

Design a Healthy Yard



City of Bothell™

City of Bothell - Natural Yard Care



Choosing the Right Plants

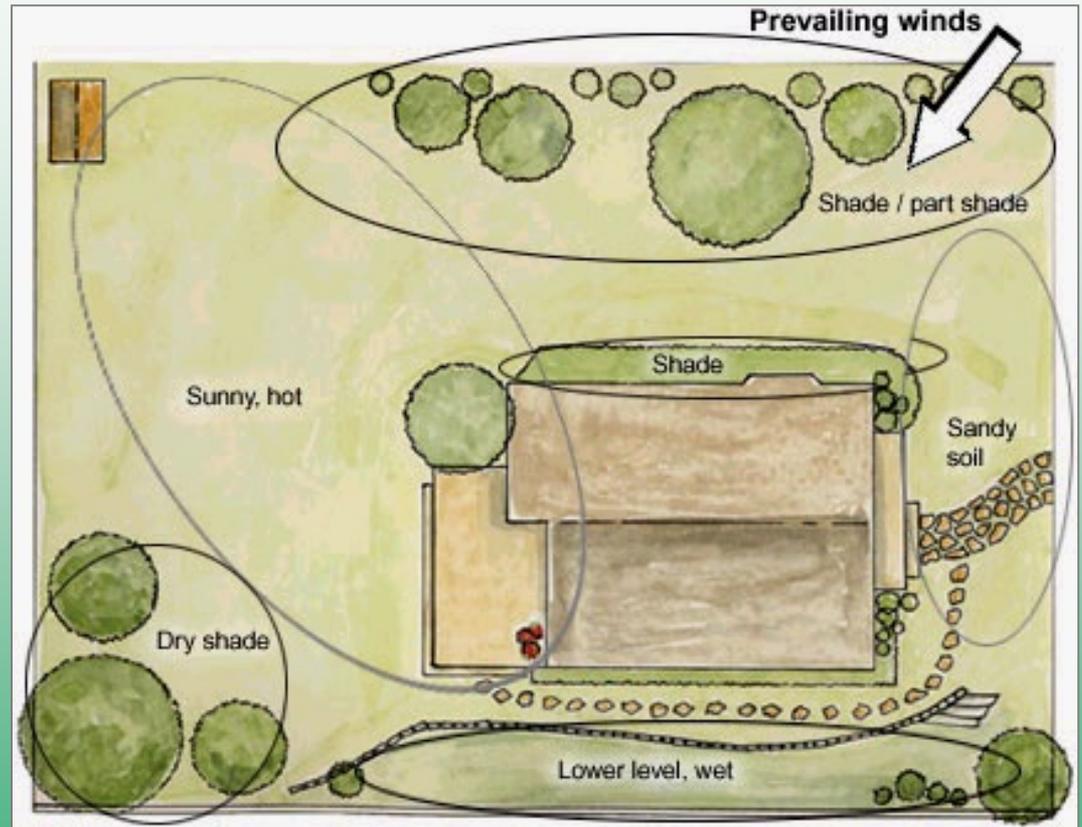
Setting up your garden to succeed

- Map Your Garden
- Imagine Your Garden
- Make a Plan
- Start Your Plants Off Right



Map Your Garden

- Soil conditions
- Sun exposure
- Aspect
- Wind Exposure
- Microclimates
- Maintenance Access



NORTH

Soil Conditions of the Northwest

- Glacial Till
- Hardpan
- Outwash Soils
- Lake/Marine Bed Soils
- Volcanic Ash
- Mudflows



These all lead to clay soil, sandy soil or loam



Where is Your Sun?



- What causes the shade?
- Is there variable exposure?
- Does the exposure change with the seasons?

Look Around!



- What buildings are nearby?
- Trees next door?
- Where are your views?
- Where are the slopes in your yard?
- Which direction do they face or drain to?

Which Way the Weather?

