

Evaluating Your Site For Native Plants

Jeanie Taylor
Taylor Gardens

The Growing Environment

Climate

Microclimates

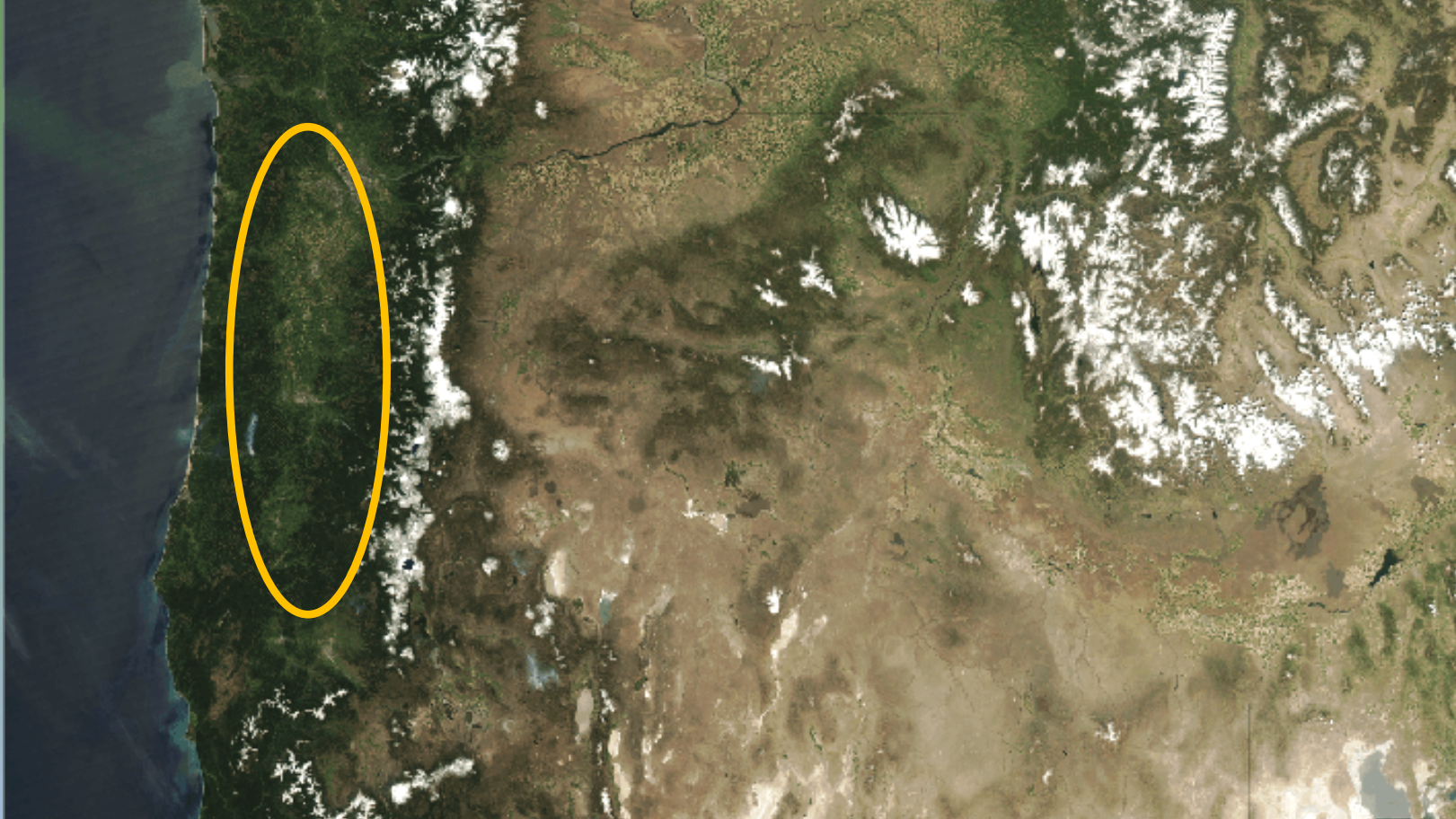
Soil

Water

Sun/Shade

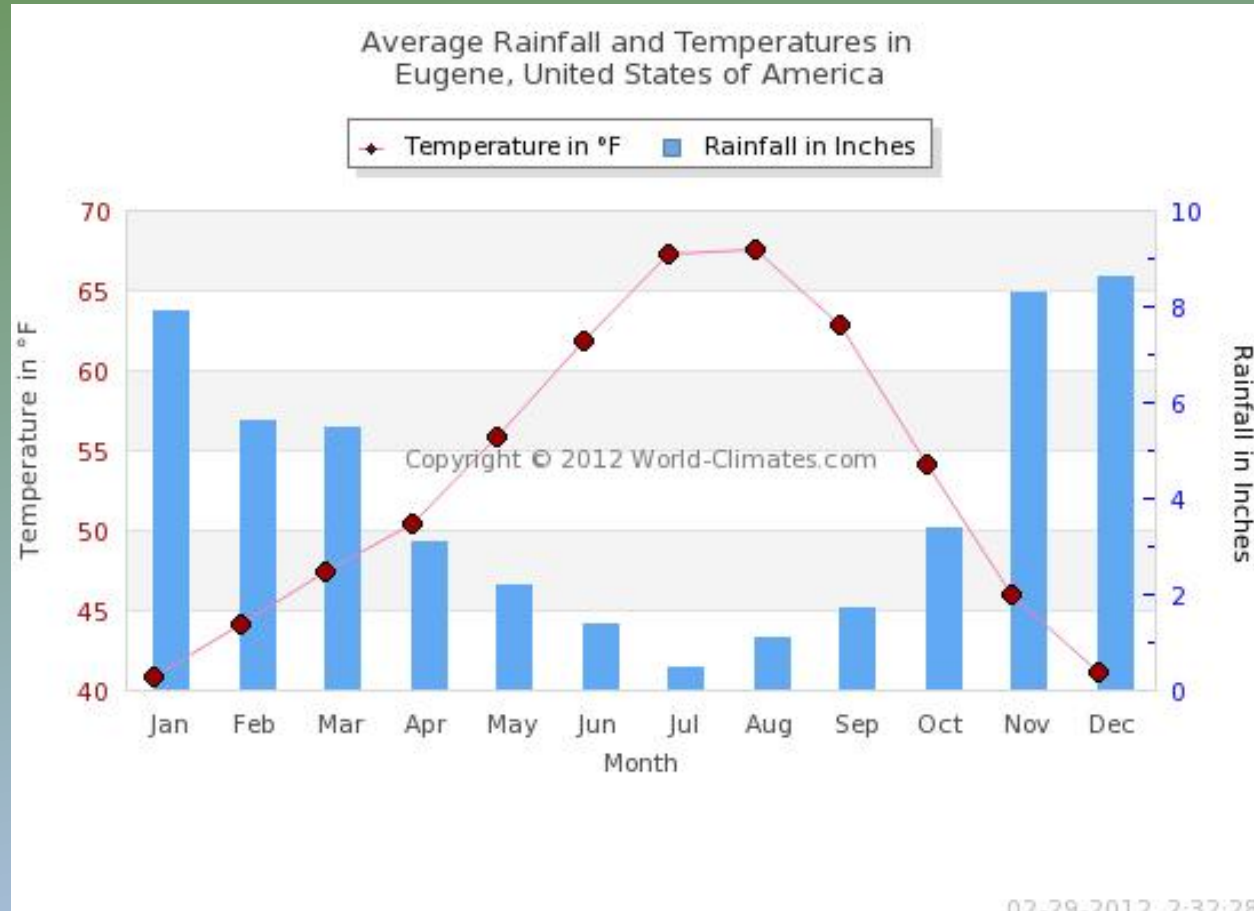
Big Picture - Climate

The Willamette Valley



<https://opb.pbslearningmedia.org/resource/buac17-68-sci-ess-ilmountainshadow/mountains-and-rain-shadows/>

West of the Cascades, we have a Mediterranean climate



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Some examples of climate-adapted habitats in our
ecoregion:

Wet Prairie with standing water supports Camas Riparian zone gallery forest



<https://blogs.uoregon.edu/rivergroup/2016/04/22/rivers-to-ridges-tour-with-the-ltwc/>

Drought-tolerant oaks retain leaves into fall; they can also tolerate wet bottom-land soils!



