Water Conservation & Landscaping



KARIN STRELIOFF, MLA



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)

Water-smart Water Wise H2O Efficient



= LESS WATER

LESS FUN!

"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

Topography – Wet? Dry? Lows? Highs? Drainage paths?



Topography & overall sun exposure



Microclimates created by existing vegetation, soils





Which property probably irrigates more? Why?

Site orientation: Southern & Western exposure (hot, dry?) Eastern and Northern exposures (cooler, shady)?



What soils are you working with?

- Clay?
- Loam?
- Gravelly/sand?
 Impacts plant choice,
 Amending with compost

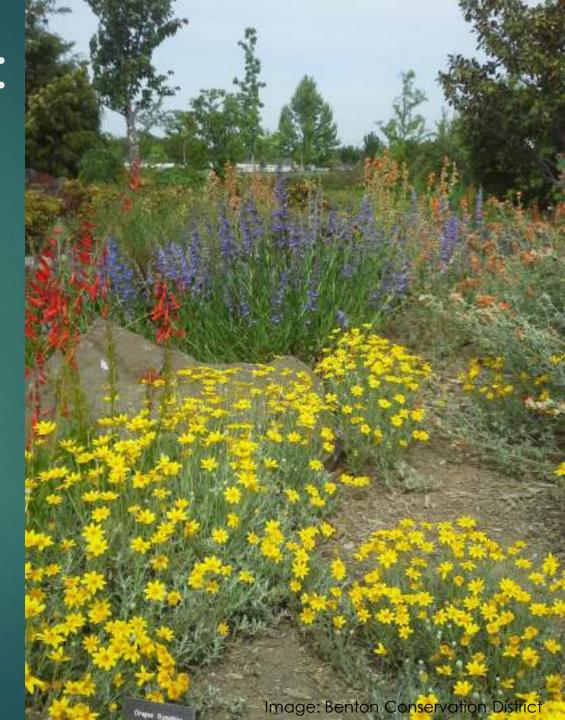




Two xeriscaped gardens:

- 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

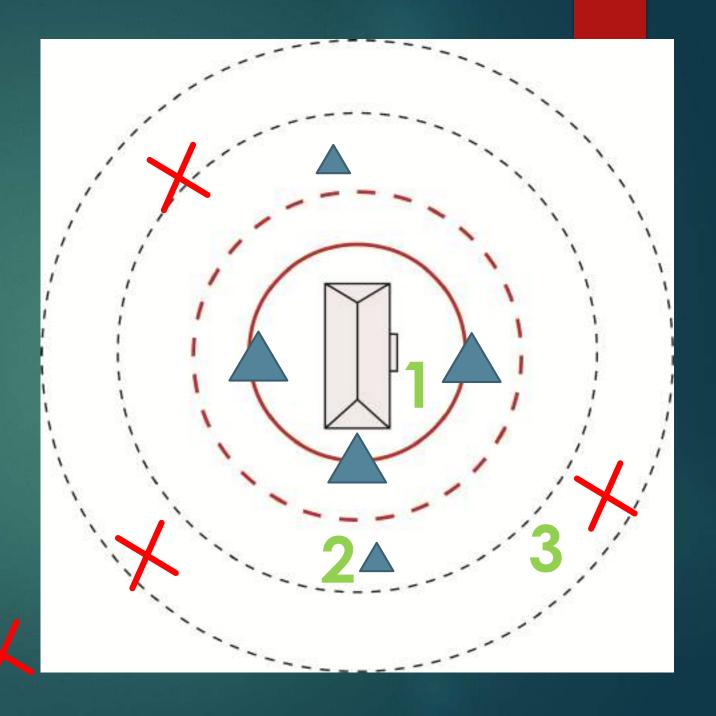


Lawn Vs. Layered vegetation – retains moisture, supports biodiversity

Principe 3: Use "Hydro-zones"

