

Oregon WaterWise for the Westside



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What we will cover today



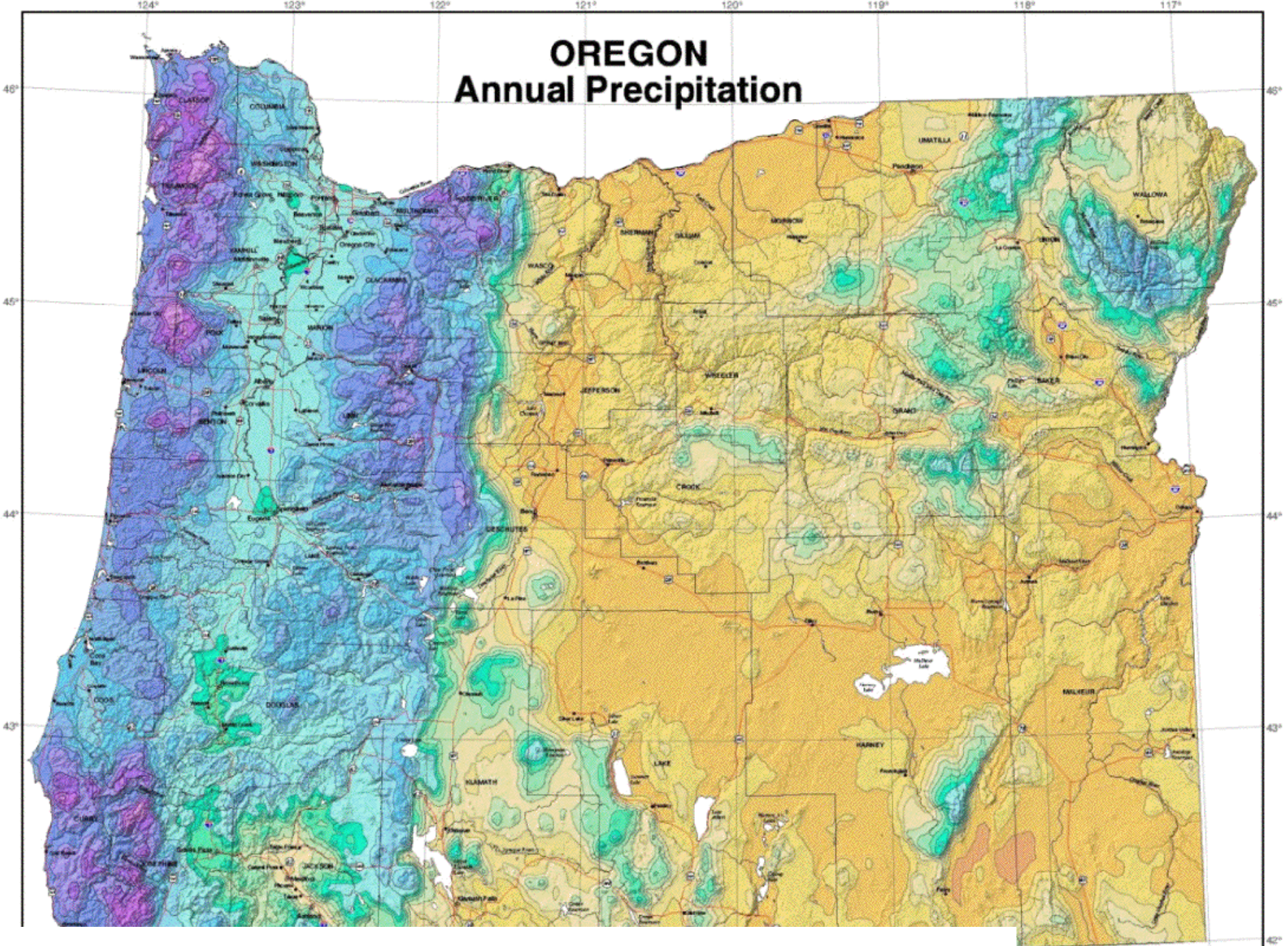
Reasons to be concerned



WaterWise for the Westside

OREGON

Annual Precipitation



CHAPTER III. MAJOR VEGETATIONAL AREAS

Vegetation—natural plant communities—can be organized in numerous ways. Unfortunately, no single system is completely satisfactory either in providing a logical “cell” for all community types or a structure suitable for all users of a volume of this type. It is much the same problem that exists in plant taxonomy, i.e., structuring a linear system when a multidimensional classification is really necessary.

