

Vegetational Threats to Northcentral Washington

Objectives

- ▶ Discuss the different biomes in NC Washington
- ▶ Talk about the Vegetation in the Biomes
- ▶ Talk about threats to the biomes
- ▶ Potential remedies with native plants
- ▶ Have fun, learn something, don't get hurt

Definition

Biome is an ecological unit with distinct flora, fauna, and climate.

Invasive plant is a species that is non-native to a particular ecosystem and whose introduction causes or is likely to cause economic or environmental harm



**Climate Change is
real, and it is here**



- ▶ **Weather vs Climate**
- ▶ **Daily Decades**



▶ Extremes in conditions/

- ▶ Temps,
- ▶ Precipitation,
- ▶ Winds/Storms
- ▶ Ocean temps
- ▶ Atmospheric energy
- ▶ Differences in temp

Temps 42-120 average 81

Old 70-90 80

Precip 1- 20 average 10.5

Old 8- 12 10

Different Biomes

- ▶ Sage/Stepp
- ▶ Dry Forest
- ▶ WUI ([Wildland Urban Interface](#))

Sage/Stepp Biome



Threats to Sage/Stepp Biome

- ▶ Annual grasses
- ▶ Russian Thistle
- ▶ Knapweeds
- ▶ Others



Cheat Grass



Knapp weed



Russian Thistle



Russian Thistle Dead plants

Potential Vegetation Alternatives

- ▶ Native Grasses
- ▶ Native Forbes



Sandbergs Bluegrass & Idaho Fescue



Needle and thread & Indian rice



Sand Dropseed & Prairie Junegrass



Blue bunch Wheatgrass & Basin Wild rye



Pine Grass

Sedges

Forbes

- Annual and perennial Flowers
- Plants with High Moisture content
- Often attractive attention grabbers



Penstemon & Lupine



Columbine & Strawberry



Yarrow & Phlox



Fireweed and Clarkia



Bitterroot & Scarlet Gilia

Dry Forest Biome (Ponderosa Pine Forest)



Threats to Dry Forest Biome

- ▶ Douglas fir
- ▶ Too many trees
- ▶ Removal of big trees
- ▶ Fire Exclusion
- ▶ Sustainable/Resilient System yet Fire Prone



Fire History

- ▶ Acres Burned
- ▶ Frequency
- ▶ Severity
- ▶ Population Increase

Potential actions for the Dry Forest

- ▶ Thinning
- ▶ Fire inclusion



Wildland Urban Interface Biome (WUI)



Threats to WUI Biome

- ▶ Arborvitae
- ▶ Fire Brands (burning embers)
- ▶ Landscape maintenance

Arborvitae



Fire Brands (Burning Embers)



Potential step to reduce the threats in the WUI Biome

- ▶ Alternatives to Arborvitae
- ▶ Implement the Home Ignition Zone concepts
- ▶ Fire-resistant construction standards