Roemer's fescue on dry, thin soil of oak savanna/woodland and upland prairies



Foothills: more conifers, woodland plants



https://oregonstate.edu/trees/conifer_genera/spp/douglas_fir_spp.html



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More habitat info at Oregon Flora Project

<https://oregonflora.org/garden/index.php>

The screenshot shows the Oregon Flora Project website. At the top left is the logo with 'OREGON FLORA' and a bird icon. Navigation links include 'TOOLS', 'RESOURCES', 'ABOUT', and 'CONTRIBUTE'. On the right, there are links for 'CONTACT', 'DONATE', and 'LOGIN', along with a search bar labeled 'Search all plants'. The main content area features a green background with leaf patterns. On the left, a section titled 'Choose native plants for a smart, beautiful and truly Oregon garden' explains that native plants thrive in Oregon's unique landscapes and provides tools to find suitable plants. On the right, a section titled 'Why native plants?' lists benefits: they need less water and fewer chemicals, attract native pollinators and birds, preserve natural landscapes, and provide critical habitat for birds and wildlife. Below this, there are two sections: 'Search for plants' with a search box and instructions, and 'Or start with these plant combinations:' which displays four garden types: 'Woodland Garden', 'Meadowscape', 'Pollinator Garden', and 'Rock Garden', each with a representative image.

OREGON FLORA

CONTACT DONATE LOGIN

TOOLS RESOURCES ABOUT CONTRIBUTE

Search all plants

Choose native plants for a smart, beautiful and truly Oregon garden

Native plants thrive in Oregon's unique landscapes and growing conditions, making them both beautiful and wise gardening choices. Use the tools below to find plants best suited to your tastes and your yard.

Why native plants?

- They need less water and fewer chemicals when established.
- They attract native pollinators, birds and other helpful creatures.
- They preserve our natural landscape and support a healthy and diverse ecosystem.
- They provide critical habitat connections for birds and wildlife.

Search for plants

Start applying characteristics, and the matching plants will appear at right.

Search plants by name

Or start with these plant combinations:

- Woodland Garden
- Meadowscape
- Pollinator Garden
- Rock Garden

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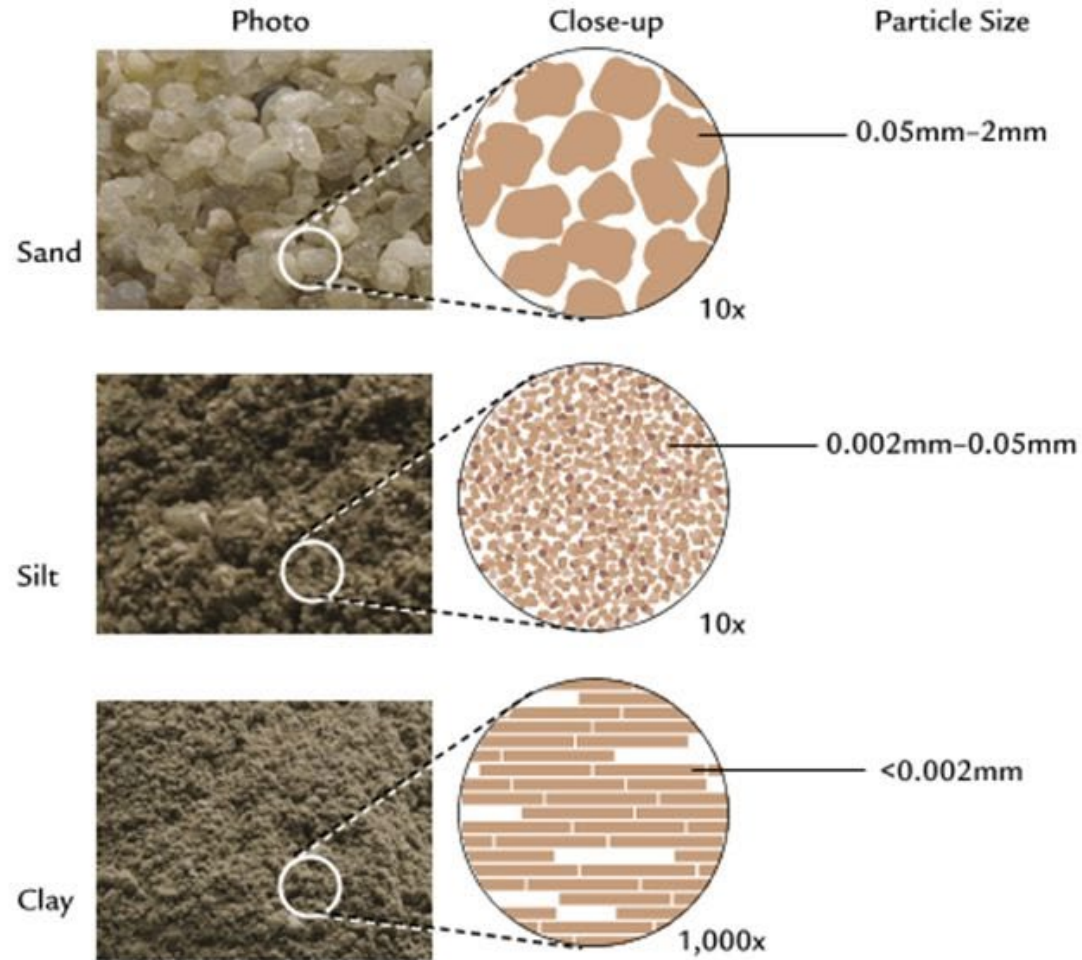
Sun/Shade