south



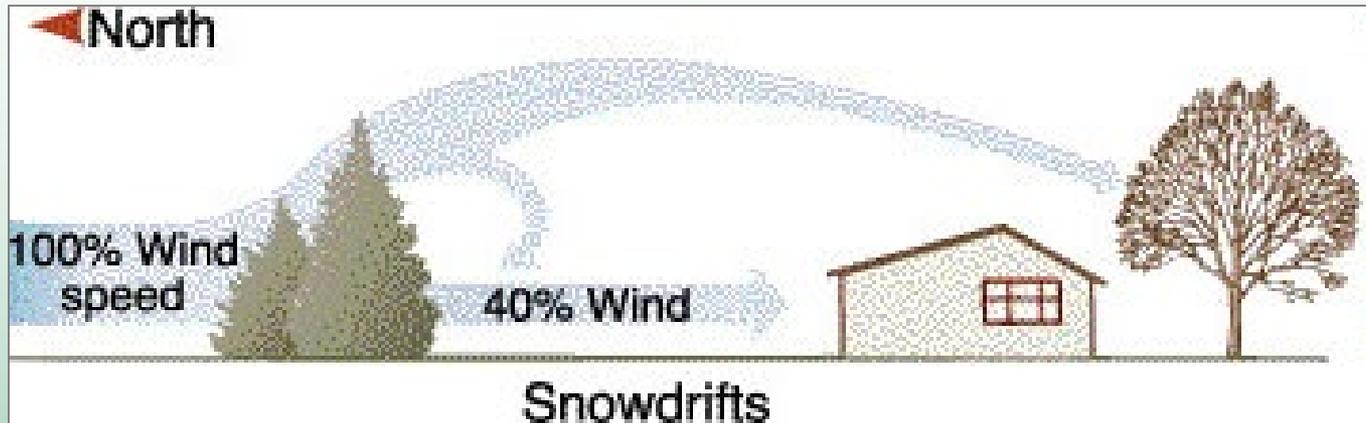
east

west

north

- Prevailing winds from southwest or north
- What is exposed and what is protected?
- Reflection from sun off light colored surfaces

Which Way the Weather?



Courtesy University of Missouri Extension

- Large deciduous trees can shelter houses from summer heat and allow light in through the dark of winter
- Plant groupings can provide efficient windbreaks
- Evergreen plants warm up their environments, creating frost free pockets - microclimates

Take Advantage of Microclimates



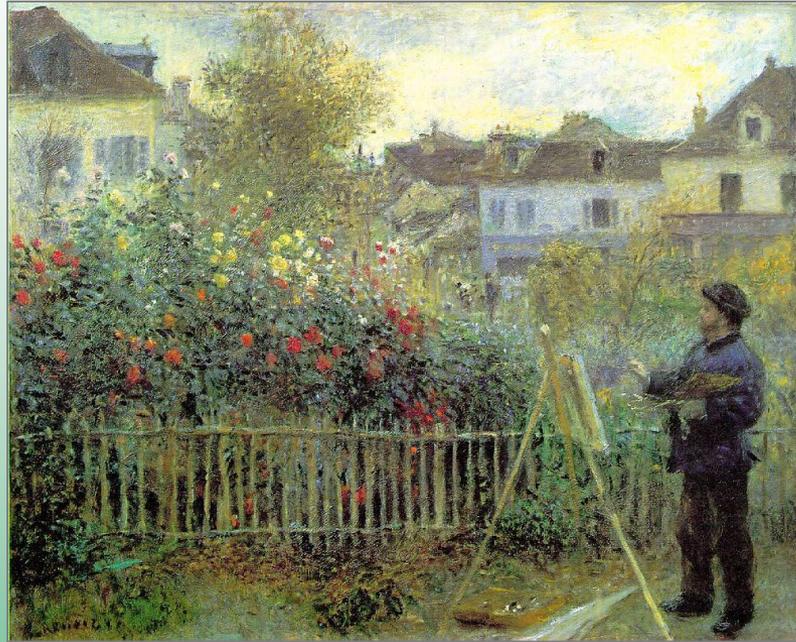
- Sheltered areas – tender plants
- Water features – warm the air
- Brick or rock – radiant heat

Provide Access



- For maintaining the garden
- For utilities – meter boxes, moving curbside cans
- For maintaining your house

Imagine Your Garden



- How will you use your garden?
- How much time and money will you spend?
- What works in your neighborhood?
- Take advantage of local expertise

How will you use your garden?



