

# Drought-Tolerant Alternatives to Lawns

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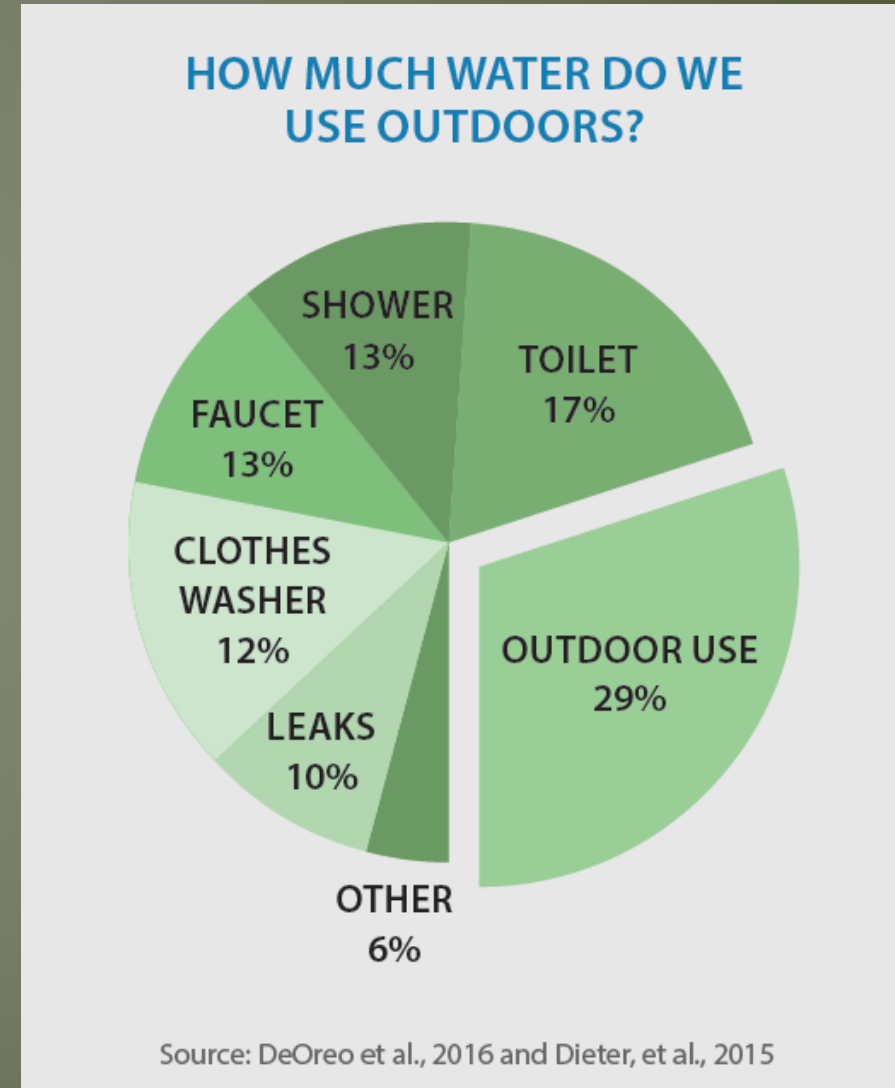
Mel Asher, M.S.,  
Derby Canyon Natives, Inc  
Peshastin, Washington



# Average U.S. Household Water Use

“Of the estimated 26.6 billion gallons of water used daily by households in the United States, nearly 8 billion gallons, or **30 percent**, is devoted to outdoor water use. In dry climates, a household’s outdoor water use can be as high as **60 percent**.”

[www.epa.gov/watersense/outdoor](http://www.epa.gov/watersense/outdoor)



# Overview

- Types of drought tolerant lawn alternatives, specific to eastern WA
  - Native grasses
  - Fine-leaf fescues
  - Warm-season grasses
  - Yarrow/wildflowers
- Site Preparation
  - Traditional lawns
  - Post-construction
- Seeding
- Maintenance



