PERENNIALS

!*Achillea millefolium, Yarrow **D**, **Mc**Aconitum camichaelii, Monkshood **Mc**, **Mt***Adiantum sp., Maidenhair Fern **Mt**, **W**Alcea officinalis, Marsh Mallow **Mt**, **W**Amsonia tabernae-montana, Blue Star **Mt**!*Aquilegia formosa, Red Columbine **Mc**, **Mt**, **D**

!* Arctostaphylos uva-ursi, Bearberry **D, Mc** !* Aruncus dioicus, Goat's Beard **Mc, Mt** Asclepias incarnata, Butterfly Weed **Mt, W** * Aster sp. **D, Mc, Mt**

Astilbe cvs. Mc, Mt

Boltonia asteroides, False Starwort Mt, W !*Camassia D, Mc

Campanula, Bellflower **D**, Mc, Mt (varies by species)

Canna sp. Mc, Mt, W

Chelone, Turtle Head Mt, W

*Dicentra formosa, Pacific Bleeding Heart

Mc, Mt, W

!Echinacea purpurea, Coneflower **D**, **Mc**, **Mt** Eupatorium perfoliata **Mt**, **W**

Eupatorium purpurea Mt, W

Filipendula sp. Mt

!Fragaria virginiana D, Mc

!Geum, Avens D, Mc, Mt

!Hemerocallis, Day Lily D, Mc, Mt, W

Hibiscus moscheutos, Rose Mallow Mt, W

Hosta sp. **D**, Mc, Mt (varies)

Iris ensata, japonica, Japanese Iris Mc, Mt, W !*Iris tenax, Oregon Iris D, Mc, Mt, W !Liatris spicata, Gayfeather Mc, Mt !Leucojum aestivum, Summer Snowflake

Mc, Mt

Ligularia sp. Mt

Lobelia cardinalis, siphilitica Cardinal Flower **Mc**, **Mt**, **W** Lysimachia clethroides, Gooseneck Loosestrife **Mc**, **Mt**

Lysimachia nummularia, Creeping Jenny **Mc, Mt**

Lysimachia punctata Mc, Mt Matteuccia struthiopteris, Ostrich Fern Mc, Mt, W

*Mimulus guttatus, Monkey Flower Mt, W Monarda didyma, Bee Balm Mc, Mt Myosotis palustris, Forget-Me-Not Mc, Mt Osmunda sp., Cinnamon Fern Mt, W !Penstemon digitalis Mc, Mt !*Penstemon globosus Mc, Mt !*Penstemon (Oregon natives) D, Mc Physostegia virginiana, Obedient Plant Mc,

!*Polystichum munitum, Sword Fern **Mc, Mt** Pontederia cordata, Pickerel **W**

Primula sp., Primrose Mc, Mt, W (varies)

*Saggitaria latifolia, Arrowhead W Salvia uliginosa, Bog Sage Mt, W

!*Sisyrinchium californicum, Yellow Eyed

Grass Mc, Mt, W

Mt

!*Sisyrinchium douglasii, Blue Eyed Grass D. Mc, Mt

!*Smilacina racemosa, False Solomon's Seal **Mc, Mt**

Tradescantia cvs., Spiderwort Mt
Tricyrtis hirta, Toad Lily Mc, Mt
!*Trillium ovatum, Wake Robin D, Mc, Mt
Veronica longifolia, Speedwell Mc, Mt

KEY	
D	Dry Zone
Mc	Mesic Zone
Mt	Moist Zone
W	Wet Zone
*	NW Native
!	Drought Tolerant
Grey	Tolerates Shade

TREES AND SHRUBS

!*Acer circinatum, Vine Maple **D**, **Mc**, **Mt**!Acer rubrum, Red Maple **D**, **Mc**, **Mt**, **W***Alnus rhombifolia, rubra, Alder **Mt**, **W**Betula nigra, River Birch **Mt**, **W***Betula papyrifera, Paper Birch **Mc**, **Mt**, **W**Clethra sp., Summersweet **Mc**, **Mt**, **W**!*Cornus sericea, Red-Twig Dogwood **D**, **Mc**, **Mt**, **W**

Fraxinus americana, White Ash Mc, Mt, W Magnolia virginiana, Sweetbay Mc, Mt, W !*Mahonia sp., Oregon Grape D, Mc !*Malus, Crabapple D, Mc