Group plants with similar Water needs together

- 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

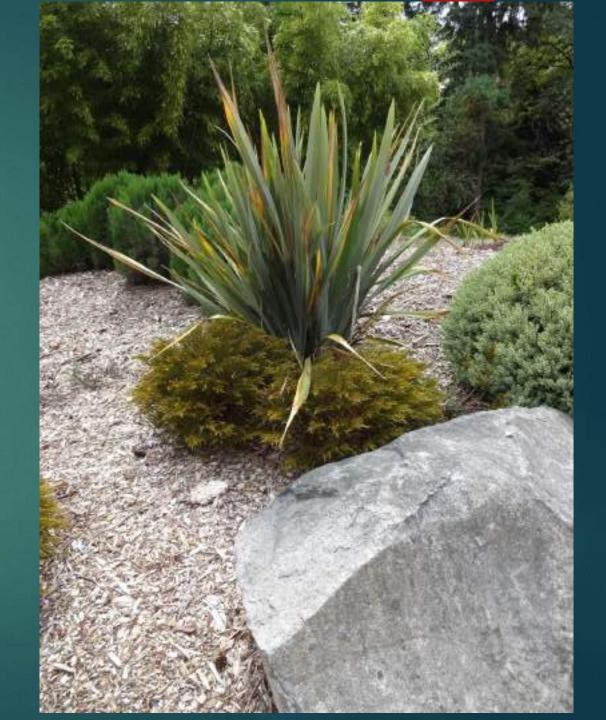


Xeriscaping Principles 1-4: Work with your site

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 <u>MATURE</u> 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.





UNDERSTANDING NATIVE PLANTS BY HEIGHT

Focus on Pacific Northwest (PNW) Native Plant Species

Chaosing the right plant for the right place involves understanding a plant's preferred growing cordtions from or shade, coint or dry cty. I as real as the growth habits of the species. This guide affers a practical engantization of Pac(R: Northwest wattre plants based on their typical matters lengths. Under ideal growing conditions plants may grow larger than werings, under challenging conditions, plants will probably remain smaller. He same to understand the other words of each plant species before making a final shorte for jour landscape (such as motiture and account requirements).





GROUNDCOVERS

(usually below know height)

Bleeding Heart (Disentes formosa)

Bunchberry (Cormo unaleschlomo) 7

Coastal Lupine (Lupinus littoralis)

Coastal Strawberry (Fragaria chilocoas)

Deer Fern (Blochware spicant)

False Lilly of the Valley (Maintheonov allatation)

Foam Flower (Tierella retistions)

Kinnikinnik (Arctostephylas una ursi)

Liffles (Pink, White Faven, Yellow Glacier) (Erythroxnorca).

Oregon Wintergreen (Gastlheria oratifolia).

Trailing Blackberry (Rubay arabase)

Western Trilliam (Trilliam ovatum)

Violet Species (Viole ap.)

Woodland Strawberry (Frageria resta)



SMALL SHRUBS /PERENNIALS (usually below water bright)

Dunegrass (Elymus wolls)

False Solomon's Seal (Southering recommod-

Lady form (Atherians files-femine)

Large-Leaved Lupine (Lupinus polyphyllus)

Low Oregon Grape (Mahonia nervesa)

Maidenhair feen (Adlaware pedatum)

Oak form (Genenscarpham devoptoris)

Snowberry (Symplovicarpas affac)

Sweed from (Polystichum manifam)

Tuffed Hairgross (Deschampsia copitosa)

Latters Classificate (Constrainted on Andrews

Yarrow Species (Achilleu sp.)

These litts are just a starting potal. There are an many boastiful native plants - store limit your landscape to the species losed here!

Right Plant, Right Place



NATIVE PLANTS FOR MARINE SHORELINES.

The list of Pacific Northwest native plants below includes species that provide food and shelter to local wildlife, that are tolerant of salt spray, and that help stabilize slopes. Please remember that this is a general reference list: not all of these species will thrive on every site because local shoreline conditions vary. If you purchase plants, order them using their botanical name (halicized, in plannifluid) because common names vary. Happy planting! For guidance specific to your property, contact a natural resource specialist at Mason. Conservation District (960) 427,9456.

