

APPENDIX B - PLANT LISTS

The following lists provide a selection of mostly native plant species recommended for use in the project area and should be used as guidance for future plantings. Several ornamental species have been included for use in more parklike settings in prominent areas along the Parkway. A list of invasive species that should not be planted is also included. These species are not native to Massachusetts, invade native plant communities, exhibit vigorous growth and thus dominate over slow growing native plants forming monocultures with low habitat value.

A mixture of different plant characteristics and planting techniques can be used to achieve desired results. For restoration areas, especially in the Reservation, the use of live stakes (dormant cuttings), saplings, and tubelings can be a cost-efficient method for establishing successional plant communities. Other innovative planting techniques such as pre-vegetated coir mattresses (herbaceous plants pre-grown in a coconut fiber substrate in a nursery) can be used in areas where rapid plant cover is desired to prevent erosion and limit soil disturbance. Plantings should incorporate a large variety of species to strengthen the goal of creating diverse habitats.

WET MEADOW SEED MIX

SCIENTIFIC NAME

*Andropogon gerardii**
*Asclepias incarnata**
*Aster laevis**
*Aster novae-angliae**
Avena sativa
*Carex stipata**
*Carex stricta**
*Elymus canadensis**
*Elymus virginicus**
*Eupatorium fistulosum**
*Eupatorium perfoliatum**
Juncus effusus var. *solutus**
Lobelia cardinalis *
*Monarda fistulosa**
*Panicum virgatum**
*Scirpus cyperinus**

COMMON NAME

Big Bluestem
Swamp Milkweed
Smooth Aster (BA)
New England Aster (BA)
Seed Oats
Awl Sedge
Tussock Sedge
Canada Wild Rye (BA)
Virginia Wild Rye (BA)
Joe Pye Weed (BA)
Boneset
Soft Rush
Cardinal Flower
Wild Bergamot (BA)
Switchgrass (BA)
Wool Grass

*Sorghastrum nutans**
*Verbena hastata**

Indiangrass
Blue Vervain (BA)

DRY MEADOW SEED MIX

SCIENTIFIC NAME

*Andropogon gerardii**
*Asclepias syriaca**
*Asclepias tuberosa**
*Aster laevis**
*Aster lateriflorus**
*Aster novae-angliae**
*Chamaecrista fasciculata**
*Coreopsis rosea**
*Desmodium canadense**
*Elymus canadensis**
*Elymus villosus**
*Festuca rubra rubra**
*Lespedeza capitata**
*Lupinus perennis**
*Monarda fistulosa**
*Panicum virgatum**
*Poa palustris**
Rudbeckia hirta
*Schizachyrium scoparium**
*Solidago canadensis**
*Solidago juncea**
*Sorghastrum nutans**
*Verbena hastata**

COMMON NAME

Big Bluestem
Common Milkweed
Butterflyweed
Smooth Aster
Calico Aster
New England Aster
Partridge Pea
Rose Coreopsis
Showy Tick Trefoil
Canada Wild Rye
Silky Wild Rye
Creeping Red Fescue
Roundheaded Bush Clover
Wild Blue Lupine
Wild Bergamot
Switchgrass (BA)
Fowl Meadow Bluegrass (BA)
Black-Eyed Susan (BA)
Little Bluestem (BA)
Canada Goldenrod
Early Goldenrod
Indiangrass
Blue Vervain

PARKWAY LOW-MOW TURF SEED MIX

SCIENTIFIC NAME

Avena sativa / *Lolium multiflorum*
Festuca rubra rubra
(‘Jasper II’, ‘Shademaster II’,
‘Salsa’, ‘Pathfinder’)
Festuca elatior arundinacea
(‘Rembrandt’, ‘Millenium’,
‘Masterpiece’, ‘Plantation’)

COMMON NAME

Seed Oats/Annual Rye
Creeping Red Fescue (SH)

Turf Type Tall Fescue

New and better turf varieties are developed and become available on the market at a rapid pace. Therefore, the following guidelines should be considered when specifying a seed mix: (1) a combination of at least four varieties of turf type tall fescues should be used, as currently recommended by the University of Massachusetts or University of Rhode Island; (2) a small amount of seed oats or annual rye should be added when immediate erosion control is required; and (3) the amount of creeping red fescue should be increased in shady locations.