We begin our classifications by recognizing four major groupings (fig. 27): (1) forests, (2) grasslands and shrub-grass communities (hereafter referred to as steppe and shrub-steppe, respectively), (3) interior valleys of western Oregon (Chapter V)¹ and (4) timberline (subalpine parklands) and alpine regions (Chapter X).² The two broad physiognomic divisions of forest and steppe can be further divided geographically. Distinctive forest regions are found in western Washington and northwestern Oregon (Chapter IV), interior southwestern Oregon (Chapter VI), and in eastern Washington and Oregon (Chapter VII). Steppe and shrub-steppe are separable into those found in the Columbia Basin Province (primarily in eastern Washington) (Chapter VIII) and in central and southeastern Oregon (Chapter IX).

¹ Here and throughout this book, western Washington or Oregon refers to the region west of the crest of the Cascade Range and eastern Washington or Oregon to the area east of the crest.

² Communities found on unique, specialized habitats or in geographic anomalies form a fifth group; they are considered in Chapter XI and will not be discussed further here.

Legend

FORESTED REGIONS

Picea sitchensis Zone

Tsuga heterophylla Zone

Puget Sound area

Mixed Conifer and Mixed Evergreen Zones

Pinus ponderosa Zone (broad sense)

Pumice region

Abies grandis and *Pseudotsuga menziesii* Zones

Subalpine forests (including *Abies amabilis*,
A. lasiocarpa, *A. magnifica shastensis*,
and *Tsuga mertensiana* Zones)

INTERIOR VALLEYS OF WESTERN OREGON

Willamette valley

Umpqua and Rogue valleys

STEPPE REGIONS

STEPPE (without *Artemisia tridentata*)

SHRUB-STEPPE (with *Artemisia tridentata*)

