



**CHESAPEAKE BAY  
PROGRAM**



**NORTHEASTERN AREA**  
State and Private Forestry

# **Chesapeake Bay Riparian Handbook: A Guide for Establishing and Maintaining Riparian Forest Buffers**

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**APPENDIX 7**

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**Native Plant Guide for  
Planting Along Streams and Ponds**

## NATIVE PLANT GUIDE FOR PLANTING ALONG STREAMS AND PONDS

| PLANT NAME                                       | HARDINESS ZONE | FORM            | AVAILABLE | INUNDATION TOLERANCE | WILDLIFE VALUE   | NOTES   |
|--|----------------|-----------------|-----------|----------------------|--|---|
| <b><u>Trees and Shrubs</u></b>                   |                |                 |           |                      |  |   |
| American beech<br><i>Fagus grandifolia</i>       | 5,6            | deciduous tree  | no        | no                   | high; mammals and birds                                | prefers shade; rich, well-drained soils                                   |
| American holly<br><i>Ilex opaca</i>              | 5,6            | persistent tree | yes       | limited              | high; songbirds-food, cover, nesting                   | Coastal Plain; prefers shade and rich soils                               |
| American hornbeam<br><i>Carpinus caroliniana</i> | 4,5            | deciduous tree  | yes       | limited              | moderate; food, browse                                 | common in flood plains and bottomlands of Piedmont and mountains          |
| Arrowwood<br><i>Viburnum dentatum</i>            | 3,4            | deciduous shrub | yes       | yes                  | high; songbirds and mammals                            | grows best in sun to partial shade  |
| Baldcypress<br><i>Taxodium distichum</i>         | 3,4            | deciduous tree  | yes       | yes                  | little food value; perching site for waterfowl         | forested Coastal Plain wetlands; north of normal range; tolerates drought |
| Bayberry<br><i>Myrica pensylvanica</i>           | 4,5,6          | deciduous shrub | yes       | yes                  | high; nesting, food, cover; persistent berries         | Coastal Plain only; roots fix N and tolerate slightly acidic soil         |
| Butternut hickory<br><i>Carya cordiformis</i>    | 4,5,6          | deciduous tree  | no        | no                   | high; food   | moist soils or wet bottomlands  |
| Black cherry<br><i>Prunus serotina</i>           | 5,6            | deciduous tree  | yes       | no                   | high; fruit is eaten by many birds                     | temporarily flooded forests; possible fungus infestation                  |
| Black walnut<br><i>Juglans nigra</i>             | 5,6            | deciduous tree  | yes       | limited              | high; food   | temporarily flooded flood plains and wetlands; well-drained, deep soils   |
| Blackgum<br><i>Nyssa sylvatica</i>               | 4,5,6          | deciduous tree  | yes       | yes                  | high; songbirds, egrets, herons, raccoons, owls        | difficult to transplant; prefers sun to partial shade                     |
| Black willow<br><i>Salix nigra</i>               | 3,4,5          | deciduous tree  | yes       | yes                  | high; browse and cavities                              | rapid growth; stabilizes streambanks; full sun                            |
| Buttonbush<br><i>Cephalanthus occidentalis</i>   | 2,3,4,5        | deciduous shrub | yes       | yes                  | high; ducks and shorebirds; seeds, nectar, and nesting | full sun to partial shade; will grow in dry areas                         |
| Chestnut oak<br><i>Quercus prinus</i>            | 5,6            | deciduous tree  | no        | no                   | high; cover, browse, food                              | gypsy moth target; dry soils  |