# Planning Considerations??

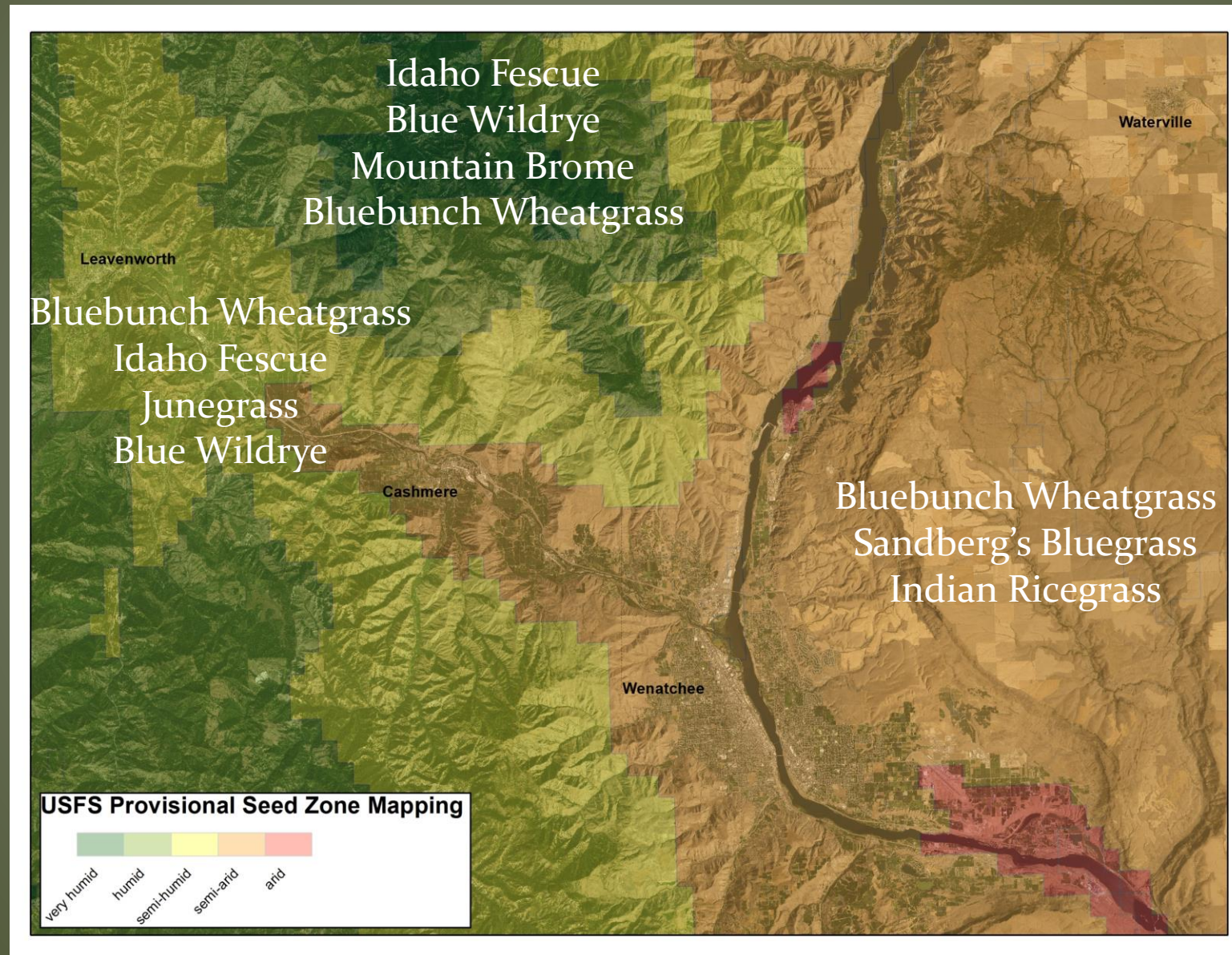
- How much if any watering are you willing to do?
- How much foot traffic will the area have?
- How close to the house is the area?
- Is the site currently very weedy?

# Native Bunchgrasses

- PROS
  - Completely Drought Tolerant, once established
  - Low maintenance
- CONS
  - Dormant in mid-late summer
  - Fire hazard
  - Bunching Growth Type??
- Various heights, depending on species, from 18" – 3'



# Different Climate Zones = Different Native Grasses



# Fine-Leaf Fescues

- Hard Fescue, Sheep Fescue, Idaho Fescue, Red Fescue
- Also bunchgrasses, so can be sown lightly for cover, or densely to resemble turf
- Should be irrigated
- Will fade out if allowed to go dormant all summer
- Require less water than traditional lawns due to a deeper, fibrous root system



# Warm-Season Grasses

- Buffalograss, blue grama, etc
- Native to middle US, where summer rainfall patterns are typical
- Photosynthesizes differently than the cool-season active grasses native in the PNW and in turfgrass – more efficient use of water
- Active only between first and last frosts
- Should be seeded in April or May



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# Western Yarrow / Wildflowers

- Contains wildflowers that can grow by seed
  - Yarrow has soft, fern like leaves and spreads via rhizomes
- Should be mowed/whacked to eliminate stalks, if you want them to be walkable
- Very adaptable, can persist with irrigation or without



# Drought Tolerant / Native Plant Gardens

- Diverse and drought tolerant
- Should be established via planting
- Consult Betsy Dudash's presentation on March 8th for details



# Questions on Drought-Tolerant Lawn Alternatives??



# Site Preparation

- 3 critical components
  1. Control of existing plants
  2. Create a soft bed of bare soil
  3. Deplete weed seeds in soil



