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**Pennsylvania Stormwater  
Best Management Practices  
Manual**

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**Appendix B - Pennsylvania Native Plant List**

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## Appendix B – Pennsylvania Native Plant List

The BMP Plant List contains information about plant species native to Pennsylvania that are suitable for use in BMPs. The list is sorted by plant type and then by scientific name. The table also contains information helpful for designing a planting plan for a successful BMP.

### Plant Type

Herbaceous plants are broken down into the following categories; ferns, grasses, grass-like plants, and forbs. Woody plants are broken down into the following categories; shrubs, trees, and trees (small). Small trees are understory and ornamental trees. These trees are useful when a canopy tree is impractical or an aesthetic impact needs to be made.

### Wetland Indicator Status

The wetland indicator status is from the National List of Plant Species that Occur in Wetlands: Northeast (Region 1) compiled by the U.S. Fish and Wildlife Service. This list indicates the likelihood that a plant will be found in a wetland. A “+” after the indicator symbol shows that the species is more often found in wetlands than other species with the same indicator symbol. Conversely, a “-” after the indicator symbol shows that the species is less often found in wetlands than other species with the same indicator symbol.

Since wetland indicator status is very generalized and does not contain information about depth or frequency of inundation, the “Hydrologic Zone” and “Inundation Tolerance” fields are also included in this plant list.

### Hydrologic Zone

#### Zone 1: Open Water: Permanent Pool (12 inches to 6 feet)

Open water and permanent pools range from 12 inches to 6 feet in depth and are best colonized by submergent plants, if at all. This deep water zone is not routinely planted for several reasons. There are a limited number of plant species that typically survive and grow in this zone, and many are not commercially available; open water areas, free of vegetation, provide unique habitat; and, deep water aquatic plants can clog the stormwater facility outlet structure. In many cases, plants such as duckweed (*Lemna minor*), will naturally colonize open water via transport of plant fragments from upstream or on wildlife. If submerged plant material becomes more commercially available and clogging concerns are addressed, this area can be planted. The function of planting deep water areas is to absorb nutrients in the water column, enhance sediment deposition, improve oxidation and create additional aquatic habitat.

Select native plants that can:

- withstand constant inundation of water of 1 foot or greater in depth;
- withstand being submerged partially or entirely;
- enhance pollutant uptake; and
- provide food and cover for waterfowl, fish, amphibians, desirable insects, and other aquatic life.

Suggested emergent or submergent species include, but are not limited to: water lily (*Nymphaea odorata*), wild celery (*Vallisneria americana*), sago pondweed (*Potamogeton pectinatus*), and redhead grass (*Potamogeton perfoliatus*).

## Zone 2: Shallow Water Terrace / Aquatic Bench (6 inches to 1 foot)

Zone 2 includes all areas that are inundated by the normal pool to a depth of 1 foot. Zone 2 coincides with the aquatic bench or shelf found in many BMP's. This zone offers ideal conditions for the growth of wide variety of emergent wetland species. These areas will typically fringe the pond or can be developed on shallow water shelves constructed within the pond. When planted, Zone 2 provides important habitat for many aquatic animals, which will naturally regulate mosquito populations, eliminating the need for insecticide applications. In order to create a naturalistic setting, emergent plants are typically planted in groups or clusters of like species. As this zone matures, some species will dominate portions of the site and some species may be eliminated. Local conditions will determine which species adapt most readily. Some species will migrate upslope into saturated soils and others will spread to colonize slightly deeper water. Many species available for planting in this zone also include aesthetic qualities.

Select native plants that can:

- withstand constant inundation of water to depths between six inches and 1 foot deep;
- be partially submerged;
- enhance pollutant uptake and transformation; and
- provide food and cover for waterfowl, desirable insects, and other aquatic life.

Emergent herbaceous plants will stabilize the bottom and edge of the pond, slow water velocities, absorb wave energy, and reduce erosion when the water level fluctuates. Plants can also soften the engineered contours of the pond and conceal drawdowns during dry weather.

Appropriate herbaceous species include: water plantain (*Alisma plantago-aquatica*), common three square (*Scirpus pungens*), managrasses (*Glyceria spp.*), blue flag iris (*Iris versicolor*), soft rush (*Juncus effusus*), arrow arum (*Peltandra virginica*), smartweeds (*Polygonum spp.*), pickerelweed (*Pontederia cordata*), duck potato (*Sagittaria latifolia*), lizard tail (*Saururus cernuus*), soft stem bulrush (*Scirpus tabernaemontanii*), and giant bur-reed (*Sparganium eurycarpum*) and American bur-reed (*Sparganium americanum*). There are few trees or shrubs that will become established or survive within Zone 2.

## Zone 3: BMP Fringe: Low Marsh (0-6" regular inundation)

Zone 3 encompasses the waterward shoreline of a pond or wetland and its width will be determined by the design slope. This zone will be permanently inundated by the design elevation of any control structures. However, this zone is likely to dry down during periods of drought. This zone provides the interface between the emergent wetland plantings and the adjacent upland. This zone can be the most difficult to establish since plants must be able to withstand periods of inundation as well as drought during the growing season. Zone 3 should be heavily planted to ensure vigorous cover to protect the shoreline. This zone provides opportunities for a number of herbaceous plants, shrubs and trees.

Select native plants that can:

- stabilize the shoreline to minimize erosion caused by wave and wind action or water fluctuation;
- withstand regular inundation of water, as plants will be partially submerged at times;
- provide shade along the southern exposure to help reduce temperature of open waters;
- enhance pollutant uptake;
- provide food and cover for waterfowl, songbirds, and wildlife (large plants can be selected and located to control overpopulation of waterfowl);

- be located to reduce human access to potential hazards without blocking maintenance access;
- have little or no maintenance requirements because they may be difficult or impossible to reach; and,
- be resistant to disease and other problems that require chemical applications, since chemical application is not advised in stormwater ponds