!*Philadelphus lewisii, Mock Orange **D, Mc, Mt**

!*Physocarpus capitatus, Pacific Ninebark **D**, **Mc**, **Mt**, **W**

*Populus tremuloides, Aspen Mc, Mt, W

*Rhamnus purshiana, Cascara Mc, Mt

!*Ribes sanguinium, Flowering Currant **D**, **Mc**, **Mt**

*Rosa nutkana, Nootka Rose Mc, Mt

*Rosa pisocarpa, Swamp Rose Mt, W

*Salix sp., Willow Mc, Mt, W

*Spiraea sp. **D, Mc, Mt, W** (varies) Taxodium sp., Bald Cypress **Mt, W**

!Vaccinium ovatum, Evergreen Huckleberry D,

Vaccinium Macrocarpon, Cranberry Mc, Mt, W

GRASSES

Acorus sp., Sweet Flag Mc, Mt, W
Carex muskingumenis, Palm Sedge Mc, Mt
Carex nigra, Black Sedge Mt, W
Carex obnupta, Slough Sedge Mt, W
*Deschampsia cespitosa, Hair Grass Mc, Mt
*Juncus sp., Rush Mc, Mt, W
!Miscanthus sinensis, Maiden Grass D, Mc

PLANTING & MAINTENANCE

SITE AND SOIL PREPARATION:

Use the calculator at OSU's website (see references) to determine the size and depth of your rain garden. Amend the soil so the mix is roughly 50% native soil, 30% compost, and 20% pumice.

MULCHING: Two kinds of mulch are important in a rain garden. A mulch of pea gravel or river rocks at the point where water enters will help prevent erosion; this mulch should be thick enough that no soil shows through. The rest of the rain garden should have compost 1-3" deep added once a year as spring rains taper off in June. This will help suppress weeds and maintain moisture levels during dry periods.

WATERING: All plants (even drought tolerant ones) will need supplemental water in the first 1-2 years until they are well established.

FERTILIZER AND PESTICIDES:

These should both be avoided in your rain garden whenever possible; part of the goal is to help keep these things out of local waterways. If necessary, use granular, low phosphorous, organic fertilizer, and the least toxic pesticide available. Consider replacing plants which are repeatedly susceptible.

DEFINITIONS

A *Rain Garden* is a planted depression where run-off from roofs, driveways and other surfaces is directed so that it can soak back into the soil naturally rather than run into storm drains. The soil and plants in these areas filter out some impurities before the water drains into sewers, groundwater, rivers and streams.

A *Bioswale* is a linear depression that directs the flow of water while letting it percolate into the soil.

RAIN GARDEN LOCATION

Choose a spot where water can be easily directed through the landscape or from downspouts. Make sure to leave at least 6 feet from your house, and allow for overflow away from foundations and other structures.

(For specific information on existing structures and Rain Gardens and Bioswales please consult the resources on the back of this brochure)





Books:

- Rain Gardens: Managing water sustainably in the garden and designed landscape
 Nigel Dunnett and Andy Clayden – general discussion of water and waterside plants in the garden, plus a big plant list
- Plants of the Pacific Northwest Coast
 Jim Pojar and Andy MacKinnon –
 northwest native plants, not specific to
 rain garden or swale use
- Tree Maintenance
 Pirone, Hartman, Sall, and Pirone –
 includes a valuable list of shade trees
 that survived a 10-day, 15" deep flood.

Websites:

- www.raingardens.org
- OSU Rain Garden Guide www.seagrant.oregonstate, edu/sgpubs/onlinepubs/10001.pdf
- Portland Bureau of Environmental Services – get a discount off your waste water bill when you build a rain garden. www.portlandonline.com/bes
- East Multnomah Soil and Water Conservation Department www.emswcd.org/raingarden

Rain Gardens and Bioswales

Introduction and Recommended Plants







Rain garden plants must be able to tolerate periods of drought and flooding, especially in the Northwest. Few plants can tolerate all the different conditions found in a rain garden, so the following plants will be divided into 4 different categories.

Dry – The top of the rain garden where floodwaters never reach. Drainage here is good because it's at the top of a slope. Please see the <u>Drought Tolerant</u> handout for more plant suggestions for this area.

Mesic – This level, just below the dry zone, experiences occasional, brief winter flooding and summer drought.

Moist – The zone approaching the bottom of the rain garden experiences frequent winter flooding. The number of plants that can grow here without summer water is limited.

Wet – The bottom of the swale will be saturated for a large portion of the year; water plants can be grown here if supplemental water is given in the summer. Without summer irrigation, fewer plants can grow here.