Soil Properties

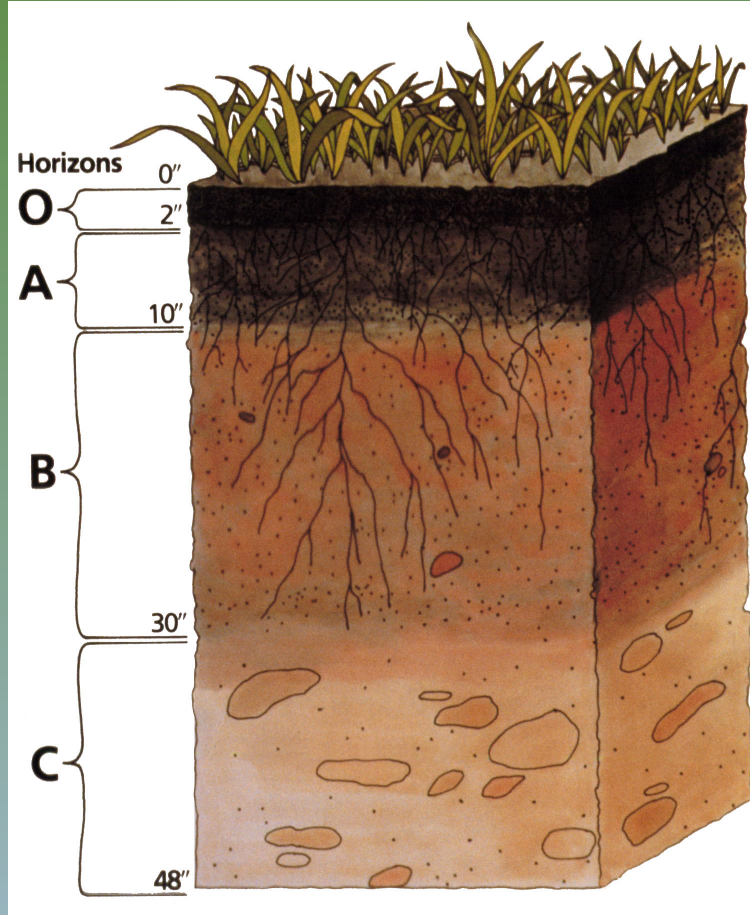
- Texture (clay, sand, silt) = Individual particles
- Pore space = Spaces between particles
- Structure = Collections of particles (peds)
- Organic Matter (the hidden gem)