| PLANT NAME                                      | HARDINESS ZONE | FORM                             | AVAILABLE | INUNDATION TOLERANCE | WILDLIFE VALUE   | NOTES  |
|---|----------------|----------------------------------|-----------|----------------------|--|--|
| Common chokecherry<br><i>Prunus virginiana</i>  | 5,6            | deciduous tree                   | no        | no                   | high; birds, mammals;<br>food and cover                    | prefers dry sites  |
| Common spicebush<br><i>Lindera benzoin</i>      | 3,4,5          | deciduous shrub                  | yes       | yes                  | very high; songbirds                                       | shade and rich soils; tolerates acidic soils;<br>good understory species     |
| Eastern cottonwood<br><i>Populus deltoides</i>  | 4,5            | deciduous tree                   | yes       | yes                  | moderate; cover and food                                   | shallow rooted; subject to windthrow;<br>invasive roots; rapid growth        |
| Eastern hemlock<br><i>Tsuga canadensis</i>      | 5,6            | coniferous tree                  | yes       | yes                  | moderate; cover and<br>some food                           | tolerates all light conditions; tolerates acidic<br>soil                     |
| Eastern hophornbeam<br><i>Ostrya virginiana</i> | 5,6            | deciduous tree                   | yes       | limited              | moderate; food and<br>browse                               | tolerates all light conditions   |
| Eastern larch<br><i>Larix laricina</i>          | 3,4            | deciduous tree                   | no        | yes                  | low; nest tree and seeds                                   | rapid initial growth; full sun; acidic bogs                                  |
| Eastern redcedar<br><i>Juniperus virginiana</i> | 4,5,6          | coniferous tree                  | yes       | no                   | high; food for birds, some<br>cover                        | full sun to partial shade; common in<br>wetlands, shrub bogs, riparian areas |
| Elderberry<br><i>Sambucus canadensis</i>        | 3,4,5,6        | deciduous shrub                  | yes       | yes                  | extremely high; food and<br>cover for birds and<br>mammals | full sun to partial shade  |
| Flowering dogwood<br><i>Cornus florida</i>      | 6              | deciduous tree                   | yes       | no                   | high; bird food  | prefers rich, moist soil; dogwood<br>anthracnose a problem                   |
| Fringetree<br><i>Chionanthus virginicus</i>     | 3,4,5          | deciduous shrub or<br>small tree | yes       | limited              | moderate; food and cover                                   | full sun to partial shade; tolerates acidic soil                             |
| Green ash<br><i>Fraxinus pennsylvanica</i>      | 4,5            | deciduous tree                   | yes       | yes                  | moderate; songbirds  | rapid growing; streambank stabilizer; full<br>sun to partial shade           |
| Hackberry<br><i>Celtis occidentalis</i>         | 5,6            | deciduous tree                   | yes       | limited              | high; food and cover                                       | full sun to partial shade  |
| Hazel alder<br><i>Alnus serrulata</i>           | 3,4,5          | deciduous tree                   | no        | yes                  | high; food and cover                                       | rapid growth; stabilizes streambanks   |
| Loblolly pine<br><i>Pinus taeda</i>             | 5,6            | coniferous tree                  | yes       | limited              | moderate; food, nesting<br>for squirrels                   | Coastal Plain mainly; tolerant of extreme<br>soil conditions                 |