- Salt spray tolerant
- Soil stabilization
- Prefer moist soils

SMALL TREES / LARGE SHRUBS

Bealeed hazelnut (Corylus comuna) Douglas Maple (Aper plabrum) ** Indian Plum (Clember's ceras/formis) Mock Crange (Philade/phus/ewirid ... Oceanspray (Holodiscus discolor) +0 Pacific Crabapole (Malos firsca) Red Elderberry (Sambucus sovernosal ... Serviceberry (Amelanchier alministra) -Vine Maple (Acer circhistrum) Was Myrtile (Myrsica coliformical * O Sweet gale (Wyrica pale) • 0 Thimbleberry (Aptus panviRyus) •0

LARGE TREES

Douglas fir (Pszydotsugamenziesii) 40 Garry Oak (Quercus garryana) O Grand Rir (Ables grandis) Hooker's Willow (Salarhookerland) 40 h Pacific madrone (Arbutus menziesi) + 6 "beautiful but difficult to establish Red Alder (Alinus rubral ... Scouter's Willow (Salar scouteriana) . Shore Pine (Pinus contactor, contactor 40 Sitka Spruce (Picea sitchensis) • 0 Western Hernfock ("Sugarheterophylkal" shade & Western Redcedar (Thysophicital *shade *O& Western White Pine (Pinus reportional **

More recommendations on the reverse side!



SAMPLE PLANTING PLAN: LAKE SHORELINE

Pocas on Pacific Northwest Native Plants



Winter's Eight Conferenced actival



Slough Sedge (Cares obsopia) 5 mail-freitad flatruds (Solgras mannargus) ardatam Balirush (Scirtus acutas)

Sewbook Seitze (Carry Alfasta) Tattod Bacograss (Zicknergas) naptions: Common Rush (free to effect) Slepuler Bloth (News as Streets) Topored Bush (Investment activities)

SYMBOL Lower Funk (moth with)



Oregon Ash (Francisco lettolia) Black Cottnewood (Popular Ashaw)the sep. (richmarks) Western Bolization (7hus places 9%



Pacific Crabapple (Malas fiscal) Red Elderberry (Sambucus racemosa)" Pacific Ninebark (Personarpus capitatus) Allack Hawthorns (Changey dosestiil)



Red-osier Dogwood (Corons seriese) 8 High fligh Cranberry (Victorian edule) Salmonbury (Same geometry) Daggertest Rush Clorcus conditions



Hookers Willow (Sally hoookeying) Pacific Willow (Salls Juriambu) Sitios William (Soily sticky)(0)

SYMBOL Opper Bank (institution) and all



Western Hemlack (Tings lettrophylla?" Sitiliza Spirace (Picce) stiributesis 2% Shore Pine / Plans awalata w cowherla!

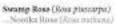


Big Leaf Maple (Acer macropis/lanc)*5 Nine Maple Olor circlesson Ph.





Sword forn Chindicham mantain?" Maunharry (Newphorleague alla PS-



Thimbleboory (Nother partitions)

Deer Forn (Bischwam aradist) *5 False Solemon's Seal (Soulicing sucreme) 15

Arctostaphylos uva-ursi (Kinnikinnick)





To $\frac{1}{2}$ ft tall Groundcover for sun, dry soils Slow to establish

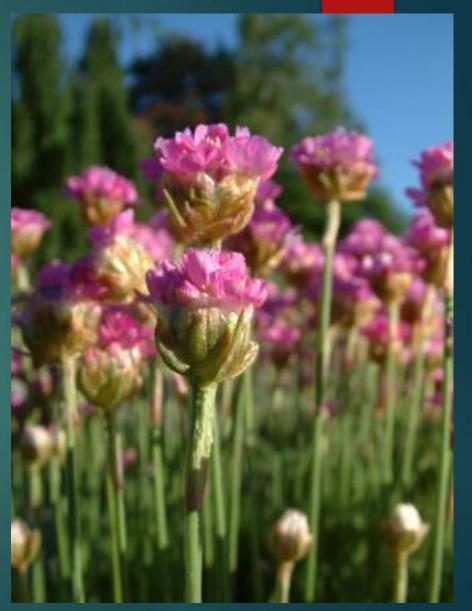


Sea Thrift

(Armeria maritime)