WOODLAND/RIPARIAN SEED MIX

| SCIENTIFIC NAME | COMMON NAME |
|---|----------------------|
| <i>Anemone virginiana</i> * | Thimbleweed |
| <i>Aquilegia canadensis</i> * | Eastern Columbine |
| <i>Arisaema triphyllum</i> * | Jack-In-The-Pulpit |
| <i>Aster divaricatus</i> * | White Wood Aster |
| <i>Aster macrophyllus</i> * | Big Leave Aster |
| <i>Aster pilosus</i> * | Heath Aster |
| <i>Aster prenanthoides</i> * | Zig Zag Aster |
| <i>Carex comosa</i> * | Cosmos Sedge |
| <i>Carex vulpinoidea</i> * | Fox Sedge |
| <i>Caulophyllum thalictroides</i> * | Late Blue Cohosh |
| <i>Cimifuga racemosa</i> * | Black Cohosh |
| <i>Elymus riparius</i> * | Riverbank Wild Rye |
| <i>Elymus virginicus</i> * | Virginia Wild Rye |
| <i>Eupatorium maculatum</i> * | Spotted Joe Pye Weed |
| <i>Eupatorium perfoliatum</i> * | Boneset |
| <i>Geum laciniatum</i> * | Rough Avens |
| <i>Juncus effusus</i> var. <i>solutus</i> * | Soft Rush |
| <i>Mimulus ringens</i> * | Monkey Flower |
| <i>Osmorhiza claytonii</i> * | Sweet Cicely |
| <i>Smilacina racemosa</i> * | False Salomon's Seal |
| <i>Verbena hastata</i> * | Blue Vervain |

ORNAMENTAL PLANTINGS (PRIMARILY PARKWAY USE)

| SCIENTIFIC NAME | COMMON NAME |
|---|--------------------------|
| Deciduous Canopy Trees | |
| <i>Acer rubrum</i> 'October Glory'* | Swamp Red Maple (SA) |
| <i>Acer saccharum</i> 'Green Mountain'* | Sugar Maple (SA) (FH) |
| <i>Carya ovata</i> * | Shagbark Hickory |
| <i>Crataegus phaenopyrum</i> | Washington Hawthorn (FH) |
| <i>Crataegus viridis</i> 'Winter King' | Green Hawthorn (FH) |
| <i>Fraxinus pennsylvanica</i> * | Green Ash (SA) |
| <i>Liquidambar styraciflua</i> | Sweetgum (SA) (FH) |
| <i>Nyssa sylvatica</i> | Black Tupelo (SA) (FH) |
| <i>Ostrya virginiana</i> * | Ironwood (FH) |
| <i>Quercus coccinea</i> * | Scarlet Oak (SA) (FH) |
| <i>Quercus rubra</i> * | Red Oak (SA) (FH) |
| <i>Quercus velutina</i> * | Black Oak (SA) (FH) |
| <i>Sassafras albidum</i> * | Sassafras |
| <i>Ulmus americana</i> 'Valley Forge'* | American Elm (SA) (FH) |
| <i>Ulmus americana</i> 'New Harmony'* | American Elm (SA) (FH) |

SCIENTIFIC NAME**COMMON NAME****Evergreen Trees**

Pinus nigra
*Pinus resinosa**
*Pinus rigida**
*Pinus strobus**
Sciadopitys verticillata

Austrian Pine (SA)
 Red Pine
 Pitch Pine (SA)
 White Pine
 Japanese Umbrella Pine