Some other herbaceous species that do well in Zone 3 include: blue flag iris (*Iris versicolor*), sweet flag (*Acorus calamus*), swamp milkweed (*Asclepias incarnata*), redbud (*Agrostis spp.*), switchgrass (*Panicum virgatum*), Canada bluejoint (*Calamagrostis canadensis*), many bulrushes (*Scirpus spp.*), and spike rushes (*Eleocharis spp.*). If shading is needed along the shoreline, the following woody species are suggested: smooth or speckled alder (*Alnus spp.*), pussy willow (*Salix discolor*), swamp rose (*Rosa palustris*), buttonbush (*Cephalanthus occidentalis*), highbush blueberry (*Vaccinium corymbosum*), red osier/silky dogwood (*Cornus stolonifera/amomum*), gray dogwood (*Cornus racemosa*), arrowwood (*Viburnum dentatum*), spicebush (*Lindera Benzoin*), sweet pepperbush (*Clethra alnifolia*), winterberry (*Ilex verticillata*), inkberry holly (*Ilex glabra*), serviceberry (*Amelanchier spp.*), river birch, red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), river birch (*Betula nigra*), green ash (*Fraxinus pennsylvanica*), sweetgum (*Liquidambar styraciflua*), sweet bay magnolia (*Magnolia virginiana*), black gum (*Nyssa sylvatica*), American sycamore (*Platanus occidentalis*) willow oak (*Quercus phellos*), swamp white oak (*Quercus bicolor*), pin oak (*Quercus palustris*) and black willow (*Salix nigra*).

#### **Zone 4: BMP Fringe: High Marsh (periodic inundation, saturated soils)**

Zone 4 extends upslope from Zone 3 and encompasses the area that may be subject to periodic inundation after storms. The width of this zone will depend on the design slope. This zone will include the majority of the temporary extended detention area. The soil substrate will be periodically saturated.

Select native plants that can:

- withstand periodic inundation of water after storms, as well as significant drought during the warm summer months;
- stabilize the ground from erosion caused by run-off;
- provide shade along the southern exposure to help reduce temperature of open waters;
- enhance pollutant uptake;
- be very low maintenance, as they may be difficult or impossible to access;
- provide food and cover for waterfowl, songbirds, and wildlife (plants may also be selected and located to control overpopulation of waterfowl); and
- be located to reduce pedestrian access to the deeper pools.

Native plants are preferred because they are low-maintenance and disease-resistant.

Frequently used plant species in Zone 4 include: asters (*Aster spp.*) and goldenrods (*Solidago spp.*), beebalm (*Monarda didyma*), bergamot (*Monarda fistulosa*), ironweed (*Vernonia noveboracensis*), blue vervain (*Verbena hastata*), spotted and purple Joe-pye weed (*Eupatorium spp.*), swamp milkweed (*Asclepias incarnata*), switchgrass (*Panicum virgatum*), shrub dogwoods (*Cornus spp.*), swamp rose (*Rosa palustris*), inkberry (*Ilex glabra*), arrowwood (*Viburnum dentatum*), sweet pepperbush (*Clethra alnifolia*), bayberry (*Myrica pennsylvanica*), elderberry (*Sambucus canadensis*), serviceberry (*Amelanchier arborea*), sweetbay magnolia (*Magnolia virginiana*), green ash (*Fraxinus pennsylvanica*), river birch (*Betula nigra*), sweetgum (*Liquidambar styraciflua*), Ironwood (*Carpinus caroliniana*), eastern

red cedar (*Juniperus virginiana*), and red maple (*Acer rubrum*).

### **Zone 5: Floodplain Terrace (infrequent inundation, temporarily saturated soils)**

Zone 5 is infrequently inundated by floodwaters that quickly recede in a day or less. Key landscaping objectives for Zone 5 are to stabilize the slopes characteristic of this zone and establish low maintenance natural vegetation.

Select plants that can:

- withstand infrequent but brief inundation during storms and, between storms, typical moisture conditions that may be moist, slightly wet, or even swinging entirely to drought conditions during the dry weather period;
- stabilize the basin slopes from erosion;
- be very low maintenance as ground cover since they may be difficult to access on steep slopes or mowing frequency may be limited (a dense tree cover may help reduce maintenance and discourage resident geese); and
- provide food and cover for waterfowl, songbirds, and wildlife.

Placement of plant material in Zone 5 is often critical.

Some commonly planted species in Zone 5 include:

black eyed Susan (*Rudbeckia hirta*), purple coneflower (*Echinacea purpurea*), warm season grasses such as switchgrass (*Panicum virgatum*), Indian grass (*Sorghastrum nutans*), and little bluestem (*Schizachyrium scoparium*), many viburnums (*Viburnum spp.*), Virginia rose (*Rosa virginiana*), Ironwood (*Carpinus caroliniana*), cherries (*Prunus spp.*), red oak (*Quercus rubra*), scarlet oak (*Quercus coccinea*), willow oak (*Quercus phellos*), hickories (*Carya spp.*), eastern red cedar (*Juniperus virginiana*), hackberry (*Celtis occidentalis*) and witch-hazel (*Hamamelis virginiana*).

### **Zone 6: Upland (never inundated)**

This zone extends above the maximum design water surface elevation and often includes the outermost buffer of a pond or wetland. Plant selections should be made based on soil condition, light, and function within the landscape because little or no water inundation will occur. Ground covers should require infrequent mowing to reduce the cost of maintaining this landscape. Placement of plants in Zone 6 is important since they are often used to create a visual focal point, frame a desirable view, screen undesirable views, serve as a buffer, or provide shade to allow a greater variety of plant materials. Particular attention should be paid to seasonal color and texture of these plantings.

Some frequently used plant species in Zone 6 include:

Large growing trees such as basswood (*Tilia americana*), white oak (*Quercus alba*), scarlet oak (*Quercus coccinea*), Black oak (*Quercus velutina*), American beech (*Fagus grandifolia*), white ash (*Fraxinus americana*), Tulip poplar (*Liriodendron tulipifera*) and white pine (*Pinus strobus*); and small ornamental trees such as Flowering dogwood (*Cornus florida*) and redbud (*Cercis canadensis*). The herbaceous layer should be seeded or planted with a mix of warm season grasses and wildflowers.