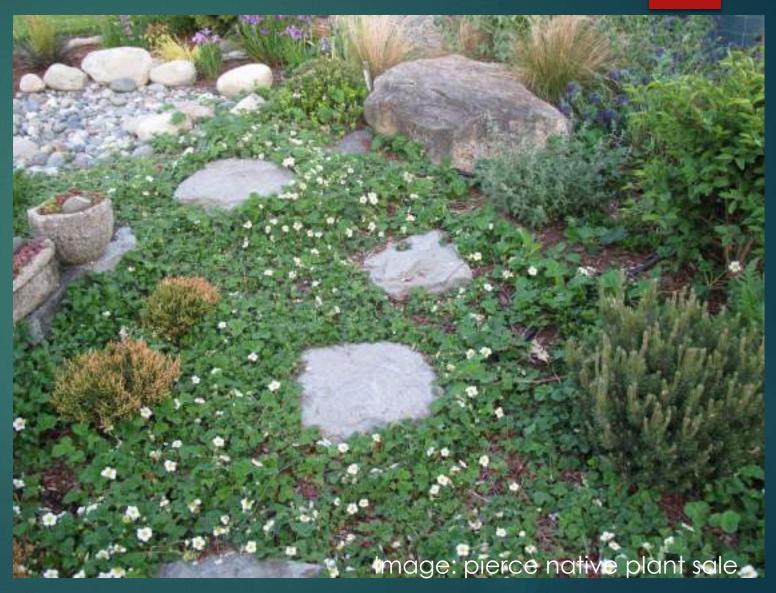
Round balls of pink flowers held on slender leafless stems above a cluster of grass-like leaves. Height: Up to 18 inches (45 cm). Leaves deciduous.





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



Cammasia quamash (Camas)

- Fast-draining soils
 Naturalizing bulb
- To 12+ inches high
- Tolerates part-shady conditions



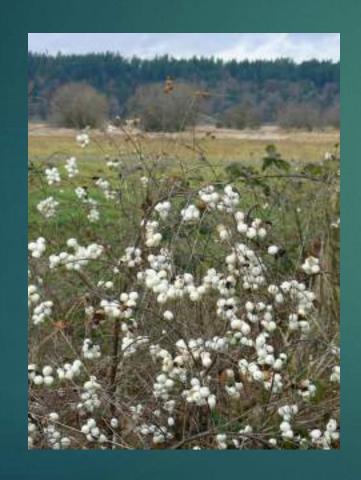
Leymus mollis (DUNEGRASS)





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 involucrate (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)





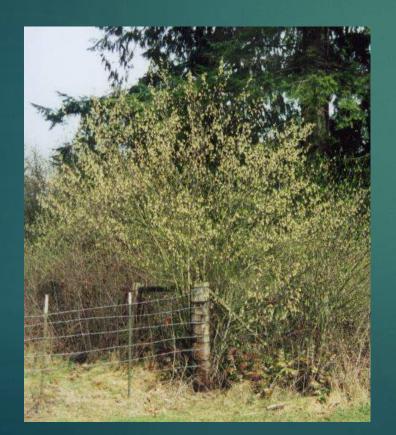


Oemleria cerasiformis (Indian Plum)

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.





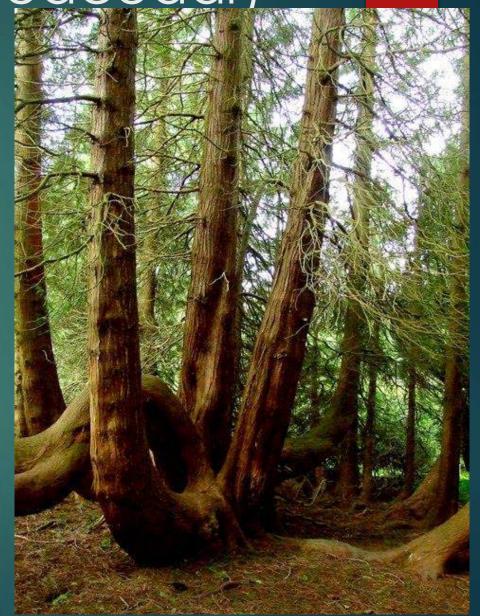


Thuja plicata (Western redcedar)