| PLANT NAME                                  | HARDINESS ZONE | FORM            | AVAILABLE | INUNDATION TOLERANCE | WILDLIFE VALUE  | NOTES   |
|---|----------------|-----------------|-----------|----------------------|---|---|
| Mountain-laurel<br><i>Kalmia latifolia</i>  | 6              | evergreen shrub | no        | no                   | low; cover and nectar;<br>foliage is toxic to deer        | partial shade; acidic soils   |
| Pin oak<br><i>Quercus palustris</i>         | 3,4,5,6        | deciduous tree  | yes       | yes                  | high; mast  | gypsy moth target; tolerates acidic soil;<br>prefers sun to partial shade     |
| Red chokeberry<br><i>Aronia arbutifolia</i> | 3,4,5          | deciduous shrub | no        | yes                  | moderate; songbirds                                       | bank stabilizer; partial sun  |
| Red maple<br><i>Acer rubrum</i>             | 3,4,5,6        | deciduous tree  | yes       | yes                  | high; seeds and browse                                    | rapid growth; tolerates acidic soil   |
| Red oak<br><i>Quercus rubra</i>             | 5,6            | deciduous tree  | yes       | no                   | high; food and cover                                      | gypsy moth target; prefers well-drained,<br>sandy soil                        |
| River birch<br><i>Betula nigra</i>          | 3,4,5          | deciduous tree  | yes       | yes                  | low; but good cavities                                    | bank erosion control; full sun  |
| Scarlet oak<br><i>Quercus coccinea</i>      | 5,6            | deciduous tree  | yes       | no                   | high; food and cover                                      | gypsy moth target; difficult to transplant                                    |
| Serviceberry<br><i>Amelanchier arborea</i>  | 4,5,6          | deciduous tree  | yes       | yes                  | high; nesting, cover and<br>food for birds and<br>mammals | prefers partial shade; common in forested<br>wetlands and uplands             |
| Silky dogwood<br><i>Cornus amomum</i>       | 3,4,5          | deciduous shrub | yes       | yes                  | high; songbirds and<br>mammals                            | shade and drought tolerant; good bank<br>stabilizer                           |
| Sourwood<br><i>Oxydendrum arboreum</i>      | 5,6            | deciduous tree  | yes       | no                   | moderate; food  | ornamental  |
| Swamp white oak<br><i>Quercus bicolor</i>   | 3,4,5          | deciduous tree  | yes       | yes                  | high; mast  | full sun to partial shade; good bottomland<br>tree                            |
| Sweetgum<br><i>Liquidambar styraciflua</i>  | 4,5,6          | deciduous tree  | yes       | yes                  | moderate; songbirds                                       | tolerates acidic or clay soils; sun to partial<br>shade                       |
| Sycamore<br><i>Platanus occidentalis</i>    | 4,5,6          | deciduous tree  | yes       | yes                  | low; food, cavities for<br>nesting                        | rapid growth; common in flood plains and<br>alluvial forest                   |
| White ash<br><i>Fraxinus americana</i>      | 5,6            | deciduous tree  | yes       | no                   | high; food  | all light conditions; well-drained soils                                      |
| White oak<br><i>Quercus alba</i>            | 5,6            | deciduous tree  | yes       | limited              | high; food and cover                                      | gypsy moth target; prefers well-drained<br>soils                              |
| Willow oak<br><i>Quercus phellos</i>        | 4,5,6          | deciduous tree  | yes       | yes                  | high; mast  | full sun to partial shade; common in<br>temporarily flooded forested wetlands |

| PLANT NAME   | HARDINESS ZONE | FORM                    | AVAILABLE | INUNDATION TOLERANCE | WILDLIFE VALUE  | NOTES  |
|--|----------------|-------------------------|-----------|----------------------|---|--|
| Winterberry<br><i>Ilex verticillata</i>              | 3,4,5          | deciduous shrub         | yes       | yes                  | high; cover and fruit for birds; holds berries into winter          | full sun to partial shade; seasonally flooded areas                          |
| Witch-hazel<br><i>Hamamelis virginiana</i>           | 4,5            | deciduous shrub         | yes       | no                   | low; food for squirrels, deer, and ruffed grouse                    | prefers shade  |
| Yellow-poplar<br><i>Liriodendron tulipifera</i>      | 5,6            | deciduous tree          | yes       | no                   | moderate; seeds and nest sites                                      | full sun to partial shade; well-drained soils; rapid growth                  |
| <b><u>Wetland Plants</u></b>                         |                |                         |           |                      |   |  |
| Arrow arum<br><i>Peltandra virginica</i>             | 2,3            | emergent                | yes       | up to 1 foot         | high; berries are eaten by wood ducks                               | full sun to partial shade  |
| Arrowhead/Duck potato<br><i>Sagittaria latifolia</i> | 2,3            | emergent                | yes       | up to 1 foot         | moderate; tubers and seeds eaten by ducks                           | aggressive colonizer   |
| Broomsedge<br><i>Andropogon virginicus</i>           | 2,3            | emergent                | yes       | up to 3 inches       | high; songbirds and browsers; winter food and cover                 | tolerant of fluctuating water levels and partial shade                       |
| Bushy beardgrass<br><i>Andropogon glomeratus</i>     | 2,3            | emergent                | yes       | up to 1 foot         | unknown   | requires full sun  |
| Cattail<br><i>Typha spp.</i>                         | 2,3            | emergent                | yes       | up to 1 foot         | low; except as cover  | aggressive; may eliminate other species; volunteer; high pollutant treatment |
| Coontail<br><i>Ceratophyllum demersum</i>            | 1              | submergent              | no        | yes                  | low food value; good habitat and shelter for fish and invertebrates | free floating; shade tolerant; rapid growth                                  |
| Common three-square<br><i>Scirpus pungens</i>        | 2              | emergent                | yes       | up to 6 inches       | high; seeds, cover for waterfowl and songbirds; high metal removal  | fast colonizer; can tolerate periods of dryness; full sun                    |
| Duckweed<br><i>Lemna spp.</i>                        | 1,2            | submergent/<br>emergent | yes       | yes                  | high; food for waterfowl and fish                                   | high metal removal   |
| Lizard's tail<br><i>Saururus cernuus</i>             | 2              | emergent                | yes       | up to 1 foot         | low; except wood ducks  | rapid growth; shade tolerant   |

