# APPENDIX J

## Plant and Tree Lists for Stormwater BMPs

City of Seattle | Stormwater Manual

July 2026

City of Seattle

# Table of Contents



# Tables

# Figures

# INTRODUCTION

The following plant lists were developed as a guide for bioretention (infiltrating and non-infiltrating), soil cell bioretention (infiltrating and non-infiltrating), biofiltration swales, sand filters, and wet ponds. For information regarding planting for other BMPs, refer to *Volume 3, Chapter 5*. More stringent requirements have been developed for BMPs sited in the right-of-way and can be found in the Seattle Right-of-Way Improvements Manual.

The following design principles should be considered during plant selection:

- Select plants to minimize irrigation and maintenance needs. Coordinate planting design, whenever possible, with maintenance staff.
- Where appropriate, use regionally native species.
- Design a planting plan with a goal of achieving a minimum of 80 percent evergreen groundcover. Evergreen groundcover helps trap sediment and protects soil and infiltration rates during the wet season.
- Consider biodiversity of species, including a minimum of three to five species for planting plans for small BMPs, and increasing species diversity where possible. Species and genetic diversity increase resilience and the ability of a BMP to adapt during varying site conditions.
- Incorporate pollinator, bird, and wildlife species into planting plans where possible. Maximize various seasonal habitat function. For example, flowering plants should bloom three of the four seasons. Planting plans for BMPs adjacent to natural areas should include native trees, shrubs, and groundcover that provide habitat value and support.

Refer to *Volume 3, Section 5.2* for minimum tree requirements for stormwater management. Approved tree species for parcels are listed in the *Green Factor tree list* posted on SDCI's website. Approved tree species for the right-of-way are listed in the SDOT Approved Street Tree List posted on SDOT's website. Trees used for On-site Stormwater Management or Flow Control Management may be selected from the trees in Table J.8 through J.18 if they meet the mature height and canopy requirements in Volume 3, Section 5.2 – Tree Retention and Planting.

For vegetated roof systems, refer to the *Green Factor plant list* posted on SDCI's website. Refer to *Volume 3, Section 5.6.1* for minimum vegetation requirements for stormwater management.

The plant lists for the following applications are included in this *Appendix*.

- J-1. Plant Lists for Bioretention and Soil Cell Bioretention (Tables J.1 through J.17)
- J-2. Plant Lists for Biofiltration Swales (Tables J.18 through J. 20)
- J-3. Plant Lists for Sand Filters (Table J.21)
- J-4. Plant Lists for Wet Ponds (Table J.22)

The Seattle Right-of-Way Improvements Manual establishes height limits for non-street tree plantings in rights-of-way. Maximum plant height within 30 feet of a stop sign is 24 inches. Elsewhere in the right-of-way, plantings are allowed to be 30 inches with the exception of accent shrubs as directed. Refer to Streets Illustrated, Section 3.3 for clearance guidance.

## J-1. Plants and Trees for Bioretention and Soil Cell Bioretention (Bioretention BMPs)

Plants and trees used for bioretention BMPs (infiltrating bioretention, non-infiltrating bioretention, soil cell bioretention) shall be selected from the Tables J.1 through J.17. Select the trees based on the location the tree will be placed in, or near, the bioretention BMP. The following bioretention planting zone codes apply to Tables J.1 through J.17. The planting zones are also shown in Figure J.1:

- Zone 1: designation for plants that are used in the bottoms of bioretention BMPs.
- Zone 2: designation for plants that are used in the lower slopes/wetted/ponded area of bioretention BMPs.
- Zone 3: species appropriate for planting at the tops and upper slopes of bioretention BMPs that are used as a border and as accents along the sidewalk, including vertical and accent plants and trees.
- Zone 4: low, durable plants (under 24 inches) that are used in sight clearance areas or as accents at the edge of the BMP.
- Zone 5: designation for steppable plants used in the crossing zones and access areas along the curb — these plants may need to tolerate foot traffic, depending on their location.

The following operations and maintenance/special needs code (O&M code) apply to Tables J.1 through J.7:

- A = Cut back perennials to 3 inches above ground in fall (October/November).
- B = Leave foliage and seedheads for winter interest and cut back if foliage collapses. Cut back in spring (mid-January to mid-March) before new growth emerges.
- C = Hand-rake in spring (mid-January to mid-March) before new growth emerges. Cut back to ground or thin every 2 to 3 years as needed.
- DS = Deadhead perennials in spring/summer to encourage reblooming and for neater appearance. Deadheading not required for function.
- DF = Deadhead perennials in fall for neater appearance and to prevent resowing. Deadheading not required for function.
- E = Cut back or prune over sidewalk or clear zones. Remove deadwood anytime fall to spring.
- F = May need replacing every 5+/ years. (Replacement not required if vegetation coverage meets requirements.)
- G = May need dividing every few years. Reasons for division include dieback in center and to increase coverage.

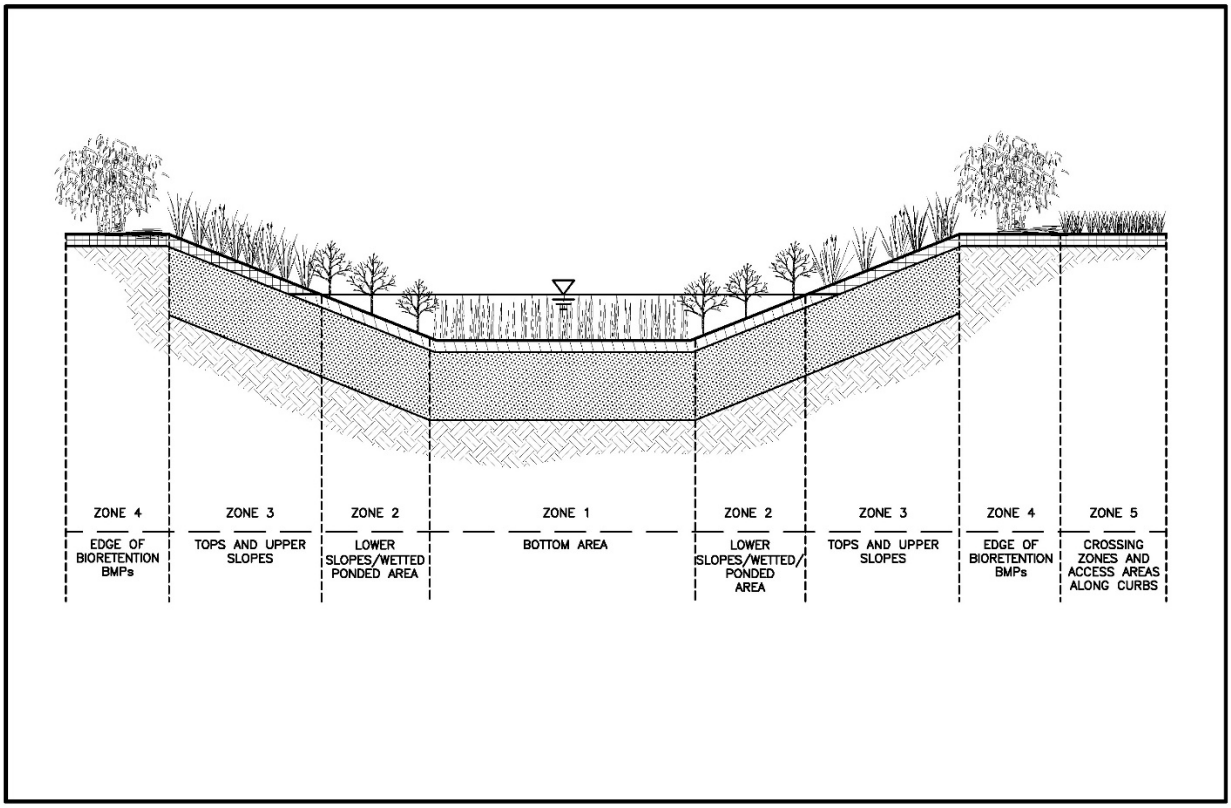


**Figure J.1. Bioretention Planting Zones.**

## Table J.1. Part Shade Plant List Suitable for Bioretention.

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEMI | | | <24″ | *Abelia x grandiflora* 'Prostrata' | Prostrate white abelia | 3, 4 | 1 Gal./30″ o.c. | UF | ☼, Ø | | E | |
| | DT | | 18″–30″ | *Aster divaricatus* | White wood aster | 3 | 1 Gal./24″ o.c. | | ∅Ø | | B | |
| | | | <24″ | *Carex elata* 'Bowles Golden' | Bowles Golden sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | B | |
| EG | | | <24″ | *Carex laxiculmis* 'Hobb' | Bunny Blue sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | Ø | | C | |
| EG | DT | NWN | 24″–48″+ | *Carex obnupta* | Slough sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼, Ø | Do not intermix with other emergents. Do not plant near intersections. Drought tolerant wetland native. | C | Can be sheared more frequently if overcrowding other occurs. May require supplementary irrigation during prolonged dry periods. |
| | | NWN | 24″–36″ | *Carex stipata* | Beaked sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Wetland native species. Limit to areas of approx. 36″x36″ | B | May require supplementary irrigation during prolonged dry periods. Will die out if mowed or trimmed too regularly. |
| EG | | | 24″–30″ | *Carex testacea* or *dispacea* | Orange New Zealand or Autumn sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | | C | |