DESERT SHRUB

Juniperus occidentalis Zone

TIMBERLINE AND ALPINE REGIONS

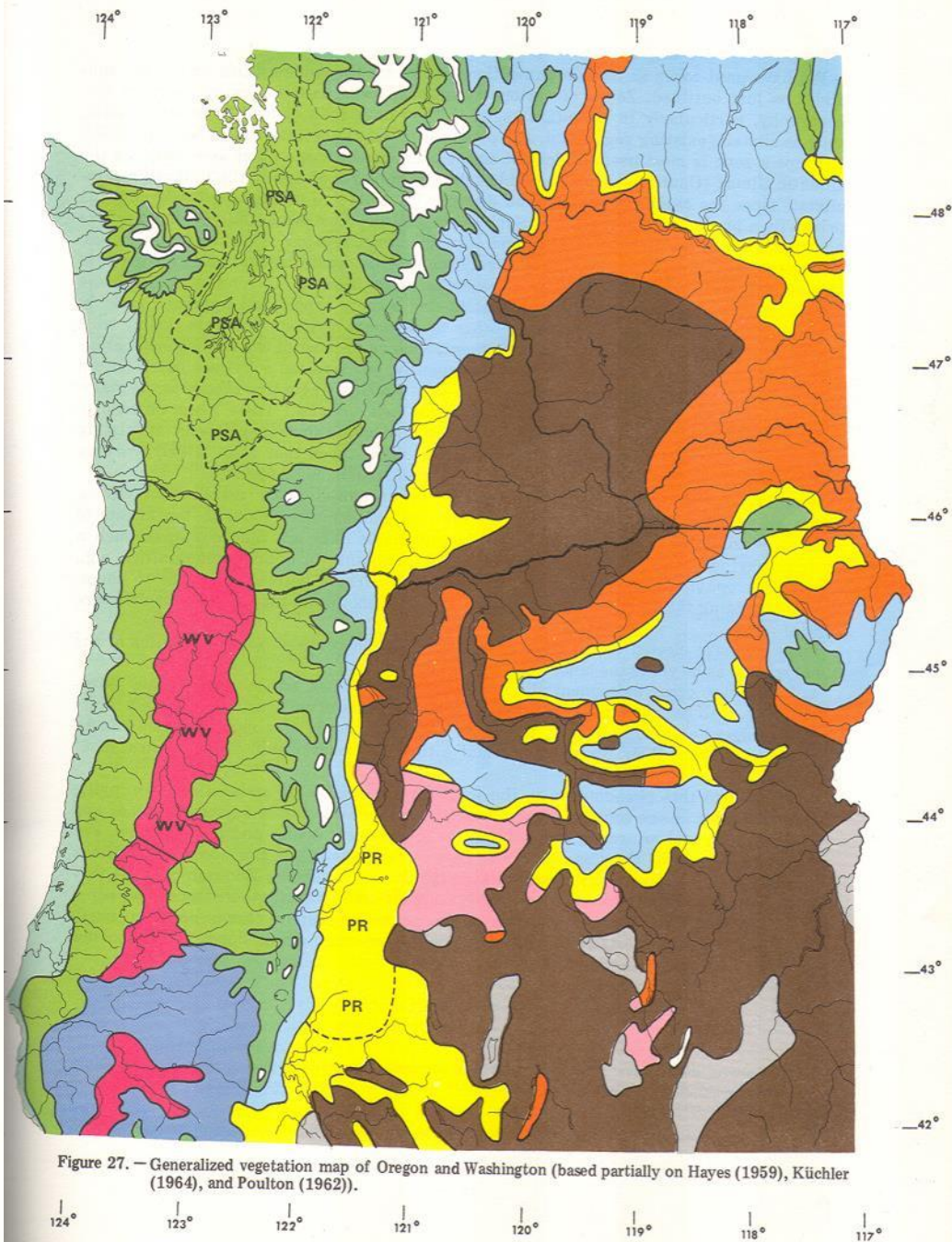
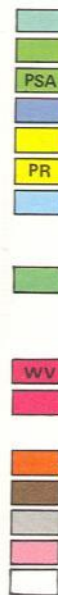


Figure 27. — Generalized vegetation map of Oregon and Washington (based partially on Hayes (1959), Küchler (1964), and Poulton (1962)).