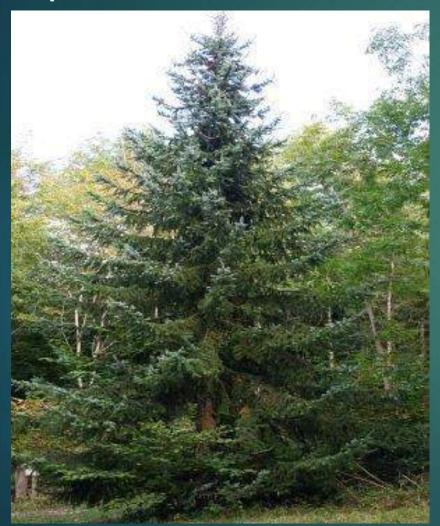
Large conifer with branches that droop and then turn back up (J-shaped), broad crowns. Height: 100-230 feet (30-70 meters). Leaves evergreen. Bark is 1-2 cm thick, gray to reddish brown and tears off in long fibrous strips, wood is aromatic, trunk has overall conical structure with buttresses at the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

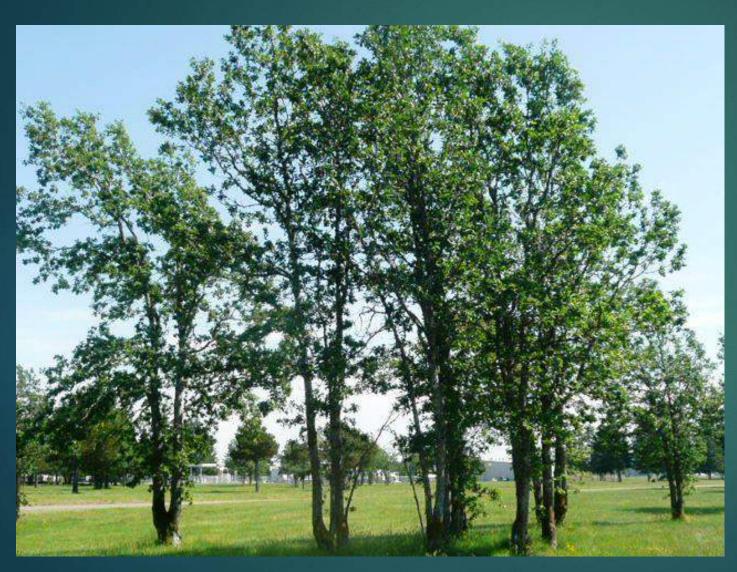
A small to medium sized deciduous tree with attractive white, peeling papery bark. Height: Up to 100 feet (30 meters). Leaves deciduous



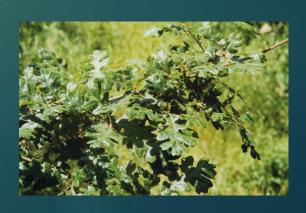




Quercus garryana (Garry Oak







Mason CD 2016 Plant Sale

	Camas (Camassia
16	quamash) BULB \$2.50 each
11	Beargrass (Xerophyllum tenax)
	Kinnikinnick (Arctostaphylos uva-
2	ursi)
17	Twinflower (Linnaea borealis)
4	Pacific Rhododendron
22	Sea Thrift (Armeria maritima)

5	Shore Pine (Pinus contorta v. contorta)
2	Sitka spruce (Picea sitchensis)
12	WR Cedar (Thuja plicata)
4	Paper Birch (Betula occidentalis)
3	Garry Oak
6	Pacific Crabapple (Malus fusca)
26	Coastal Gumweed (Grindelia inergriflia
5	Indian Plum (Oemleria cerasiformis)
2	Mock Orange (Philadelphus lewisii)
17	Pacific Ninebark (Physocarpus capitatus)
3	Nootka Rose (Rosa nutkana)
11	Oceanspray (Holodiscus discolor)
21	Dunegrass (Elymus mollis)
16	Red Flowering Currant (Ribes sanguineum)
2	
1	Vine Maple (Acer circinatum)

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

Washington





APPRECIATE, CONSERVE AND STUDY OUR NATIVE PLANTS AND HABITATS

Native Plant Society

Native Plants for Western Washington Gardens and Restoration Projects

Home > 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 <u>Starflower Foundation</u> 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.



Serviceberry (Amelanchier alnifolia) photographed by Tim Hagan. Copyright 2009. All rights reserved.