**Table J.1 (continued). Part Shade Plant List Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DT | | 24″–36″ | *Cornus sericea* 'Kelseyii' | Kelsey redstem dogwood | 1, 2, 3 | 2 Gal./30″ o.c. | UF | ☼, Ø | | E | Stems fragile until established. |
| | | NWN | 24″–40″ | *Deschampsia caespitosa* | Tufted Hair grass | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼, Ø | Native facultative species; does well in wet and dry conditions. Limit to areas of approx. 36″x36″ | B | LOS A: For neater appearance, trim seedheads. |
| | | | <24″ | *Deschampsia flexuosa* 'Aurea' | Golden crinkled hair grass | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | B | LOS A: For neater appearance, trim seedheads. |
| | | | 24″ | *Fuchsia magellanica* 'Aurea' | Dwarf Hardy Fuchsia | 3, 4 | 2 Gal./30″ o.c. | UF | ∅Ø | | E | |
| | | | <24″ | *Galanthus elwesii* | Giant Snowdrop | 3, 4 | Bulb | UF | ☼, Ø | Prefers part shade. May be short-lived if too hot. | F | |
| EG | DT | NWN | 24″–36″+ | *Gaultheria shallon* | Salal | 3 | 1 Gal./24″ o.c. | UF | ☼, Ø | | E | If height is a problem, salal can be sheared with hedge trimmer. |
| EG | | | <24″ | *Geum flore-plena* 'Blazing Sunset' | Blazing Sunset Avens | 3, 4 | 1 Gal./10″ o.c. | UF | ☼, Ø | | DS | |
| | | | 24″–36″ | *Iris pallida* 'Variegata' | Variegated sweet iris | 3 | 1 Gal./18″ o.c. | UF | ☼, Ø | | A | |

**Table J.1 (continued). Part Shade Plant List Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | DR | NWN | <24″ | *Mahonia repens* | Creeping Oregon holly-grape | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | E | |
| EG | DR | NWN | 24″–36″ | *Polystichum munitum* | Western swordfern | 3 | 2 Gal./24″ o.c. | UF | Ø | Limit to group of 3. | B | Cut back before fronds appear. |
| EG | DT | | 24″–36″ | *Prunus laurocerasus* 'Mount Vernon' | Mount Vernon cherry laurel | 3 | 2 Gal./24″ o.c. | UF | ☼, Ø | | E | |
| EG | | | 36″ | *Rhododendron* Yak Hybrids, such as 'Ken Janeck' | Yak Hybrid | 3 | 2 Gal./24″ o.c. | UF | ☼, Ø | Several other Yak hybrids stay low and neat. | E | LOS A: May produce more flowers if pruned and/or deadheaded after blooming. |
| EG | DT | | <24″ | *Sarcococca hookeriana humilis* | Himalayan Sweet Box | 3 | 2 Gal./24″ o.c. | UF | Ø | Winter fragrance. | E | |
| EG | | | 30″ | *Taxus* 'Emerald Spreader' | Emerald Spreader Yew | 3 | 2 Gal./24″ o.c. | UF | ☼, Ø | | E | |
| | | NWN | <24″ | *Tolmiea menziesii* | Youth on Age | 1, 2, 3 | 1 Gal./10″ o.c. | | Ø | | G | |
| EG | DT | | <24″ | *Veronica liwanensis* | Speedwell | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼, Ø | | E | LOS A: Cut back for neater appearance. |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant
DR = Drought Resistant
NWN = Northwest Natives or Cultivars
UF = Urban Frontage (Mixed Use/Commercial) appropriate plants
☼ = Full Sun
Ø = Part Sun/Part Shade
LOS = Level of Service

## Table J.2. Sun Plant List Suitable for Bioretention.

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEMI | | | <24″ | *Abelia x grandiflora* ‘Prostrata’ | Prostrate white abelia | 3, 4 | 1 Gal./30″ o.c. | UF | ☼, Ø | | E | |
| | DT | | <24″ | *Aster novi-belgii* ‘Wood’s Blue’ | Wood’s Blue New York Aster | 3 | 1 Gal./18″ o.c. | UF | ☼ | | B, G | |
| | | | 24″–36″ | *Carex muskingumen-sis* | Palm sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | B | |
| | | | 24″–36″ | *Carex elata* ‘Bowles Golden’ | Bowles Golden sedge | 1, 2, 3 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | B | |
| | | | 24″–36″+ | *Carex grayi* | Gray’s sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | B | |
| | | NWN | 24″–36″ | *Carex stipata* | Beaked sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Wetland native species. Limit to areas of approx. 36″x36″ | B | May require supplementary irrigation during prolonged dry periods. Will die out if mowed or trimmed too regularly. |
| EG | | | 24″–30″ | *Carex testacea or dispacea* | Orange New Zealand or Autumn sedge | 1, 2, 3 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | | C | |

**Table J.2 (continued). Sun Plant List Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DT | | 24″–36″ | *Caryopteris incana* 'Sunshine Blue' | Sunshine Blue Bluebeard | 3, 4 | 1 Gal./18″ o.c. | UF | ☼ | | B OR DF | Cut back to about 18″ above the ground or by half in early spring after new leaves are visible. |
| | DT | NWN | 24″–30″ | *Cornus sericea* 'Kelseyii' | Kelsey redstem dogwood | 1, 2, 3 | 2 Gal./30″ o.c. | UF | ☼, Ø | | E | Stems fragile until established. |
| | | NWN | 24″–40″ | *Deschampsia caespitosa* | Tufted Hair grass | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼, Ø | Native facultative species; does well in wet and dry conditions. Limit to areas of approx. 36″x36″ | B | LOS A: For neater appearance, trim seedheads. |
| | | | <24″ | *Deschampsia flexuosa* 'Aurea' | Golden crinkled hair grass | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | B | LOS A: For neater appearance, trim seedheads. |
| | DT | | 24″–36″ | *Echinacea purpurea* | Coneflower | 3 | 1 Gal./18″ o.c. | UF | ☼ | | B | LOS A: For neater appearance, deadhead. |
| EG | DT | NWN | 24″–36″+ | *Gaultheria shallon* | Salal | 3 | 1 Gal./24″ o.c. | UF | ☼, Ø | | E | If height is a problem, salal can be sheared with hedge trimmer. |

**Table J.2 (continued). Sun Plant List Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DT | | <24″ | *Hemerocallis* – Later Flowering Varieties | Later flowering daylily varieties | 3, 4 | 1 Gal./15″ o.c. | UF | ☼, Ø | Later flowering varieties are not as susceptible to daylily gall midge. | A | LOS A: For neater appearance, deadhead. |
| EG | DT | | <24″ | *Geranium x cantabrigiense* 'Cambridge' | Perennial Geranium | 3, 4 | 1 Gal./15″ o.c. | UF | ☼, Ø | | B | |
| SEMI | DT | | <24″ | *Helianthemum* 'Henfield Brilliant' | Sunrose | 3, 4 | 1 Gal./10″ o.c. | UF | ☼ | | B | |
| EG | DT | | 24″–36″ | *Helictotrichon sempervirens* | Blue oat grass | 3 | 1 Gal./18″ o.c. | UF | ☼ | | C | |
| EG | DT | | <24″ | *Ilex x* 'Mondo' | Little Rascal Holly | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | E | |
| EG | DT | NWN | <24″ | *Iris douglasiana* | Pacific Coast Iris | 3, 4 | 1 Gal./18″ o.c. | UF | ☼ | Many colors available. | G | LOS A: For neater appearance, cut back dead leaves and flower stalks. |

**Table J.2 (continued). Sun Plant List Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEMI | DT | NWN | <24″ | *Iris missouriensis* | Rocky Mountain Iris | 1, 2 | 1 Gal./12″ o.c. | UF | ☼ | | G | May require supplementary irrigation during prolonged dry periods.<br>LOS A: For neater appearance, cut back dead leaves and flower stalks. |
| | | | 24″–36″ | *Iris sibirica* cultivars such as ‘Bennerup Blue’ | Siberian Iris | 1, 2, 3 | 1 Gal./18″ o.c. | UF | | | G | LOS A: For neater appearance, cut back dead leaves and flower stalks. |
| EG | DT | NWN | <24″ | *Juncus balticus* | Baltic rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼ | Wetland native species.<br>Do not use in hot ROW locations. | C | May require supplementary irrigation during prolonged dry periods.<br>Will die off if sheared too frequently.<br>LOS A: Can be sheared more frequently if foliage collapses. |

**Table J.2 (continued). Sun Plant List Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | | NWN | 24″–36″ | *Juncus effusus* 'Quartz Creek' | Quartz Creek Soft Rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | | C | LOS A: Can be sheared more frequently if foliage collapses. |
| EG | DT | | <24″ | *Juniperus conferta* 'Blue Pacific' | Blue Pacific Shore juniper | 3, 4 | 1 Gal./3′ o.c. | UF | ☼ | | E | |
| | DT | NWN | 36″ | *Leersia oryzoides* | Rice Cutgrass | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼ | Limit to areas of approx. 36″x36″ | B | LOS A: For neater appearance, trim seedheads. |
| EG | DR | NWN | <24″ | *Mahonia repens* | Creeping Oregon holly-grape | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | E | |
| | DR | | 36″ | *Miscanthus sinensis* 'Little Kitten' | Little Kitten Maiden Grass | 3 | 1 Gal./15″ o.c. | UF | ☼ | | B | |
| | DT | | 30″ | *Nepetax* 'Walker's Low' | Catmint | 3 | 1 Gal./18″ o.c. | UF | ☼, Ø | | B | |
| EG | | | 36″ | *Rhododendron* Yak Hybrids, such as 'Ken Janeck' | Yak Hybrid | 3, 4 | 2 Gal./30″ o.c. | UF | ☼, Ø | Several other Yak hybrids stay low and neat. | E | LOS A: May produce more flowers if pruned and/or deadheaded after blooming. |
| | DT | | 24″–36″ | *Rudbeckia fulgida* 'Goldsturm' | Black-Eyed Susan | 3, 4 | 1 Gal./18″ o.c. | UF | ☼ | Late season color accent. | A OR B | |