Deciduous Flowering Understory Trees

*Amelanchier x grandiflora**
*Cornus alternifolia**
*Hamamelis virginiana**
Malus 'Pink Princess'
Malus sargentii
Prunus sargentii
Syringa reticulata

Apple Serviceberry
 Alternate-leaf Dogwood
 Common Witchhazel
 Flowering Crabapple (SA)
 Sargent Crabapple (SA)
 Sargent Cherry (SA)
 Japanese Tree Lilac (SA)

Deciduous Shrubs

*Comptonia peregrina**
*Ilex verticillata**
*Myrica pensylvanica**
*Vaccinium angustifolium**
*Vaccinium corymbosum**
*Viburnum cassinoides**

Sweetfern (SA)
 Winterberry (FH)
 Bayberry (SA)
 Lowbush Blueberry
 Highbush Blueberry
 Witherod Viburnum

Evergreen Shrubs

Ilex crenata convexa 'Compacta'
*Ilex glabra 'Compacta'**
*Kalmia latifolia**
Microbiota decussata
Rhododendron 'Scintillation'
Taxus baccata 'Repandens'
Taxus x media 'Wardii'

Japanese Holly (SA)
 Inkberry (SA)
 Mountain Laurel
 Russian Arborvitae
 Dexter Hybrid Rhododendron
 English Yew
 Anglojap Yew

Groundcovers

*Arctostaphylos uva-ursi**
Hemerocallis 'Hyperion'

Bearberry
 Daylily

Herbaceous Perennials

*Aquilegia canadensis**
*Asarum canadensis**
*Aster laevis**
*Athyrium filix-femina**
*Polystichum acrostichooides**
*Solidago speciosa**

Wild Columbine
 Wild Ginger
 Smooth Aster
 Lady Fern
 Christmas Fern
 Showy Goldenrod

RIPARIAN AND FLOODPLAIN PLANTINGS

SCIENTIFIC NAME

COMMON NAME

Deciduous Trees

| | |
|---------------------------------------|------------------------|
| <i>Acer rubrum</i> * | Swamp Red Maple (BA) |
| <i>Alnus rugosa</i> * | Speckled Alder (B) |
| <i>Betula lutea</i> * | Yellow Birch |
| <i>Betula nigra</i> * | River Birch (BA) (FH) |
| <i>Fraxinus americana</i> * | White Ash (BA) |
| <i>Larix laricina</i> * | Tamarack |
| <i>Nyssa sylvatica</i> * | Black Tupelo (BA) (FH) |
| <i>Populus deltoids</i> * | Cottonwood (B) |
| <i>Populus tremuloides</i> * | Quaking aspen |
| <i>Prunus serotina</i> * | Black Cherry |
| <i>Quercus bicolor</i> * | Swamp White Oak (FH) |
| <i>Quercus rubra</i> * | Red Oak (FH) |
| <i>Ulmus americana</i> 'Valley Forge' | American Elm (FH) |

Woody Understory

| | |
|------------------------------------|----------------------------|
| <i>Aronia arbutifolia</i> * | Red Chokeberry (BA) |
| <i>Aronia melanocarpa</i> * | Black Chokeberry (BA) |
| <i>Amelanchier canadensis</i> * | Shadblow Serviceberry (BA) |
| <i>Hamamelis virginiana</i> * | Witch Hazel (BA) |
| <i>Cephalanthus occidentalis</i> * | Buttonbush (B) |
| <i>Clethra alnifolia</i> * | Summersweet (BA) |
| <i>Cornus amomum</i> * | Silky dogwood (B) (BA) |
| <i>Cornus racemosa</i> * | Gray dogwood (B) |
| <i>Cornus stolonifera</i> * | Red-osier Dogwood (B) (BA) |
| <i>Ilex verticillata</i> * | Winterberry (FH) |
| <i>Kalmia angustifolia</i> * | Sheep Laurel |
| <i>Lindera benzoin</i> * | Spicebush (BA) |
| <i>Rhododendron viscosum</i> * | Swamp Azalea |
| <i>Salix discolor</i> * | Pussy Willow (B) |
| <i>Salix nigra</i> * | Black Willow (B) |
| <i>Sambucus canadensis</i> * | Elderberry (B) (BA) |
| <i>Spirea latifolia</i> * | Meadow Sweet |
| <i>Vaccinium corymbosum</i> * | Highbush Blueberry (BA) |
| <i>Viburnum dentatum</i> * | Arrowwood (B) (BA) |

