

APPENDIX J

Plant and Tree Lists

Note:

Some pages in this document have been purposely skipped or blank pages inserted so that this document will copy correctly when duplexed.

Introduction J-1
 J-1. Plants and Trees for Bioretention and Soil Cell Bioretention (Bioretention BMPs) J-2
 J-2. Plants for Biofiltration Swales.....J-41
 J-3. Plants for Sand FiltersJ-45
 J-4. Plants and Trees for Wet PondsJ-46
 J-5. References.....J-48

Tables

Table J.1. Part Shade Plant List Suitable for Bioretention BMPs. J-4
 Table J.2. Sun Plant List Suitable for Bioretention BMPs..... J-7
 Table J.3. Native Plant List Suitable for Bioretention BMPs (Sun to Part Shade includes cultivars).J-13
 Table J.4. Intersection and View Restriction Plant Palette (under 24 inches in height) Suitable for Bioretention BMPs.....J-19
 Table J.5. Vertical Shrubs and Accent Plants Suitable for Bioretention BMPs.J-22
 Table J.6. Groundcovers if Low Profile is Required for Bioretention BMPs.....J-25
 Table J.7. Steppable Plants Suitable for Bioretention BMPs.J-27
 Table J.8. Conifer Trees (deciduous and evergreen).J-28
 Table J.9. Small Conifer/Broad-leaved Evergreen Trees.J-29
 Table J.10. Small/Constrained Site Deciduous Trees.....J-30
 Table J.11. Small Deciduous Trees.J-31
 Table J.12. Medium Columnar Deciduous Trees.....J-33
 Table J.13. Medium Deciduous Trees.J-34
 Table J.14. Medium/Large Broad-leaved Evergreen Trees.J-35
 Table J.15. Medium/Large Deciduous Trees.J-36
 Table J.16. Large Deciduous Columnar Trees.....J-38
 Table J.17. Large Deciduous Trees.J-39
 Table J.18. Plants Tolerant of Saturated Soil Conditions or Standing Water in Biofiltration Swales.J-41
 Table J.19a. Plants Suitable for the Upper Side Slopes of a Biofiltration Swale - Groundcovers.J-42
 Table J.19b. Plants Suitable for the Upper Side Slopes of a Biofiltration Swale - Grasses (Drought Tolerant, Minimum Mowing).J-42

Table J.20. Plants Suitable for Wet Biofiltration Swales..... J-44

Table J.21a. Plants Suitable for Sand Filters - Basin Sides..... J-45

Table J.21b. Plants Suitable for Sand Filters - Pond Bottom (Sand Surface)..... J-45

Table J.22a. Plants and Trees Suitable for Wet Pond Peripheries - Trees to Provide Shading.^a J-46

Table J.22b. Plants and Trees Suitable for Wet Pond Peripheries - Small Trees/High Shrubs with Fibrous Roots for Berms. J-47

Table J.22c. Plants and Trees Suitable for Wet Pond Peripheries - Low Shrubs and Grasses with Fibrous Roots for Berms. J-48

Figures

Figure J.1. Bioretention Planting Zones..... J-3

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 an intersection (as measured from the corner of the curb) 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 ~~for water quality~~ in the bottoms of bioretention BMPs
- Zone 2: designation for plants that are used ~~for water quality~~ 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 of 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.

Refer to redlined figure
packet for proposed
figure revisions for the
2026 Seattle
Stormwater Manual

[Figure J.1. Bioretention Planting Zones.](#)

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

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"	<i>Abelia x grandiflora</i> 'Prostrata'	Prostrate white abelia	3, 4	1 Gal./30" o.c.	UF	☀, ∅		E	
	DT		18"–30"	<i>Aster divaricatus</i>	White wood aster	3	1 Gal./24" o.c.		∅∅		B	
			<24"	<i>Carex elata</i> 'Bowles Golden'	Bowles Golden sedge	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	Limit to areas of approx. 36"x36"	B	
EG			<24"	<i>Carex laxiculmis</i> 'Hobb'	Bunny Blue sedge	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	∅		C	
EG	DT	NWN	24"–48"+	<i>Carex obnupta</i>	Slough sedge	1, 2	10 Cu. In. Plug/ 9" o.c.		☀, ∅	Do not intermix with other emergents. Do not plant near intersections. Drought tolerant wetland native.	C	Can be sheared more frequently if overcrowding occurs. May require supplementary irrigation during prolonged dry periods.
		NWN	24"–36"	<i>Carex stipata</i>	Beaked sedge	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	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"	<i>Carex testacea</i> or <i>dispacea</i>	Orange New Zealand or Autumn Sedge	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅		C	

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

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"	<i>Cornus sericea</i> 'Kelseyii'	Kelsey redstem dogwood	1, 2, 3	2 Gal./30" o.c.	UF	☀, ∅		E	Stems fragile until established.
		NWN	24"–40"	<i>Deschampsia caespitosa</i>	Tufted Hair Grass	1, 2	10 Cu. In. Plug/ 9" o.c.		☀, ∅	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"	<i>Deschampsia flexuosa</i> 'Aurea'	Golden crinkled hair grass	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	Limit to areas of approx. 36"x36"	B	LOS A: For neater appearance, trim seedheads.
			24"	<i>Fuchsia magellanica</i> 'Aurea'	Dwarf Hardy Fuchsia	3, 4	2 Gal./30" o.c.	UF	∅∅		E	
			<24"	<i>Galanthus elwesii</i>	Giant Snowdrop	3, 4	Bulb	UF	☀, ∅	Prefers part shade. May be short-lived if too hot.	F	
EG	DT	NWN	24"–36"+	<i>Gaultheria shallon</i>	Salal	3	1 Gal./24" o.c.	UF	☀, ∅		E	If height is a problem, Salal can be sheared with hedge trimmer.
EG			<24"	<i>Geum flore-plena</i> 'Blazing Sunset'	Blazing Sunset Avens	3, 4	1 Gal./10" o.c.	UF	☀, ∅		DS	
			24"–36"	<i>Iris pallida</i> 'Variegata'	Variegated sweet iris	3	1 Gal./18" o.c.	UF	☀, ∅		A	