**Table J.2 (continued). Sun Plant List Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DT | | <24″ | *Sedum* 'Autumn Joy' or 'Matrona' | Stonecrop | 3, 4 | 1 Gal./12″ o.c. | UF | ☼ | | G | LOS A: Can be cut back by half in June to prevent flopping. |
| | DT | NWN | <24″ | *Solidago canadensis* 'Baby Gold' or *Solidago hybrida* 'Dansolitlem' | Baby Gold or Little Lemon Goldenrod | 3, 4 | 1 Gal./18″ o.c. | | ☼ | Late season color accent. | A | |
| | | NWN | 24″–48″ | *Spiraea betulifolia* or *Spiraea betulifolia* 'Tor' | Birchleaf spirea | 3 | 1 Gal./24″ o.c. | UF | ☼ | | E | |
| EG | DT | NWN | <24″ | *Sedum oreganum* | Stonecrop | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼ | Tolerates hot dry sites. | E | |
| EG | DT | | <24″ | *Teucrium chamaedrys* | Wall germander | 3, 4 | 1 Gal./18″ o.c. | UF | ☼ | | E | LOS A: For neater appearance trim spent flowers in spring. |
| EG | DT | | <24″ | *Thymus serpyllum* 'Elfin' | Elfin creeping thyme | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼ | | F | |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant
DR = Drought Resistant
NWN = Northwest Natives or Cultivars
UF = Urban Frontage (Mixed Use/Commercial) appropriate plants
☼ = Full Sun
Ø = Part Sun/Part Shade
LOS = Level of Service

**Table J.3. Native Plant List Suitable for Bioretention (Sun to Part Shade includes cultivars).**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DR | NWN | 24″–36″ | *Aquilegia formosa* | Western Columbine | 3, 4 | 1 Gal./18″ o.c. | | ☼, Ø | | DF | |
| EG | DT | NWN | <24″ | *Arctostaphylos uva-ursi* 'Massachusetts' or 'Pt. Reyes' | Kinnikinnick | 3, 4 | 1 Gal./12″ o.c. | UF | ☼, Ø | Possible use at vertical wall or single use low accent. Requires approval by Project Manager and Maintenance prior to use. | E | |
| | DR | NWN | 24″–36″ | *Camus leichtlinii or Camus quamash* | Great Camus or Common Camus | 3, 4 | 1 Gal./12″ o.c. | | ☼, Ø | Plant in groups for effect. Can be planted as a bulb. | DF | |
| | DR | NWN | 24″–48″ | *Carex deweyana* | Dewey's sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼, Ø | Grows best on side slopes. Limit to areas of approx. 36″x36″ | B | Likely to need supplementary irrigation if planted in full sun. |
| EG | DT | NWN | 24″–48″+ | *Carex obnupta* | Slough sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼, Ø | Drought tolerant wetland native. Do not intermix with other emergents. Do not plant near intersections | C | May require supplementary irrigation during prolonged dry periods. Can be sheared more frequently if overcrowding occurs. |

**Table J.3 (continued). Native Plant List Suitable for Bioretention BMPs (Sun to Part Shade includes cultivars).**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DT | NWN | 24″–36″ | *Carex pachystachya* | Chamisso sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼, Ø | Grows best on side slopes. Limit to areas of approx. 36″x36″ | B | |
| | | NWN | 24″–36″ | *Carex stipata* | Beaked sedge | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | B | May require supplementary irrigation during prolonged dry periods. Will die out if mowed or trimmed too regularly. |
| | DT | NWN | 24″–30″ | *Cornus sericea* ‘Kelseyii’ | Kelsey redstem dogwood | 1, 2, 3 | 2 Gal./30″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | E | Stems fragile until established. |
| | | NWN | 24″–40″ | *Deschampsia caespitosa* | Tufted Hair grass | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼, Ø | Native facultative species; does well in wet and dry conditions. Limit to areas of approx. 36″x36″ | B | LOS A: For neater appearance, trim seedheads. |
| | DT | NWN | <24″ | *Erigeron peregrinus* | Subalpine fleabane daisy | 3, 4 | 1 Gal./12″ o.c. | UF | ☼ | | DF | |
| | DT | NWN | 36″ | *Festuca idahoensis* | Idaho fescue | 3, 4 | 1 Gal./18″ o.c. | | ☼ | | DF | |
| EG | DT | NWN | <24″ | *Gaultheria ovatifolia* | Oregon wintergreen | 3, 4 | 1 Gal./24″ o.c. | UF | ☼, Ø | If Gaultheria shallon is substituted see additional O&M notes. | E | If height is a problem, can be sheared with hedge trimmer. |

**Table J.3 (continued). Native Plant List Suitable for Bioretention BMPs (Sun to Part Shade includes cultivars).**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | DT | NWN | <24″ | *Iris douglasiana* | Pacific Coast Iris | 3, 4 | 1 Gal./18″ o.c. | UF | ☼ | Many colors available. | G | LOS A: For neater appearance, cut back dead leaves and flower stalks. |
| SEMI | DT | NWN | <24″ | *Iris missouriensis* | Rocky Mountain Iris | 1, 2 | 1 Gal./12″ o.c. | UF | ☼ | | G | LOS A: For neater appearance, cut back dead leaves and flower stalks. |
| EG | DT | NWN | <24″ | *Juncus balticus* | Baltic rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼ | Wetland native species. Do not use in hot ROW locations. | C | May require supplementary irrigation during prolonged dry periods. Will die off if sheared too frequently. LOS A: Can be sheared more frequently if foliage collapses. |

**Table J.3 (continued). Native Plant List Suitable for Bioretention BMPs (Sun to Part Shade includes cultivars).**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | DT | NWN | 24″–48″+ | *Juncus effusus* | Common rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | | ☼, Ø | Only *Juncus effusus* var. *pacificus* is native. Other varieties of *Juncus effusus*, even cultivars, are invasive and are not recommended for use in stormwater facilities. Do not intermix with other emergents. Do not plant near intersections. | C | |
| EG | | NWN | <24″ | *Juncus ensifolius* | Dagger-leaf rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Limit to areas of approx. 36″x36″ | B | Requires supplementary irrigation in summer to thrive. |
| EG | DT | NWN | <24″ | *Juncus tenuis* | Path rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Native facultative species; does well in wet and dry conditions. | C | |

**Table J.3 (continued). Native Plant List Suitable for Bioretention BMPs (Sun to Part Shade includes cultivars).**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | DT | NWN | <24″ | *Juniperus communis* 'Mondap' | Alpine carpet juniper | 4 | 1 Gal./24″ o.c. | UF | ☼ | | E | May require supplementary irrigation in summer. May require pruning. |
| EG | | NWN | 36″ | *Ledum glandulosum* | Pacific or trapper's tea | 1, 2, 3 | 5 Gal./36″ o.c. | UF | ☼, Ø | Plant near the bottom of swale | E | |
| EG | DT | NWN | <24″ | *Lewisia cotyledon or cultivars* | Siskiyou lewisia | 3, 4 | 1 Gal./12″ o.c. | UF | ☼ | | E | |
| EG | | NWN | 36″ | *Mahonia aquifolium* 'Orange Flame' or 'Compacta' | Compact tall Oregon grape | 3 | 1 Gal./36″ o.c. | UF | ☼, Ø | | E | |
| EG | DR | NWN | <24″ | *Mahonia repens* | Creeping Oregon grape | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | E | |
| | | NWN | 24″–36″ | *Mimulus guttatus* | Yellow monkey-flower | 1, 2 | 1 Gal./18″ o.c. | | ☼, Ø | Provides temporary color and habitat value. Will die back in late summer or winter but will reseed. Should not be used in large areas and relied upon for water quality treatment. | DF | |
| EG | DT | NWN | 36″ | *Pachistima myrsinites* | Oregon boxwood | 3 | 1 Gal./36″ o.c. | UF | ☼, Ø | | E | |

**Table J.3 (continued). Native Plant List Suitable for Bioretention BMPs (Sun to Part Shade includes cultivars).**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NWN | <24″ | *Potentilla fruticosa* 'Sunset' | Frosty potentilla | 3, 4 | 2 Gal./30″ o.c. | UF | ∅Ø | | E | |
| | DT | NWN | <24″ | *Potentilla glandulosa* or *Potentilla gracilis* | Sticky cinquefoil or slender cinquefoil | 3, 4 | 1 Gal./18″ o.c. | | ☼, Ø | | DF | |
| EG | | NWN | 24″–36″ | *Polystichum imbricans* or *Polystichum lonchitis* | Narrow-leaf sword fern or Northern holly fern | 3, 4 | 2 Gal./30″ o.c. | UF | ☼, Ø | If *Polystichum munitum* is substituted limit groups to 3 and prune yearly. | B | Cut back before fronds appear. |
| | DT | NWN | <24″ | *Solidago canadensis* 'Baby Gold' or *Solidago hybrida* 'Dansolitlem' | Baby Gold or Little Lemon Goldenrod | 3, 4 | 1 Gal./18″ o.c. | | ☼ | Late season color accent. | A | |
| | | NWN | 24″–36″ | *Spiraea betulifolia or Spiraea betulifolia* 'Tor' | Birchleaf spirea | 3 | 1 Gal./24″ o.c. | UF | ☼ | | E | |
| EG | DT | NWN | <24″ | *Sedum divergens* | Stonecrop | 3, 4 | 4″ Pot/12″ o.c. | UF | ☼, Ø | Tolerates hot dry sites. | E | LOS A: For neater appearance deadhead. |