Herbaceous Wetland Species

Deep Marsh

| | |
|--------------------------------|-------------------|
| <i>Acorus calamus</i> * | Sweet Flag |
| <i>Pontederia cordata</i> * | Pickerelweed |
| <i>Sagittaria latifolia</i> * | Arrowhead |
| <i>Scirpus acutus</i> * | Hard Stem Bulrush |
| <i>Scirpus validus</i> * | Soft-stem Bulrush |
| <i>Sparganium americanum</i> * | Burreed |
| <i>Typha latifolia</i> * | Common Cattail |
| <i>Nuphar lutea</i> | Yellow Water Lily |

Shallow Marsh

*Aster puniceus**

*Carex stricta**

*Eupatorium perfoliatum**

*Iris versicolor**

*Juncus canadensis**

Juncus effusus var. *solutus**

*Juncus tenuis**

*Scirpus atrovirens**

*Scirpus validus**

Swamp Aster

Tussock Sedge

Boneset

Blue Flag Iris

Canada Rush

Soft Rush

Path Rush

Green Bulrush

Soft-stem Bulrush

Herbaceous Understory

*Carex stricta**

*Carex vulpinoidea**

*Chelone lyonii**

*Elymus canadensis**

*Eupatorium maculatum**

*Eupatorium perfoliatum**

*Glyceria canadensis**

*Iris versicolor**

*Juncus effusus**

*Juncus tenuis**

*Leersia oryzoides**

*Lobelia cardinalis**

*Onoclea sensibilis**

*Osmunda regalis**

*Osmunda cinnamomea**

*Scirpus cyperinus**

*Scirpus validus**

*Scirpus fluviatilis**

*Symplocarpus foetidus**

Tussock Sedge (SH)

Foxtail sedge

Pink Turlehead (SH) (BA)

Canada Wildrye

Spotted Joe Pye Weed

Boneset

Canada manna-grass

Blue-flag Iris

Soft Rush

Path Rush

Rice Cutgrass

Cardinal Flower (SH)

Sensitive Fern (SH)

Royal Fern (SH)

Cinnamon Fern (SH)

Woolgrass

Giant Bulrush

River Bulrush

Skunk Cabbage (SH)

KEY

* Native plant in Massachusetts

(B) Plants suitable for bioengineering techniques such as live stakes and brush layers

(BA) Plants recommended for bioretention areas/raingardens

(SH) Shade tolerant plant species

(SA) Salt tolerant tree and shrub species suitable for planting along roadways

(FH) Fall Planting Hazard: Plants identified by Nurseries and Horticulture Institutes that suffer winter losses due to transplanting in fall season

INVASIVE SPECIES

The George Safford Torrey Herbarium, in Storrs, Connecticut, with input from other professionals and nursery representatives, has established several criteria for determining the invasiveness of non-native species. The criteria will be tested by research supported by grants from The Massachusetts Invasive Plant Working Group. The following is a provisional list of non-native invasive and potentially invasive plants in New England compiled by the Herbarium's Leslie J. Mehrhoff.