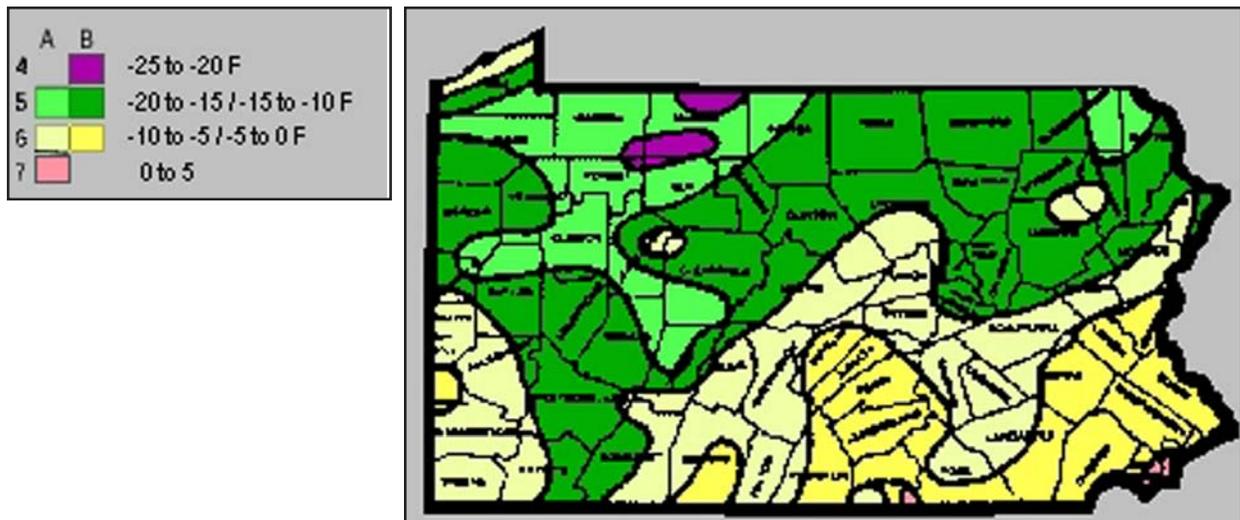
## **Inundation Tolerance**

Inundation Tolerance gives information about frequency and depth of inundation that plant species can tolerate during the growing season. A “no” indicates plants that do not survive saturated soils or standing water during the growing season. These are typically upland plants. “Saturated” indicates plants that survive inundation and saturated soils, typically during greater than 50% of the growing

season. "Seasonal" indicates that the plant is able to withstand occasional inundation and saturated soils, typically during less than 50% of the growing season. Available information on water depths tolerated by aquatic plants are provided where available. It is difficult to give the exact hydrologic requirements of plants in a general list such as this. As such, we suggest that further research be performed to confirm the requirements of particular species.

## Hardiness Zone

Ideal hardiness zone ranges are given for the plants. These zone numbers correspond to the "USDA Plant Hardiness Zone Map". Pennsylvania is mainly in zones five (5) and six (6). There is a small area of zone four (4) located in the northwestern part of the state and a small area of zone seven (7) located in the southeast. The map is available on line through the USDA. <http://www.usna.usda.gov/Hardzone/index.html>



USDA Hardiness Zones for Pennsylvania

## Commercial Availability

Care was taken to develop a list of plants that would be both successful and obtainable. It is still important to plan ahead and locate plant materials in advance of planting. Plant materials should be located at least six (6) months in advance of planting. This gives enough time to locate approved substitutions in the case that some species are unavailable

## Wildlife Value

Attracting beneficial wildlife increases the function and value of a BMP. Wildlife pollinates plants, distributes seed, and enhances the ecological value of the wetland. Note that some wildlife, such as Canada goose and muskrat can be problematic and will destroy new plantings unless exclusion fencing is provided.

## Notes

This column contains helpful details about the plant species.

BMP PLANT LIST

Common Name	Scientific Name	Plant Type	Wetland Indicator	Hydrologic Zone	Inundation Tolerance	Hardiness Zone	Commercial Availability	Wildlife Value	Notes
Fern, hay-scented	<i>Dennstaedtia punctilobula</i>	Fern	NI	4,5,6	No	4-8	Plants	Tolerate Deer Browsing.	Shade to partial sun.
Fern, marginal shield	<i>Dryopteris marginalis</i>	Fern	FACU-	4,5,6	No	5-8	Plants		Partial sun. Shade tolerant. Evergreen.
Fern, sensitive	<i>Onoclea sensibilis</i>	Fern	FACW	[3,4],5	Saturated	4-9	Plants	Moderate. Songbirds and small mammals.	Full to partial sun. Shade tolerant
Fern, cinnamon	<i>Osmunda cinnamomea</i>	Fern	FACW	2,[3,4]	Saturated	4-8	Plants	Moderate. Songbirds and small mammals.	Full to partial sun. Shade tolerant. Young "fiddle heads"
Fern, royal	<i>Osmunda regalis</i>	Fern	OBL	2,[3,4]	Saturated	4-9	Plants	Moderate. Small mammals.	Full to partial sun. Shade tolerant.
Fern, New York	<i>Thelypteris noveboracensis</i>	Fern	FAC	[3,4],5	Saturated	2-8	Plants	Moderate. Songbirds and small mammals.	Partial sun. Shade tolerant. Drought tolerant.
Sweetflag	<i>Acorus americanus</i>	Forb	OBL	3,4	Seasonal		Plants, Rhizomes	Low food. Good cover.	Tolerant of dry periods. Not a rapid colonizer. Tolerates acidic conditions.
Plantain, water	<i>Alisma plantago-aquatica (subcordatum)</i>	Forb	OBL			3-7			
Columbine, wild	<i>Aquilegia canadensis</i>	Forb	FAC	[4,5],6	No	3-8	Plants, Seed	Moderate. Butterflies, hummingbirds, and beneficial insects.	Full sun to full shade. Spreads by seed. Early spring flowers.
Milkweed, swamp	<i>Asclepias incarnata</i>	Forb	OBL	2,[3,4]	Saturated, 0-6"	3-8	Plants, Seed	Moderate. Butterflies, small mammals, and beneficial insects.	Full to partial sun. Drought tolerant. Not eaten by wildlife. Attractive flowers.
Milkweed, common	<i>Asclepias syriaca</i>	Forb	NI	5,6	No	4-9	Plants, Seed	High. Food for butterflies (esp. Monarch) and beneficial insects.	Full sun. Drought tolerant.
Butterflyweed	<i>Asclepias tuberosa</i>	Forb	NI	5,6	No	4-10	Plants, Seed	Moderate. Butterflies and beneficial insects.	Full to partial sun. Attractive orange flower.
Aster, white wood	<i>Aster divaricatus</i>	Forb	NI	4,[5,6]	No	4-8	Plants	Low. Butterflies and beneficial insects.	Very shade tolerant. Long lasting white flowers.
Aster, New England	<i>Aster novae-angliae</i>	Forb	FACW	[3,4],5	Seasonal	3-9	Plants, Seed	Cover for birds and mammals.	Attractive purple flowers. Tolerates dry soils.
Aster, New York	<i>Aster novibelgii</i>	Forb	FACW+	[3,4],5	Seasonal		Plants, Seed	Low. Butterflies and beneficial insects.	Pale purple flowers. Tolerates dry soils.
Trumpetweed	<i>Eupatorium fistulosum</i>	Forb	FACW	[3,4],5	Seasonal		Plants, Seed	Moderate. Butterflies, songbirds, and beneficial insects.	Full to partial sun. Tall plant with pink-purple flowers.
Joe-pye-weed, spotted	<i>Eupatorium maculatum</i>	Forb	FACW	[3,4],5	Seasonal		Plants, Seed	Moderate. Butterflies, songbirds, and beneficial insects.	Full to partial sun. Tall plant with pale purple flowers.
Boneset	<i>Eupatorium perfoliatum</i>	Forb	FACW+	[2,3],4	Seasonal		Plants, Seed	Moderate. Butterflies, songbirds, and beneficial insects.	Full to partial sun. Shade tolerant. Long lasting white
Joe-pye-weed, purple	<i>Eupatorium purpureum</i>	Forb	FAC	3,[4,5]	Seasonal		Plants, Seed	Moderate. Butterflies, songbirds, and beneficial insects.	Full to partial sun. Tall with show flower.
Hibiscus, marsh	<i>Hibiscus moscheutos</i>	Forb	OBL	2,3	0-12"	5-11	Plants	Low. Hummingbirds.	Full to partial sun. Persistent during winter. Drought tolerant. Very showy pink to white flowers.