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"	<i>Mahonia repens</i>	Creeping Oregon holly-grape	3, 4	1 Gal./18" o.c.	UF	☀, ∅		E	
EG	DR	NWN	24"–36"	<i>Polystichum munitum</i>	Western swordfern	3	2 Gal./24" o.c.	UF	∅	Limit to group of 3	B	Cut back before fronds appear.
EG	DT		24"–36"	<i>Prunus laurocerasus</i> 'Mount Vernon'	Mount Vernon cherry laurel	3	2 Gal./24" o.c.	UF	☀, ∅		E	
EG			36"	<i>Rhododendron</i> Yak Hybrids, such as 'Ken Janeck'	Yak Hybrid	3	2 Gal./24" o.c.	UF	☀, ∅	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"	<i>Sarcococca hookeriana humilis</i>	Himalayan Sweet Box	3	2 Gal./24" o.c.	UF	∅	Winter fragrance	E	
EG			30"	<i>Taxus</i> 'Emerald Spreader'	Emerald Spreader Yew	3	2 Gal./24" o.c.	UF	☀, ∅		E	
		NWN	<24"	<i>Tolmiea menziesii</i>	Youth on Age	1, 2, 3	1 Gal./10" o.c.		∅		G	
EG	DT		<24"	<i>Veronica liwanensis</i>	Speedwell	3, 4, 5	4" Pot/12" o.c.	UF	☀, ∅		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
 ∅ = Part Sun/Part Shade
 LOS = Level of Service

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

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"	<i>Abelia x grandiflora</i> 'Prostrata'	Prostrate white abelia	3, 4	1 Gal./30" o.c.	UF	☀, ∅		E	
	DT		<24"	<i>Aster novi-belgii</i> 'Wood's Blue'	Wood's Blue New York Aster	3	1 Gal./18" o.c.	UF	☀		B, G	
			24"–36"	<i>Carex muskingumensis</i>	Palm sedge	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	Limit to areas of approx. 36"x36"	B	
			24"–36"	<i>Carex elata</i> 'Bowles Golden'	Bowles Golden Sedge	1, 2, 3	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	Limit to areas of approx. 36"x36"	B	
			24"–36"+	<i>Carex grayi</i>	Gray's sedge	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	Limit to areas of approx. 36"x36"	B	
		NWN	24"–36"	<i>Carex stipata</i>	Beaked sedge	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	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"	<i>Carex testacea</i> or <i>dispacea</i>	Orange New Zealand or Autumn Sedge	1, 2, 3	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅		C	

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

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"	<i>Caryopteris incana</i> '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"	<i>Cornus sericea</i> 'Kelseyii'	Kelsey redstem dogwood	1, 2, 3	2 Gal./30" o.c.	UF	☀, ∅		E	Stems fragile until established.
		NWN	24"–40"	<i>Deschampsia caespitosa</i>	Tufted Hair Grass	1, 2	10 Cu. In. Plug/ 9" o.c.		☀, ∅	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"	<i>Deschampsia flexuosa</i> 'Aurea'	Golden crinkled hair grass	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	Limit to areas of approx. 36"x36"	B	LOS A: For neater appearance, trim seedheads.
	DT		24"–36"	<i>Echinacea purpurea</i>	Coneflower	3	1 Gal./18" o.c.	UF	☀		B	LOS A: For neater appearance, deadhead.
EG	DT	NWN	24"–36"+	<i>Gaultheria shallon</i>	Salal	3	1 Gal./24" o.c.	UF	☀, ∅		E	If height is a problem, Salal can be sheared with hedge trimmer.

Appendix J – Plant and Tree Lists

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"	<i>Hemerocallis</i> – Later Flowering Varieties	Later Flowering Daylily varieties	3, 4	1 Gal./15" o.c.	UF	☀, ∅	Later flowering varieties are not as susceptible to Daylily gall midge.	A	LOS A: For neater appearance, deadhead.
EG	DT		<24"	<i>Geranium x cantabrigiense</i> 'Cambridge'	Perennial Geranium	3, 4	1 Gal./15" o.c.	UF	☀, ∅		B	
SEMI	DT		<24"	<i>Helianthemum</i> 'Henfield Brilliant'	Sunrose	3, 4	1 Gal./10" o.c.	UF	☀		B	
EG	DT		24"–36"	<i>Helictotrichon sempervirens</i>	Blue oat grass	3	1 Gal./18" o.c.	UF	☀		C	
EG	DT		<24"	<i>Ilex x 'Mondo'</i>	Little Rascal Holly	3, 4	1 Gal./18" o.c.	UF	☀, ∅		E	
EG	DT	NWN	<24"	<i>Iris douglasiana</i>	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"	<i>Iris missouriensis</i>	Rocky Mountain Iris	1, 2	1 Gal./12" o.c.	UF	☀		G	May require supplementary irrigation during prolonged dry periods. LOS A: For neater appearance, cut back dead leaves and flower stalks.

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"–36"	<i>Iris sibirica</i> 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"	<i>Juncus balticus</i>	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.
EG		NWN	24"–36"	<i>Juncus effusus</i> 'Quartz Creek'	Quartz Creek Soft Rush	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅		C	LOS A: Can be sheared more frequently if foliage collapses.
EG	DT		<24"	<i>Juniperus conferta</i> 'Blue Pacific'	Blue Pacific Shore juniper	3, 4	1 Gal./3' o.c.	UF	☀		E	
	DT	NWN	36"	<i>Leersia oryzoides</i>	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.