Nutrients adhere differently to different soils

Sand, Silt, and Clay

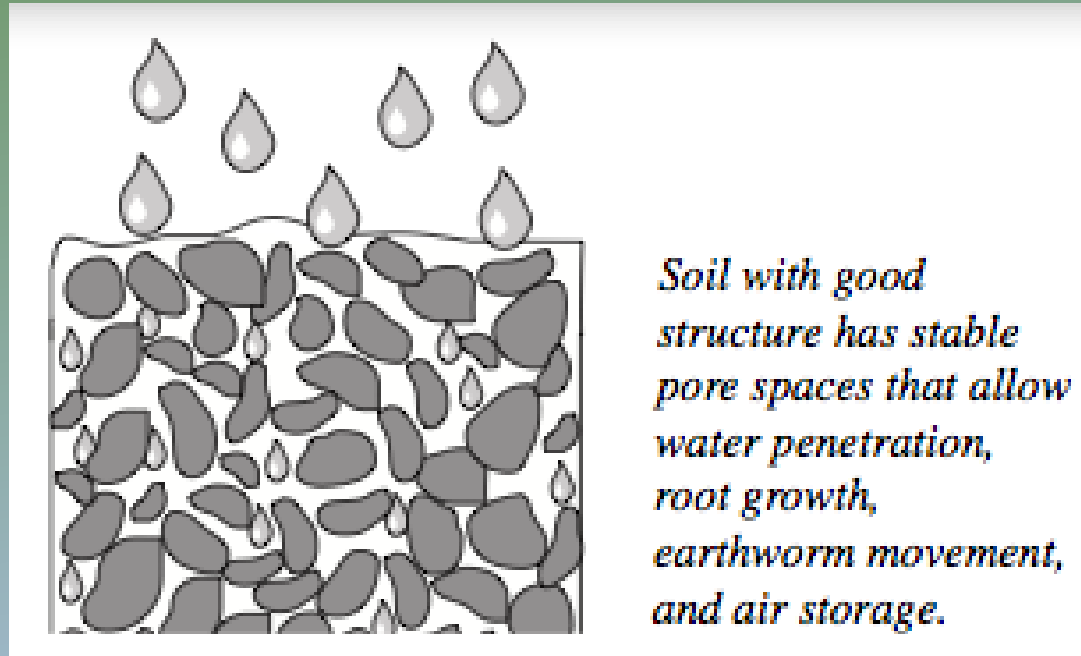


Soil texture is not the whole story



Organic Matter, Microorganisms, and Time help soils develop
STRUCTURE

Soil Structure is formed over time (in undisturbed soils)
and increases aeration and drainage

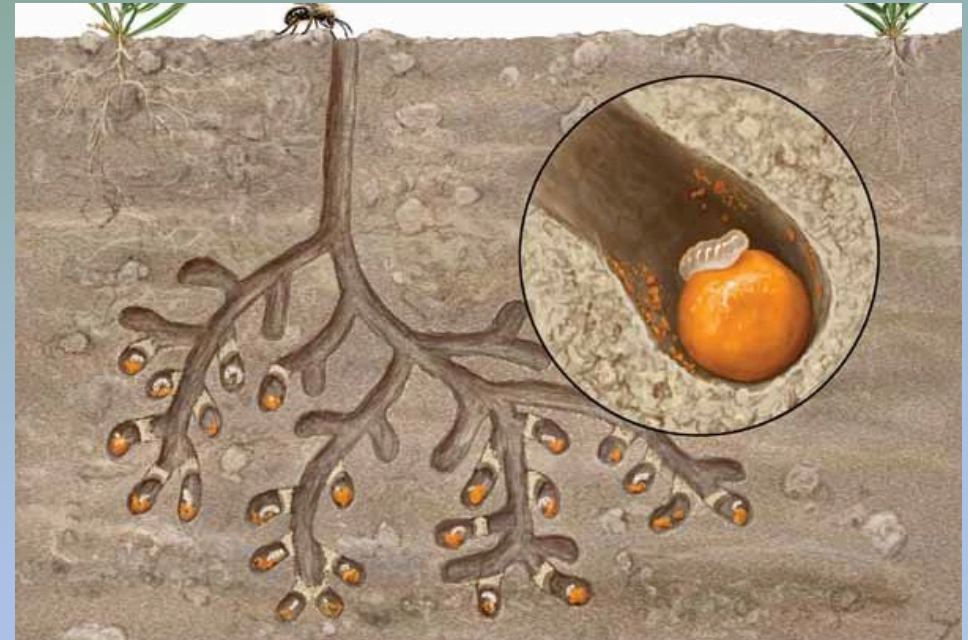


OSU

What gardeners need to know for soil management

1. Structure is the lattice that holds everything together. Minimize disturbance and compaction to protect structure (don't knock down the house)
2. Use what you've got! Ditch plants for wet soil, drought adapted for well-drained soils, shade plants in shade, sun plants in sun.
3. Add organic matter (mulch, compost) **if necessary** to improve physical properties, but native plants do not require fertilizer
4. Leave the leaves (and stems)

Approximately 70% of the more than 600 species of native bees in Oregon nest underground – leave some bare soil



More bee info ➡ Oregon Bee Atlas

<https://extension.oregonstate.edu/bee-atlas/oba-member-outreach-submissions>

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“I have wet soil, what should I plant?”