**Table J.3 (continued). Native Plant List Suitable for Bioretention BMPs (Sun to Part Shade includes cultivars).**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | DT | NWN | <24″ | *Sedum oreganum* | Stonecrop | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼ | Tolerates hot dry sites. | E | |
| EG | DT | NWN | 24″–36″ | *Xerophyllum tenax* | Bear grass | 3 | 1 Gal/18″ o.c. | UF | ☼ | Tolerates hot dry sites. | E | |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant
DR = Drought Resistant
NWN = Northwest Natives or Cultivars
UF = Urban Frontage (Mixed Use/Commercial) appropriate plants
☼ = Full Sun
Ø = Part Sun/Part Shade
LOS = Level of Service

**Table J.4. Intersection and View Restriction Plant Palette (under 24 inches in height) Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | <24″ | *Chrysanthe-mum* 'Peach Centerpiece' or 'Bienchen' | Peach Centerpiece or golden chrysanthe-mum | 3, 4 | 1 Gal./15″ o.c. | | ☼ | Late season color accent. | B & G | Pull if scraggly. |
| | DT | | <24″ | *Coreopsis lanceolata* 'Sterntaler' | Tickseed | 3, 4 | 1 Gal./15″ o.c. | UF | ☼ | | B & G | |
| | DT | | 24″–30″ | *Cornus sericea* 'Kelseyii' | Kelsey redstem dogwood | 1, 2, 3 | 1 Gal./30″ o.c. | UF | ☼, Ø | Plant in bottom areas for sightlines. | E | Stems fragile until established. |
| EG | DT | | <24″ | *Epimedium rubrum or sulphurescens* | Barrenwort | 3, 4 | 4″ Pot/12″ o.c. | UF | Ø | Part shade to shade only without irrigation. | B | Cut back before flower stalks appear. |
| EG | DT | | <24″ | *Euonymus fortunei* 'Interbolwi' | Blondy winter-creeper | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | E | |
| | DT | | <24″ | *Geranium* 'Gerwat' 'Rozanne' | Rozanne geranium | 3, 4 | 1 Gal./24″ o.c. | | ☼, Ø | | A | LOS A: Can be sheared for neater appearance. |
| EG | | | <24″ | *Geum flore pleno* 'Blazing Sunset' | Blazing Sunset Avens | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | DS | |
| SEMI | DT | | <24″ | *Helianthemum nummularium* 'Wisley Primrose' | Yellow Sunrose | 3, 4 | 1 Gal./12″ o.c. | UF | Ø | | B | |

**Table J.4 (continued). Intersection and View Restriction Plant Palette (under 24 inches in height) Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | DT | | 24″–36″ | *Helictotrichon sempervirens* | Blue oat grass | 3 | 1 Gal./18″ o.c. | UF | Ø | 36″ height only when in flower. Airy flowers. Groups of 3 maximum. | C | |
| EG | DT | | <24″ | *Ilex x* 'Mondo' | Little Rascal Holly | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | E | |
| EG | | NWN | <24″ | *Juncus effusus* 'Carmen's Japan' | Carmen's Japanese rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | | C | |
| EG | | | <24″ | *Juncus effusus* 'Spiralis' | Corkscrew soft rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | | C | LOS A: Can be sheared more frequently if foliage collapses. |
| EG | | | 24″–30″ | *Juncus patens or Juncus patens* 'Elk blue' | California gray rush | 1, 2 | 10 Cu. In. Plug/ 9″ o.c. | UF | ☼, Ø | Resilient wetland species; can survive summer drought and winter inundation. Plant in bottom areas for sightlines | C | LOS A: Can be sheared more frequently if foliage collapses. |
| EG | | | <24″ | *Liriope muscari* and cultivars | Lily Turf | 3, 4 | 4″ Pot/12″ o.c. | UF | ☼, Ø | | C | OK to pull clumps for ease of weed control. |
| EG | DR | NWN | <24″ | *Mahonia repens* | Creeping Oregon holly-grape | 3 | 1 Gal./18″ o.c. | UF | ☼, Ø | | E | |

**Table J.4 (continued). Intersection and View Restriction Plant Palette (under 24 inches in height) Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DT | | <24″ | *Narcissus* 'Dutch Master' *or* 'King Alfred' | Daffodil | 3, 4 | Bulb/As Shown | UF | Ø | | DS | Cut back foliage in summer. |
| | | NWN | <24″ | *Potentilla fruticosa* 'Sunset' | Frosty potentilla | 3, 4 | 2 Gal./30″ o.c. | UF | Ø | | E | |
| EG | DT | | <24″ | *Veronica liwanensis* | Speedwell | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | Ø | | E | LOS A: Cut back for neater appearance. |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant
DR = Drought Resistant
NWN = Northwest Natives or Cultivars
UF = Urban Frontage (Mixed Use/Commercial) appropriate plants
☼ = Full Sun
Ø = Part Sun/Part Shade
LOS = Level of Service

## Table J.5. Vertical Shrubs and Accent Plants Suitable for Bioretention.

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NWN | 25′ | *Amelanchier alnifolia* | Service Berry | 1, 2, 3 | Multi-stem, B&B, 5′–6′ ht. | | Ø | Multi-stemmed native species. Can sucker and spread. Single stem species may be available if nursery prunes in advance. | E | May need windowing/ thinning. |
| | | | 5′ | *Cornus sanguinea* 'Midwinter Fire' | Midwinter Fire Dogwood | 1, 2, 3 | 5 gal | | ☼, Ø | | E | Prune 2/3 of all (older) branches to 8″ above ground in March to keep in bounds and to maintain yellow twigs. |
| | | NWN | 6′ to 8′ | *Cornus sericea* 'Flaviramea' | Yellow-Twig Dogwood | 1, 2, 3 | 5 gal | | Ø | | E | Prune 2/3 of all (older) branches to 8″ above ground in March to keep in bounds and to maintain red twigs. |
| | | | 10′ | *Hamamelis x intermedia* 'Pallida' | Witch Hazel | 3 | 10 gal | | ☼, Ø | Vase-shaped open growing form. | E | |
| | | | 5′ | *Hydrangea quercifolia* 'Pee Wee' | Oak-Leaf Hydrangea | 3 | 5 gal | | Ø | Late summer flowers. Fall color. Bold leaves in winter. | E | May need windowing/ thinning. |

**Table J.5 (continued). Vertical Shrubs and Accent Plants Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | | | 3′–4′ | *Ilex glabra* 'Shamrock' | Inkberry | 1, 2 | 5 gal. | | ☼, Ø | | E | Female plants need a male pollinator to produce berries. |
| | | | 3′–12′ | *Ilex verticillata* and cultivated varieties | Winterberry | 1, 2 | 5 gal. | | ☼, Ø | | E | Female plants need a male pollinator to produce berries. |
| EG | | | 8′–12′ | *Mahonia* 'Arthur Menzies' | Ornamental Mahonia | 3 | 5 gal | | ☼, Ø | Upright multi-stemmed. | E | |
| EG | | NWN | 6′–10′ | *Mahonia aquifolium* | Oregon grape | 3 | 5 gal | | ☼, Ø | Upright multi-stemmed. | E | |
| EG | | | 5′ | *Osmanthus* 'Goshiki' | Variegated Osmanthus | 3 | 5 gal | | Ø | 4′ wide. Considered dwarf. New foliage is colorful. | E | May need windowing/ thinning. |
| | | | 6′ | *Physocarpus opulifolius* 'Nanus' | Dwarf Ninebark | 1, 2, 3 | 5 gal | | ☼, Ø | Even dwarf form may be tall and wide. | E | May need windowing/ thinning. |
| EG | | | 4′ | *Pieris japonica* 'Little Heath' | Little Heath Lily of the Valley | 3 | 3 gal. | | Ø | Variegated foliage that emerges pink in spring. Flowers in winter. | E | May need windowing/ thinning. |
| | | | 15′–20′ | *Salix integra* 'Hakuro Nishiki' | Dappled Willow | 1, 2, 3 | 5 gal. | | ☼, Ø | | E | Specify tree form; Prune to ground every other year to keep smaller. |

**Table J.5 (continued). Vertical Shrubs and Accent Plants Suitable for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 8′–15′ | *Sambucus nigra* 'Gerda' | Black Beauty Black Elder | 1, 2, 3 | 5 gal. | | ☼, Ø | | E | |
| | | NWN | 6′ | *Symphoricarpos albus* | Snowberry | 1, 2, 3 | 5 gal | | ☼, Ø | Forms thickets. | E | May need windowing/ thinning. |
| | | | 6′ | *Taxodium distichum* 'Peve Minaret' | Dwarf bald cypress | 1, 2, 3 | | | | | E | |
| EG | | NWN | 6′ | *Vaccinium ovatum* | Evergreen Huckleberry | 1, 2, 3 | 5 gal | | ☼, Ø | | E | |
| | | | 6′ | *Vaccinium* 'Sunshine Blue' | Blueberry | 3 | 5 gal | | ☼, Ø | Self-pollinating edible fruits. Good fall color. | E | |
| EG | | | 10′ | *Viburnum cinnamomifolium* | Cinnamon Viburnum | 3 | 10 gal | | ☼, Ø | | E | May need windowing/ thinning. |
| | | NWN | 7′–12′ | *Viburnum edule* | Highbush cranberry | 1, 2, 3 | 5 gal. | | ☼, Ø | | E | |

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Ø = Part Sun/Part Shade
LOS = Level of Service