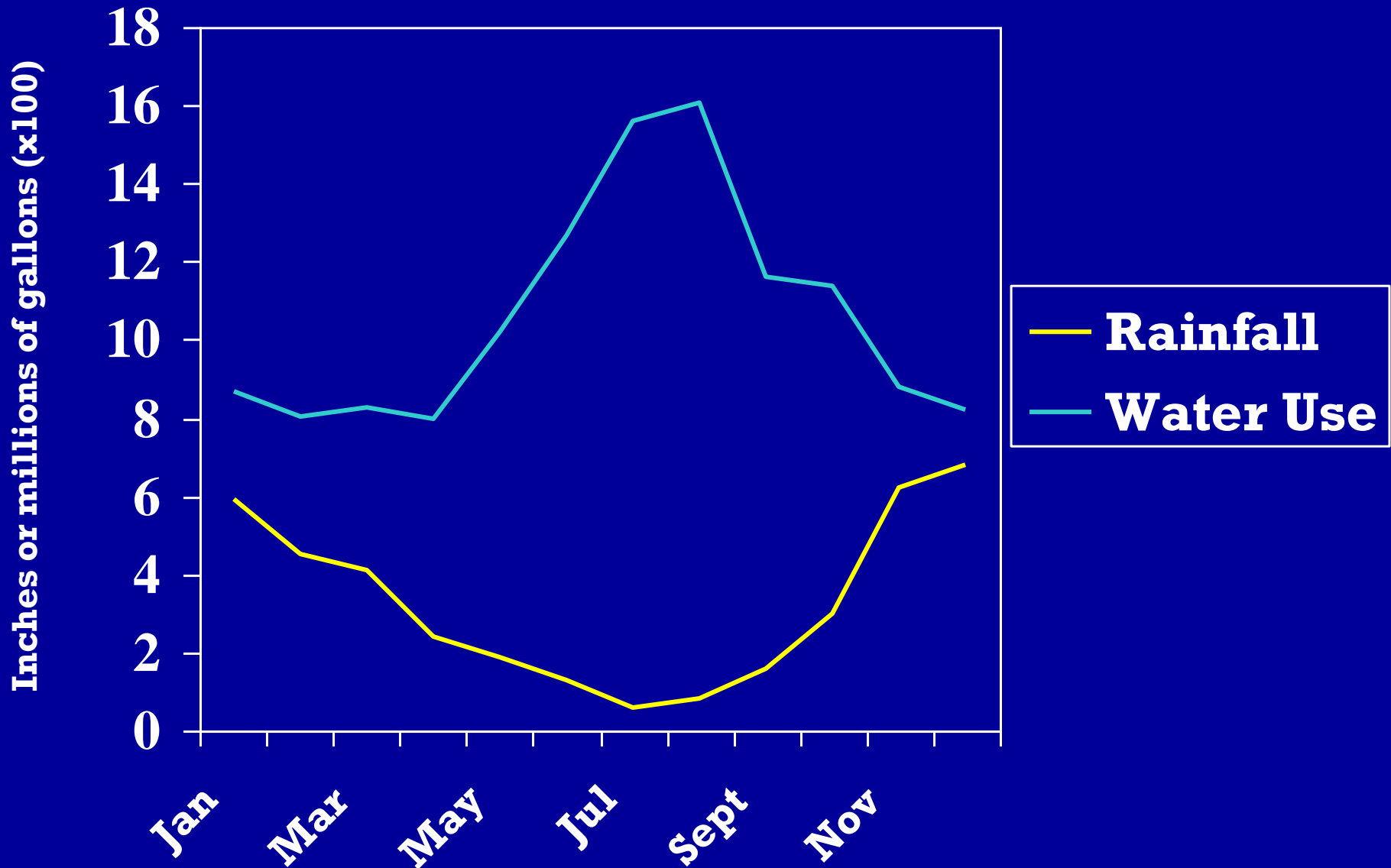
On the national level, according to the Environmental Protection Agency, the per capita use of public water is about 50 percent higher in the West than the East mostly due to the amount of landscape irrigation in the West



Average use per person (galday) of public water in the United States by USGS water region (Solley et al, 1993)

<http://www.epa.gov/OW/you/chap1.html>

Rainfall and water use in Salem



Westside WaterWise

- Several hundred WaterWise plants are available for our landscapes
- They include trees, shrubs, perennials, annuals, biennials, vines bulbs, grasses & groundcovers



Ceanothus prostratus

<http://oregonstate.edu/Dept/botany/herbarium>

Westside Waterwise

- Most are attractive
- Many support local wildlife
- Many are native to Oregon or Mediterranean areas of the world
- Many are already familiar to Oregon gardeners and contractors



Tulipa sp.

<http://oregonstate.edu/dept/ldplants/images/tulipa-spp2.jpg>



WaterWise gardens can be full of color and interest and still be drought tolerant

Photos: Neil Bell

9th Street-Corvallis

Erysimum, Artemesia, Rosa



Loren Russell garden

Halimium, Salvia

Neil Bell's Garden

Arctostaphylos,
Grevillea, Cistus,
Pittosporum



Photos by Neil Bell

Ceanothus 'Anchor Bay',
Juniperus deppeana,
Berberis (barberry)

Westside WaterWise

We can find our WaterWise plants in many categories, but especially in:

- Bulbs
- Native Plants
- Herbs
- Ornamental Grasses
- Selected lists of trees, shrubs & vines

Note!! Choose from plant species that originate in summer-dry regions of the world, such as western North and South America, Australia, and the Mediterranean.

Westside WaterWise Bulbs

- Nearly all bulbs, except those of tropical origin fit well into WaterWise landscapes
- Withholding most water in the summer months actually aids in bulb survival in our gardens



Camassia sp.