Budget for Time and Money

- Installation

- Plants
- Hardscape
- Compost
- Mulch
- Tools

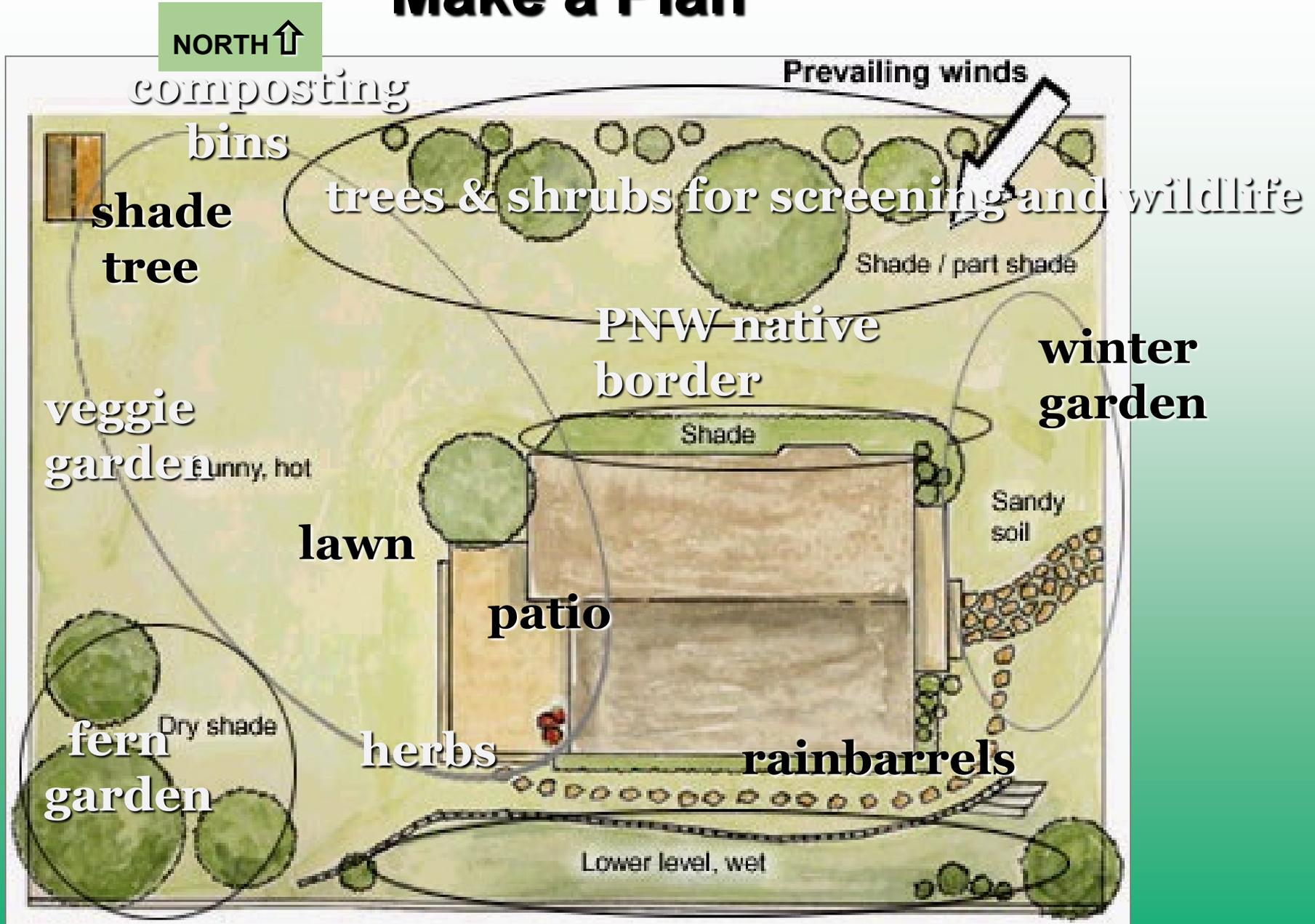


- Maintenance

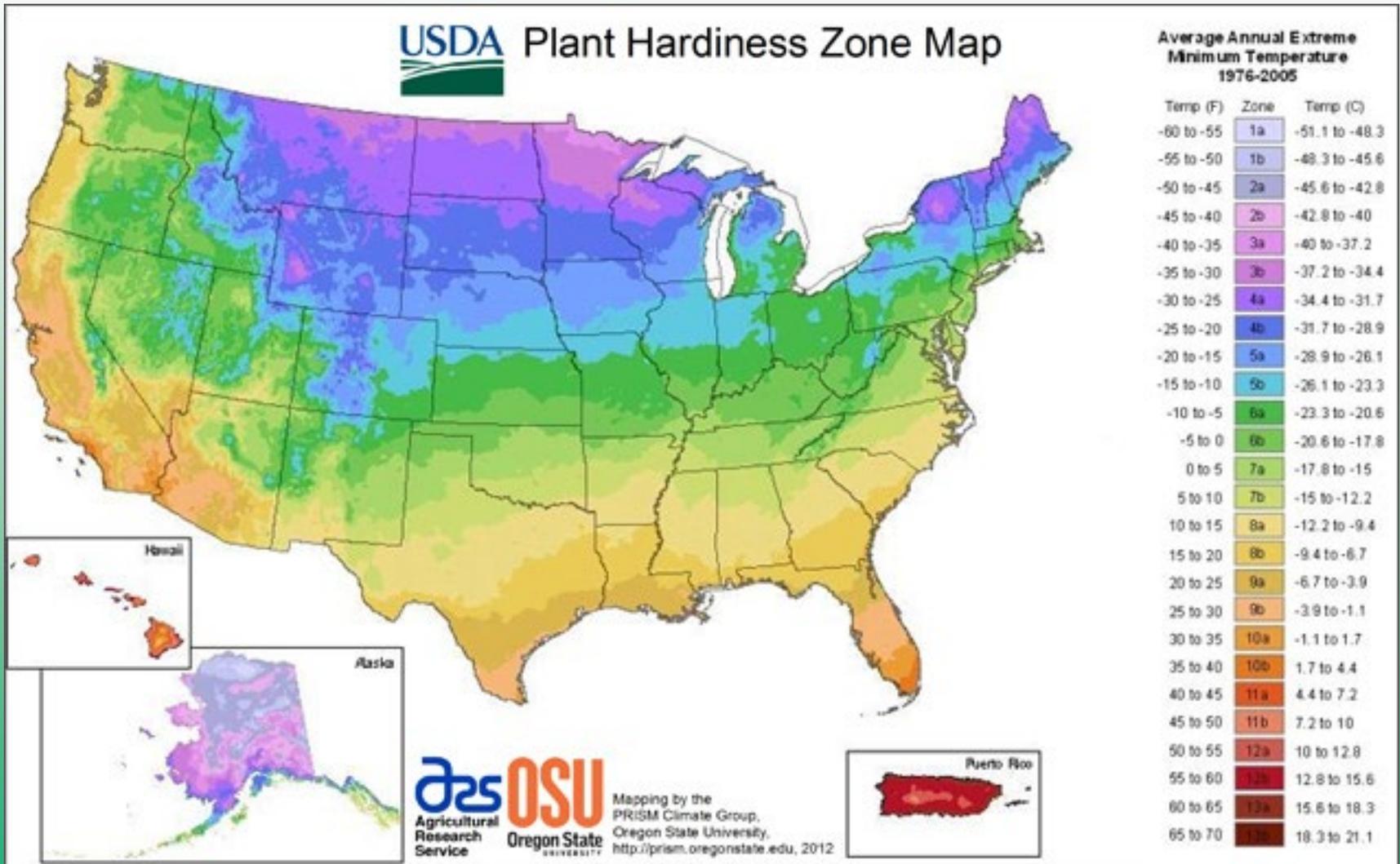
- Water
- Plant Care
- Seasonal Plantings