## Table J.6. Groundcovers if Low Profile is Required for Bioretention.

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | DT | | <24″ | *Ajuga reptens* | Bugleweed | 3, 4 | 4″ Pot/12″ o.c. | UF | ☼, Ø | | E | Can be pulled if grows beyond desired boundaries. |
| EG | DT | | <24″ | *Epimedium rubrum* or *sulphurescens* or cultivars | Barrenwort | 3, 4 | 4″ Pot/12″ o.c. | UF | Ø | | B | Cut back foliage before flower stalks appear. |
| EG | DT | | <24″ | *Euonymus fortunei* 'Kewensis' | Winter-creeper euonymous | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | E | Can be mowed to keep low. |
| SEMI | DT | | <24″ | *Geranium macrorrhizum* 'Album' or other cultivars | Hardy Geranium | 3, 4 | 1 Gal./18″ o.c. | UF | ☼, Ø | | B | |
| EG | DT | | <24″ | *Pachysandra terminalis* | Japanese Spurge | 3, 4 | 4″ Pot/12″ o.c. | UF | Ø | | C | |
| EG | DT | | <24″ | *Sibbaldiopsis tridentata (= Potentilla tridentata)* | Three-toothed Cinquefoil | 3, 4 | 4″ Pot/12″ o.c. | UF | Ø | | E | |
| EG | DT | | <24″ | *Rubus tricolor* | Creeping Chinese Bramble | 3, 4 | 4″ Pot/12″ o.c. | UF | Ø | Tolerates deep shade. Not as aggressive or spiny as other Rubus groundcovers. Red fuzzy stems and shiny leaves. | E | |

**Table J.6 (continued). Groundcovers if Low Profile is Required for Bioretention.**

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | DT | NWN | <24″ | *Sedum divergens* | Stonecrop | 3, 4 | 4″ Pot/12″ o.c. | UF | ☼, Ø | Tolerates hot dry sites. | E | LOS A: For neater appearance deadhead. |
| EG | DT | | <24″ | *Sedum requieni* | Miniature Stonecrop | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼, Ø | Tolerates hot dry sites. | E | |
| | DT | NWN | <24″ | *Vancouveria hexandra* | Inside Out Flower | 3, 4 | 4″ Pot/12″ o.c. | UF | Ø | | E | |
| SEMI | | | <24″ | *Potentilla neumanniana* 'Nana' | Dwarf cinquefoil | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼, Ø | | E | |
| EG | | | <24″ | *Ophiopogon japonicus* 'Nanus' | Dwarf mondo grass | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼, Ø | Can space at 15″ o.c. for cost saving. | E | |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant
DR = Drought Resistant
NWN = Northwest Natives or Cultivars
UF = Urban Frontage (Mixed Use/Commercial) appropriate plants
☼ = Full Sun
Ø = Part Sun/Part Shade
LOS = Level of Service

## Table J.7. Steppable Plants Suitable for Bioretention.

| EG | DT | NWN | Height from Ground | Scientific Name | Common Name | Planting Zone | Suggested Size/ Spacing | Urban Frontage | Exposure | Design Comments | O&M Code | Additional O&M Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EG | | | <24″ | *Ophiopogon japonicus* 'Nanus' | Dwarf mondo grass | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼, Ø | Can space at 15″ o.c. for cost saving. | E | |
| SEMI | | | <24″ | *Potentilla neumanniana* 'Nana' | Dwarf cinquefoil | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼, Ø | | E | |
| EG | DT | NWN | <24″ | *Sedum oreganum* | Stonecrop | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼ | Tolerates hot dry sites. | E | |
| EG | DT | | <24″ | *Sedum requieni* | Miniature Stonecrop | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼, Ø | Tolerates hot dry sites. | E | |
| EG | DT | | <24″ | *Thymus serpyllum* 'Elfin' | Elfin creeping thyme | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | ☼ | | F | |
| EG | DT | | <24″ | *Veronica liwanensis* | Speedwell | 3, 4, 5 | 4″ Pot/12″ o.c. | UF | Ø | | E | LOS A: Cut back for neater appearance. |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant
DR = Drought Resistant
NWN = Northwest Natives or Cultivars
UF = Urban Frontage (Mixed Use/Commercial) appropriate plants
☼ = Full Sun
Ø = Part Sun/Part Shade
LOS = Level of Service

**Table J.8. Conifer Trees (deciduous and evergreen) Suitable for Bioretention.**

| Scientific and Common Name | Mature Urban Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Calocedrus decurrens*, Incense Cedar | 75 | 15 | No | 8 | 3 | | | |
| *Metasequoia glyptostroboides*, Dawn Redwood | 50 | 25 | No | 6 | 1, 2, 3 | Yes | | Fast growing deciduous conifer. |
| *Pinus contorta*, Shore Pine | 45 | 30 | No | 5 | 1, 2, 3 | | | Facultative species that grows well in sandy soils. Found in wetland and upland habitats. |
| *Taxodium distichum*, Bald Cypress | 55 | 35 | No | 8 | 1, 2, 3 | Yes | | A deciduous conifer, broadly spreading when mature – columnar when young. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Taxodium distichum* 'Mickelson,' Shawnee Brave Bald Cypress | 55 | 20 | No | 6 | 1, 2, 3 | Yes | x | Deciduous conifer – tolerates city conditions. |
| *Thuja plicata* 'Excelsa' or 'Hogan,' Western Redcedar | 40 | 15–20 | No | 8 | 1, 2, 3 | | | Narrow columnar form. |

**Table J.9. Small Conifer/Broad-leaved Evergreen Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Chamaecyparis obtusa gracilis*, Slender Hinoki False Cypress | 15 | 6 | Yes | 5 | 3 | | | Drought tolerant when established. |
| *Embothrium coccineum*, Chilean Flame Tree | 30 | 15 | No | 5 | 3 | | | Brilliant orange red flowers in late spring. Tree can sucker. |
| *Eucryphia glutinosa*, Brushbush | 25 | 15 | Yes | 5 | 3 | | | Semi-evergreen. Best in part shade. |
| *Magnolia grandiflora* 'Edith Bogue,' Edith Bogue Magnolia | 18 | 12 | Yes | 5 | 1, 2, 3 | | | Excellent BLE magnolia due to hardiness. |
| *Magnolia grandiflora* 'Victoria,' Victoria Evergreen Magnolia | 25 | 20 | Yes | 5 | 1, 2, 3 | N/A | x | |
| *Magnolia maudiae (= Michelia maudiae)*, NCN | 25 | 20 | Yes | 5 | 3 | | | |
| *Magnolia virginiana* | 35 | 35 | | 5 | 1, 2, 3 | | x | |
| *Quercus hypoleucoides* | 30 | 15 | No | 5 | 3 | | | |
| *Quercus myrsinifolia,* Chinese Evergreen Oak | 30 | 15 | No | 5 | 3 | | | |

**Table J.10. Small/Constrained Site Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Malus 'Red Barron',* Red Barron Crabapple | 18 | 8 | Yes | 4 | 3 | Yes | x | Good for narrow spaces. Red berries. |
| *Malus* 'Lancelot' ('Lanzam'), Lancelot Crabapple | 15 | 15 | Yes | 4 | 3 | Yes | x | Red flower buds, blooming white – red persistent fruit. |
| *Prunus serrulata 'Amanogawa'* Japanese Flowering Cherry | 20 | 6 | Yes | 6 | 3 | Yes | | Particularly useful for very narrow planting strips. |
| *Sorbus americana 'Dwarfcrown'* Red Cascade Mountain Ash | 18 | 8 | Yes | 5 | 3 | Yes | x | Nice winter form – white flowers in spring – red clusters of berries. |
| *Trachycarpus fortune* Windmill Palm | 25 | 10 | Yes | 5 | 3 | N/A | | Traffic visibility can be a problem with small plants. |

**Table J.11. Small Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Acer buegerianum*, Trident Maple | 30 | 30 | Yes | 5 | 3 | Yes | x | Must train to a single stem – interesting bark. |
| *Acer circinatum*, Vine Maple | 25 | 25 | Yes | 5 | 3 | Yes | x | Avoid using on harsh sites – native tree. |
| *Acer griseum*, Paperbark Maple | 30 | 20 | Yes | 5 | 3 | Yes | x | Peeling cinnamon colored bark. |
| *Acer tartaricum*, Tartarian Maple | 20 | 20 | Yes | 5 | 3 | Yes | | |
| *Acer triflorum*, Three-Flower Maple | 25 | 20 | Yes | 5 | 3 | Yes | x | Multi seasonal interest with tan, exfoliating bark and red, orange/red fall color. |
| *Amelanchier laevis* 'Snowcloud,' Snowcloud Serviceberry | 25 | 15 | Yes | 4 | 3 | Yes | | |
| *Asimina triloba*, Paw | 30 | 20 | Yes | 5 | 1, 2, 3 | N/A | x | Burgundy flower in spring before leaves. |
| *Betula nigra* 'Little King,' Little King River Birch | 10 | 12 | Yes | 5 | 1, 2, 3 | Yes | | Suitable for enclosed vertical walls. |
| *Carpinus caroliniana*, American Hornbeam | 25 | 20 | Yes | 5 | 1, 2, 3 | Yes | x | Good fall color (variable – yellow, orange, red). Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Cornus kousa x nuttallii* 'Starlight,' Starlight Dogwood | 20 | 20 | Yes | 4 | 3 | Yes | | |
| *Lagerstroemia* 'tuscarora,' Tuscarora Hybrid Crape Myrtle | 20 | 20 | Yes | 4 | 3 | Yes | x | Light cinnamon brown bark lends year-round interest – drought resistant – likes a warm site. |
| *Maackia amurensis*, Amur Maackia | 30 | 20 | Yes | 5 | 3 | N/A | x | Exfoliating bark – flowering in June or July – varies in intensity from year to year. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |

