

BIORETENTION SAMPLE PLOTS

LAST REVISED: 01/2017

NTS

ZONE 1 - AREA WITH FREQUENT STANDING WATER

SYMBOL	PLANT NAME	QUANTITY
CO	Carex obnupta* (Slough sedge)	4
JE	Juncus effusus* (Common rush)	14

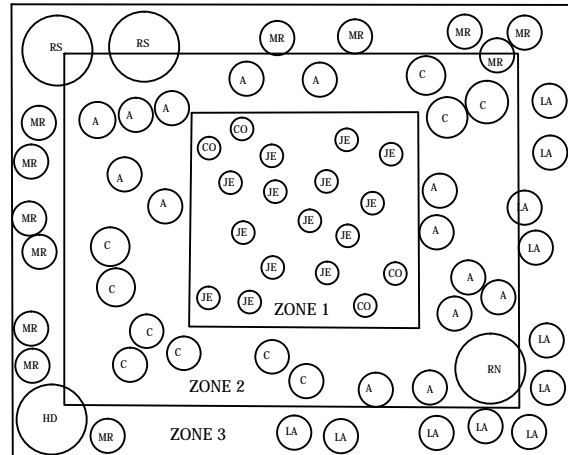
Note: Emergents are shown in diagram as 4" pots, not individual plugs.
For example, 3 plugs = one 4" pot.

ZONE 2 - AREA WITH OCCASIONAL STANDING WATER

SYMBOL	PLANT NAME	QUANTITY
RN	Rosa nutkana* (Nootka rose)	1
A	Aquilegia formosa* (Western columbine)	14
C	Camassia quamash* (Common camas)	10

ZONE 3 - AREA WITH DRIER CONDITIONS

SYMBOL	PLANT NAME	QUANTITY
RS	Ribes sanguineum* (Red-flowering currant)	2
HD	Holodiscus discolor* (Oceanspray)	1
LA	Lavandula angustifolia (Lavender)	12
MR	Mahonia repens (Creeping mahonia)	12



As shown: 4 Shrubs + 66 Herbaceous/Emergents
70 total plants for 100 sq. ft.

The plants above are suggested options for sun/partial shade, but other plants can be substituted from the lists below.

ZONE 1 SHRUBS

Lonicera involucrata* (Black twinberry)
Physocarpus capitatus* (Pacific ninebark)
Rosa pisocarpa* (Clustered wild rose)
Spiraea douglasii* (Steeplebush)
Dwarf Arctic Willow
Dwarf Dogwood

ZONE 1 EMERGENTS

Carex obnupta* (Slough sedge)
Carex stipata* (Sawbreak sedge)
Juncus effusus* (Common rush)
Juncus ensifolius* (Daggerleaf rush)
Juncus tenuis* (Slender rush)
Scirpus acutus* (Hardstem bulrush)
Scirpus microcarpus* (Small-fruited bulrush)

*Denotes native species

ZONE 2 SHRUBS

Acer circinatum* (Vine maple)
Oemleria cerasiformis* (Indian plum/Osoberry)
Ribes lacustre* (Black swamp gooseberry)
Rosa nutkana* (Nootka Rose)
Rosa rugosa (Rugosa Rose)
Rubus parviflorus* (Thimbleberry)
Rubus spectabilis* (Salmonberry)
Sambucus racemosa* (Red elderberry)
Symphoricarpos albus* (Snowberry)
Vaccinium parvifolium* (Red huckleberry)

ZONE 2 HERBACEOUS

Asarum caudatum* (Wild ginger)
Aquilegia formosa* (Western columbine)
Aster chilensis* (California Aster)
Aster subspicatus* (Douglas' aster)
Camassia quamash* (Common camas)
Camassia leichtlinii* (Giant camas)
Iris douglasiana* (Pacific coast iris)
Juncus tenuis* (Slender rush)
Iris sibirica* (Siberian iris)
Tellima grandiflora* (Fringecup)
Tiarella trifoliata* (Foamflower)
Tolmiea menziesii* (Piggy-back plant)
Viola species* (Violets)

ZONE 3 SHRUBS

Holodiscus discolor* (Oceanspray)
Philadelphus lewisii* (Mock-orange)
Pinus mugo pumilio (Mugho pine)
Ribes sanguineum* (Red-flowering currant)
Rosa gymnocarpa* (Baldhip rose)
Arbutus unedo (Compacta)
Cistus purpureus (Orchid rockrose)
Cistus salviifolius (White rockrose)
Osmanthus delavayi (Delavay Osmanthus)
Osmanthus x burkwoodii (Devil wood)
Rhododendron ('PJM' hybrids)
Vaccinium ovatum* (Evergreen Huckleberry)
Myrica californica* (Pacific wax myrtle)

ZONE 3 GROUNDCOVER

Arctostaphylos uvaursi* (Kinnikinnick)
Gaultheria shallon* (Salal)
Helianthemum nummularium (Sunrose)
Lavandula angustifolia (Lavender)
Mahonia nervosa* (Oregon grape)
Mahonia repens (Creeping mahonia)
Penstemon davidsonii* (Davidson's penstemon)
Wild Strawberry

NOTES

- INCORPORATE A MINIMUM OF 3 DIFFERENT SHRUBS AND 3 HERBACEOUS GROUNDCOVER SPECIES IN EACH FACILITY.
- MINIMUM PLANT QUANTITIES ARE 70 PLANTS PER 100 SQ. FT. BIORETENTION AREA; INCLUDING 4 SHRUBS MIN.
- BIORETENTION CELLS MUST CONTAIN PLANTING ZONES 1, 2, and 3.
- TREES CAN BE INSTALLED IN CELLS, BUT SPECIES AND PLACEMENT MUST BE APPROVED BY ENGINEER.
- EMERGENTS SHALL BE INSTALLED AS 4" POTS, OR AS PLUGS IN CLUSTERS OF 3, AT 9" O.C.
- SHRUBS SHALL BE INSTALLED AS 1-GAL CONTAINER SIZE, AT 1-2' O.C. DO NOT INSTALL SHRUBS LARGER THAN 1-GAL.
- DO NOT USE TURF GRASS MIX IN BIORETENTION CELLS.
- ADDITIONAL APPROVED PLANTS CAN BE FOUND IN THE 2012 LOW IMPACT DEVELOPMENT TECHNICAL GUIDANCE MANUAL FOR PUGET SOUND.

CITY OF KIRKLAND

PLAN NO. CK-L.04



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