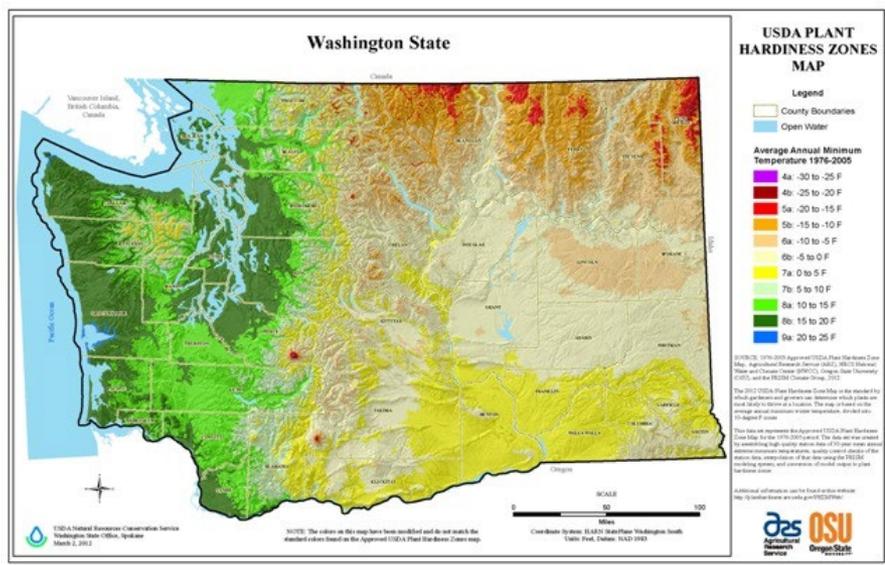
Make a Plan



USDA and SUNSET ZONES



Washington State Zone Maps



Group Plants with Like Needs

- Drought tolerant plants – Euphorbia, grasses, Sedum, Ceanothus, lavender, sea holly, Russian sage
- Bog plants – Bog rosemary, blueberry, red stemmed dogwood, Carex, Juncus



More efficient to water

Soil conditions are similar

Choose Low Water Need Plants

Know a plant's origin!

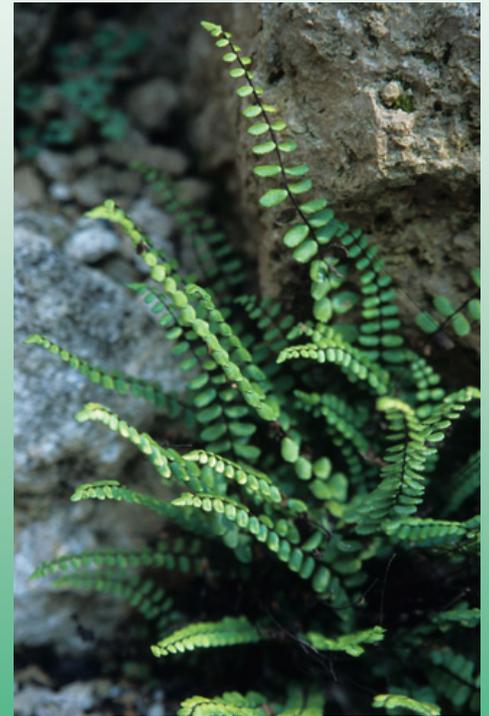
- Washington natives- wet winter, dry summer
- California and Mexico – dry and sunny
- Mediterranean – windy and sunny slopes
- New Zealand – small leaved plants to reduce transpiration