WIDESPREAD AND INVASIVE

| SCIENTIFIC NAME | COMMON NAME |
|--|----------------------|
| <i>Ailanthus altissima</i> (Mill.) Swingle | Tree-of-heaven |
| <i>Alliaria petiolata</i> (Bieb.) Cavara & Grande | Garlic mustard |
| <i>Berberis thunbergii</i> DC. | Japanese barberry |
| <i>Celastrus orbiculatus</i> Thunb. | Asiatic bittersweet |
| <i>Centaurea biebersteinii</i> DC. syn. <i>Centaurea maculosa</i> L. | Spotted knapweed |
| <i>Elaeagnus umbellata</i> Thunb. | Autumn olive |
| <i>Euphorbia cyparissias</i> L. | Cypress spurge |
| <i>Fallopia japonica</i> (Houtt.) Decraene syn. <i>Polygonum cuspidatum</i> Sieb. & Zucc. | Japanese Knotweed |
| <i>Frangula alnus</i> Mill. syn.: <i>Rhamnus frangula</i> L. | European Buckthorne |
| <i>Hesperis matronalis</i> L. | Dame's rocket |
| <i>Lonicera x bella</i> Zabel | Bella honeysuckle |
| <i>Lonicera morrowii</i> A. Gray | Morrow's honeysuckle |
| <i>Lytbrum salicaria</i> L. | Purple loosestrife |
| <i>Nasturtium officinale</i> R. Br. | Watercress |
| <i>Phragmites australis</i> (Cav.) Trin. | Common reed |
| <i>Rhamnus cathartica</i> L. | Buckthorne |
| <i>Robinia pseudoacacia</i> L. | Black locust |
| <i>Rosa multiflora</i> Thunb. | Multiflora rose |
| <i>Tussilago farfara</i> L. | Coltsfoot |
| <i>Vincetoxicum nigrum</i> (L.) Moench syn. <i>Cynanchum nigrum</i> (L.) Pers. syn. <i>Cynanchum louiseae</i> Kartesz & Gandhi | Black swallow-wort |

RESTRICTED AND INVASIVE

| SCIENTIFIC NAME | COMMON NAME |
|---|----------------------|
| <i>Aegopodium podagraria</i> L. | Goutweed |
| <i>Ampelopsis brevipedunculata</i> (Maxim.) Trautv. | Porcelain berry |
| <i>Butomus umbellatus</i> L. | Flowering rush |
| <i>Cabomba caroliniana</i> A. Gray | Fanwort |
| <i>Cardamine impatiens</i> L. | |
| <i>Egeria densa</i> Planchon | Brazilian water-weed |

| | |
|---|------------------------|
| <i>Euonymus alatus</i> (Thunb.) Sieb. | Winged euonymus |
| <i>Glyceria maxima</i> (Hartman) Holmberg | Tall mannagrass |
| <i>Iris pseudacorus</i> L. | Yellow iris |
| <i>Lepidium latifolium</i> L. | Tall pepperweed |
| <i>Lonicera japonica</i> Thunb. | Japanese honeysuckle |
| <i>Lysimachia nummularia</i> L. | Moneywort |
| <i>Lysimachia vulgaris</i> L. | Garden loosestrife |
| <i>Microstegium vimineum</i> (Trin.) A. Camus syn.: <i>Eulalia viminea</i> (Trin.) Kuntze | Japanese stilt grass |
| <i>Myriophyllum heterophyllum</i> Michx. | Variable water-milfoil |
| <i>Myriophyllum spicatum</i> L. | European water-milfoil |
| <i>Polygonum perfoliatum</i> L. | Mile-a-minute vine |
| <i>Potamogeton crispus</i> L. | Crispy-leaved pondweed |
| <i>Rubus phoenicolasias</i> Maxim. | Wineberry |
| <i>Trapa natans</i> L. | Water chestnut |
| <i>Vincetoxicum rossicum</i> (Kleo.) Barb. syn.: <i>Cynanchum rossicum</i> (Kleo.) Borhidi | Pale swallow-wort |

