                       |

**15) Bay Swamp**  
Planting Worksheet

| <b>Table 15</b> | % of Total Area |         |
|-----------------|-----------------|---------|
|                 | Minimum         | Maximum |
| Trees           | 40              | 60      |
| Shrubs          | 20              | 30      |
| Groundcovers    | 20              | 30      |
| Vines           | 0               | 10      |
| Wildflowers     | 0               | 10      |

|              | Total Area to<br>be Planted<br>(sq. ft.) |   | % from<br>Table 15<br><br>Must equal<br>or exceed<br>100% |   | Area to be<br>Planted<br>(sq. ft.) |   | Spacing<br>Requirements<br>(sq. ft.) |   | Total<br>Number of<br>Plants<br>Required |
|--------------|------------------------------------------|---|-----------------------------------------------------------|---|------------------------------------|---|--------------------------------------|---|------------------------------------------|
| Trees        |                                          | X |                                                           | = |                                    | ÷ | 100                                  | = |                                          |
| Shrubs       |                                          | X |                                                           | = |                                    | ÷ | 30                                   | = |                                          |
| Groundcovers |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |
| Vines        |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |
| Wildflowers  |                                          | X |                                                           | = |                                    | ÷ | 10                                   | = |                                          |