| PLANT NAME                                   | HARDINESS ZONE | FORM       | AVAILABLE | INUNDATION TOLERANCE | WILDLIFE VALUE                                  | NOTES   |
|--|----------------|------------|-----------|----------------------|---|---|
| Marsh hibiscus<br><i>Hibiscus moscheutos</i> | 2,3            | emergent   | yes       | up to 3 inches       | low; nectar                                     | full sun; can tolerate periodic dryness   |
| Pickerelweed<br><i>Pontederia cordata</i>    | 2,3            | emergent   | yes       | up to 1 foot         | moderate; ducks; nectar for butterflies         | full sun to partial shade   |
| Pond weed<br><i>Potamogeton pectinatus</i>   | 1              | submergent | yes       | yes                  | extremely high; waterfowl, marsh and shorebirds | removes heavy metals  |
| Rice cutgrass<br><i>Leersia oryzoides</i>    | 2,3            | emergent   | yes       | up to 3 inches       | high; food and cover                            | full sun to partial shade; shoreline stabilization                                  |
| Sedges<br><i>Carex spp.</i>                  | 2,3,4          | emergent   | yes       | up to 3 inches       | high; waterfowl, songbirds                      | many wetland and upland species   |
| Soft-stem bulrush<br><i>Scirpus validus</i>  | 2,3            | emergent   | yes       | up to 1 foot         | moderate; good cover and food                   | fun sun; aggressive colonizer; high pollutant removal                               |
| Smartweed<br><i>Polygonum spp.</i>           | 2,3,4          | emergent   | yes       | up to 1 foot         | high; waterfowl, songbirds; seeds and cover     | fast colonizer; avoid weedy aliens such as <i>P. perfoliatum</i>                    |
| Soft rush<br><i>Juncus effusus</i>           | 2,3,4          | emergent   | yes       | up to 3 inches       | moderate  | tolerates wet or dry conditions   |
| Spatterdock<br><i>Nuphar luteum</i>          | 2              | emergent   | yes       | up to 3 feet         | moderate for food; high for cover               | fast colonizer; tolerant of fluctuating water levels                                |
| Switchgrass<br><i>Panicum virgatum</i>       | 2,3,4,5,6      | perimeter  | yes       | up to 3 inches       | high; seeds, cover for waterfowl and songbirds  | tolerates wet/dry conditions  |
| Sweet flag<br><i>Acorus calamus</i>          | 2,3            | perimeter  | yes       | up to 3 inches       | low   | drought tolerant; not a rapid colonizer; tolerates acidic conditions                |
| Waterweed<br><i>Elodea canadensis</i>        | 1              | submergent | yes       | yes                  | low   | good water oxygenator; high nutrient, copper, manganese, and chromium removal       |
| Wild celery<br><i>Valisneria americana</i>   | 1              | submergent | yes       | yes                  | high; food for waterfowl                        | tolerant of murky water and high nutrient loads; habitat for fish and invertebrates |
| Wild rice<br><i>Zizania aquatica</i>         | 2              | emergent   | yes       | up to 1 foot         | high; food for birds                            | prefers full sun  |