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

- <u>Starflower Restoration</u>
 <u>Stewardship Guidelines</u>
 <u>and Reports</u>
- Starflower Habitat
 Education Activities and
 Resources (Features
 lessons, Native Plant and
 Weed ID cards, posters,

 The way to "Foundary"

Resources

www.masoncd.org

- Information
- Planting plans
- Free technical assistance
- Grant Programmarine shoreline planting projects \$250-500

Native Plant Images & Descriptions







SHRIIRS

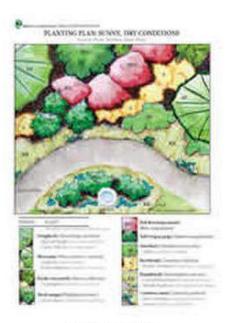
GROUNDCOVERS

Mason Conservation District

Native Plant Guides



Lakeside Planting



Sunny Dry Sites

Resources: Native Plants

www.masoncd.org

Plant Sale: once a year

- Bare root natives
- Some potted plants

HOME PROGRAMS RESOURCES PLANT SALE MINI GRANTS PROGRAM LOG IN CA



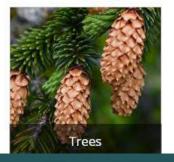
2016 NATIVE PLANT SALE

Mason Conservation District promotes the use of native plants and strives to provide you with a variety of high quality, affordable bare-root and small potted plants. We are now accepting orders for the 26th Annual Plant Sale through February 1st. Most plants are bare root and sold in bundles of five, with a few varieties sold individually in small pots. These plants are all suitable for conservation purposes such as wildlife habitat, streambank stabilization, and stormwater management, as well as for landscaping around homes and farms. They are proven growers in our variable climatic conditions and have been selected because of their beauty and adaptability to most growing conditions.

Pick up orders on Friday, February 19th, or Saturday, February 20th, 2016 at the Mason Conservation District office in Shelton, just in time for spring planting!

No Delivery Available, Pick Up Only.

SELECT FROM CATEGORIES









Local resources www.nativeplantsalvage.org

EVENTS

GET INVOLVED

- Plant Sales
- Classes
- Plant Walks
- Volunteer events

NATIVE PLANT

STORMWATER STEWARDS

RESOURCES

CONTACT

SALVAGE

HANDS-ON EDUCATION TO PROTECT AND CONSERVE WATER RESOURCES AND HABITAT FROM THE SOUTH SOUND

PRAIRIES TO THE SHORES OF PUGET SOUND

Local Resources: Sound Native **Plants**

- Year Round natives
- Fantastic Website
- Guidance documents



SNP www.soundnativeplants.com

ECOLOGICAL RESTORATION SPECIALISTS

Installations & Maintenance - Consulting - Education - Landscaping



PLANT-OF-THE-MONTH

Profiles the characteristics of a different native plant each month, both common and rare



NURSERY

Species descriptions, plant lists, current availability, prices, and ordering information



INSTALLATIONS & MAINTENANCE

Landscape contracting services, slope stabilization examples, and project photos



CONSULTING

Planning, design and permitting for wetlands, streams, and sensitive habitats



EDUCATION

Workshops and lectures for homeowners and continuing education for professionals



LANDSCAPING

Find ideas for using native plants instead of cultivars in your landscape, with side-by-side examples

Online resources

WSU extension online

www.extension.wsu.edu

A-Z Index

Campuses

myWSU

WSU Search

WSU Home



Department of Horticulture

Hardy Plants for Waterwise Landscapes

Print the list

Usage guidelines

Benefits of Plants

Common Name Index

Scientific Name Index

Home

Trees

Shrubs

Vines

Groundcovers

Perennials

Grasses

Bulbs

Annuals

Other Resources

Contact Information



Introduction

These plant lists have been developed based on our gardening experiences in Pullman, Washington and Moscow, Idaho, USA. Our region is in <u>USDA Hardiness Zone 5</u>. It has cold winters, hot summers, and wide temperature swings in fall and spring. We get about 21-24 inches of precipiation 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

Authors:

Virginia I. 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 waterconserving 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.