Washington Natives

thrive without irrigation and are pest and disease resistant

- **Groundcovers** – Wild Ginger, Sword Fern, Deer Fern, Salal, Vancouveria, Trillium, Oxalis, Low Oregon grape
- **Shrubs** - Red Stemmed Dogwood, Snowberry, Ninebark, Tall Oregon Grape, Oceanspray, Evergreen Huckleberry, Mock Orange, Red Flowering Currant, Thimbleberry, Salmonberry, Rhododendron
- **Small Trees** – Serviceberry, Vine Maple, Elderberry
- **Large Trees** – Douglas Fir, Bigleaf Maple, Western Hemlock, Western Red Cedar



California and Mexico

- Salvia
- Yucca
- Ceanothus
- Manzanita
- Carex
- Fleabane



Mediterranean

- Lavender
- Santolina
- Rock Rose
- Calendula



New Zealand

- Libertia
- Euphorbia
- Hebe
- Phormium
- New Zealand Flax



Plan a Diverse Garden

- Provide year round interest – fall color, winter structure, spring bloom, summer fruit
- Attract beneficial wildlife – birds, bees, bats and more!
- Include edibles – plan for water management
- Provide two functions – espalier an apple fence!



Design Considerations

- Height variation – Canopy Layer
- Texture
- Mass groupings
- Odds and thirds
- Evergreen and deciduous



Avoid Noxious Plants!



Garlic mustard, Class A weed



Bishop's Weed – Weed of Concern

- **Get to know your local noxious weed board and their list**
- Class A regulated weeds **MUST** be managed by law
- Class B and C are regulated at local levels depending on need
- Non-regulated Noxious Weeds not mandated for control but recognized as a nuisance
- King County Weeds of Concern – not regulated and not on the lists but recognized as being problematic
- Any weed can change status

Start Your Plants Off Right



- Healthy Soil is key
- Learn how to plant properly
- Mulch your plants
- Establish drought tolerance