**Table J.11 (continued). Small Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Magnolia* 'Elizabeth,' Elizabeth Magnolia | 30 | 20 | Yes | 5 | 3 | N/A | x | Yellowish to cream colored flower in spring. |
| *Magnolia* 'Galaxy,' Galaxy Magnolia | 25 | 25 | Yes | 5 | 1, 2, 3 | Yes | x | Suitable for enclosed vertical walls. Showy pink flowers. |
| *Magnolia kobus* 'Wada's Memory,' Wada's Memory Magnolia' | 30 | 20 | Yes | 5 | 3 | Yes | x | Drought tolerant. Does not flower well when young. |
| *Parrotia persica*, Persian Parrotia | 30 | 20 | No | 5 | 3 | Yes | | Blooms before it leafs out – drought tolerant – Varied fall color – reds, oranges and yellows. |
| *Prunus x yedoensis 'Akebono'* Akebono Flowering Cherry | 25 | 25 | No | 6 | 3 | Yes | | Fragrant white (sometimes tinged pink) flowers in 3- to 6-flowered clusters. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Frangula purshiana*, Cascara | 30 | 20 | Yes | 5 | 1, 2, 3 | Yes | x | Facultative native species. Found in wetland and upland habitats. Can tolerate bioretention street tree environments; however, does not grow as well in narrow, hot ROW locations. Suitable for enclosed vertical walls. |
| *Salix matsudana* 'Tortuosa,' Corkscrew willow | 30 | 15 | Yes | 5 | 1, 2, 3 | Yes | | Do not use with underdrain. |
| *Stewartia pseudocamellia*, Japanese Stewartia | 25 | 15 | Yes | 5 | 3 | Yes | | Camellia-like flowers in summer. Interesting bark. Slow grower. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Styrax japonica*, Japanese Snowbell | 25 | 25 | Yes | 5 | 3 | Yes | x | Reliable and easy to grow, it has plentiful, green 1/2inch seeds. Flowers similar to lily of the valley. |

**Table J.11 (continued). Small Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Tilia cordata* 'Chancole' or 'De Groot,' Chancellor or De Groot Littleleaf Linden | 30+ | 20 | No | C = 6, D = 5 | 3 | Yes | x | Pyramidal when young. Fragrant flowers that attract bees. One of the smaller-stature little-leaf lindens. |

**Table J.12. Medium Columnar Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Acer rubrum* 'Bowhall,' Bowhall Maple | 40 | 20 | No | 6 | 1, 2, 3 | Yes | x | Upright, pyramidal form. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Acer cappadocicum* Cappadocian Maple | 35 | 25 | No | 6 | 3 | Yes | | Broad-rounded crown. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Carpinus betulus* 'Fastigiata,' Pyramidal European Hornbeam | 40 | 15 | No | 5 | 1, 2, 3 | Yes | x | Broadens when older. |
| *Fagus sylvatica* 'Dawyck Purple,' Dawyck Purple Beech | 40 | 12 | No | 6 | 3 | Yes | x | Purple foliage. |
| *Oxydendron arboreum*, Sourwood | 35 | 12 | No | 5 | 3 | Yes | x | Consistent and brilliant fall color. |
| *Nyssa sylvatica*, BlackTupelo | 40 | 20 | No | 6 | 1, 2, 3 | Yes | x | Chunky bark. Takes standing water and drought. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |

**Table J.13. Medium Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Acer rubrum* 'Karpick,' Karpick Maple | 40 | 20 | No | 6 | 1, 2, 3 | Yes | x | Finer texture than other narrow forms of columnar maple. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Acer truncatum x A. platanoides* 'Keithsform' or 'Warrenred,' Norwegian or Pacific Sunset Maple | 35 | 25 | No | 5 | 3 | Yes | x | Reliable reddish orange fall color. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Cladrastis kentukea*, Yellowwood | 40 | 40 | No | 5 | 3 | Yes | x | White flowers in spring, resembling wisteria flower – blooms profusely only every 2 to 4 years – yellow/gold fall color |
| *Cornus controversa* 'June Snow,' Giant Dogwood | 40 | 30 | No | 5 | 3 | Yes | x | Frothy, 6-inch clusters of white flowers in June. |
| *Corylus colurna*, Turkish Filbert | 40 | 25 | No | 5 | 3 | Yes | x | Tight, formal, dense crown – Nice central leader. Not for mixed use areas with high pedestrian traffic dues to significant debris from nuts. Drought tolerant. Plant smaller sizes in order to facilitate establishment. |
| *Magnolia denudata*, Yulan Magnolia | 40 | 40 | No | 5 | 3 | N/A | x | 6-inch fragrant white flowers in spring. |
| *Ostrya virginiana*, Ironwood | 40 | 25 | No | 5 | 3 | Yes | x | Hop like fruit – slow growing |
| *Pterostyrax hispida*, Fragrant Epaulette Tree | 40 | 30 | No | 5 | 3 | Yes | x | Pendulous creamy white flowers – fragrant |
| *Ulmus parvifolia* 'Emer I,' Athena Classic Elm | 30 | 35 | No | 5 | 1, 2, 3 | Yes | x | High resistance to Dutch Elm Disease. Drought resistant. Cinnamon colored exfoliating bark. |

**Table J.14. Medium/Large Broad-leaved Evergreen Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Lithocarpus densiflorus*, Tanoak | 50 | 20 | No | 6 | 3 | | | |
| *Quercus Ilex*, Holly Oak | 40 | 30 | No | 5 | 3 | N/A | x | Underside of leaf is silvery-white. Often has a prominent umbrella form. Prune for form. |
| *Umbellularia californica*, Oregon Myrtlewood | 60 | 30 | No | 5 | 1, 2, 3 | | | Drought tolerant native in S. OR. Fruit looks like miniature limes. |

**Table J.15. Medium/Large Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Acer campestre* 'Evelyn,' Queen Elizabeth Hedge Maple | 40 | 30 | No | 5 | 1, 2, 3 | Yes | x | More upright branching than the species. |
| *Acer freemanii* 'Autumn Blaze,' Autumn Blaze Maple | 50 | 40 | No | 6 | 1, 2, 3 | Yes | x | Cross between red and silver maple – fast growing with good fall color. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Acer rubrum* 'Scarsen,' Scarlet Sentinel Maple | 40 | 25 | No | 6 | 1, 2, 3 | Yes | x | Leaves are darker green and larger than those of other Red Maples and hold up well in summer heat. Upright branch habit. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Aesculus x carnea* 'Briottii,' Red Horse Chestnut | 30 | 35 | No | 6 | 3 | N/A | x | Do not use near greenways or bicycle routes due to litter. Resists heat and drought better than other horse chestnuts. |
| *Betula nigra*, River Birch | 40 | 30 | No | 5 | 1, 2, 3 | Yes | | Excellent flaky bark. Resistant to Bronze Birch Borer. |
| *Cercidiphyllum japonicum,* Katsura tree | 45 | 40 | No | 8 | 1, 2, 3 | Yes | | |
| *Eucommia ulmoides*, Hardy Rubber Tree | 50 | 40 | No | 6 | 3 | N/A | x | Dark green, very shiny leaves – insignificant fall color. |
| *Fagus sylvatica* 'Rohanii,' Purple Oak Leaf Beech | 50 | 30 | No | 6 | 3 | N/A | x | Purple leaves with wavy margins. |
| *Ginko biloba* 'Autumn Gold,' Autumn Gold Ginkgo | 45 | 35 | No | 6 | 3 | Yes | x | Narrow when young. |
| *Gleditsia triacanthos 'Draves'* Street Keeper Honey Locust | 50 | 20 | No | 8 | 1,2,3 | Yes | | Tolerant of a wide range of soils and urban conditions. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |

**Table J.15 (continued). Medium/Large Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Gymnocladus dioicus 'Espresso-JFS'* Espresso™ Kentucky Coffee Tree | 50 | 35 | No | 8 | 3 | Yes | | Very coarse branches—extremely large bi-pinnately compound leaf. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Nothofagus antarctica*, Antarctic Beech | 50 | 35 | No | 5 | 3 | No | x | Rugged twisted branching and petite foliage. |
| *Quercus frainetto*, Italian Oak | 50 | 30 | No | 6 | 3 | N/A | x | Drought resistant—green, glossy leaves in summer. |
| *Sophora japonica* 'Regent,' Japanese Pagodatree | 45 | 40 | No | 6 | 3 | Yes | x | Has a rapid growth rate and tolerates city conditions, heat, and drought. |
| *Tilia cordata* 'Greenspire,' Greenspire Linden | 40 | 30 | No | 6 | 3 | Yes | x | Symmetrical, pyramidal form. Fragrant flowers. |
| *Ulmus parvifolia* 'Emer II,' Allee Elm | 45 | 35 | No | 5 | 1, 2, 3 | Yes | x | Exfoliating bark and good fall color — Resistant to Dutch Elm Disease. |

**Table J.16. Large Deciduous Columnar Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Acer nigrum* 'Green Column,' Green Column Black Sugar Maple | 50 | 10 | No | 6 | 3 | Yes | x | |
| *Ginko biloba* 'Princeton Sentry,' Princeton Sentry Ginkgo | 40 | 15 | No | 6 | 3 | Yes | x | Prune for form. |
| *Quercus bicolor* Swamp White Oak | 60 | 45 | No | 8 | 1,2,3 | Yes | | Can withstand some standing water in the winter. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Quercus robur* 'fastigiata,' Skyrocket Oak | 40 | 15 | No | 6 | 3 | N/A | x | |

