Water Conservation & Landscaping

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Mason Conservation District
Gardening conditions are changing

Climatologists anticipate that future summers will be...
• warmer than normal
• drier than normal

What does this mean for gardeners?

It means a lot more time spent watering your plants ... unless you choose to work with your site.
Did summer 2015 look like this for you?
How can landscaping strategies help to conserve water?

Topics:
- Water Wise Gardening
- Basic Principles
- Plant Selection
- Resources

Over 30% of summer water use by a typical American home is for outdoor irrigation (US EPA)
I. Xeriscaping
(Water Wise Gardening)

“xeriscape” is derived from the Greek word xeros, which means dry…
Main Principles of Xeriscaping

• Principle 1: Work with your site: topography, exposure, microclimates, & soils
• Principle 2: Avoid or limit turf
• Principle 3: Establish landscape hydrozones
• Principle 4: Use mulch & drip systems
• Principle 5: Use the right plants in the right places
Principle 1: Work with your site

Principle 1: Work with your site

• Topography & overall sun exposure
Principle 1: Work with your site

Microclimates created by existing vegetation, soils

- Which property probably irrigates more? Why?
Principle 1: Work with your site

Site orientation: Southern & Western exposure (hot, dry?)
Eastern and Northern exposures (cooler, shady)?
Principle 1: Work with your site

What soils are you working with?
• Clay?
• Loam?
• Gravelly/sand?

Impacts plant choice, Amending with compost
Two xeriscaped gardens:
- dry shade
- full sun
Principle 2: Limit lawn to what you actually use

Lawns use a lot of water
• Keep them small and functional
• Select drought tolerant grasses that need little irrigation
• Let your lawn go brown in the summer
Principle 2: Limit lawn to what you actually use

Lawn Vs. Layered vegetation – retains moisture, supports biodiversity

(http://wdfw.wa.gov/wlm/backyard/landscape-design_landscape.htm)
Principe 3: Use “Hydro-zones”

Group plants with similar Water needs together

1. Near home, might use roof runoff or drip irrigation

2. Transitional zone - limited drip

3. Arid - no irrigation use
Principle 4: Use mulch & drip systems

Wood Chip mulch will help to conserve moisture and combat weeds. (3-4” deep)

Use drip irrigation or irrigation systems with moisture sensors
Xeriscaping Principles 1-4: Work with your site

Consider...
... and take advantage of:

• Work with your site:
  1. Limit or exclude lawn
  2. Create hydro-zones
  3. Use mulch and drip systems
Principle 5: Use the right plants in the right places

What does “Right Plant, Right Place” mean?

- It means you put plants in locations with the conditions they thrive under: shady clay soils, or sunny sandy soils, etc...
- Emphasize native species that fit your aesthetic and goals
PLAN FOR MATURE PLANT SIZE

Choose and locate plants based on their eventual “mature size” – (unless you love pruning).

Look for examples in the landscape around you. Use your camera/cell phone to take pictures.

Select plants with different mature heights to create more interest.
Right Plant, Right Place
Arctostaphylos uva-ursi (Kinnikinnick)

To ½ ft tall
Groundcover for sun, dry soils
Slow to establish
Sea Thrift

(Armeria maritime)

- Round balls of pink flowers held on slender leafless stems above a cluster of grass-like leaves.
- Height: Up to 18 inches (45 cm). Leaves deciduous.
Fragaria chiloensis (Coastal Strawberry)

- Fast-draining soils
- Spreading evergreen groundcover
- To 12+ inches high
- Tolerates part-shady conditions
Xerophyllum tenax (Beargrass)

- Tall grass-like clump
- Clusters of white flowers
- 3-4ft high
- Blooms May, Jun, Jul, Aug
Anaphalis margaritacea
(WESTERN PEARLY EVERLASTING)
Grindelia inergriflia
(COAStAL GUMWEED)