POTENTIALLY INVASIVE

SCIENTIFIC NAME

Acer ginnala L.
Acer platanoides L.
Acer pseudoplatanus L.
Aira caryophyllea L.
Allium vineale L.
Alnus glutinosa (L.) Gaertner
Amorpha fruticosa L.
Anthriscus sylvestris (L.) Hoffm.
Arthraxon hispidus (Thunb.) Makino
Berberis vulgaris L.
Bromus tectorum L.
Callitriche stagnalis Scop.
Cirsium arvense (L.) Scop.
Cirsium palustre (L.) Scop.
Datura stramonium L.
Elaeagnus angustifolia L.
Elsholtzia ciliata (Thunb.) Hylander
Epilobium hirsutum L.
Euphorbia esula L.
Froelichia gracilis (Hook.) Moq.
Geranium nepalense Sweet
Glechoma hederacea L.
Humulus japonicus Sieb. & Zucc.
Hydrilla verticillata (L. f.) Royle
Hydrocharis morsus-ranae L.
Hypericum prolificum L.

COMMON NAME

Amur maple
 Norway maple
 Sycamore maple
 Silver hairgrass
 Wild Garlic
 European black alder
 False indigo
 Wild chervil

 Common barberry
 Drooping brome-grass

 Canada thistle
 Marsh thistle
 Jimsom-weed
 Russian olive
 Elsholtzia
 Hairy willow-herb
 Leafy spurge
 Cottonweed
 Nepalese crane's-bill
 Gill-over-the-ground
 Japanese hops
 Hydrilla
 European frog's bit

| | |
|--|--------------------------------|
| <i>Impatiens glandulifera</i> Royle | Summer cypress |
| <i>Kochia scoparia</i> (L.) Schrader | Border privet |
| <i>Ligustrum obtusifolium</i> Sieb. & Zucc. | California privet |
| <i>Ligustrum ovalifolium</i> Hassk. | Chinese privet |
| <i>Ligustrum sinense</i> Lour. | European privet |
| <i>Ligustrum vulgare</i> L. | Amur honeysuckle |
| <i>Lonicera maackii</i> (Rupr.) Maxim. | Tatarian honeysuckle |
| <i>Lonicera tatarica</i> L. | European fly-honeysuckle |
| <i>Lonicera xylosteum</i> L. | Ragged robin |
| <i>Lychnis flos-cuculi</i> L. | Water shamrock |
| <i>Marsilea quadrifolia</i> L. | Eulalia |
| <i>Miscanthus sinensis</i> Anderss. | Forget-me-not |
| <i>Myosotis scorpioides</i> L. | Parrotfeather |
| <i>Myriophyllum aquaticum</i> (Vell.) Verdc. | Eutrophic water-nymph |
| <i>Najas minor</i> Allioni | Yellow floating heart |
| <i>Nymphoides peltata</i> (Gmel.) Kuntze | Scotch thistle |
| <i>Onopordum acanthium</i> L. | Star of Bethlehem |
| <i>Ornithogalum umbellatum</i> L. | Empress-tree |
| <i>Paulownia tomentosa</i> (Thunb.) Steudel | Reed canary-grass |
| <i>Phalaris arundinacea</i> L. | Canada blue-grass |
| <i>Poa compressa</i> L. | |
| <i>Polygonum cespitosum</i> Blume | White poplar |
| <i>Populus alba</i> L. | Kudzu |
| <i>Pueraria lobata</i> (Willd.) Owhi | Japanese rose |
| <i>Rosa rugosa</i> Thunb. | Lesser celandine |
| <i>Ranunculus ficaria</i> L. | Creeping buttercup |
| <i>Ranunculus repens</i> L. | Sheep sorrel |
| <i>Rumex acetosella</i> L. | Tansy ragwort, Stinking Willie |
| <i>Senecio jacobea</i> L. | Cup plant |
| <i>Silphium perfoliatum</i> L. | Climbing nightshade |
| <i>Solanum dulcamara</i> L. | Garden-heliotrope |
| <i>Valeriana officinalis</i> L. | Brooklime |
| <i>Veronica beccabunga</i> L. | |

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