Common Name	Scientific Name	Plant Type	Wetland Indicator	Hydrologic Zone	Inundation Tolerance	Hardiness Zone	Commercial Availability	Wildlife Value	Notes
Iris, blue flag	<i>Iris versicolor</i>	Forb	OBL	2,[3,4]	0-6"	2-7	Plants, Seed	Moderate. Food muskrat and wildfowl. Cover, marshbirds. Persists under heavy grazing.	Slow growth. Full sun to partial shade. Tolerates clay. Fresh to moderately brackish water. Attractive blue flower.
Cardinal flower	<i>Lobelia cardinalis</i>	Forb	FACW+	3,4	Saturated	2-8	Plants, Seed	High. Nectar for hummingbird, oriole, butterflies.	Tolerates partial shade. Does not persist well. Blood red flower. Full to partial sun. Shade tolerant. Attractive blue flower.
Blue lobelia	<i>Lobelia siphilitica</i>	Forb	FACW+	3,4	Saturated		Plants, Seed	Moderate. Butterflies, hummingbirds, songbirds, and beneficial insects.	Full to partial sun. Shade tolerant. Attractive blue flower.
Monkey-flower	<i>Mimulus ringens</i>	Forb	OBL	3,4	Saturated	4-10	Plants, Seed	Low.	Full to partial sun. Interesting flower.
Beebalm, Oswego-tea	<i>Monarda didyma</i>	Forb	FAC+	[4,5],6	No	4-9	Plants, Seed	Moderate. Butterflies, hummingbirds, and beneficial insects.	Full to partial sun. Showy red flowers and fragrant leaves. Sunny, well drained soils.
Beebalm, wild bergamot	<i>Monarda fistulosa</i>	Forb	UPL	5,6	No		Plants, Seeds	Moderate. Butterflies, hummingbirds, and beneficial insects.	Performs well from seed. Lavender flower.
Waterlily, white	<i>Nymphaea odorata</i>	Forb	OBL	1	1-3'		Plants	Moderate. Good cover for fish.	Full sun to partial shade. Floating leaf with white flower.
Arrow arum	<i>Peltandra virginica</i>	Forb	OBL	[1,2],3	0-1'	5-9	Plants, Bulb, Seed	High. Berries are eaten by wood ducks.	Full sun to partial shade. NOT eaten by geese or muskrats.
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	Forb	FACW	2,[3,4]	Saturated, 0-6"		Plants, Seed	High. Good annual seed crop.	Annual, non-persistent.
Pickeringweed	<i>Pontederia cordata</i>	Forb	OBL	1,[2,3]	0-1'	4-11	Plants, Seed	Moderate. Ducks. Nectar for butterflies.	Full sun to partial shade. Attractive purple flower spikes. Rapid spread. Flowers float on surface. Aug.-Sept. Deep water plant. Turbidity affects rooting death.
Pondweed, long-leaf	<i>Potamogeton nodosus</i>	Forb	OBL	1	1' min - 6'		Plants	High. Food (seeds, roots) waterfowl, aquatic furbearers, deer, moose. Habitat for fish.	Removes heavy metals. Deep water plant. Turbidity affects rooting depth.
Pondweed, sago	<i>Potamogeton pectinatus</i>	Forb	OBL	1	1' min - 24'		Plants	Extremely high. Waterfowl, marsh and shorebirds.	Full sun to partial sun. Flowers form seed in the first year.
Black-eyed susan	<i>Rudbeckia hirta</i>	Forb	FACU-	4,[5,6]	No	3-7	Plugs, Seed	Moderate. Butterflies, songbirds, and beneficial insects.	Aggressive colonizer. Shown to have good nutrient uptake properties.
Arrowhead, duck potato	<i>Sagittaria latifolia</i>	Forb	OBL	[1,2],3	0-2'	3-11	Plants, Bare-root, Seed	Moderate. Tubers and seeds eaten by ducks.	Aggressive colonizer. Shade tolerant. Interesting white flower spike.
Lizards tail	<i>Saururus cernuus</i>	Forb	OBL	[2,3],4	0-1'	4-11	Plants	Low, except wood ducks.	Full to partial sun. Grows well in infertile soils. Silvery white bloom.
Goldenrod, silverrod	<i>Solidago bicolor</i>	Forb	NI	5,6	No		Plants, Seed	Moderate. Butterflies, songbirds, and small mammals.	Full to partial sun. Attractive yellow blooms.
Goldenrod, roughleaf	<i>Solidago patula</i>	Forb	OBL	3,4	Saturated		Seed, Plants	Moderate. Butterflies, songbirds, and small mammals.	Full to partial sun. Attractive yellow blooms.
Goldenrod, stiff	<i>Solidago rigida</i>	Forb	UPL	5,6	No		Plants, Seed	Moderate. Butterflies, songbirds, and small mammals.	Full to partial sun. Attractive yellow blooms.