Entire-leaved Gumweed
Seaside perennial with sticky heads of yellow flowers.
Height: Can grow up to 32 inches (80 cm) in height. Leaves deciduous.
**Linnaea borealis**  
(TWINFLOWER)

- Creeping, semi-woody perennial
- Bell-shaped flowers on Y-shaped stalks
- 2-6 inches high
- Tolerates shady conditions
Cammisia quamash (Camas)

- Fast-draining soils
- Naturalizing bulb
- To 12+ inches high
- Tolerates part-shady conditions
Leymus mollis
(DUNEGRASS)
Symphoricarpos albus
(Snowberry)
Ribes sanguineum
(Red flowering currant)
Holodiscus discolor (Oceanspray)

Deciduous Shrub - Up to 15 ft.
Salt spray tolerant
Blooms: April – August
Flowers: Creamy white, sometimes blushing salmon/pink
Philadelphus lewisii (Mock Orange)

To 10 ft tall
Dry, full sun, tough
Mock Orange
Physocarpos capitatus (Pacific Ninebark)

Erect to spreading shrub up to 4 meters tall with clusters of white flowers. Height: Up to 13 feet (4 meters). Leaves deciduous.
Rosa nutkana
(Nootka Rose)

• Up to 10 ft
• Leaves: 1-7 cm long 5-7 leaflets
• Flowers: Pink, 2 in
• Fruits: Orange to scarlet
• Great for pollinators!
• Blooms May, June, July
Cornus sericea (stolonifera) (Red-osier dogwood)

Spreading, thicket-forming shrub with bright red stems.
Height: Up to 20 feet (6 meters). Leaves deciduous.
Lonicera involucrata
(Twinberry)

Medium-sized shrub producing fragrant white flowers in late spring. Height: Up to 15 feet (4.5 meters). Leaves deciduous.
Amelanchier alnifolia  Serviceberry
(Western Serviceberry / Saskatoon Berry)
Oemleria cerasiformis (Indian Plum)

To 15 feet tall
Full sun to part shade
Moist to dry sites
Pacific Rhododendron
(*Rhododendron macrophyllum*)
Malus fusca (Pacific Crabapple)

Small tree, slender in form, appears thorny; bushy in the open. Height: 16.5-40 feet (5-12 meters). Leaves deciduous.
Shore Pine (Pinus contorta)

Short pine tree, often with crooked trunk and bushy habit.
Height: Up to 100 feet (30 meters).
Leaves evergreen. Bark orange-brown to gray, scaly.
The trunk can be straight and tall in good conditions, but it can be stunted and crooked in poor growing conditions such as peat bogs or muskeg and subalpine areas.
Thuja plicata (Western redcedar)

Large conifer with branches that droop and then turn back up (J-shaped), broad crowns. Height: 100-230 feet (30-70 meters). Leaves evergreen. Bark is 1-2 cm thick, gray to reddish brown and tears off in long fibrous strips, wood is aromatic, trunk has overall conical structure with buttresses at the base.
Sitka Spruce
(*Picea sitchensis*)

Large tree with horizontal branches and drooping branchlets
Height: Up to 200 feet (60 meters) tall.
Leaves evergreen. Thin, scaly gray-brown bark.
Paper Birch

*Betula papyrifera*

A small to medium sized deciduous tree with attractive white, peeling papery bark. Height: Up to 100 feet (30 meters). Leaves deciduous.
Quercus garryana (Garry Oak)
# Mason CD 2016 Plant Sale