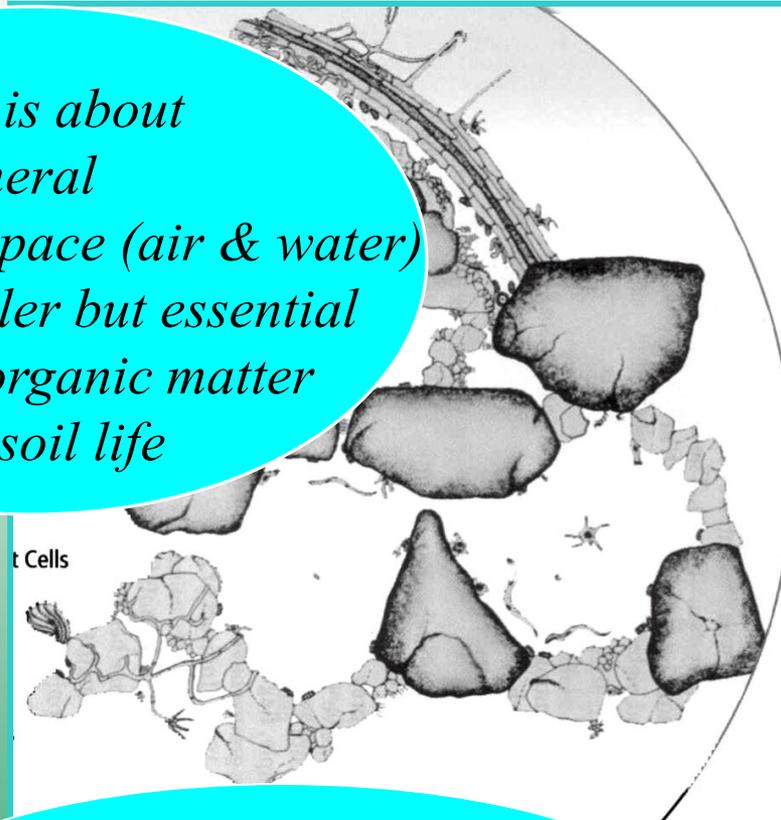
Soil Components

Soil Components

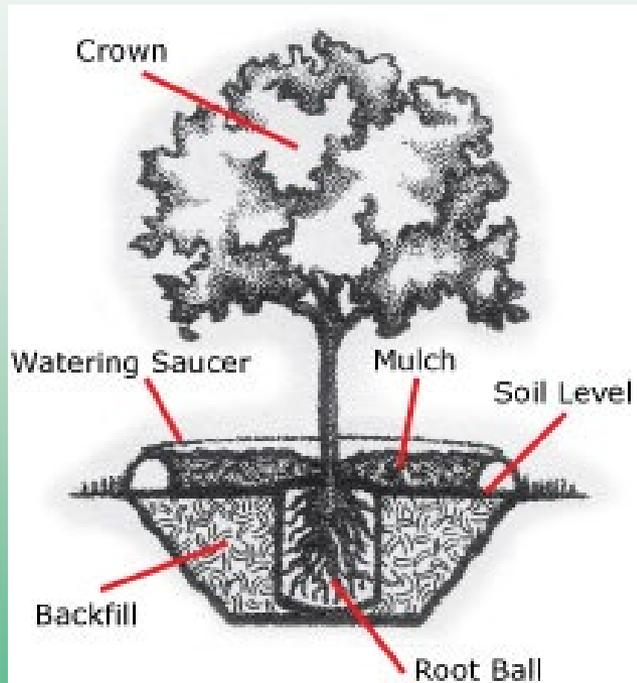
- “The Dirt”
(mineral particles)
 - sand (0.05 to 2 mm)
 - silt (0.002 to 0.05 mm)
 - clay (<0.002 mm)
- Air and Water (in pore spaces)
- Organic Matter and Soil Life
(create aggregates & pores)

Good soil is about
- half mineral
- half pore space (air & water)
- plus a smaller but essential
amount of organic matter
and soil life

“Loam” is a mix of
sand, silt, clay and organic,
formed over time by nature



Correct Planting Techniques



- **Trees and shrubs:** Minimally amend soil, watch size of planting hole, avoid girdling roots
- **Perennials:** Loosen root ball, watch size of planting hole, amend with compost
- **Vegetables:** Space correctly, amend with compost, fertilize
- **Lawn:** Prepare soil well, avoid compaction, fertilize, stagger ends

Choose the Right Mulch

Conserve moisture, moderate soil temperature, keep weeds down



- **Wood Chips:** perennials, tree and shrub beds, groundcovers, paths
- **Compost:** vegetable gardens, annual beds
- **Leaves:** All of the above!
- **Straw:** veggie gardens, perennials
- **Commercial Mixes:** manure and wood products for all areas
- **Gravel:** paths

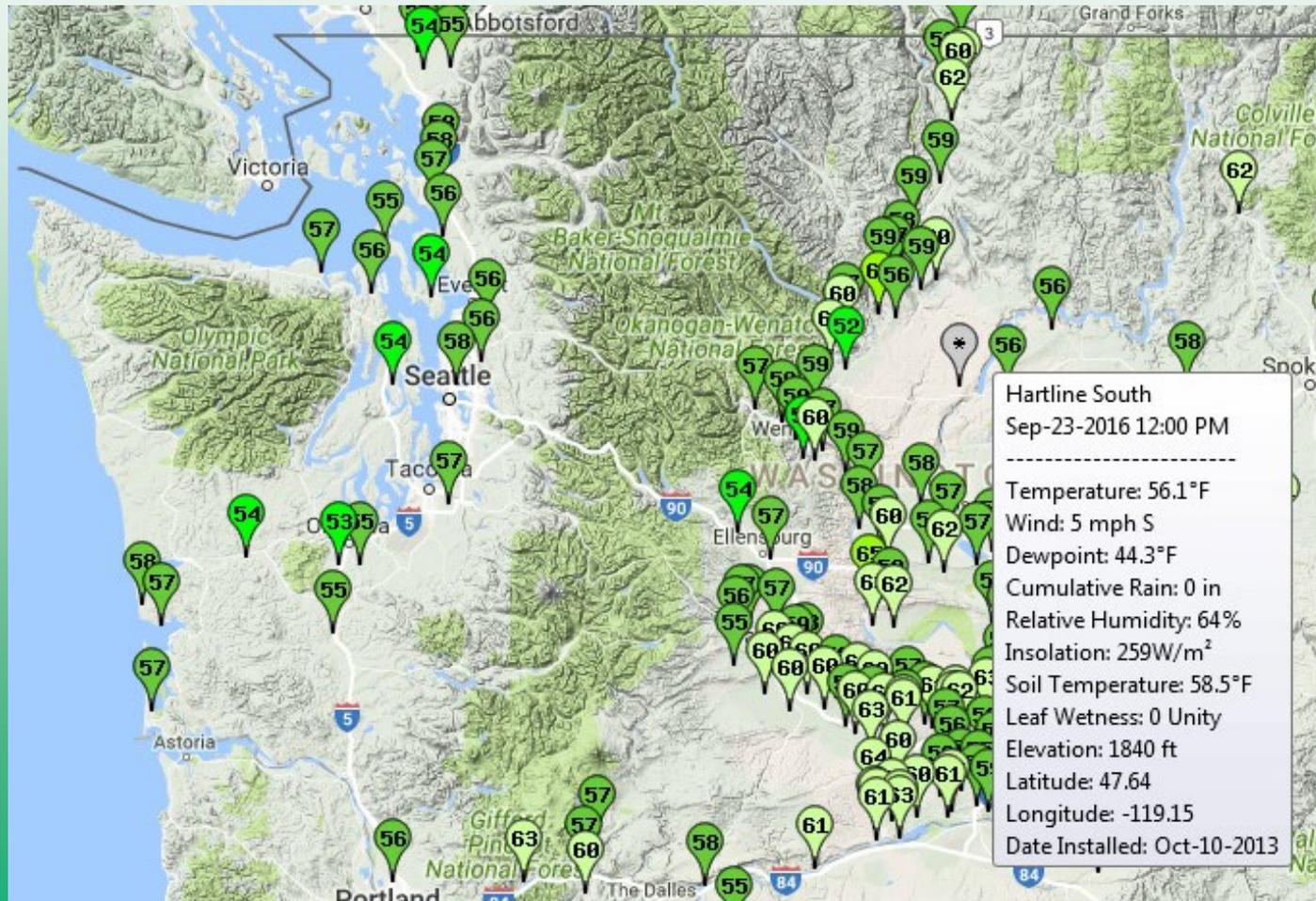
Why Plant in the Fall?