<http://classes.hortla.wsu.edu/hort232/list7/CamasUse.jpg>

Westside WaterWise More Bulbs



Tulipa tarda cultivar

CORNELL
UNIVERSITY

<http://www.hort.cornell.edu/departments/faculty/wmiller/HORT300/plantlist5/sld087.htm>



Narcissus

<http://www.urbanext.uiuc.edu/bulbs/images/pics-daffodil.jpg>



Leucojum aestivum,
summer snowflake

Photo: Linda McMahan

Westside WaterWise More Bulbs



Iris tenax, Oregon iris



Anemone blanda



Crocus sp.

Photos: Linda McMahan

Westside WaterWise Native Shrubs

- Native shrubs offer a wide array of colorful choices-varies by region
- Cultivars are available for many species for gardeners desiring this feature
- Shrubs native to moist natural settings are less appropriate



http://courses.washington.edu/ehuf331/Photos/Ribes_sanguineum_8_kbComp.jpg

Westside WaterWise More Native Shrubs



Holodiscus discolor,
oceanspray



Philadelphus lewisii,
mock orange



Garrya elliptica, silk tassel
bush

Photos: Neil Bell

Westside WaterWise More Native Shrubs



<http://ww1.clunet.edu/wf/images/nca/nca-97.jpg>

Ceanothus thyrsiflorus, California lilac



Sambucus caerulea, blue elderberry Photo: Linda McMahan

Westside WaterWise More Native Shrubs



Arctostaphylos patula Photo: Neil Bell

Westside WaterWise Shrubs from Elsewhere



Cistus x purpureus Photo: Neil Bell



Cistus sp. Photo: Linda McMahan

Westside WaterWise Shrubs from Elsewhere



Kolwitzia amabilis beauty bush
<http://www.wsu.edu/~lohr/wcl/>



Euonymus japonicus (a
variegated form)
[http://oregonstate.edu/dept/ld
plants/eujav1.htm](http://oregonstate.edu/dept/ld/plants/eujav1.htm)

Westside WaterWise Shrubs from Elsewhere



Acacia dealbata



Early flowering *Grevillea rosmarinifolia*

Willamette Valley WaterWise Herbs

- Garden herbs may be part of edible landscapes or merely ornamental
- Since many are native to Mediterranean regions, they require little or no additional water
- Avoid lemon balm which is invasive



Rosemary, Rosmarinus officinalis
[http://courses.washington.edu/ehuf331/
Plant_Pages_subfolders/LAMIACEAE.
shtml](http://courses.washington.edu/ehuf331/Plant_Pages_subfolders/LAMIACEAE.shtml)

Westside WaterWise More Herbs



Creeping thyme

http://www.ces.ncsu.edu/depts/hort/consumer/factsheets/groundcover/images/thymus/thymus_serpyllum_pink-3.jpg

Sage, *Salvia officinalis*

<http://www.florifacts.umn.edu/Trials/Perennial%20Trials%202003/Salvia%20officinalis%20Nazareth.jpg>

Salvia chamaedryoides

Photo: Neil Bell

Willamette Valley WaterWise More Herbs



Lavendula cultivar



Lavendula angustifolia

*Rosmarinus
officinalis*,
rosemary



Willamette Valley WaterWise Grasses

- Many ornamental grasses require less frequent and deep watering than other perennials
- Be selective—*Miscanthus* is potentially invasive



Festuca ovina var. *glauca* Blue fescue <http://www.wsu.edu/~lohr/wcl/>

Willamette Valley WaterWise, More grasses



Helictotrichon sempervirens
Blue oat grass

<http://www.wsu.edu/~lohr/wcl/>



Northern sea oats,
Chasmanthium latifolium

http://www.botany.wisc.edu/garden/db/plantimages/Chasmanthium_latifolium_L.JPG

Westside WaterWise Trees

- Native and nonnative trees provide choices for WaterWise
- They vary from evergreen to deciduous and include many conifers as well as flowering trees