## Table J.17. Large Deciduous Trees Suitable for Bioretention.

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Acer saccharum* 'Commemoration' or 'Bonfire' Commemoration or Bonfire Sugar Maple | 50 | 35 | No | 6 | 1, 2, 3 | Yes | x | Resistant to leaf tatter. |
| *Fagus sylvatica*, Green Beech | 50 | 40 | No | 6 | 3 | Yes | x | Silvery-grey bark. Can't handle root disturbance. |
| *Fagus sylvatica* 'Asplenifolia,' Fernleaf Beech | 60 | 50 | No | 6 | 3 | Yes | x | Can't handle root disturbance. |
| *Ginkgo biloba* 'Magyar,' Magyar Ginkgo | 50 | 25 | No | 6 | 3 | Yes | x | More upright and narrow than 'Autumn Gold.' Needs training when young. |
| *Liriodendron tulipifera*, Tulip Tree | 60+ | 30 | No | 8 | 1, 2, 3 | Yes | x | Fast-growing tree. |
| *Platins x acerifolia* 'Bloodgood,' Bloodgood London Planetree | 50+ | 40 | No | 8 | 1, 2, 3 | N/A | x | More anthracnose resistant than other varieties—large tree that needs space. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |
| *Quercus bicolor*, Swamp White Oak | 60 | 45 | No | 8 | 1, 2, 3 | N/A | x | Shaggy peeling bark. Wet-soil tolerant. |
| *Quercus coccinea*, Scarlet Oak | 60 | 40 | No | 6 | 3 | Yes | x | Good fall color. |
| *Quercus imbricaria*, Shingle Oak | 60 | 50 | No | 6 | 3 | N/A | x | Leaves can persist throughout the winter. |
| *Quercus rubra*, Red Oak | 60 | 45 | No | 8 | 1, 2, 3 | Yes | x | Fast growing oak—large tree that needs space. Heavy acorn producer. |
| *Tilia tomentosa*, Silver Linden | 60 | 50 | No | 6 | 3 | Yes | | Larger leaves than Littleleaf Linden. Fragrant flowers. |
| *Ulmus* 'Frontier' or 'Morton Glossy,' Frontier or Triumph Elm | 50 | 35 | No | 6 | 1, 2, 3 | Yes | x | Resistant to Dutch elm disease. |

**Table J.17 (continued). Large Deciduous Trees Suitable for Bioretention.**

| Scientific and Common Name | Mature Height | Spread | Under Wires? | Min Strip Width | Planting Zone | Fall Color | SDOT List | Design Comments |
|---|---|---|---|---|---|---|---|---|
| *Zelkova serrata* 'Greenvase' or 'Village Green' Green Vase or Village Green Zelkova | 45 | 40 | No | 6 | 3 | Yes | x | Exfoliating bark. Dark green leaves turn orange-red and purple in fall. Featured in Growth Rates and Performance of Trees in Silva Cells (Urban and Marritz 2016). |

# J-2. Plants for Biofiltration Swales

**Table J.18. Plants Tolerant of Saturated Soil Conditions or Standing Water in Biofiltration Swales.**

| EG | DT | NWN | Agg[a] | Scientific Name | Common Name | BMP Comments: Application | BMP Comments: Mowable |
|---|---|---|---|---|---|---|---|
| | DT | | A | *Agrostis* spp. | Bentgrass | S | M |
| SEMI | DT | NWN | | *Agrostis exarata* | Spike bentgrass | S | M |
| | DT | | A | *Agrostis alba* or *gigantea* | Redtop | S | M |
| EG | DT | | A | *Agrostis tenuis* or *capillaris* | Colonial bentgrass | S | M |
| EG | | | | *Alopecurus aequalis* | Shortawn foxtail | S | M |
| EG | | | | *Alopecurus geniculatus* | Water foxtail | S | M |
| EG | | | A | *Alopecurus pratensis* | Meadow foxtail | S | M |
| EG | DT | NWN | | *Bromus carinatus* | California brome | S | M |
| SEMI | | | | *Carex densa* | Dense sedge | | |
| EG | | NWN | | *Carex obnupta* | Slough sedge | | |
| SEMI | | | | *Carex stipata* | Sawbeak sedge | | |
| SEMI | | | | *Eleocharis palustris* | Spike rush | | |
| EG | DT | NWN | | *Elymus glaucus* | Blue wildrye | S | M |
| EG | DT | NWN | | *Elymus mollis* | Dune wildrye | S | M |
| | | NWN | | *Glyceria borealis* | Northern mannagrass | | |
| | | NWN | | *Glyceria elata* | Tall mannagrass | | |
| | | | | *Glyceria grandis* | American mannagrass | | |
| EG | DT | | A | *Juncus effusus* | Soft (common) rush | | |
| SEMI | DT | | | *Juncus patens* | Spreading rush | | |
| SEMI | DT | | | *Juncus tenuis* | Slender rush | | |
| EG | | | A | *Poa trivialis* | Rough-stalked bluegrass | S | M |
| SEMI | | NWN | | *Scirpus acutus* | Hardstem bulrush | | |
| SEMI | DT | NWN | | *Scirpus microcarpus* | Small-fruited bulrush | | |

EG = Evergreen

SEMI = Semi-evergreen

DT = Drought Tolerant/Resistant

NWN = Northwest Natives or Cultivars

A = Aggressive

S = Allowable as seed

M = Mowable

[a] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

Note: Plants with mature height over 3′ should be grouped in masses no wider than 12′ mature width with openings of minimum 10′ between masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

## Table J.19a. Plants Suitable for the Upper Side Slopes of a Biofiltration Swale – Groundcovers.

| EG | DT | NWN | Agg[a] | Scientific Name | Common Name | BMP Comments: Application | BMP Comments: Mowable |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| EG | DT | NWN | A | *Achillea millefolium* | Common yarrow | | |
| | DT | NWN | | *Arctostaphylos uva-ursi* | Kinnikinnick | | |
| | DT | NWN | | *Allium Cernum* | Nodding onion | | |
| SEMI | DT | | | *Epimedium grandiflorum* | Epimedium | | |
| EG | DT | | | *Euonymus fortunei* | Wintercreeper | | |
| EG | DT | NWN | A | *Fragaria chiloensis* | Beach strawberry | | |
| | | NWN | | *Lupinus latifolius* | Broadleaf lupine | | |
| | DT | | | *Omphalodes verna* | Creeping forget-me-not | | |
| EG | DT | | A | *Rubus calycinoides* | Creeping raspberry | | |
| EG | DT | NWN | | *Sedum oreganum* | Oregon stonecrop | | |
| EG | DT | NWN | | *Sedum divergens* | Cascade stonecrop | | |
| EG | DT | | A | *Trifolium repens* | White lawn clover | S | M |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant/Resistant
NWN = Northwest Natives or Cultivars
A = Aggressive
S = Allowable as seed
M = Mowable

[a] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

Note: Plants with mature height over 3′ should be grouped in masses no wider than 12′ mature width with openings of minimum 10′ between tall plant masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

## Table J.19b. Plants Suitable for the Upper Side Slopes of a Biofiltration Swale – Grasses (Drought Tolerant, Minimum Mowing).

| EG | DT | NWN | Agg[a] | Scientific Name | Common Name | BMP Comments: Application | BMP Comments: Mowable |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| EG | | | | *Buchloe dactyloides* | Buffalo grass | S | M |
| EG | DT | | | *Festuca* spp. (e.g., Many Mustang, Silverado) | Dwarf tall fescues | S | M |
| EG | | | | *Festuca amethystine* | Tufted fescue | S | |
| EG | DT | | A | *Festuca arundinacea* | tall fescue grass | S | M |
| EG | DT | | | *Festuca ovina duriuscula* (e.g., Reliant, Aurora) | Sheep fescue | | |
| EG | DT | NWN | | *Festuca idahoensis* | Idaho fescue | | |
| EG | DT | NWN | A | *Festuca rubra* | Creeping red fescue | S | M |
| EG | DT | | A | *Festuca rubra var. commutata* | Chewings fescue | S | M |
| EG | DT | | | *Helictotrichon sempervirens* | Blue oatgrass | | |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant/Resistant
NWN = Northwest Natives or Cultivars
A = Aggressive
S = Allowable as seed
M = Mowable

[a] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

Note: Plants with mature height over 3′ should be grouped in masses no wider than 12′ mature width with openings of minimum 10′ between tall plant masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

## Table J.20. Plants Suitable for Wet Biofiltration Swales.

| EG | DT | NWN | Agg[a] | Scientific Name | Common Name | BMP Comments: Application | BMP Comments: Mowable |
|---|---|---|---|---|---|---|---|
| SEMI | DT | NWN | | *Agrostis exarata* | Spike bentgrass | S | M |
| EG | DT | | A | *Agrostis tenuis* or *capillaris* | Colonial bentgrass | S | M |
| | | | | *Alopecurus aequalis* | Shortawn foxtail | S | M |
| | | | | *Alopecurus geniculatus* | Water foxtail | S | M |
| | | | | *Eleocharis* spp. | Spike rush | | |
| SEMI | | | | *Carex densa* | Dense sedge | | |
| EG | | NWN | | *Carex obnupta* | Slough sedge | | |
| SEMI | | NWN | | *Carex stipata* | Sawbeak sedge | | |
| | | | | *Carex* spp. | Sedge | | |
| EG | DT | | A | *Festuca arundinacea var.* | Tall fescue grass | S | M |
| EG | DT | NWN | A | *Festuca rubra* | Creeping red fescue | S | M |
| | | | | *Glyceria occidentalis* | Western mannagrass | | |
| EG | DT | | A | *Juncus effusus* | Soft (common) rush | | |
| SEMI | DT | | | *Juncus patens* | Spreading rush | | |
| SEMI | DT | NWN | | *Juncus tenuis* | Slender rush | | |
| EG | | | A | *Lolium perenne* – Var. dwarf | Dwarf ryegrass | S | |
| SEMI | | NWN | | *Oenanthe sarmentosa* | Water parsley | | |
| SEMI | | NWN | | *Scirpus acutus* | Hardstem bulrush | | |
| SEMI | DT | NWN | | *Scirpus microcarpus* | Small-fruited bulrush | | |