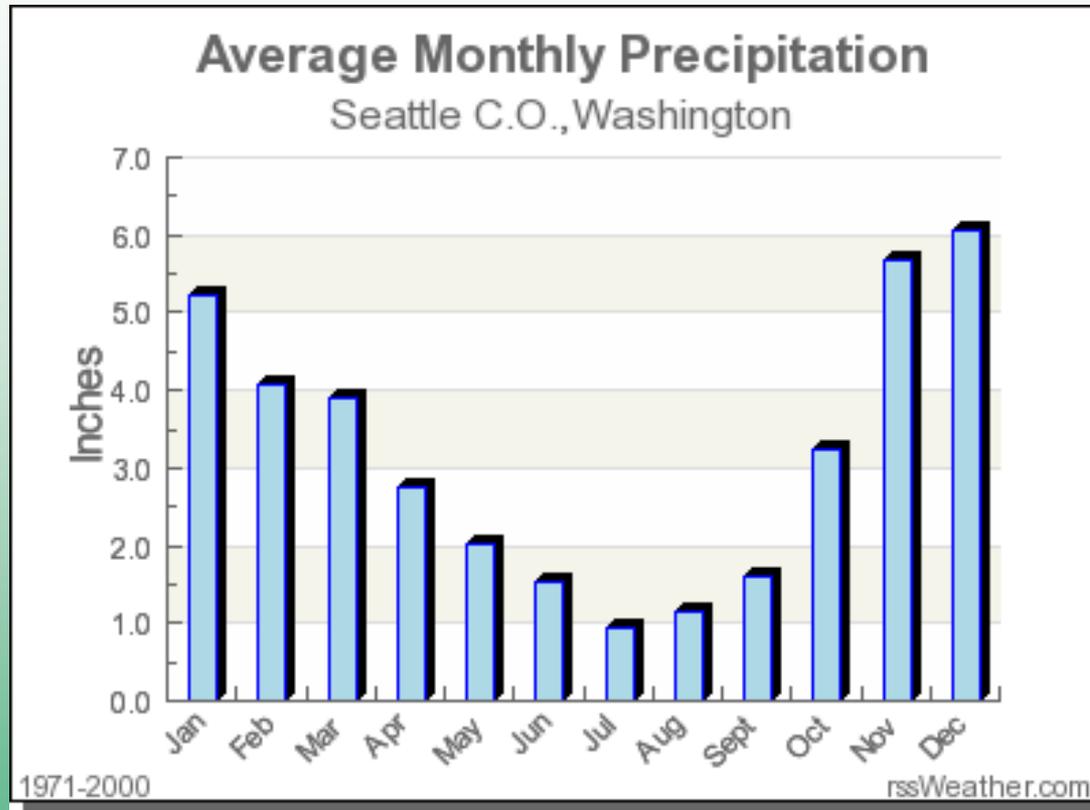
- Soil temperatures - warm enough to encourage root growth
- Plant establishment
- Winter rain will keep them watered for you!
- Spring bulbs – good time to add
- Less stress for the plants
- Comfortable working temperatures

Winter Soil Temperatures

- Washington State University soil temperature map
- <http://weather.wsu.edu/index.php>