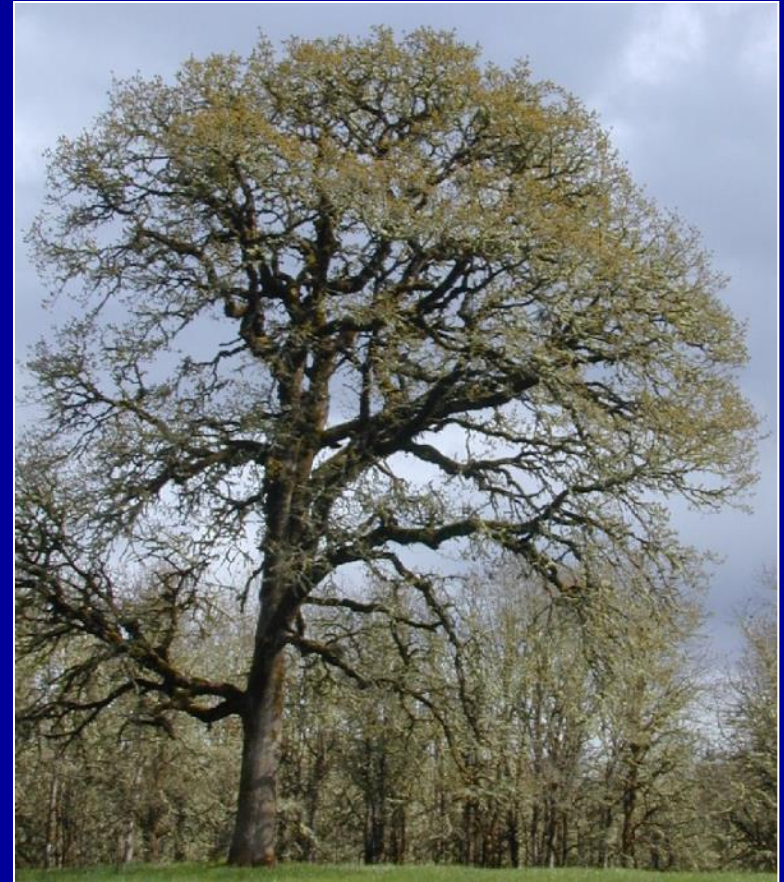


Ginkgo biloba Photo: Neil Bell

Westside WaterWise Trees—A Few Natives



A small native tree,
Cascara, Rhamnus
purshiana [http://oregonstate.edu/
dept/ldplants/rhapu1.htm](http://oregonstate.edu/dept/ldplants/rhapu1.htm)



Quercus garryana, Oregon oak
Photo: Neil Bell

Westside WaterWise Trees



Cupressus arizonica



Cedrus deodara

Westside WaterWise Trees



Picea pungens

Colorado spruce

<http://www.wsu.edu/~lohr/wcl/>



Cercis chinensis, Chinese redbud
(Photo: Neil Bell)

Westside WaterWise Herbaceous Plants

- A host of perennials, annuals, and biennials are available.
- They come from the American West, Mediterranean areas of the world, Midwestern North America, and other summer-dry sites.



<http://www.coopext.colostate.edu/4DMG/images/sundance.jpg> **Gaillardia pulchella 'Sundance Bicolor'**

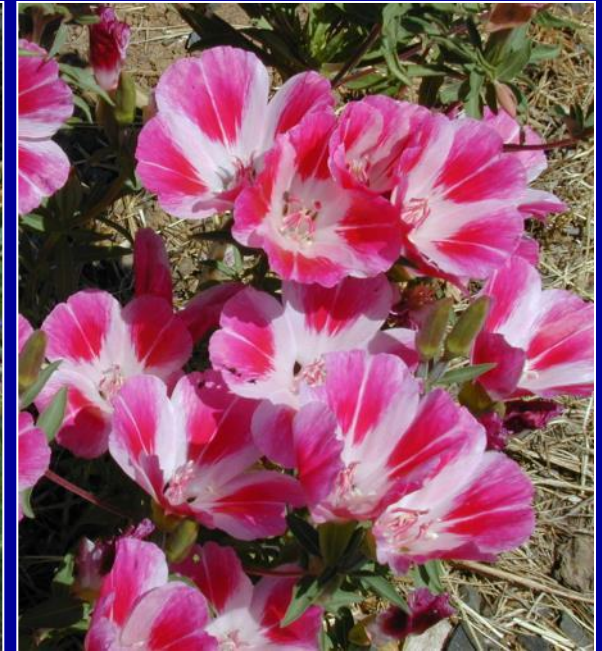
Westside WaterWise Selected Annuals



*Eschscholzia
californica*
California poppy
[http://www.wsu.edu/~
lohr/wcl/](http://www.wsu.edu/~lohr/wcl/)