Alternative Native Shrubs to Arborvitae

- **Objectives**
- **Cost**
- **Maintenance**



Service berry & Woods Rose



Elderberry & Golden Currant



Shrubby Cinquefoil & Spirea



Oregon Grape & Kinnikinnick



Red Osier Dogwood & Mock Orange

Home Ignition Zone

**Low
Intensity**

No Spread

No Ignitions

Landscape Zone 3

Landscape Zone 2

Landscape Zone 1

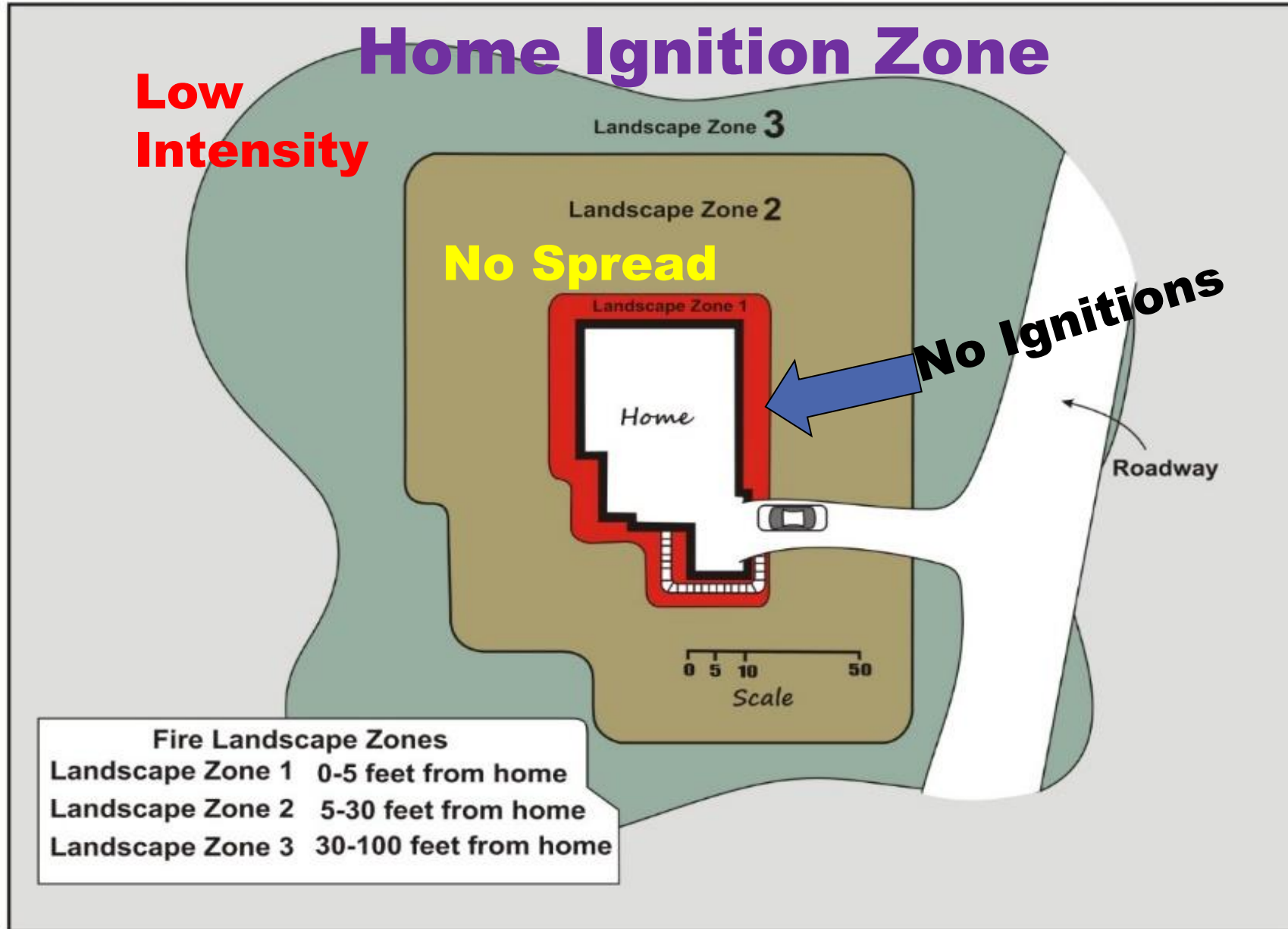
Home

Roadway

0 5 10 50
Scale

Fire Landscape Zones

- Landscape Zone 1 0-5 feet from home
- Landscape Zone 2 5-30 feet from home
- Landscape Zone 3 30-100 feet from home



Landscape Zones 1

Ground Covers

Herbaceous Perennials and Annuals

Herbaceous Vines

Turf Grasses

Landscape Zones 2 or 3

Shrubs

Trees

Large Native/Adaptive grasses

4 Laws of Ecology

Can't do one thing - Everything is connected to everything else

Everything goes somewhere

There is not free lunch

Nature knows best

Questions??

Al Murphy