WHEN is your soil wet?

Seasonally?
Year round?

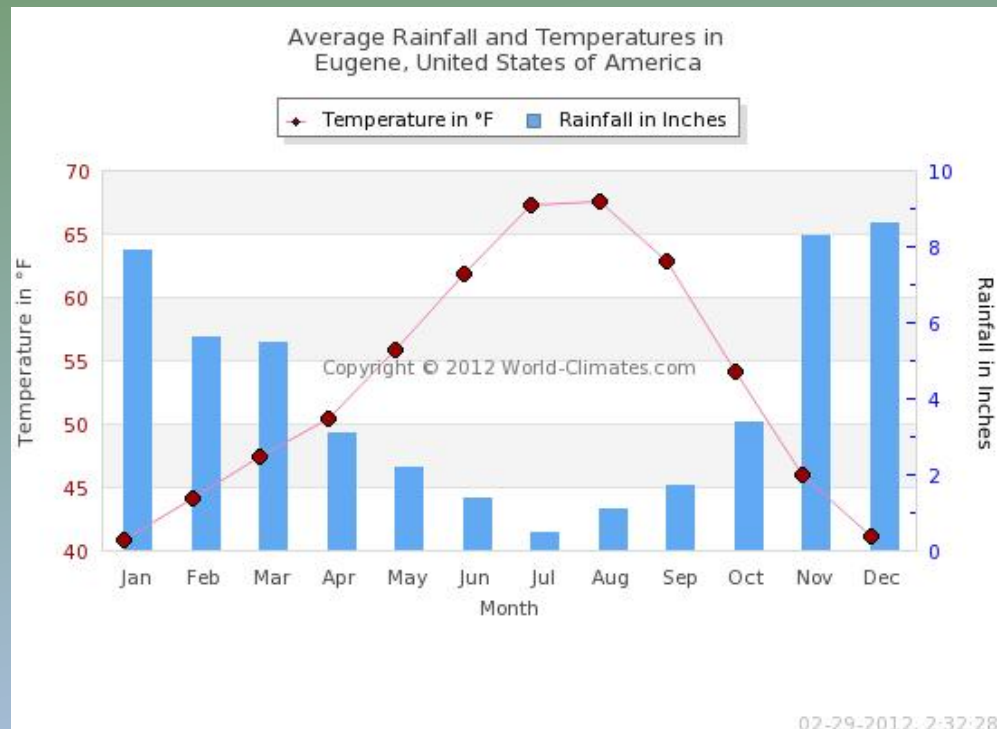
HOW LONG
does it hold water?

DIY perc test

Soil may be both wet and dry

When is as important as how much

Native plants in the *right* place may go dormant to survive heat, drought or cold. Plan accordingly!



Irrigation for establishment (3yr)

- Irrigation will help get new plantings through their first few summers, then native plants should be well rooted and ready to survive on their own
- Some managed landscapes will look better with some summer irrigation AFTER establishment (once/week during late summer only).
- Deep watering with time between for drying down is the best use of scarce water
- When established, native plants need very little to no water!!