Common Name	Scientific Name	Plant Type	Wetland Indicator	Hydrologic Zone	Inundation Tolerance	Hardiness Zone	Commercial Availability	Wildlife Value	Notes
Goldenrod, wrinkleleaf	<i>Solidago rugosa</i>	Forb	FAC	3,[4],5	No		Plants, Seed	Moderate. Butterflies, songbirds, small mammals, and beneficial insects.	Full to partial sun. Attractive yellow blooms.
Celery, wild	<i>Vallisneria spiralis</i>	Forb	OBL	1	1' min		Plants, Seed	High. Food for waterfowl. Habitat for fish and invertebrates.	Tolerant of murky water and high nutrient loads. Turbidity affects rooting depth.
Vervain, blue	<i>Verbena hastata</i>	Forb	FACW-	3,4	Saturated		Plants, Seed	Moderate. Butterflies, songbirds, waterfowl, and small mammals.	Full to partial sun. Performs well from seed.
Ironweed, New York	<i>Vernonia noveboracensis</i>	Forb	FACW+	3,4	Saturated		Plants, Seed	Moderate for butterflies.	Full to partial sun. Tall plant with attractive purple flowers.
Coneflower, eastern purple	<i>Echinacea purpurea</i>	Forb	NI	4,[5],6	No		Plants, Seed	High. Butterflies and birds.	Full sun to partial shade. Long summer bloom with showy rose-purple flowers.
Bluestem, big	<i>Andropogon gerardii</i>	Grass	FAC	[4],5,6	No	3-9	Seed, Plants	High. Seeds for songbirds. Food for deer.	Requires full sun.
Broomsedge	<i>Andropogon virginicus</i>	Grass	FACU-	5,6	No	2-7	Seed, Plants	High. Songbirds and browsers. Winter food and cover.	Tolerant of fluctuation water levels and partial shade.
Grass, reedtop	<i>Argostis gigantea</i>	Grass	FACW	2,[3],4	Seasonal		Seed, Plants	Cover and food for small mammals.	Quick cover for erosion prone areas.
Reedgrass, bluejoint	<i>Calamagrostis canadensis</i>	Grass	FACW+	2,[3],4	0-6", saturated		Seed, Plants		
Mannagrass, fowl	<i>Glyceria striata</i>	Grass	OBL	[2],[3],4	Seasonal		Plants, Seed		
Fowl mannagrass	<i>Glyceria striata</i>	Grass	OBL	[2],[3],4	Seasonal		Plants, Seed	High. Food for waterfowl, muskrat, and deer.	Partial to full shade.
Cutgrass, rice	<i>Leersia oryzoides</i>	Grass	OBL	[2],[3],4	0-6"		Plants, Seed	High. Food and cover.	Full sun although tolerant of shade. Shoreline stabilization.
Switchgrass	<i>Panicum virgatum</i>	Grass	FAC	[4],5,6	Seasonal	4-9	Seed and Plants	High. Seeds, cover for waterfowl, songbirds.	Tolerates wet/dry conditions.
Indiangrass	<i>Sorghastrum nutans</i>	Grass	UPL	5,6	No	3-9	Seed, Plants	High. Good food and cover.	Full sun. Grows 4-6 feet tall.
Bluestem, little	<i>Schizachyrium scoparium</i>	Grass	FACU-	6	No	3-9	Seed, Plants		Full sun. Tolerates poor soils and drought.
Sedge, fringed	<i>Carex crinita</i>	Grass-like	OBL	2,[3],4	Saturated		Plants, Seed	Moderate. Songbirds and waterfowl. Good food and cover.	Full to partial sun.
Sedge, Pennsylvania	<i>Carex pennsylvanica</i>	Grass-like	NI	5,6	Yes	4-8	Plants, Seed	Moderate. Songbirds and waterfowl.	Partial sun. Shade tolerant.
Sedge, broom	<i>Carex scoparia</i>	Grass-like	FACW	3,[4],5	Sat. 0-6"		Plants, Seed	Moderate. Good food and wildlife cover.	Tolerates moist to dry conditions.
Sedge, tussock	<i>Carex stricta</i>	Grass-like	OBL	1,[2],[3],4	Sat. 0-6"	5-9	Plants, Seed	Moderate. Songbirds.	Full sun. Persists during winter.
Sedge, fox	<i>Carex vulpinoidea</i>	Grass-like	OBL	1,2,[3],4	Sat. 0-6"		Plants, Seed	High. Songbirds and waterfowl.	Full to partial sun. Prefers fluctuating water levels.
Rush, Canada	<i>Juncus canadensis</i>	Grass-like	OBL	2,[3],4	Sat. 0-6"		Plants, Seed	Moderate. Songbirds, waterfowl, and small mammals	Full to partial sun. Shown to have good nutrient uptake
Rush, soft	<i>Juncus effusus</i>	Grass-like	FACW+	[2],[3],4	0-1'	3-8	Plants, Seed	Moderate	Tolerates occasional dry conditions. Full to partial sun. Shown to have good nutrient uptake properties.