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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"	<i>Mahonia repens</i>	Creeping Oregon holly-grape	3, 4	1 Gal./18" o.c.	UF	☀, ∅		E	
	DR		36"	<i>Miscanthus sinensis</i> 'Little Kitten'	Little Kitten Maiden Grass	3	1 Gal./15" o.c.	UF	☀		B	
	DT		30"	<i>Nepeta</i> 'Walker's Low'	Catmint	3	1 Gal./18" o.c.	UF	☀, ∅		B	
EG			36"	<i>Rhododendron</i> Yak Hybrids, such as 'Ken Janeck'	Yak Hybrid	3, 4	2 Gal./30" o.c.	UF	☀, ∅	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"	<i>Rudbeckia fulgida</i> 'Goldsturm'	Black-Eyed Susan	3, 4	1 Gal./18" o.c.	UF	☀	Late season color accent.	A OR B	
	DT		<24"	<i>Sedum</i> '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"	<i>Solidago canadensis</i> 'Baby Gold' or <i>Solidago hybrida</i> 'Dansolitlem'	Baby Gold or Little Lemon Goldenrod	3, 4	1 Gal./18" o.c.		☀	Late season color accent.	A	
		NWN	24"–48"	<i>Spiraea betulifolia</i> or <i>Spiraea betulifolia</i> 'Tor'	Birchleaf spirea	3	1 Gal./24" o.c.	UF	☀		E	

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"	<i>Sedum oregonum</i>	Stonecrop	3, 4, 5	4" Pot/12" o.c.	UF	☀	Tolerates hot dry sites.	E	
EG	DT		<24"	<i>Teucrium chamaedrys</i>	Wall germander	3, 4	1 Gal./18" o.c.	UF	☀		E	LOS A: For neater appearance trim spent flowers in spring.
EG	DT		<24"	<i>Thymus serpyllum</i> '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

∅ = Part Sun/Part Shade

LOS = Level of Service

Table J.3. 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
	DR	NWN	24"–36"	<i>Aquilegia formosa</i>	Western Columbine	3, 4	1 Gal./18" o.c.		☀, ∅		DF	
EG	DT	NWN	<24"	<i>Arctostaphylos uva-ursi</i> 'Massachusetts' or 'Pt. Reyes'	Kinnikinnick	3, 4	1 Gal./12" o.c.	UF	☀, ∅	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"	<i>Camus leichtlinii</i> or <i>Camus quamash</i>	Great Camus or Common Camus	3, 4	1 Gal./12" o.c.		☀, ∅	Plant for in groups for effect. Can be planted as a bulb	DF	
	DR	NWN	24"–48"	<i>Carex deweyana</i>	Dewey's sedge	1, 2	10 Cu. In. Plug/ 9" o.c.		☀, ∅	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"+	<i>Carex obnupta</i>	Slough sedge	1, 2	10 Cu. In. Plug/ 9" o.c.		☀, ∅	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 other 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"	<i>Carex pachystachya</i>	Chamisso sedge	1, 2	10 Cu. In. Plug/ 9" o.c.		☀, ∅	Grows best on side slopes. Limit to areas of approx. 36"x36"	B	
		NWN	24"–36"	<i>Carex stipata</i>	Beaked sedge	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	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"	<i>Cornus sericea</i> 'Kelseyii'	Kelsey redstem dogwood	1, 2, 3	2 Gal./30" o.c.	UF	☀, ∅	Limit to areas of approx. 36"x36"	E	Stems fragile until established.
		NWN	24"–40"	<i>Deschampsia caespitosa</i>	Tufted Hair Grass	1, 2	10 Cu. In. Plug/ 9" o.c.		☀, ∅	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"	<i>Erigeron peregrinus</i>	subalpine fleabane daisy	3, 4	1 Gal./12" o.c.	UF	☀		DF	
	DT	NWN	36"	<i>Festuca idahoensis</i>	Idaho fescue	3, 4	1 Gal./18" o.c.		☀		DF	
EG	DT	NWN	<24"	<i>Gaultheria ovatifolia</i>	Oregon wintergreen	3, 4	1 Gal./24" o.c.	UF	☀, ∅	If Gaultheria shallon is substituted see additional O&M notes	E	If height is a problem, can be sheared with hedge trimmer.

Appendix J – Plant and Tree Lists

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"	<i>Iris douglasiana</i>	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"	<i>Iris missouriensis</i>	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"	<i>Juncus balticus</i>	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.

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"+	<i>Juncus effusus</i>	Common rush	1, 2	10 Cu. In. Plug/ 9" o.c.		☀, ∅	Only <i>Juncus effusus</i> var. <i>pacificus</i> is native. Other varieties of <i>Juncus effusus</i> , 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"	<i>Juncus ensifolius</i>	Dagger-leaf rush	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	Limit to areas of approx. 36"x36"	B	Requires supplementary irrigation in summer to thrive.
EG	DT	NWN	<24"	<i>Juncus tenuis</i>	Path rush	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	Native facultative species; does well in wet and dry conditions.	C	
EG	DT	NWN	<24"	<i>Juniperus communis</i> 'Mondap'	Alpine carpet juniper	4	1 Gal./24" o.c.	UF	☀		E	May require supplementary irrigation in summer. May require pruning

Appendix J – Plant and Tree Lists

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	36"	<i>Ledum glandulosum</i>	Pacific or trapper's tea	1, 2, 3	5 Gal./36" o.c.	UF	☀, ∅	Plant near the bottom of swale	E	
EG	DT	NWN	<24"	<i>Lewisia cotyledon</i> or cultivars	Siskiyou lewisia	3, 4	1 Gal./12" o.c.	UF	☀		E	
EG		NWN	36"	<i>Mahonia aquifolium</i> 'Orange Flame' or 'Compacta'	Compact tall Oregon grape	3	1 Gal./36" o.c.	UF	☀, ∅		E	
EG	DR	NWN	<24"	<i>Mahonia repens</i>	Creeping Oregon grape	3, 4	1 Gal./18" o.c.	UF	☀, ∅		E	
		NWN	24"–36"	<i>Mimulus guttatus</i>	Yellow monkey-flower	1, 2	1 Gal./18" o.c.		☀, ∅	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"	<i>Pachistima myrsinites</i>	Oregon Boxwood	3	1 Gal./36" o.c.	UF	☀, ∅		E	
		NWN	<24"	<i>Potentilla fruticosa</i> 'Sunset'	Frosty potentilla	3, 4	2 Gal./30" o.c.	UF	∅∅		E	