<table>
<thead>
<tr>
<th></th>
<th><strong>Plant</strong></th>
<th><strong>Quantity</strong></th>
<th><strong>Price</strong></th>
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</thead>
<tbody>
<tr>
<td>16</td>
<td>Camas (Camassia quamash) <strong>BULB $2.50 each</strong></td>
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<tr>
<td>11</td>
<td>Beargrass (Xerophyllum tenax)</td>
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<td>2</td>
<td>Kinnikinnick (Arctostaphylos uva-ursi)</td>
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<tr>
<td>17</td>
<td>Twinflower (Linnaea borealis)</td>
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<tr>
<td>4</td>
<td>Pacific Rhododendron</td>
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<tr>
<td>22</td>
<td>Sea Thrift (Armeria maritima)</td>
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<td>5</td>
<td>Shore Pine (Pinus contorta v. contorta)</td>
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<tr>
<td>2</td>
<td>Sitka spruce (Picea sitchensis)</td>
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<tr>
<td>12</td>
<td>WR Cedar (Thuja plicata)</td>
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<tr>
<td>4</td>
<td>Paper Birch (Betula occidentalis)</td>
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<tr>
<td>3</td>
<td>Garry Oak</td>
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<td>6</td>
<td>Pacific Crabapple (Malus fusca)</td>
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<td>26</td>
<td>Coastal Gumweed (Grindelia inergriffia)</td>
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<tr>
<td>5</td>
<td>Indian Plum (Oemleria cerasiformis)</td>
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<tr>
<td>2</td>
<td>Mock Orange (Philadelphus lewisii)</td>
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<tr>
<td>17</td>
<td>Pacific Ninebark (Physocarpus capitatus)</td>
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<td>3</td>
<td>Nootka Rose (Rosa nutkana)</td>
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<td>11</td>
<td>Oceanspray (Holodiscus discolor)</td>
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<tr>
<td>21</td>
<td>Dunegrass (Elymus mollis)</td>
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<td>16</td>
<td>Red Flowering Currant (Ribes sanguineum)</td>
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<tr>
<td>2</td>
<td>Twinberry (Lonicera involucrata)</td>
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<tr>
<td>1</td>
<td>Vine Maple (Acer circinatum)</td>
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IV. Resources

1. Online resources – great websites
2. Places to visit
3. Places to buy plants
Online resources

www.wnps.org

- Information
- Plant sales
- Plant walks

Native Plants for Western Washington Gardens and Restoration Projects

Providing Washington citizens with tips about using native plants has long been a role of WNPS. The interactive native plant herbarium that follows will help you find native plants suitable for a place in your western Washington garden or restoration project. Over 200 species of native plants are covered in the lists below.

The Starflower Foundation whose mission was to assist with the creation, rehabilitation and stewardship of Pacific Northwest native plant communities developed these plant lists as part of the Starflower Image Herbarium. Additional information was compiled by WNPS Native Plant Steward Marcia Rivers Smith.

Index to all Plant Names

Scientific Name
Common Name

Categorized Plant Lists

Find plants for specific landscaping or restoration needs.

Native Plants by Growth Form
- Trees: Evergreen, Deciduous
- Shrubs: Evergreen, Deciduous
- Vines
- Herbs
- Grass-like Plants

Native Plants for Sun or Shade
- Full Sun
- Mostly Sunny
- Partly Sunny
- Mostly Shady
- Full Shade

Additional Information

- Starflower Restoration Stewardship Guidelines and Reports
- Starflower Habitat Education Activities and Resources (Features lessons, Native Plant and Weed ID cards, posters, and a "how to" garden...
Resources

www.masoncd.org

- Information
- Planting plans
- Free technical assistance
- Grant Program - marine shoreline planting projects $250-500
Resources:
Native Plants

www.masoncd.org

Plant Sale: once a year
• Bare root natives
• Some potted plants
Local resources
www.nativeplantsalvage.org

- Plant Sales
- Classes
- Plant Walks
- Volunteer events
Local Resources:
Sound Native Plants

- Year Round natives
- Fantastic Website
- Guidance documents

www.soundnativeplants.com
Online resources
WSU extension online

Department of Horticulture
 Hardy Plants for Waterwise Landscapes

Authors:
Virginia L. Lohr, Professor
Environmental Horticulture

I teach classes on landscape plant identification, use, and maintenance. I have conducted research on water-conserving landscapes and spoken nationwide about it. I have also worked in garden centers and in an arboretum. I first became acquainted with the need for waterwise landscaping while working on my Master's degree at New Mexico State University, and I have incorporated water-conserving principles as well as native plants in my garden in Pullman for 2 decades.