Common Name	Scientific Name	Plant Type	Wetland Indicator	Hydrologic Zone	Inundation Tolerance	Hardiness Zone	Commercial Availability	Wildlife Value	Notes
Bulrush, hard-stem	<i>Scirpus acutus</i>	Grass-like	OBL	[1,2],3	0-3'		Plants, Seed	High. Cover, food (achenes, rhizomes) ducks, geese, muskrat, fish. Nesting for bluegill and bass.	Quick to establish, fresh to brackish. Good for sediment stabilization and erosion control. Shown to have good nutrient uptake. Can tolerate acidic soils, drought. Colonizes disturbed areas, moderate growth. Shown to have good nutrient uptake.
Woolgrass	<i>Scirpus cyperinus</i>	Grass-like	FACW	2,[3,4]	Saturated	4-8	Plants, Seed	Moderate. Cover, food.	Requires full sun. Can tolerate acidic soils, drought. Colonizes disturbed areas, moderate growth. Shown to have good nutrient uptake.
Bulrush, three-square	<i>Scirpus pungens</i>	Grass-like	FACW+	[2,3],4	Saturated, 0-6"		Plants, Seed	High. Seeds, cover. Waterfowl and fish.	Shown to have good nutrient uptake. High metal removal. Drought tolerant.
Bulrush, softstem	<i>Scirpus tabermonitanii</i>	Grass-like	OBL	1,[2,3]	0-1'		Plants, Seed	High. Good cover and food.	Full sun. Aggressive colonizer. High pollutant removal.
Bur-reed, American	<i>Sparganium americanum</i>	Grass-like	OBL	[2,3],4	Saturated, 0-6"		Plants, Seed	Good food and cover.	Spreads rapidly. Tolerates partial shade.
Bur-reed, giant	<i>Sparganium eurycarpum</i>	Grass-like	OBL	1,[2,3]	0-12"		Plants, Seed	High. Food (seeds, plant) waterfowl, beaver and other mammals. Cover for marshbirds, waterfowl.	Rapid spreading. Tolerates partial sun. Good for shoreline stabilization. Salinity <0.5 ppt. Spreads rapidly, can be invasive.
Cattail, narrowleaf	<i>Typha angustifolia</i>	Grass-like	OBL	1,[2,3]	0-1'	3-11	Plants	Low food. Good nesting and cover.	Shown to have good nutrient uptake properties.
Cattail, broadleaf	<i>Typha latifolia</i>	Grass-like	OBL	1,[2,3]	0-1'	3-9	Plants	Low food. Good nesting and cover.	Spreads rapidly, can be invasive. Shown to have good nutrient uptake properties.
Alder, speckled	<i>Alnus rugosa</i>	Shrub	FACW+	2,3	Saturated		Yes	High. Cover, browse for deer, seeds for birds.	Rapid growth. Stabilizes streambanks. Roots fix N2.
Alder, smooth	<i>Alnus serrulata</i>	Shrub	OBL	[1,2],3	Saturated, 0-3"		Yes	High. Food, cover.	Rapid growth. Stabilizes streambanks. Roots fix N2.
Choke Berry, Red	<i>Aronia arbutifolia</i>	Shrub	FACW	3,[4,5]	Seasonal	4-9	Yes	Moderate. Songbirds.	Bank stabilizer. Partial sun. White flowers with red fruit.
Choke Berry, Black	<i>Aronia melanocarpa</i>	Shrub	FAC	3,[4,5]	Seasonal		Yes	Moderate. Songbirds.	Partial sun. White flowers with black fruit.
Bottonbush, common	<i>Cephalanthus occidentalis</i>	Shrub	OBL	[1,2],3	0-3'	5-10	Yes	High. Ducks and shorebirds. Seeds, nectar and nesting.	Full sun to partial shade. Will grow in dry areas. Interesting flowers and seed.
Pepper-bush, sweet	<i>Clethra alnifolia</i>	Shrub	FAC+	[3,4],5	Seasonal	3-9	Yes	Moderate. Butterflies, songbirds, waterfowl, small mammals, and beneficial insects.	Partial sun. Shade tolerant. Attractive white flower spikes.
Dogwood, silky	<i>Cornus amomum</i>	Shrub	FACW	[3,4],5	Seasonal	5-8	Yes	High. Songbirds and mammals.	Shade and drought tolerant. Good bank stabilizer. White flowers with blue fruit. Stems have good winter color.

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Dogwood, gray	<i>Cornus racemosa</i>	Shrub	FAC	3,[4,5]	Seasonal		Yes	High. Songbirds, waterfowl, and small mammals.	Full to partial sun. Shade tolerant. Drought tolerant. White flowers and fruit.
Dogwood, redbud	<i>Cornus sericea</i>	Shrub	FACW+	[3,4],5	Seasonal		Yes	High. Songbirds, waterfowl, and small mammals.	Full to partial sun. Shade tolerant. Drought tolerant. Good streambank stabilizer. White flowers and fruit.
Hazel-nut, American	<i>Corylus americana</i>	Shrub	FACU-	4,[5,6]	No	4-9	Yes	Moderate. Songbirds and small mammals	Partial sun to shade. Inhabits dry woodlands. Edible nuts. Wood used for divining rods.
Witch-hazel, American	<i>Hamamelis virginiana</i>	Shrub	FAC-	4,[5,6]	No	4-9	Yes	Low. Food for squirrels, deer, and ruffed grouse	Prefers shade. Ornamental. Unusual flowers in Nov.-Dec.
Inkberry	<i>Ilex glabra</i>	Shrub	FACW-	3,[4,5]	Seasonal		Yes	High. Songbirds, waterfowl, and small mammals.	Full to partial sun. Shade tolerant. Evergreen. Avoided by deer.
Winterberry, common	<i>Ilex verticillata</i>	Shrub	FACW+	[3,4],5	Seasonal	3-9	Yes	High. Cover and fruit for birds. Holds berries into winter.	Full sun to partial shade. Seasonally flooded areas. Red fruits persist through winter.
Spice Bush	<i>Lindera benzoin</i>	Shrub	FACW-	3,4,5	seasonal	5-9	Yes	Very high. Songbirds.	Shade and rich soils. Tolerates acidic soils. Good understory species. Red berries.
Bayberry, northern	<i>Myrica pennsylvanica</i>	Shrub	FAC	[3,4],5	Seasonal		Yes	High. Nesting, food, cover. Berries last into winter.	Coastal Plain species. Roots fix N2. Drought tolerant.
Azalea, swamp	<i>Rhododendron viscosum</i>	Shrub	OBL	[3,4],5	Saturated	3-9	Yes	Low. Waterfowl and small mammals.	Full to partial sun. Susceptible to damage from disease and insects. Showy pink and white flowers.
Sumac, smooth	<i>Rhus glabra</i>	Shrub	NI	4,[5,6]	No	3-8	Yes	High. Songbirds, small mammals, and beneficial insects.	Full sun. Drought resistant.
Rose, pasture	<i>Rosa carolina</i>	Shrub	NI	5,6	No	5-9	Yes	High. Songbirds and small mammals.	Full to partial sun.
Rose, swamp	<i>Rosa palustris</i>	Shrub	OBL	2,[3,4]	Saturated	5-8	Yes	High. Food (hips) for birds including turkey, ruffed grouse and mammals.	Prefers full sun. Easy to establish. Low salt tolerance. Avoided by deer.
Rose, Virginia	<i>Rosa virginiana</i>	Shrub	FAC	3,[4,5]	Seasonal	3-8	Yes	High. Songbirds, and small mammals.	Full to partial sun.
Blackberry, common	<i>Rubus allegheniensis</i>	Shrub	FACU-	4,5,6	No		Yes	High. Butterflies, songbirds, small mammals, and beneficial insects.	Full to partial sun. Edible fruit.
Willow, pussy	<i>Salix discolor</i>	Shrub	FACW	[3,4],5	Yes	4-8	Yes	Low. Buds eaten by grouse.	Furry catkins are a harbinger of spring. Good streambank stabilizer. Roots easily from cuttings.
Elderberry	<i>Sambucus canadensis</i>	Shrub	FACW-	3,4,5,6	Yes	3-9	Yes	Extremely high. Food and cover, birds and mammals.	Full sun to partial shade. Drought tolerant. Bears fruit when four years old.
Blueberry, highbush	<i>Vaccinium corymbosum</i>	Shrub	FACW-	[3,4],5,6	Seasonal	3-8	Yes	High. Butterflies, songbirds, waterfowl, and small mammals.	Full to partial sun. Shade tolerant. Prefers acid soils. Attractive plant year round.