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"	<i>Potentilla glandulosa</i> or <i>Potentilla gracilis</i>	Sticky cinquefoil or slender cinquefoil	3, 4	1 Gal./18" o.c.		☀, ∅		DF	
EG		NWN	24"–36"	<i>Polystichum imbricans</i> or <i>Polystichum lonchitis</i>	Narrow-leaf sword fern or Northern holly fern	3, 4	2 Gal./30" o.c.	UF	☀, ∅	If <i>Polystichum munitum</i> is substituted limit groups to 3 and prune yearly	B	Cut back before fronds appear.
	DT	NWN	<24"	<i>Solidago canadensis</i> 'Baby Gold' or <i>Solidago hybrida</i> 'Dansolitem'	Baby Gold or Little Lemon Goldenrod	3, 4	1 Gal./18" o.c.		☀	Late season color accent.	A	
		NWN	24"–36"	<i>Spiraea betulifolia</i> or <i>Spiraea betulifolia</i> 'Tor'	Birchleaf spirea	3	1 Gal./24" o.c.	UF	☀		E	
EG	DT	NWN	<24"	<i>Sedum divergens</i>	Stonecrop	3, 4	4" Pot/12" o.c.	UF	☀, ∅	Tolerates hot dry sites.	E	LOS A: For neater appearance deadhead.
EG	DT	NWN	<24"	<i>Sedum oreganum</i>	Stonecrop	3, 4, 5	4" Pot/12" o.c.	UF	☀	Tolerates hot dry sites.	E	
EG	DT	NWN	24"–36"	<i>Xerophyllum tenax</i>	Bear grass	3	1 Gal/18" o.c.	UF	☀	Tolerates hot dry sites.	E	

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

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"	<i>Chrysanthemum</i> 'Peach Centerpiece' or 'Bienchen'	Peach Centerpiece or golden chrysanthemum	3, 4	1 Gal./15" o.c.		☀	Late season color accent.	B & G	Pull if scraggly.
	DT		<24"	<i>Coreopsis lanceolata</i> 'Sterntaler'	Tickseed	3, 4	1 Gal./15" o.c.	UF	☀		B & G	
	DT		24"–30"	<i>Cornus sericea</i> 'Kelseyii'	Kelsey redstem dogwood	1, 2, 3	1 Gal./30" o.c.	UF	☀, ∅	Plant in bottom areas for sightlines.	E	Stems fragile until established.
EG	DT		<24"	<i>Epimedium rubrum</i> or <i>sulphurescens</i>	Barrenwort	3, 4	4" Pot/12" o.c.	UF	∅	Part shade to shade only without irrigation.	B	Cut back before flower stalks appear.
EG	DT		<24"	<i>Euonymus fortunei</i> 'Interbolwi'	Blondy winter-creeper	3, 4	1 Gal./18" o.c.	UF	☀, ∅		E	
	DT		<24"	<i>Geranium</i> 'Gerwat' 'Rozanne'	Rozanne geranium	3, 4	1 Gal./24" o.c.		☀, ∅		A	LOS A: Can be sheared for neater appearance.
EG			<24"	<i>Geum flore pleno</i> 'Blazing Sunset'	Blazing Sunset Avens	3, 4	1 Gal./18" o.c.	UF	☀, ∅		DS	
EG			<24"	<i>Hebe x</i> 'Champion'	Champion Hebe	3, 4	1 Gal./18" o.c.	UF	☀, ∅		E	
SEMI	DT		<24"	<i>Helianthemum nummularium</i> 'Wisley Primrose'	Yellow Sunrose	3, 4	1 Gal./12" o.c.	UF	∅		B	

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

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"	<i>Helictotrichon sempervirens</i>	Blue oat grass	3	1 Gal./18" o.c.	UF	∅	36" height only when in flower. Airy flowers. Groups of 3 maximum.	C	
EG	DT		<24"	<i>Ilex</i> x 'Mondo'	Little Rascal Holly	3, 4	1 Gal./18" o.c.	UF	☀, ∅		E	
EG		NWN	<24"	<i>Juncus effusus</i> 'Carmen's Japan'	Carmen's Japanese Rush	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅		C	
EG			<24"	<i>Juncus effusus</i> 'Spiralis'	Corkscrew soft rush	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅		C	LOS A: Can be sheared more frequently if foliage collapses.
EG			24"–30"	<i>Juncus patens</i> or <i>Juncus patens</i> 'Elk blue'	California gray rush	1, 2	10 Cu. In. Plug/ 9" o.c.	UF	☀, ∅	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"	<i>Liriope muscari</i> and cultivars	Lily Turf	3, 4	4" Pot/12" o.c.	UF	☀, ∅		C	OK to pull clumps for ease of weed control.
EG	DR	NWN	<24"	<i>Mahonia repens</i>	Creeping Oregon holly-grape	3	1 Gal./18" o.c.	UF	☀, ∅		E	

Appendix J – Plant and Tree Lists

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"	<i>Narcissus</i> 'Dutch Master' or 'King Alfred'	Daffodil	3, 4	Bulb/As Shown	UF	∅		DS	Cut back foliage in summer.
		NWN	<24"	<i>Potentilla fruticosa</i> 'Sunset'	Frosty potentilla	3, 4	2 Gal./30" o.c.	UF	∅		E	
EG	DT		<24"	<i>Veronica liwanensis</i>	Speedwell	3, 4, 5	4" Pot/12" o.c.	UF	∅		E	LOS A: Cut back for neater appearance.

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

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'	<i>Amelanchier alnifolia</i>	Service Berry	1, 2, 3	Multi-stem, B&B, 5'-6' ht.		∅	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'	<i>Cornus sanguinea</i> 'Midwinter Fire'	Midwinter Fire Dogwood	1, 2, 3	5 gal		☀, ∅		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'	<i>Cornus sericea</i> 'Flaviramea'	Yellow-Twig Dogwood	1, 2, 3	5 gal		∅		E	Prune 2/3 of all (older) branches to 8" above ground in March to keep in bounds and to maintain red twigs.
			10'	<i>Hamamelis x intermedia</i> 'Pallida'	Witch Hazel	3	10 gal		☀, ∅	Vase-shaped open growing form	E	
			5'	<i>Hydrangea quercifolia</i> 'Pee Wee'	Oak-Leaf Hydrangea	3	5 gal		∅	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 BMPs.