This site was developed in collaboration with Caroline H. Pearson-Mims, who has retired from WSU.

Introduction
These plant lists have been developed based on our gardening experiences in Pullman, Washington and Moscow, Idaho, USA. Our region is in USDA Hardiness Zone 5. It has cold winters, hot summers, and wide temperature swings in fall and spring. We get about 21-24 inches of precipitation per year, but almost no rain falls in the summer. These plants should also perform well in many other parts of the country.

Selection criteria for these plants
Online Resources: Great Plant Picks

www.greatplantpicks.org

Elisabeth C. Miller Botanical Garden (University of WA)

- Classes
- Information
- Demo Gardens
# Great Plant Picks

**Image: Oregon Metro**

<table>
<thead>
<tr>
<th>Great Plant Picks by Type</th>
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<tbody>
<tr>
<td>View All Great Plant Picks</td>
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<tr>
<td>All Bamboos</td>
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<tr>
<td>All Bulbs</td>
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<tr>
<td>All Conifers</td>
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<td>All Ferns</td>
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<td>All Grasses</td>
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<td>All Perennials</td>
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<td>All Shrubs</td>
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<td>All Trees</td>
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<td>All Vines</td>
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<thead>
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<th>Great Plant Picks by Year</th>
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**Morella californica**

**CALIFORNIA WAX MYRTLE**

**Outstanding Qualities**
- Slightly fragrant speckled flowers from early June to early July
- Drought tolerant
- Attracts butterflies

**Cultivar Notes**
- Full sun to part shade
- Prefers well-drained soil
- Partial shade can weaken the plant

<table>
<thead>
<tr>
<th>Miscellaneous Lists</th>
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<tbody>
<tr>
<td>Clerematis</td>
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<tr>
<td>Plants for Containers</td>
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<tr>
<td>Evergreen Azaleas</td>
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<td>Rhododendrons</td>
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<td>Roses</td>
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<tr>
<td>Small Trees (under 26&quot;)</td>
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<tr>
<td>GPP Northwest Native Plants</td>
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</tbody>
</table>

**Plants that CELEBRATE SPRING**
- All CELEBRATE SPRING Selections
- Spring Flowers
- Spring Foliage
- Birch
- April
- May

**Plants that make SCENTS**
- All Plants that make SCENTS Selections
- Fragrant Flowers
- Fragrant Foliage
- Floral Scent
- Fresh Scent
- Spicy Scent
- Woody Scent

**Small Spaces—Big Impact**
- All Small Spaces—Big Impact Selections
- Bulbs for Small Spaces
- Conifers for Small Spaces
- Grasses for Small Spaces
- Perennials for Small Spaces
- Shrubs for Small Spaces
- Trees for Small Spaces

**Made in the Shade—Plants for Shade**
- Shade Guidelines and Definitions
- All Made in the Shade Selections
- Bulbs for Shade
- Conifers for Shade
- Grasses for Shade
- Perennials for Shade
- Shrubs for Shade
- Trees for Shade
- Plants for Light Shade

**Fantastic Foliage—Plants with Striking Foliage**
- All Fantastic Foliage Selections
- Bold Foliage
- Shiny Foliage
- Unique Foliage
- Fine Foliage
- Burgundy Foliage
- Gold Foliage
- Purple Foliage
- Silver Foliage
- White Foliage

**Fun in the Sun—Drought Tolerant Plants for Sun**
- Watering Guidelines and Definitions
- All Fun in the Sun Selections
- Bulbs for Sun
- Conifers for Sun
- Grasses for Sun
- Perennials for Sun
- Shrubs for Sun
- Trees for Sun
- Vines for Sun
Washington Park Arboretum - Pacific Connections Garden
Water-Smart Gardening Guides

US EPA

WSU

Drought Tolerant Landscaping for Washington State
Questions?

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