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Arrow-wood, southern	<i>Viburnum dentatum</i>	Shrub	FAC	3,[4-5],6	Seasonal	4-8	Yes	High. Songbirds and mammals.	Grows best in sun to partial shade. Drought tolerant.
Black-haw	<i>Viburnum prunifolia</i>	Shrub	FACU	4,5,6	No	3-9	Yes	High. Songbirds and small mammals.	Full to partial sun. Shade tolerant.
Box-elder	<i>Acer negundo</i>	Tree	FAC+	3,[4,5]	Seasonal	2-9	Yes	Moderate. Songbirds and small mammals.	Full to partial sun. Forms thickets. Wood can be brittle.
Maple, red	<i>Acer rubrum</i>	Tree	FAC	3,[4,5]	Seasonal	3-9	Yes	High. Seeds and browse.	Rapid growth. Tolerates acidic soil.
Maple, silver	<i>Acer saccharinum</i>	Tree	FACW	3,[4,5]	Seasonal	3-9	Yes	Moderate. Songbirds and small mammals. Excellent for cavity nesting wildlife.	Full to partial sun.
Birch, river	<i>Betula nigra</i>	Tree	FACW	[3,4],5	Seasonal	4-9	Yes	High. Songbirds.	Bank erosion control. Full sun. Nice ornamental.
Birch, gray	<i>Betula populifolia</i>	Tree	FAC	[4,5],6	Seasonal		Yes	Moderate. Songbirds.	Short lived tree (30-50 years). Early successional species.
Ironwood	<i>Carpinus caroliniana</i>	Tree	FAC	3,[4-5],6	Seasonal	3-9	Yes	Moderate. Songbirds, waterfowl, and small mammals.	Partial sun. Shade tolerant. Small understory tree. Smooth gray bark.
Hickory, sweet pignut	<i>Carya glabra</i>	Tree	FACU-	4,[5,6]	No	4-9	No	Moderate. Songbirds, waterfowl, and small mammals.	Full to partial sun. Hardy and slow growing.
Hickory, shag-bark	<i>Carya ovata</i>	Tree	FACU-	4,[5,6]	No	4-8	Yes	Moderate. Songbirds, waterfowl, and small mammals.	Full sun. Distinctive peeling bark.
Cedar, Atlantic white	<i>Chamaecyparis thyoides</i>	Tree	OBL	[1,2],3,4	Saturated	4-8	Yes		Partial sun. Shade tolerant. Edible nuts, prolific seed production. Usually found in areas with fluctuating water tables. Evergreen.
Beech, American	<i>Fagus grandifolia</i>	Tree	FACU	4,[5,6]	No	4-9	Yes	High. Songbirds, waterfowl, and small mammals.	Full to partial sun. Good nut crop every 2-3 years. Smooth gray bark.
Ash, white	<i>Fraxinus americana</i>	Tree	FACU	4,[5,6]	No	4-9	Yes	High. Food.	All sunlight conditions. Well drained soils. Grows to 100' tall.
Ash, black	<i>Fraxinus nigra</i>	Tree	FACW	3,4,5	Saturated		Yes	Moderate.	Rapid growth.
Ash, green	<i>Fraxinus pennsylvanica</i>	Tree	FACW	3,4,5	Seasonal	2-9	Yes	Moderate. Songbirds. Prolific seeder.	Rapid growing streambank stabilizer. Full sun to partial shade. Small tree, 30-50' tall.
Holly, American	<i>Ilex opaca</i>	Tree	FACU	4,5,6	No	5-9	Yes	Moderate. Songbirds.	Full to partial sun. Shade tolerant. Evergreen. Attractive red fruits persist through winter.
Cedar, eastern red	<i>Juniperus virginiana</i>	tree	FACU	4,5,6	No	2-9	Yes	High. Songbirds and small mammals.	Full sun. Good wind break or screening plant. Early successional species. Evergreen.
Tuliptree	<i>Liriodendron tulipifera</i>	Tree	FACU	4,5,6	No	4-9	Yes	Moderate. Seeds and nest sites.	Full sun to partial shade. Well drained soils. Rapid growth. Grows to 120' tall.