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'	<i>Ilex glabra</i> 'Shamrock'	Inkberry	1, 2	5 gal.		☀, ∅		E	Female plants need a male pollinator to produce berries.
			3'–12'	<i>Ilex verticillata</i> and cultivated varieties	Winterberry	1, 2	5 gal.		☀, ∅		E	Female plants need a male pollinator to produce berries.
EG			8'–12'	<i>Mahonia</i> 'Arthur Menzies'	Ornamental Mahonia	3	5 gal		☀, ∅	Upright multi-stemmed.	E	
EG		NWN	6'–10'	<i>Mahonia aquifolium</i>	Oregon grape	3	5 gal		☀, ∅	Upright multi-stemmed.	E	
EG			5'	<i>Osmanthus</i> 'Goshiki'	Variegated Osmanthus	3	5 gal		∅	4' wide. Considered dwarf. New foliage is colorful.	E	May need windowing/ thinning.
			6'	<i>Physocarpus opulifolius</i> 'Nanus'	Dwarf Ninebark	1, 2, 3	5 gal		☀, ∅	Even dwarf form may be tall and wide.	E	May need windowing/ thinning.
EG			4'	<i>Pieris japonica</i> 'Little Heath'	Little Heath Lily of the Valley	3	3 gal.		∅	Variegated foliage that emerges pink in spring. Flowers in winter	E	May need windowing/ thinning.
		NWN	8'	<i>Ribes sanguineum</i> and cultivated varieties	Red Flowering Currant	3	5-gal		∅	Attracts hummingbirds	E	May need windowing/ thinning.

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
			15'–20'	<i>Salix integra</i> 'Hakuro Nishiki'	Dappled Willow	1, 2, 3	5 gal.		☀, ∅		E	Specify tree form; Prune to ground every other year to keep smaller
			8'–15'	<i>Sambucus nigra</i> 'Gerda'	Black Beauty Black Elder	1, 2, 3	5 gal.		☀, ∅		E	
		NWN	6'	<i>Symphoricarpos albus</i>	Snowberry	1, 2, 3	5 gal		☀, ∅	Forms thickets.	E	May need windowing/ thinning.
			6'	<i>Taxodium distichum</i> 'Peve Minaret'	Dwarf bald cypress	1, 2, 3					E	
EG		NWN	6'	<i>Vaccinium ovatum</i>	Evergreen Huckleberry	1, 2, 3	5 gal		☀, ∅		E	
			6'	<i>Vaccinium</i> 'Sunshine Blue'	Blueberry	3	5 gal		☀, ∅	Self-pollinating edible fruits. Good fall color.	E	
EG			10'	<i>Viburnum cinnamomifolium</i>	Cinnamon Viburnum	3	10 gal		☀, ∅		E	May need windowing/ thinning.
		NWN	7'–12'	<i>Viburnum edule</i>	Highbush cranberry	1, 2, 3	5 gal.		☀, ∅		E	

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

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"	<i>Ajuga reptans</i>	Bugleweed	3, 4	4" Pot/12" o.c.	UF	☀, ∅		E	Can be pulled if grows beyond desired boundaries.
EG	DT		<24"	<i>Epimedium rubrum</i> or <i>sulphurescens</i> or cultivars	Barrenwort	3, 4	4" Pot/12" o.c.	UF	∅		B	Cut back foliage before flower stalks appear.
EG	DT		<24"	<i>Euonymus fortunei</i> 'Kewensis'	Winter-creeper euonymous	3, 4	1 Gal./18" o.c.	UF	☀, ∅		E	Can be mowed to keep low.
SEMI	DT		<24"	<i>Geranium macrorrhizum</i> 'Album' or other cultivars	Hardy Geranium	3, 4	1 Gal./18" o.c.	UF	☀, ∅		B	
EG	DT		<24"	<i>Pachysandra terminalis</i>	Japanese Spurge	3, 4	4" Pot/12" o.c.	UF	∅		C	
EG	DT		<24"	<i>Sibbaldiopsis tridentata</i> (= <i>Potentilla tridentata</i>)	Three-toothed Cinquefoil	3, 4	4" Pot/12" o.c.	UF	∅		E	
EG	DT		<24"	<i>Rubus tricolor</i>	Creeping Chinese Bramble	3, 4	4" Pot/12" o.c.	UF	∅	Tolerates deep shade. Not as aggressive or spiny as other <i>Rubus</i> groundcovers. Red fuzzy stems and shiny leaves.	E	

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

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"	<i>Sedum divergens</i>	Stonecrop	3, 4	4" Pot/12" o.c.	UF	☀, ∅	Tolerates hot dry sites.	E	LOS A: For neater appearance deadhead.
EG	DT		<24"	<i>Sedum requieni</i>	Miniature Stonecrop	3, 4, 5	4" Pot/12" o.c.	UF	☀, ∅	Tolerates hot dry sites.	E	
	DT	NWN	<24"	<i>Vancouveria hexandra</i>	Inside Out Flower	3, 4	4" Pot/12" o.c.	UF	∅		E	
SEMI			<24"	<i>Potentilla neumanniana</i> 'Nana'	Dwarf cinquefoil	3, 4, 5	4" Pot/12" o.c.	UF	☀, ∅		E	
EG			<24"	<i>Ophiopogon japonicus</i> 'Nanus'	Dwarf mondo grass	3, 4, 5	4" Pot/12" o.c.	UF	☀, ∅	Can space at 15" o.c. for cost saving	E	

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

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"	<i>Ophiopogon japonicus</i> 'Nanus'	Dwarf mondo grass	3, 4, 5	4" Pot/12" o.c.	UF	☀, ∅	Can space at 15" o.c. for cost saving	E	
SEMI			<24"	<i>Potentilla neumanniana</i> 'Nana'	Dwarf cinquefoil	3, 4, 5	4" Pot/12" o.c.	UF	☀, ∅		E	
EG	DT	NWN	<24"	<i>Sedum oregonum</i>	Stonecrop	3, 4, 5	4" Pot/12" o.c.	UF	☀	Tolerates hot dry sites.	E	
EG	DT		<24"	<i>Sedum requienii</i>	Miniature Stonecrop	3, 4, 5	4" Pot/12" o.c.	UF	☀, ∅	Tolerates hot dry sites.	E	
EG	DT		<24"	<i>Thymus serpyllum</i> 'Elfin'	Elfin creeping thyme	3, 4, 5	4" Pot/12" o.c.	UF	☀		F	
EG	DT		<24"	<i>Veronica liwanensis</i>	Speedwell	3, 4, 5	4" Pot/12" o.c.	UF	∅		E	LOS A: Cut back for neater appearance.