Helianthus annuus
Sunflower
[http://www.wsu.edu/~
lohr/wcl/](http://www.wsu.edu/~lohr/wcl/)



Clarkia sp. Photo: Neil
Bell

Westside WaterWise Selected Perennials & Subshrubs



Euphorbia sp.



Helianthemum, rock rose



Epilobium canum
(*Zauchneria californica*),
California fuschia

Westside WaterWise

More Selected Perennials & Subshrubs



Erysimum 'Julian Orchard',
wallflower (Photo: Neil Bell)



Achillea millefolium. Yarrow
(Photo: Linda McMahan)

Westside WaterWise

More Selected Perennials & Subshrubs



Phlomis russeliana

http://botanicalgarden.berkeley.edu/waterwise/images/33_Phlomis-russeliana2.jpg



Penstemon barbatus

http://botanicalgarden.berkeley.edu/waterwise/images/29_Penstemon-barbatus2.jpg

Westside WaterWise Vines



Wisteria Photo: Neil Bell



Vitis vinifera 'Purpurea'
<http://www.huntingtonbotanical.org/WhatsInBloom/dec05/dec05-Images/157.jpg>

Westside WaterWise Groundcovers

- Lastly, groundcovers provide help in weed suppression and water retention
- A number of members of the strawberry genus, *Fragaria*, provide excellent dry landscape groundcover



Fragaria 'Red Ruby'

<http://www.florifacts.umn.edu/Trials/perennialtrials2001/Fragaria%20Red%20Ruby.jpg>

Westside WaterWise More Groundcovers



Fragaria chiloensis,
Beach strawberry

<http://oregonstate.edu/dept/ldplants/frch3.htm>



Juniperus horizontalis

<http://oregonstate.edu/dept/ldplants/juho1.htm>



Sedum
spathulifolium,

spoon-leaf

stonecrop <http://flightline.highline.edu/gbarclay/bloom2000/sedum.jpg>

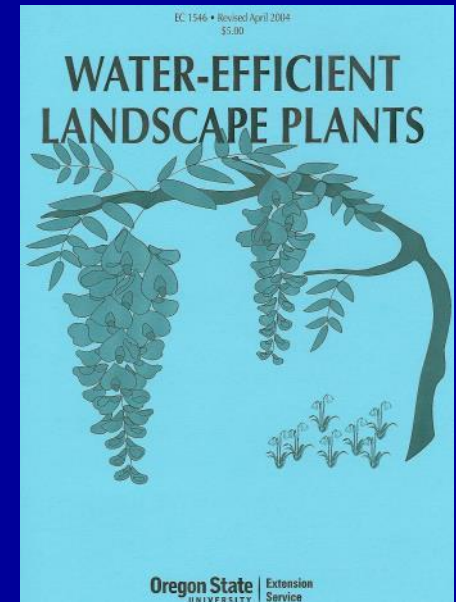
WaterWise *Resources*

Selected Hardy Plants for Water-conserving Landscapes, Washington State University

<http://www.wsu.edu/~lohr/wcl/>

Landscape Plants: Images, Identification, and Information ***<http://oregonstate.edu/dept/ldplants/>***

**Water-efficient Landscape Plants, EC 1546.
Available for \$5.50 from OSU Extension**



WaterWise Resources

The Mediterranean Garden Society:

<http://www.mediterraneangardensociety.org/>

Plant life in the world's mediterranean climates

Peter Dallman, UC Press

Mediterranean gardening-a waterwise approach

Heidi Gildemeister, UC Press

Pacific Horticulture. Published quarterly