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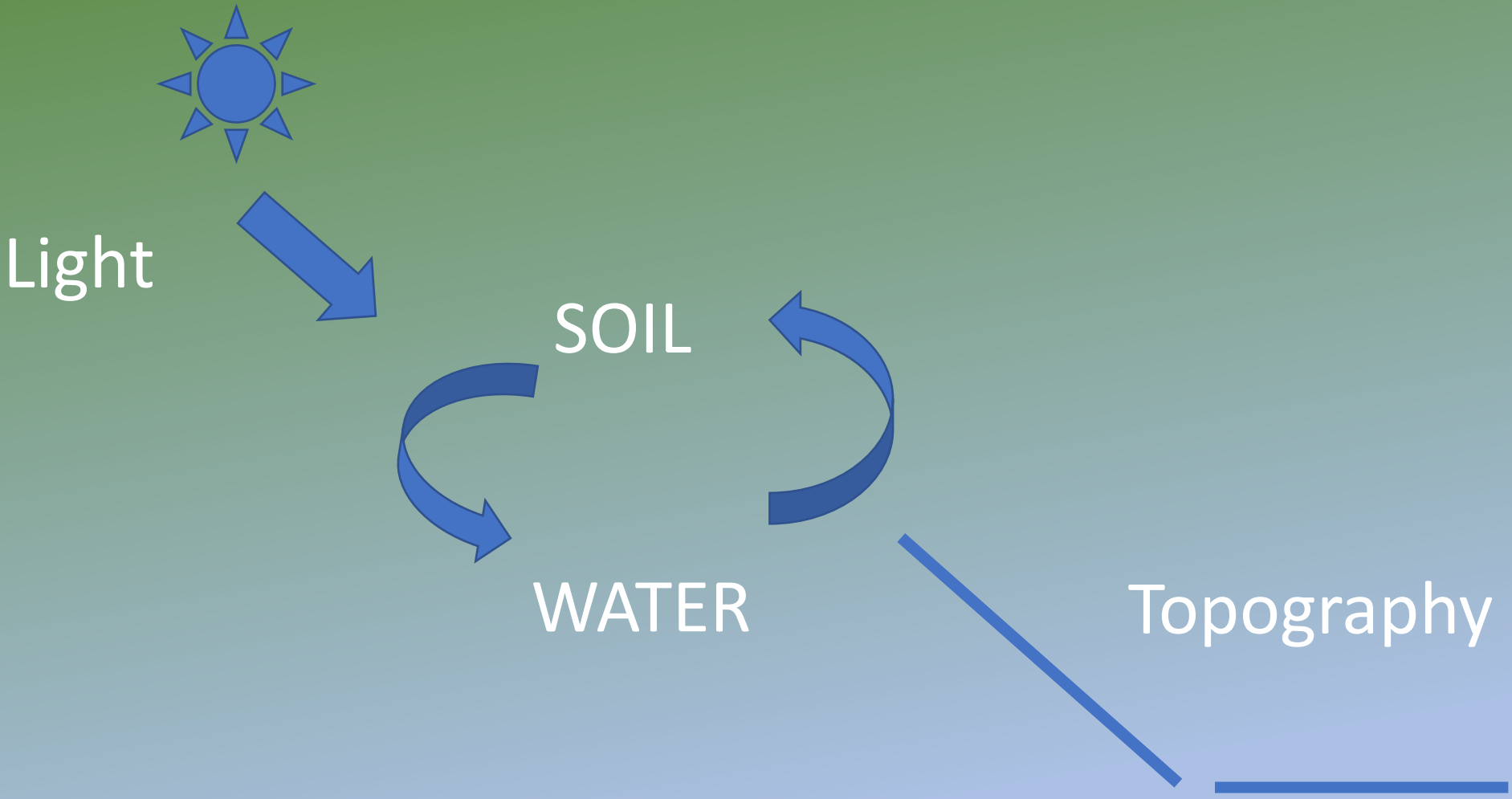
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LIGHT REQUIREMENTS

- Full sun (6 Hrs/day)
- Part sun/part shade (3-6 hrs)
- Full shade (< 3 hrs)



Morning sun and afternoon sun are of different quality! Many “shade” plants can tolerate morning sun if they have afternoon shade.

Soil conditions and available **water** also have an effect

Dappled shade, short periods of hot sun followed by shade, and other thorny problems require some experimentation.

Plants of wet ditches
are quite adaptable

A well-drained slope in
shade can support sun-
loving plants that grow in
full sun with seasonally
wet soils (e.g. cow
parsnip, rushes, sedges,
some bulbs, goldenrod)