Online Resources: Great Plant Picks

www.greatplantpicks.org



- Classes
- Information
- Demo Gardens



Great Plant Picks



Morella californica

Riberia californica (previously Myrica carifornics) in sites called Californic runs mythr or Californic bashery. It is an easy 40-gross medium-sized short that can be used in formal or substitute protein. If can be observed to produce frequency of the promote thapses, or Trace to MS to prose Yes briggs from records, providing a continuous order strute and paramials, its arrait everywer, leaves are anotheric when crusted. Disclaim of black hull are held by short spurs in late continue, paralleling into midwhiter and

Colors & Compas

Great Color Contracts: gold allest, burgardy Great Cuter Partners, July your, charles, e. Lic.

California wax ny rite gravo well in tall aut to does share. The more aut it receives the domest the gravith. It problems to option with most to well-desired soil, hall sell columbs. sould and does. Once expectation it is completely charged believed. If responds well is pluring even all falcone allowing. Heavy priving in test does in the later wider will. shaping in early in ritil scarmer. It can be limited up as a small me mor time.



Plat Facilities - Auditor Res Vent

CALIFORNIA WAX MYRTLE

providing food for with brids. Fer is not contact outlier pays it with Contactifue decuments. Organization or substances and Press parvillars "Glauco"

Quick Facts

Plant Type: spreading shoult Pullage Type: mangroom

Plant Height: (D.B. Co. (D.B.)) Plant Width Spread: 10 K. Elic (3.00 re.)

Hardiness: CSCIX Zuras; 7 to 9 Sun-Light Exposure: hit will be doop shark:

Water Requirements: crought hisrary once established.

Great Plant Picks by Type

View All Great Plant Picks

All Bamboos

All Bulbs

All Conifers

All Ferms

All Grasses

All Perennials

All Shrube

All Trees

All Vines

Great Plant Picks by Year

2001	2009
2002	2010
2003	2011
2004	2012
2005	2013
2006	2014
2007	2015
2000	

Miscellaneous Lists

Clematic:

Plants for Containers

Evergreen Azaleas

Rhododendrons

Roses

Small Trees (under 20")

GFP Northwest Native Plants

Deer Resistant Plants

Deer Resistance Guidelines and Definitions

All Deer Registant Selections

Plants that CELEBRATE SPRING

All CELEBRATE SPRING Selections

Spring Flowers Spring Foliage

March April

May

Plants that make SCENTS

All Plants that make SCENTS Selections

Fragrent Flowers Fragrant Follage Floral Scent

Fresh Scent Spley Scent

Woodsy Scent

Small Spaces-Big Impacti

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 Follage Shiny Follage Unique Fallage Fine Follage Burgundy Follage

Gold Follage

Purple Poliage Silver Follage

White Follage

Fun in the Sun-Drought Tolerant Plants for Sun

Watering Guidelines and Definitions

All Fun in the Sun Selections

Builbs 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



Washington Park Arboretum

Gardens

Visit



Support Us

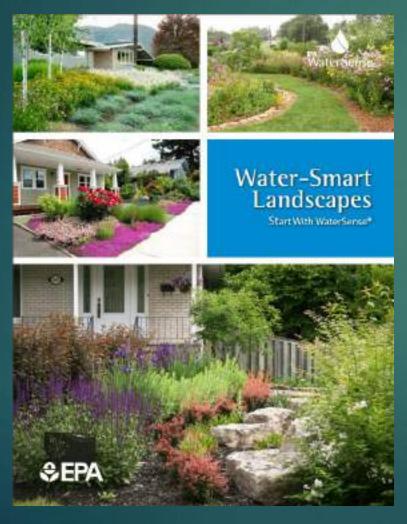
About Us

gle" Custom Swanh

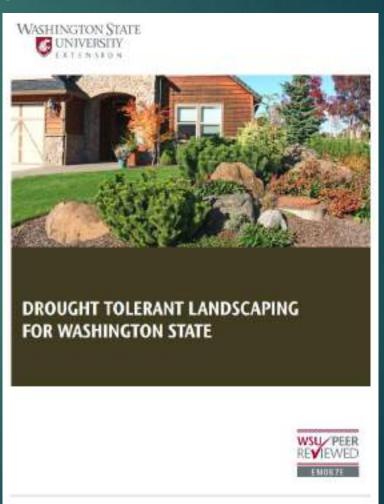
Search

Water-Smart Gardening Guides

US EPA



WSU



Questions?

► Karin Strelioff

karinls@masoncd.org

(360) 427-9436 x122

Mason
Conservation District

