

Water On the Land: An Overview

Jude Hobbs 2008

Wise management of water saves energy, resources and money, protects the soil, conserves soil nutrients, promotes bountiful production and enhances wildlife habitat. The Willamette Valley has the challenge of having very wet winters and desert like summers. To my mind, utilizing large capacity storage systems is the most effective means for collection providing longer lasting summer availability. It is recommended to keep any type of water storage systems as high on the land as possible for ease of gravity distribution. Some of the ways to cultivate water retention on the land is through ponds, dams, swales and holding tanks (such as: barrels, dry wells, ferro-cement and earthen tanks). Swales are broad shallow waterways intended to first pool then drain in the surrounding soil. Planting along the swales lower edges promote this water retention. Utilizing rain run-off from roofs, hills and gray water is another way to recycle water (knowing what pollutants come from your roof or gray water will determine where the water can be used, for edibles vs. non-edibles).

Keeping water in the soil is the optimum storage system. This is achieved by select planting's and through incorporating organic matter in the soil.

We just skimmed the surface of this topic and look forward to future presentations and workshops.

Designing water loving plants into the landscape

As with introducing any plants into the landscape the right plant for the right place is most important. Some of the plants listed below can handle extremely boggy conditions while other plants can handle more water in winter than in summer. Looking up these plants in the numerous plant books available will give you the descriptions needed to know what to plant where.

Here are two examples of how to achieve a guild for a location that is wet in winter/dry in summer.

A guild is a grouping of plants that need similar growing requirements relative to sun, soil type, nutrient level, and water. Guilds are stacked to incorporate as many plants as possible in the smallest area. Shade loving plants can be introduced after sun loving plants have matured.

Guilds are beneficial associations and/or communities. (Hence the name of our group: The Eugene Permaculture **Guild**.)

Example one:

- Red Alder
- Serviceberry and vine maple
- Red-flowering currant and basket willow
- Lady fern, stinging nettle, and french sorrel

Example two:

- Elderberries (need two varieties)
- Basket willows, cranberry, blueberries (2 varieties)
- Sedges, rushes, yellow and siberian iris

Listed below are some examples of plants that work well in moist to wet areas. Many of these are medicinal plants or have edible parts, most attract birds.

Planting's for Wet Areas

Trees

<i>Acer rubrum</i>	Red Maple
<i>Alnus rubra</i>	Red Alder
<i>Betula spp.</i>	Birch
<i>Fraxinus alnifolius</i>	Ash
<i>Larix decidua</i>	European Larch
<i>Metasequoia glyptostroboides</i>	Dawn Redwood
<i>Nyssa sylvatica</i>	Tupelo
<i>Populus</i>	Popular
<i>Sambucus caerulea</i> edible: berry	Blue Elderberry
<i>Taxodium distichum</i>	Bald Cypress
<i>Thuja plicata</i>	Western Red Cedar
<i>Umbellularia californica</i> edible: leaf	California bay laurel

Shrubs

<i>Amelanchier</i>	Serviceberry
<i>Cornus stolonifera</i>	Red-osier dogwood
<i>Clethra</i>	Summersweet
<i>Douglas spirea</i>	Steeplebush
<i>Gaultheria shallon</i>	Salal
<i>Kalmia polifolia</i>	Swampl laurel
<i>Ledum glandulosum</i> edible: leaf	Trapper's tea
<i>Lonicera involucrata</i>	Twinberry
<i>Myrica gale</i>	Sweet gale
<i>Oplopanax horridum</i>	Devil's club
<i>Physocarpus capitatus</i>	Pacific Ninebark
<i>Prunus virginiana</i> edible: berry	Chokecherry
<i>Ribes sanguineum</i> edible: berry	Red Flowering currant
<i>Rosa nutkana</i> edible: rose hip	Nootka Rose
<i>Salix spp.</i>	Willow
<i>Viburnum opulus, lentageo</i>	
<i>Vaccinium oxycoccus</i> edible: berry	Cranberry

Herbs/Perennial

<i>Astilbe</i>	
<i>Apium graveolens</i> edible: stem, leaf, root	Wild Celery

<i>Athyrium filix-femina</i>	Lady fern
<i>Carex spp.</i>	Sedge
<i>Cichorium intybus</i>	Chicory
edible: leaf, flower, root	
<i>Cornus canadensis</i>	Bunchberry
<i>Cyperus esclentus</i>	Nut grass
edible: tuber	
<i>Equisetum spp.</i>	Horsetail
edible: new shoots	
<i>Juncus spp.</i>	Rush
<i>Lysichitum americanum</i>	Skunk Cabbage
<i>Iris pseudacorus</i>	Yellow iris
<i>Mentha spp.</i>	Mints
edible: leaf	
<i>Mimulus guttatus</i>	Monkey flower
<i>Nymphaea odorata</i>	White water lily
<i>Rorippa spp.</i>	Water cress
edible: leaf	
<i>Rumex scutatus</i>	French Sorrel
edible: leaf	
<i>Sagittaria latifolia</i>	Wapato arrowhead
edible: tuber	
<i>Scirpus spp.</i>	Bulrush
<i>Symphytum officinale</i>	Comfrey
edible: leaf, root	
<i>Typha latifolia</i>	Cattail
edible: "tail" root	
<i>Urtica dioica</i>	Nettle, stinging
edible: leaf	
Misc.	
<i>Bambusa</i>	Bamboo
edible: young shoots	

Many of the above plants are medicinal and have edible parts and most are bird attracting.

Resources:

Gardening with Northwest Native Plants of the PNW by Arthur Kruckeberg
Designing and Maintaining Your Edible Landscape Naturally by Robert Kourik
Plants of the Pacific Northwest Coast by Polar and Mackinnon
Trees and Shrubs for Pacific NW Gardens by John and Carol Grant

<http://cascadiapermaculture.com/index.html>