Goldenrod: Dry slope in dappled shade, afternoon sun



Goldenrod in a low-lying area with more sun



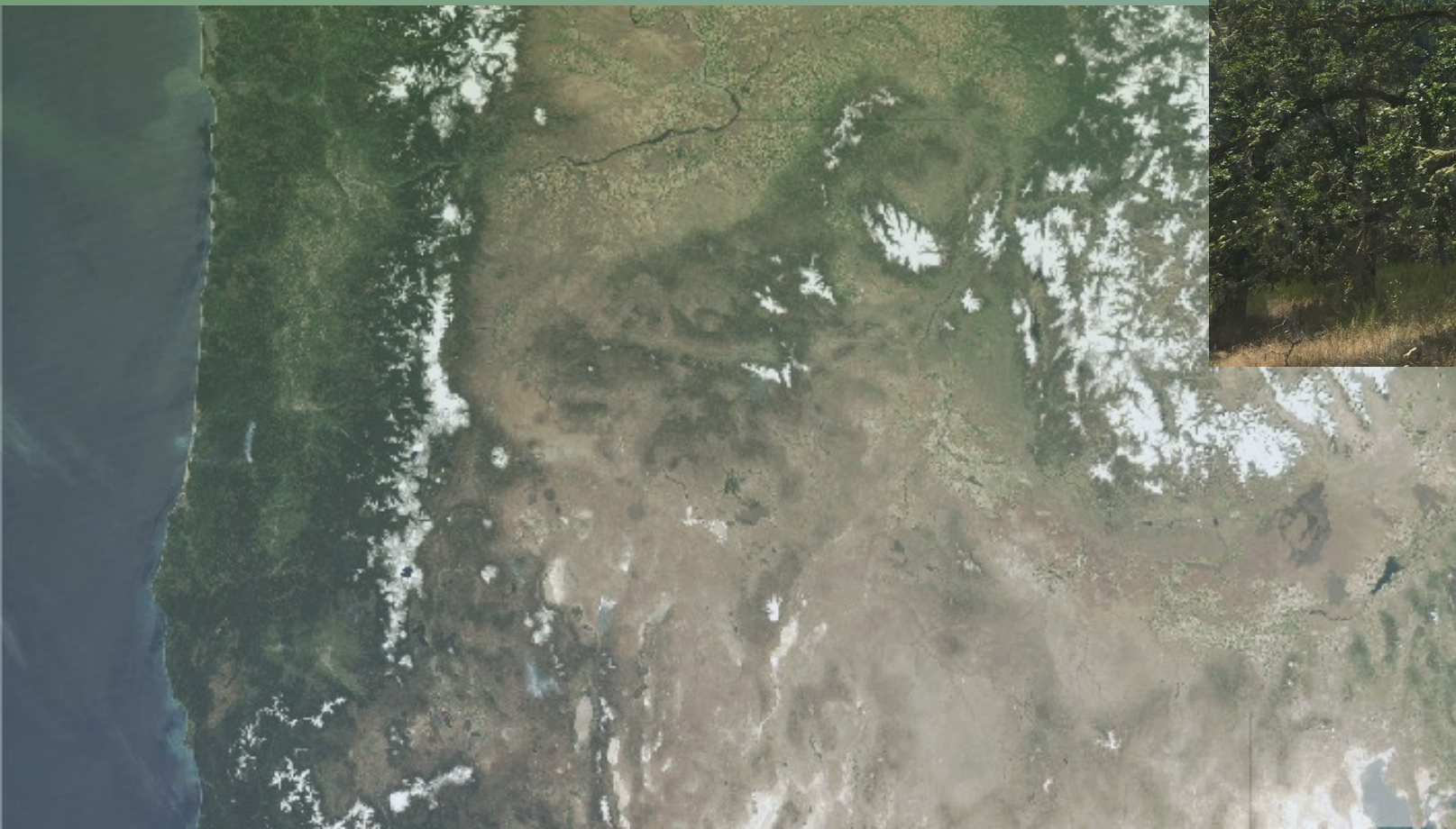
<https://seattlebloggers.com/five-popular-native-seattle-wildflowers/>

Review

- Remember that soil, water, sunlight, and topography interact
- Check your soil drainage rate
- Watch your site **over the year**, and **during the day** to determine where the light is and how it changes over the day/year.
- Look up! Check for seasonal shade (trees leafing out)
- Native plants might go dormant during dry season – plan some late season bloom and foliage to maintain interest

Match habitat to plant/plant to habitat

- Try matching your site to a known habitat (you might have more than one). If your site has been altered by human activity, look for similar site conditions in extreme environments (e.g. rocky balds)
- Some northern California, southern Oregon, coastal zone, and montane plants are great garden plants!



Climate, Microclimate, Organisms
Topography, Geology, Time

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