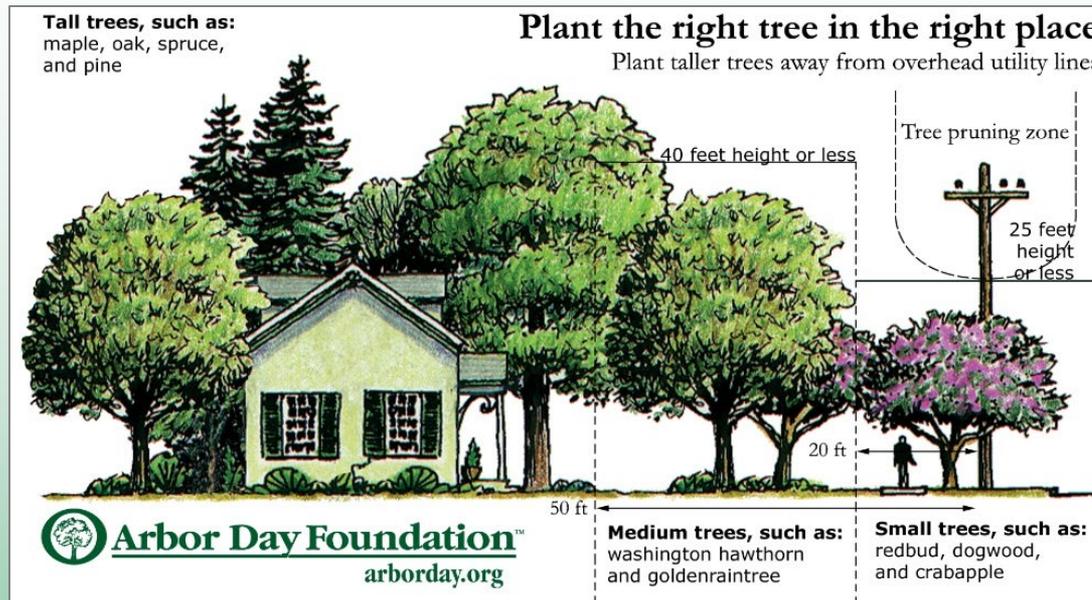


Winter Rains



- Winter rainfall helps establish plants
- June rain helps recharge soil to get plants through July and August

Plants and Stress



- Cooler temperatures create less stress on plants when planting in the fall.
- Add mulch to the soil after planting to help moderate soil temperatures – allows plants to grow healthy roots

PLANT IN THE RIGHT PLACE

- to ensure successful establishment of your plant
- to allow for proper water management
- to allow plant to reach its potential – less pruning = less stress

Plan for Smart Watering Practices

Choose the Right Irrigation Option

- Newly planted shrubs and trees can take up to 2 years to become established
- Perennials can take a year to become established
- Automatic Irrigation Systems
- Drip Irrigation
- Soaker Hoses
- Hand Watering
- Rain Collection Systems

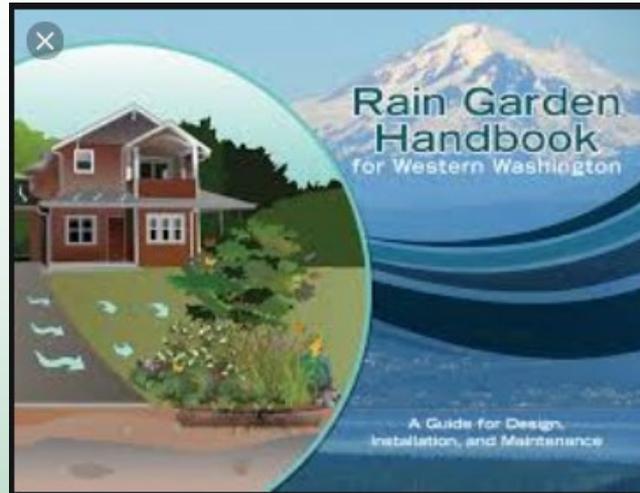


Rain Gardens



- Landscape area that collects, absorbs and filters stormwater runoff
- Stormwater runoff from roof is collected and directed to the rain garden
- Soil is amended with compost to improve infiltration to groundwater

Rain Garden Site Selection



- Map your Garden
- Test drainage in possible areas for Rain Garden
- Designing the Rain Garden
- Right plant right place
- Preparing the Site
- Maintenance

Resources



- Garden Hotline – 206-633-0224 – www.gardenhotline.org
- Tilth Alliance- www.seattletilth.org
- Cascade Water Alliance - www.cascadewater.org
- Puget Sound Starts Here www.pugetsoundstartshere.org
- City of Bothell www.bothellwa.gov/designyard

Please join us next for:

Put Your Garden To Bed

Wednesday – October 7th, 7-8:30 p.m.