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Table J.8. Conifer **Trees** (deciduous and evergreen) **BAPs**.

Scientific and Common Name	Mature Urban Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Calocedrus decurrens</i> , Incense Cedar	75	15	No	8	3			
<i>Metasequoia glyptostroboides</i> , Dawn Redwood	50	25	No	6	1, 2, 3	Yes		Fast growing deciduous conifer.
<i>Pinus contorta</i> , Shore Pine	45	30	No	5	1, 2, 3			Facultative species that grows well in sandy soils. Found in wetland and upland habitats.
<i>Taxodium distichum</i> , 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).
<i>Taxodium distichum</i> 'Mickelson,' Shawnee Brave Bald Cypress	55	20	No	6	1, 2, 3	Yes	x	Deciduous conifer – tolerates city conditions.
<i>Thuja plicata</i> 'Excelsa' or 'Hogan,' Western Red Cedar	40	15–20	No	8	1, 2, 3			Narrow columnar form.

Table J.9. Small Conifer/Broad-leaved Evergreen Trees.

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

Table J.10. Small/Constrained Site Deciduous Trees.

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

Table J.11. Small Deciduous Trees.

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Acer buegerianum</i> , Trident Maple	30	30	Yes	5	3	Yes	x	Must train to a single stem – interesting bark.
<i>Acer circinatum</i> , Vine Maple	25	25	Yes	5	3	Yes	x	Avoid using on harsh sites – native tree.
<i>Acer griseum</i> , Paperbark Maple	30	20	Yes	5	3	Yes	x	Peeling cinnamon colored bark.
<i>Acer tartaricum</i> , Tartarian Maple	20	20	Yes	5	3	Yes		
<i>Acer triflorum</i> , Three-Flower Maple	25	20	Yes	5	3	Yes	x	Multi seasonal interest with tan, exfoliating bark and red, orange/red fall color.
<i>Amelanchier laevis</i> 'Snowcloud,' Snowcloud Serviceberry	25	15	Yes	4	3	Yes		
<i>Asimina triloba</i> , Paw	30	20	Yes	5	1, 2, 3	N/A	x	Burgundy flower in spring before leaves.
<i>Betula nigra</i> 'Little King,' Little King River Birch	10	12	Yes	5	1, 2, 3	Yes		Suitable for enclosed vertical walls.
<i>Carpinus caroliniana</i> , 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).
<i>Cornus kousa x nuttallii</i> 'Starlight,' Starlight Dogwood	20	20	Yes	4	3	Yes		
<i>Lagerstroemia</i> '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.
<i>Maackia amurensis</i> , 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).

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Magnolia</i> 'Elizabeth,' Elizabeth Magnolia	30	20	Yes	5	3	N/A	x	Yellowish to cream colored flower in spring.
<i>Magnolia</i> 'Galaxy,' Galaxy Magnolia	25	25	Yes	5	1, 2, 3	Yes	x	Suitable for enclosed vertical walls. Showy pink flowers.
<i>Magnolia kobus</i> 'Wada's Memory,' Wada's Memory Magnolia'	30	20	Yes	5	3	Yes	x	Drought tolerant. Does not flower well when young.
<i>Malus</i> 'Lancelot' ('Lanzam'), Lancelot Crabapple	45	45	Yes	4	3	Yes	x	Red flower buds, blooming white—red persistent fruit.
<i>Parrotia persica</i> , Persian Parrotia	30	20	No	5	3	Yes		Blooms before it leafs out – drought tolerant – Varied fall color – reds, oranges and yellows.
<i>Prunus x yedoensis</i> '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).
<i>Frangula purshiana</i> , 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.
<i>Salix matsudana</i> 'Tortuosa,' Corkscrew willow	30	15	Yes	5	1, 2, 3	Yes		Do not use with underdrain.
<i>Stewartia pseudocamellia</i> , 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).
<i>Styrax japonica</i> , Japanese Snowbell	25	25	Yes	5	3	Yes	x	Reliable and easy to grow, it has plentiful, green 1/2-inch seeds. Flowers similar to lily in the valley.

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Tilia cordata</i> '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 littleleaf lindens.

Table J.12. Medium Columnar Deciduous Trees.

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Acer rubrum</i> '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).
<i>Acer cappadocicum</i> 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).
<i>Carpinus betulus</i> 'Fastigiata,' Pyramidal European Hornbeam	40	15	No	5	1, 2, 3	Yes	x	Broadens when older.
<i>Fagus sylvatica</i> 'Dawyck Purple,' Dawyck Purple Beech	40	12	No	6	3	Yes	x	Purple foliage.
<i>Oxydendron arboreum</i> , Sourwood	35	12	No	5	3	Yes	x	Consistent and brilliant fall color.
<i>Nyssa sylvatica</i> , 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.

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Acer rubrum</i> '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).
<i>Acer truncatum</i> x <i>A. platanoides</i> '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).
<i>Cladrastis kentukea</i> , 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
<i>Cornus controversa</i> 'June Snow,' Giant Dogwood	40	30	No	5	3	Yes	x	Frothy, 6-inch clusters of white flowers in June.
<i>Corylus colurna</i> , 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.
<i>Magnolia denudata</i> , Yulan Magnolia	40	40	No	5	3	N/A	x	6-inch fragrant white flowers in spring.
<i>Ostrya virginiana</i> , Ironwood	40	25	No	5	3	Yes	x	Hop like fruit – slow growing
<i>Pterostyrax hispida</i> , Fragrant Epaulette Tree	40	30	No	5	3	Yes	x	Pendulous creamy white flowers – fragrant
<i>Ulmus parvifolia</i> '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.