EG = Evergreen

SEMI = Semi-evergreen

DT = Drought Tolerant/Resistant

NWN = Northwest Natives or Cultivars

A = Aggressive

S = Allowable as seed

M = Mowable

[a] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

Note: Plants with mature height over 3′ should be grouped in masses no wider than 12′ mature width with openings of minimum 10′ between tall plant masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

# J-3. Plants for Sand Filters

**Table J.21a. Plants Suitable for Sand Filters – Basin Sides.**

| EG | DT | NWN | Agg[a] | Scientific Name | Common Name | BMP Comments: Application | BMP Comments: Mowable |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | DT | NWN | | *Achillea millefolium* | Yarrow | S | |
| EG | DT | | | *Agrostis alba* | Redtop | S | M |
| EG | DT | NWN | | *Agrostis exerata* | Spike bentgrass | S | M |
| EG | DT | | | *Agrostis palustris* | Creeping bentgrass | S | M |
| | DT | | | *Alopecurus pratensis* | Meadow foxtail | S | M |
| EG | DT | NWN | | *Bromus carinatus* | California Brome | S | M |
| | DT | NWN | | *Calamagrostis nutkaensis* | Pacific reed grass | | |
| EG | DT | NWN | | *Elymus glaucus* | Blue wildrye | S | M |
| EG | DT | NWN | | *Elymus mollis* | Dune wildrye | S | M |
| EG | DT | NWN | A | *Juncus effusus* | Soft rush | S | |
| | DT | NWN | | *Lupinus albicaulus* | Sickle keeled lupine | S | |
| EG | DT | NWN | | *Luzula multiflora* | Field woodrush | S | |
| | DT | | A | *Poa palustris* | Fowl bluegrass | S | M |
| EG | | | A | *Poa pratensis* | Kentucky bluegrass | S | M |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant/Resistant
NWN = Northwest Natives or Cultivars
A = Aggressive
S = Allowable as seed
M = Mowable

[a] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

Note: Plants with mature height over 3′ should be grouped in masses no wider than 8′ mature size with openings of min. 10′ between tall plant masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

## Table J.21b. Plants Suitable for Sand Filters – Pond Bottom (Sand Surface).

| EG | DT | NWN | Agg[a] | Scientific Name | Common Name | BMP Comments: Application | BMP Comments: Mowable |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| EG | DT | | | *Agrostis tenuis* | Colonial bentgrass (Highland strain good) | S | M |
| | DT | | | *Buchloe dactyloides* | Buffalo grass | S | M |
| | DT | NWN | | *Camassia leichlinii or quamash* | camas | | |
| EG | DT | NWN | | *Carex mertensii* | Merten's sedge | S | |
| EG | DT | NWN | | *Festuca elatior (arundinacea)* | Tall fescue | S | M |
| EG | DT | NWN | | *Festuca elatior* "Many Mustang," "Silverado" | Dwarf tall fescues | S | M |
| EG | DT | NWN | | *Fescue roemeri (idahoensis)* | Roemer's or Idaho fescue | S | |
| EG | DT | NWN | | *Festuca rubra* | Red fescue | S | M |
| SEMI | DT | NWN | | *Iris missouriensis* | Rocky Mountain iris | | |
| EG | DT | NWN | | *Juncus tenuis* | Slender rush | S | |
| EG | DT | | | *Lolium perenne* | Perennial ryegrass | S | M |
| EG | DT | NWN | | *Luzula parviflora* | Small flowered woodrush | S | |
| EG | DT | | | *Trifolium repens* | White lawn clover | S | M |
| EG | DT | | | *Zoysia tenuifolia* | Korean grass | S | M |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant/Resistant
NWN = Northwest Natives or Cultivars
A = Aggressive
S = Allowable as seed
M = Mowable

[a] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

Note: Plants with mature height over 3′ should be grouped in masses no wider than 8′ mature size with openings of min. 10′ between tall plant masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

# J-4. Plants and Trees for Wet Ponds

**Table J.22a. Plants and Trees Suitable for Wet Pond Peripheries – Trees to Provide Shading.[a]**

| EG | DT | NWN | Agg[b] | Scientific Name | Common Name | BMP Comments: Application[c] | BMP Comments: Mature Height |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | DT | NWN | | *Acer circinatum* | Vine maple | W | 25′ |
| | | | | *Betula nigra* | River birch | W | 40′ |
| EG | | NWN | | *Myrica californica* | Pacific wax myrtle | | 18′ |
| | | | | *Nyssa sylvatica* | Tupelo | W | 40′ |
| | | NWN | | *Oemleria cerasiformis* | Indian plum | | 10′ |
| | | NWN | | *Prunus emarginata* | Wild cherry | | 40′ |
| | | | | *Taxus brevifolia* | Pacific yew | | 40′ |
| EG | DT | NWN | | *Thuja plicata* | Western redcedar | W | 40′ |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant/Resistant
NWN = Northwest Natives or Cultivars
A = Aggressive
W = Wet Tolerant

[a] If BMP has a liner, designer should review plants accordingly; trees generally are not appropriate to liner conditions.

[b] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

[c] Tolerant of occasional saturated soils or minimal inundation (<6″ depth) for short periods (<72 hours).

Note: Plants with mature height over 3′ should be grouped in masses no wider than 8′ mature size with openings of min. 10′ between tall plant masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

Note: Many factors contribute to waterfowl use of ponds and adjacent areas. Designers should investigate site-specific conditions and best practice methods to discourage waterfowl use as necessary.

## Table J.22b. Plants and Trees Suitable for Wet Pond Peripheries – Small Trees/High Shrubs with Fibrous Roots for Berms.

| EG | DT | NWN | Agg[a] | Scientific Name | Common Name | BMP Comments: Application[b] | BMP Comments: Mature Height |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | NWN | | *Acer circinatum* | Vine maple | W | 25′ |
| | | NWN | | *Amelanchier alnifolia* | Serviceberry | | 25′ |
| EG | DT | | | *Arbutus unedo* | Strawberry tree | | 25′ |
| | | NWN | | *Comus Stolonifera* | Red twig dogwood | W | 20′ |
| | | NWN | | *Corylus comuta* var. *cornuta* | Filbert | | 20′ |
| | | NWN | | *Physocarpus capitatus* | Pacific ninebark | | 12′ |
| | | NWN | A | *Rubus spectabillis* | Salmonberry | W | 8′ |
| | | NWN | | *Sambucus racemosa* | Red elderberry | | 10′ |
| | | | | *Vaccinium opulus* | Highbush cranberry | | 10′ |
| | | | | *Vaccinium* spp. | Blueberry | | 4′–12′ |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant/Resistant
NWN = Northwest Natives or Cultivars
A = Aggressive
W = Wet Tolerant

[a] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

[b] Tolerant of occasional saturated soils or minimal inundation (<6″ depth) for short periods (<72 hours).

[c] If BMP has a liner, designer should review plants accordingly; trees generally are not appropriate to liner conditions.

Note: Plants with mature height over 3′ should be grouped in masses no wider than 8′ mature size with openings of min. 10′ between tall plant masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

Note: Many factors contribute to waterfowl use of ponds and adjacent areas. Designers should investigate site-specific conditions and best practice methods to discourage waterfowl use as necessary.

**Table J.22c. Plants and Trees Suitable for Wet Pond Peripheries – Low Shrubs and Grasses with Fibrous Roots for Berms.**

| EG | DT | NWN | Agg[a] | Scientific Name | Common Name | BMP Comments: Application[b] | BMP Comments: Mature Height |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| EG | | NWN | | *Arctostaphylos uva-ursi* | Kinnikinnick | | 0.5′ |
| | | | | *Cistus* spp. | Rock rose | | 2′–4′ |
| SEMI | | NWN | | *Deschampsia cespitosa* | Tufted hairgrass | | 3′ |
| EG | DT | | | *Festuca arundinacea* | Tall fescue grass | | 3′ |
| EG | DT | | | *Festuca ovina duriuscula* (e.g., Reliant, Aurora) | Sheep fescue | | 1′ |
| | | NWN | | *Festuca rubra* | Red fescue | W | 0.5′ |
| EG | | NWN | | *Gaultheria shallon* | Salal | | 4′ |
| | | | | *Helictotrichon sempervirens* | Blue oatgrass | | 3′ |
| EG | | NWN | | *Ledum groenlandicum* | Labrador tea | W | 5′ |
| | | | | *Polystichum munitum* | Sword fern | W | 4′ |
| | | NWN | A | *Symphoricarpus albus* | Snowberry | | 5′ |
| | | | (A) | e.g., *Miscanthis, Pennisetum* | Ornamental grasses | | varies |

EG = Evergreen
SEMI = Semi-evergreen
DT = Drought Tolerant/Resistant
NWN = Northwest Natives or Cultivars
A = Aggressive
W = Wet Tolerant

[a] Aggressive category indicates plants to be used with caution or avoided in confined sites (e.g., right-of-way plantings), near greenbelts, etc., due to maintenance concerns.

[b] Tolerant of occasional saturated soils or minimal inundation (<6″ depth) for short periods (<72 hours).

[c] If BMP has a liner, designer should review plants accordingly; trees generally are not appropriate to liner conditions.

Note: Plants with mature height over 3′ should be grouped in masses no wider than 8′ mature size with openings of min. 10′ between tall plant masses.

Note: Designer needs to respond to the size and aspect of the individual BMP when selecting plants to be used.

Note: Many factors contribute to waterfowl use of ponds and adjacent areas. Designers should investigate site-specific conditions and best practice methods to discourage waterfowl use as necessary.

# J-5. References

Urban, J., and L. Marritz. 2016. Growth Rates and Performance of Trees in Silva Cells. https://www.deeproot.com/silvapdfs/resources/SC2/articles/Growth-Rates-and-Performance-of-Trees-in-Silva-Cells.pdf