Common Name	Scientific Name	Plant Type	Wetland Indicator	Hydrologic Zone	Inundation Tolerance	Hardiness Zone	Commercial Availability	Wildlife Value	Notes
Blackgum	<i>Nyssa sylvatica</i>	Tree	FACW+	2,[3,4],5	Seasonal	3-9	Yes	High. Songbirds, egrets, herons, raccoons, owls.	Can be difficult to transplant. Prefers sun to partial shade. Nice ornamental with deep red fall color.
Pine, pitch	<i>Pinus rigida</i>	Tree	FACU	4,5,6	No	4-7	Yes	High. Songbirds and small mammals.	Full sun. Old trees are fire resistant due to their thick bark. Grows well on poor sites. Evergreen.
Pine, eastern white	<i>Pinus strobus</i>	Tree	FACU	4,5,6	No	3-8	Yes	High. Songbirds and small mammals.	Full sun. Rapid growth. Large and long lived tree. Evergreen.
Sycamore, American	<i>Platanus occidentalis</i>	Tree	FACW-	[3,4],5	Seasonal	4-9	Yes	Low. Food, cavities for nesting.	Rapid growth. Common in floodplains and alluvial woodlands. Drought tolerant. Shallow rooted, subject to windthrow. Invasive roots. Will grow on dry sites. Weak wood.
Cotton-wood, eastern	<i>Populus deltoides</i>	Tree	FAC	[3,4],5	Seasonal	2-9	Yes	Moderate. Cover, food.	Rapid growth and short lived (40-50 years).
Aspen, big-tooth	<i>Populus grandidentata</i>	Tree	FACU	[4,5,6]	No		Yes	Moderate. Ruffed Grouse eats buds and catkins.	Nice fall color. Short lived tree. Moist soils or wet bottomland areas. Excellent fruit production.
Aspen, quaking	<i>Populus tremuloides</i>	Tree	FACU	[4,5],6	Seasonal	1-7	Yes	Moderate. Buds and some nesting.	Rapid growth. Common in floodplains and alluvial woodlands. Drought tolerant. Shallow rooted, subject to windthrow. Invasive roots. Will grow on dry sites. Weak wood.
Cherry, black	<i>Prunus serotina</i>	Tree	FACU	[4,5],6	No	2-8	Yes	High. Food.	Nice fall color. Short lived tree. Moist soils or wet bottomland areas. Excellent fruit production.
Oak, white	<i>Quercus alba</i>	Tree	FACU	4,5,6	No	3-9	Yes	High. Songbirds and small mammals.	Full sun to partial shade. Good bottomland tree. Drought tolerant. Nice ornamental.
Oak, swamp white	<i>Quercus bicolor</i>	Tree	FACW+	2,[3,4],5	Seasonal	4-8	Yes	High. Songbirds, waterfowl and small mammals.	Full sun to partial shade. Good bottomland tree. Drought tolerant. Nice ornamental.
Oak, scarlet	<i>Quercus coccinea</i>	Tree	NI	5,6	No	4-9	Yes	High. Songbirds and small mammals.	Full sun to partial shade. Good bottomland tree. Drought tolerant. Nice ornamental.
Oak, pin	<i>Quercus palustris</i>	Tree	FACW	[3],4,5,6	Seasonal	4-8	Yes	High. Songbirds and small mammals.	Full sun to partial shade. Good bottomland tree. Drought tolerant. Nice ornamental.
Oak, willow	<i>Quercus phellos</i>	Tree	FAC+	[3,4],5	Seasonal	5-9	Yes	High. Songbirds, waterfowl, and small mammals.	Full sun to partial shade. Good bottomland tree. Drought tolerant. Nice ornamental.
Oak, red	<i>Quercus rubra</i>	Tree	FACU-	5,6	No	3-8	Yes	High. Songbirds and small mammals.	Full sun to partial shade. Good bottomland tree. Drought tolerant. Nice ornamental.
Willow, black	<i>Salix nigra</i>	Tree	FACW+	[2,3],4	Seasonal		Yes	High. Browsing and cavity nesters.	Full sun to partial shade. Good bottomland tree. Drought tolerant. Nice ornamental.
Bald Cypress	<i>Taxodium distichum</i>	Tree	OBL	1,[2,3],4	Saturated, 0-2'	4-9	Yes	Little food value, but good perching site for waterfowl.	Full sun to partial shade. Good bottomland tree. Drought tolerant. Nice ornamental.
Basswood, American	<i>Tilia americana</i>	Tree	FACU	[4,5],6	No	2-8	Yes	Moderate. Butterflies, songbirds, small mammals, and beneficial insects.	Partial sun. Shade tolerant. Important pollen source for honey bees.

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Serviceberry, downy	<i>Amelanchier arborea</i>	Tree (small)	FAC-	3,[4,5],6	Seasonal	4-9	Yes	Moderate. songbirds and small mammals.	Partial sun. Shade tolerant. Very early spring flowers. Handsome tree.
Serviceberry, shadbush	<i>Amelanchier canadensis</i>	Tree (small)	FAC	4,5,6	Seasonal	4-7	Yes	High. Nesting, cover, food. Birds and mammals.	Prefers partial shade. Common in forested wetlands and upland woods. Very early spring flowers. Full sun to partial shade. Small tree 30-50' tall. Fruit persists into winter.
Hackberry, common	<i>Celtis occidentalis</i>	Tree (small)	FACU	4,5,6	No	3-9	Yes	High. Food and cover.	
Redbud, eastern	<i>Cercis canadensis</i>	Tree (small)	FACU-	4,5,6	No	4-9	Yes	Moderate. Butterflies, songbirds, and small mammals.	Partial sun. Shade tolerant. Nitrogen fixer. Nice ornamental. Full sun to partial shade. Small tree 30-50' tall. Fruit persists into winter.
Hackberry, common	<i>Celtis occidentalis</i>	Tree (small)	FACU	4,5,6	No	3-9	Yes	High. Food and cover.	
Redbud, eastern	<i>Cercis canadensis</i>	Tree (small)	FACU-	4,5,6	No	4-9	Yes	Moderate. Butterflies, songbirds, and small mammals.	Partial sun. Shade tolerant. Nitrogen fixer. Nice ornamental. Full sun to partial shade. Understory plant in hardwood forests. Nice ornamental.
Dogwood, flowering	<i>Cornus florida</i>	Tree (small)	FACU-	4,5,6	No	5-9	Yes	High. Songbirds, waterfowl, and small mammals. Fruits eaten by >100 species of bird.	
Magnolia, sweetbay	<i>Magnolia virginiana</i>	Tree (small)	FACW+	[3,4],5	Seasonal		Yes	Moderate. Seeds.	Southeast part of state. Shade and drought tolerant. Attractive and fragrant flowers.