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Lithocarpus densiflorus</i> , Tanoak	50	20	No	6	3			
<i>Quercus Ilex</i> , 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.
<i>Umbellularia californica</i> , 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.

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Acer campestre</i> 'Evelyn,' Queen Elizabeth Hedge Maple	40	30	No	5	1, 2, 3	Yes	x	More upright branching than the species.
<i>Acer freemanii</i> '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).
<i>Acer rubrum</i> '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).
<i>Aesculus x carnea</i> 'Briottii,' Red Horsechestnut	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.
<i>Betula nigra</i> , River Birch	40	30	No	5	1, 2, 3	Yes		Excellent flaky bark. Resistant to Bronze Birch Borer.
<i>Cercidiphyllum japonicum</i> , Katsura tree	45	40	No	8	1, 2, 3	Yes		
<i>Eucommia ulmoides</i> , Hardy Rubber Tree	50	40	No	6	3	N/A	x	Dark green, very shiny leaves – insignificant fall color.
<i>Fagus sylvatica</i> 'Rohanii,' Purple Oak Leaf Beech	50	30	No	6	3	N/A	x	Purple leaves with wavy margins.
<i>Ginkgo biloba</i> '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).

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

Table J.16. Large Deciduous Columnar Trees.

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Acer nigrum</i> 'Green Column,' Green Column Black Sugar Maple	50	10	No	6	3	Yes	x	
<i>Ginkgo biloba</i> 'Princeton Sentry,' Princeton Sentry Ginkgo	40	15	No	6	3	Yes	x	Prune for form
<i>Quercus bicolor</i> 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).
<i>Quercus robur</i> 'fastigiata,' Skyrocket Oak	40	15	No	6	3	N/A	x	

Table J.17. Large Deciduous Trees.

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

Scientific and Common Name	Mature Height	Spread	Under Wires?	Min Strip Width	Planting Zone	Fall Color	SDOT List	Design Comments
<i>Zelkova serrata</i> '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 ~~Frequent~~ 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	<i>Agrostis</i> spp.	Bentgrass	S	M
SEMI	DT	NWN		<i>Agrostis exarata</i>	Spike bentgrass	S	M
	DT		A	<i>Agrostis alba</i> or <i>gigantea</i>	Redtop	S	M
EG	DT		A	<i>Agrostis tenuis</i> or <i>capillaris</i>	Colonial bentgrass	S	M
EG				<i>Alopecurus aequalis</i>	Shortawn foxtail	S	M
EG				<i>Alopecurus geniculatus</i>	Water foxtail	S	M
EG			A	<i>Alopecurus pratensis</i>	Meadow foxtail	S	M
EG	DT	NWN		<i>Bromus carinatus</i>	California brome	S	M
SEMI				<i>Carex densa</i>	Dense sedge		
EG		NWN		<i>Carex obnupta</i>	Slough sedge		
SEMI				<i>Carex stipata</i>	Sawbeak sedge		
SEMI				<i>Eleocharis palustris</i>	Spike rush		
EG	DT	NWN		<i>Elymus glaucus</i>	Blue wildrye	S	M
EG	DT	NWN		<i>Elymus mollis</i>	Dune wildrye	S	M
		NWN		<i>Glyceria borealis</i>	Northern mannagrass		
		NWN		<i>Glyceria elata</i>	Tall mannagrass		
				<i>Glyceria grandis</i>	American mannagrass		
EG	DT		A	<i>Juncus effusus</i>	Soft (common) rush		
SEMI	DT			<i>Juncus patens</i>	Spreading rush		
SEMI	DT			<i>Juncus tenuis</i>	Slender rush		
EG			A	<i>Poa trivialis</i>	Rough-stalked bluegrass	S	M
SEMI		NWN		<i>Scirpus acutus</i>	Hardstem bulrush		
SEMI	DT	NWN		<i>Scirpus microcarpus</i>	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
Groundcovers							
EG	DT	NWN	A	<i>Achillea millefolium</i>	Common yarrow		
	DT	NWN		<i>Arctostaphylos uva-ursi</i>	Kinnikinnick		
	DT	NWN		<i>Allium Cernum</i>	Nodding onion		
SEMI	DT			<i>Epimedium grandiflorum</i>	Epimedium		
EG	DT			<i>Euonymus fortunei</i>	Wintercreeper		
EG	DT	NWN	A	<i>Fragaria chiloensis</i>	Beach strawberry		
		NWN		<i>Lupinus latifolius</i>	Broadleaf lupine		
	DT			<i>Omphalodes verna</i>	Creeping forget-me-not		
EG	DT		A	<i>Rubus calycinoides</i>	Creeping raspberry		
EG	DT	NWN		<i>Sedum oreganum</i>	Oregon stonecrop		
EG	DT	NWN		<i>Sedum divergens</i>	Cascade stonecrop		
EG	DT		A	<i>Trifolium repens</i>	White lawn clover	S	M

EG = Evergreen

A = Aggressive

SEMI = Semi-evergreen

S = Allowable as seed

DT = Drought Tolerant/Resistant

M = Mowable

NWN = Northwest Natives or Cultivars

^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
Grasses (drought tolerant, minimum mowing)							
EG				<i>Buchloe dactyloides</i>	Buffalo grass	S	M
EG	DT			<i>Festuca</i> spp. (e.g., Many Mustang, Silverado)	Dwarf tall fescues	S	M
EG				<i>Festuca amethystine</i>	Tufted fescue	S	
EG	DT		A	<i>Festuca arundinacea</i>	tall fescue grass	S	M
EG	DT			<i>Festuca ovina duriuscula</i> (e.g., Reliant, Aurora)	Sheep fescue		
EG	DT	NWN		<i>Festuca idahoensis</i>	Idaho fescue		
EG	DT	NWN	A	<i>Festuca rubra</i>	Creeping red fescue	S	M
EG	DT		A	<i>Festuca rubra</i> var. <i>commutata</i>	Chewings fescue	S	M
EG	DT			<i>Helictotrichon sempervirens</i>	Blue oatgrass		

EG = Evergreen

A = Aggressive

SEMI = Semi-evergreen

S = Allowable as seed

DT = Drought Tolerant/Resistant

M = Mowable

NWN = Northwest Natives or Cultivars

^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. Recommended Plants Suitable for Wet Biofiltration Swales.

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

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

EG = Evergreen

A = Aggressive

SEMI = Semi-evergreen

S = Allowable as seed

DT = Drought Tolerant/Resistant

M = Mowable

NWN = Northwest Natives or Cultivars

^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. Recommended Plants Suitable for Sand Filters - Pond Bottom (Sand Surface).

EG	DT	NWN	Agg ^a	Scientific Name	Common Name	BMP Comments: Application	BMP Comments: Mowable
Pond Bottom (Sand Surface)							
EG	DT			<i>Agrostis tenuis</i>	Colonial bentgrass (Highland strain good)	S	M
	DT			<i>Buchloe dactyloides</i>	Buffalo grass	S	M
	DT	NWN		<i>Camassia leichlinii</i> or <i>quamash</i>	camas		
EG	DT	NWN		<i>Carex mertensii</i>	Merten's sedge	S	
EG	DT	NWN		<i>Festuca elatior</i> (arundinacea)	Tall fescue	S	M
EG	DT	NWN		<i>Festuca elatior</i> "Many Mustang," "Silverado"	Dwarf tall fescues	S	M

EG	DT	NWN	Agg ^a	Scientific Name	Common Name	BMP Comments: Application	<u>BMP Comments:</u> Mowable
EG	DT	NWN		<i>Fescue roemerii (idahoensis)</i>	Roemer's or Idaho fescue	S	
EG	DT	NWN		<i>Festuca rubra</i>	Red fescue	S	M
SEMI	DT	NWN		<i>Iris missouriensis</i>	Rocky Mountain iris		
EG	DT	NWN		<i>Juncus tenuis</i>	Slender rush	S	
EG	DT			<i>Lolium perenne</i>	Perennial ryegrass	S	M
EG	DT	NWN		<i>Luzula parviflora</i>	Small flowered woodrush	S	
EG	DT			<i>Trifolium repens</i>	White lawn clover	S	M
EG	DT			<i>Zoysia tenuifolia</i>	Korean grass	S	M

EG = Evergreen

A = Aggressive

SEMI = Semi-evergreen

S = Allowable as seed

DT = Drought Tolerant/Resistant

M = Mowable

NWN = Northwest Natives or Cultivars

^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 ^{ab}	Scientific Name	Common Name	BMP Comments: Application ^{bc}	<u>BMP Comments:</u> Mature Height
<u>Trees to Provide Shading^e</u>							
	DT	NWN		<i>Acer circinatum</i>	Vine maple	W	25'
				<i>Betula nigra</i>	River birch	W	40'
EG		NWN		<i>Myrica californica</i>	Pacific wax myrtle		18'
				<i>Nyssa Sylvatica</i>	Tupelo	W	40'
		NWN		<i>Oemleria cerasiformis</i>	Indian plum		10'
		NWN		<i>Prunus emarginata</i>	Wild cherry		40'
				<i>Taxus brevifolia</i>	Pacific yew		40'
EG	DT	NWN		<i>Thuja plicata</i>	Western red cedar	W	40'

EG = Evergreen

A = Aggressive

SEMI = Semi-evergreen

W = Wet Tolerant

DT = Drought Tolerant/Resistant

NWN = Northwest Natives or Cultivars

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

- b ~~Tolerant of occasional saturated soils or minimal inundation (<6" depth) for short periods (<72 hours). 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 ~~If BMP has a liner, designer should review plants accordingly; trees generally are not appropriate to liner conditions. 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
Small Trees/High Shrubs with Fibrous Roots for Berms							
		NWN		<i>Acer circinatum</i>	Vine maple	W	25'
		NWN		<i>Amelanchier alnifolia</i>	Serviceberry		25'
EG	DT			<i>Arbutus unedo</i>	Strawberry tree		25'
		NWN		<i>Cornus Stolonifera</i>	Red twig dogwood	W	20'
		NWN		<i>Corylus comuta</i> var. <i>cornuta</i>	Filbert		20'
		NWN		<i>Physocarpus capitatus</i>	Pacific ninebark		12'
		NWN	A	<i>Rubus spectabilis</i>	Salmonberry	W	8'
		NWN		<i>Sambucus racemosa</i>	Red elderberry		10'
				<i>Vaccinium opulus</i>	Highbush cranberry		10'
				<i>Vaccinium</i> spp.	Blueberry		4–12'

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W = Wet Tolerant

DT = Drought Tolerant/Resistant

NWN = Northwest Natives or Cultivars

^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
Low Shrubs and Grasses with Fibrous Roots for Berms							
EG		NWN		<i>Arctostaphylos uva-ursi</i>	Kinnikinnick		0.5'
				<i>Cistus</i> spp.	Rock rose		2'–4'
SEMI		NWN		<i>Deschampsia cespitosa</i>	Tufted hairgrass		3'
EG	DT			<i>Festuca arundinacea</i>	tall fescue grass		3'
EG	DT			<i>Festuca ovina duriuscula</i> (e.g., Reliant, Aurora)	Sheep fescue		1'
		NWN		<i>Festuca rubra</i>	red fescue	W	0.5'
EG		NWN		<i>Gaultheria shallon</i>	Salal		4'
				<i>Helictotrichon sempervirens</i>	blue oatgrass		3'
EG		NWN		<i>Ledum groenlandicum</i>	Labrador tea	W	5'
				<i>Polystichum munitum</i>	sword fern	W	4'
		NWN	A	<i>Symphoricarpus albus</i>	Snowberry		5'
			(A)	e.g., <i>Miscanthis</i> , <i>Pennisetum</i>	Ornamental grasses		varies

EG = Evergreen

A = Aggressive

SEMI = Semi-evergreen

W = Wet Tolerant

DT = Drought Tolerant/Resistant

NWN = Northwest Natives or Cultivars

^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>