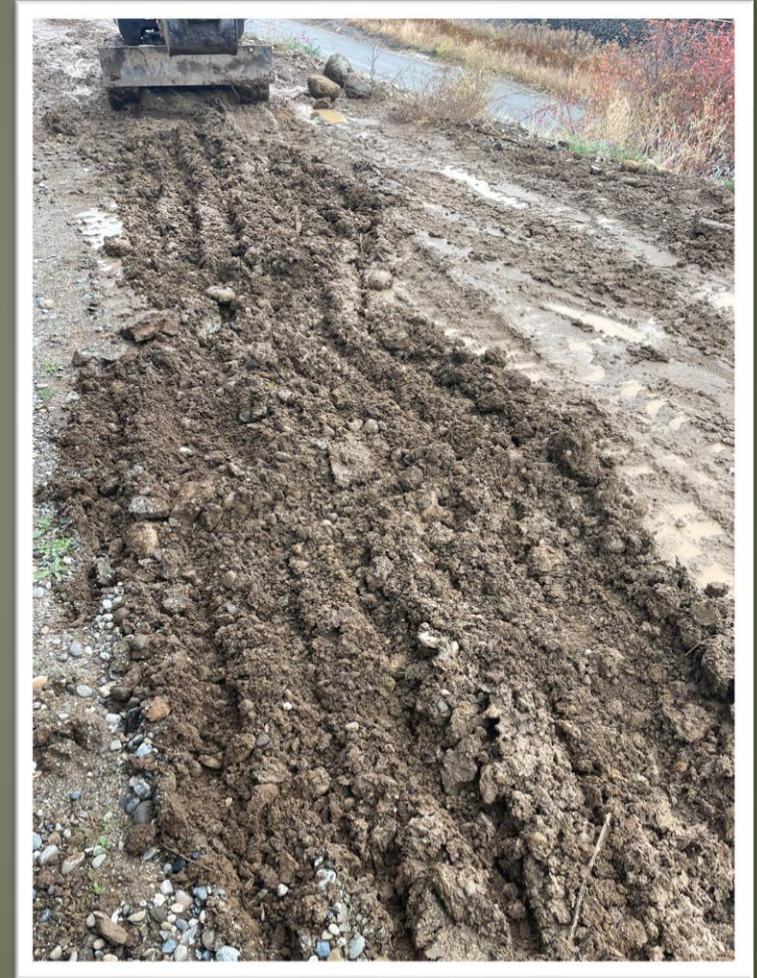
# Lawn Removal

- Fast or Slow options, depending on your timeline for seeding
- Fast Option
  - Sod busting
    - Either flip the sod over, or remove and landfill/craigslist
    - Wait a couple weeks, rake, and seed
- Slow Option
  - Scalp, turn off water, and wait for the summer
  - Rent an aerator to break up hardpan and bring up soil to the surface
  - Rake compost or topsoil into holes



# Construction-Related Soil Disturbance

- Bare soil and grading takes care of Site Prep steps #1 and #2.
  - **Compaction can be an issue**
- Weed seeds (#3) may still be in soil, depending on grading depth and presence of sub-soil
  - **Options to deal with this?**
    - Fallow for the season
      - Hoe, pull, spray weeds through the spring and summer
      - **DON'T LET WEEDS MAKE SEEDS!**
    - Control anything green, seed, and hope for the best!!



# Seeding - Timing

- Cool season grasses and wildflowers
  - Seeding should occur during the dormant season
  - In the Wenatchee Valley, this window is open from late October thru February
  - With irrigation or watering, this window extends
- Warm-season grasses should be seeded in the late spring – summer.



# Seeding - Rate

- Rate depends on the seed mix. Supplier should provide this info
- Typically based on pounds of seed per 1,000-square foot
- Measure your area, and purchase the amount of seed needed, plus approx. 10% for overseeding bare patches





# Plant Materials

- Seeds
  - Grasses and a few wildflowers can be easily seeded
    - Yarrow, flax, blanketflower, lupine
  - Forbs and shrub seeds often have dormancy issues that challenge use by layman



# How to Purchase Seeds

Washington Native Plant Society

<https://www.wnps.org/native-gardening/sourcing>



## WASHINGTON NATIVE PLANT SOCIETY NATIVE PLANT & SEED SOURCES 2023

This information is provided as a resource by the Washington Native Plant Society and does not imply an endorsement. For more information, suggested additions, or data changes, please contact WNPS at 206-527-3210 or [info@wnps.org](mailto:info@wnps.org). The contacts listed here include details from a survey describing types of plant material stocked, forms plants are available in, and the focus of the firm.

**Specialty Nurseries** Some of these growers, nurseries and seed suppliers deal mainly in native plants. Others stock mostly non-natives yet may also have a good selection of natives. Many specialize in plants for wetlands, alpine and rock gardens, or trees and shrubs. Some will harvest seed or grow plants under contract. Confirm before visiting. Many nurseries require an appointment and may not keep regular business hours.

**Use Local Native Plants** Definitions of native vary from one grower to the next and may include cultivated varieties of native species, as well as plants from hundreds of miles away. For restoration and native habitat projects, it is usually best to use genetically varied stock originating from the nearest available natural sites. Local nurseries do not necessarily rely on local sources, nor is it always practical. Ask where a nursery's propagation stock or plants come from before selecting plants for landscaping or restoration projects.

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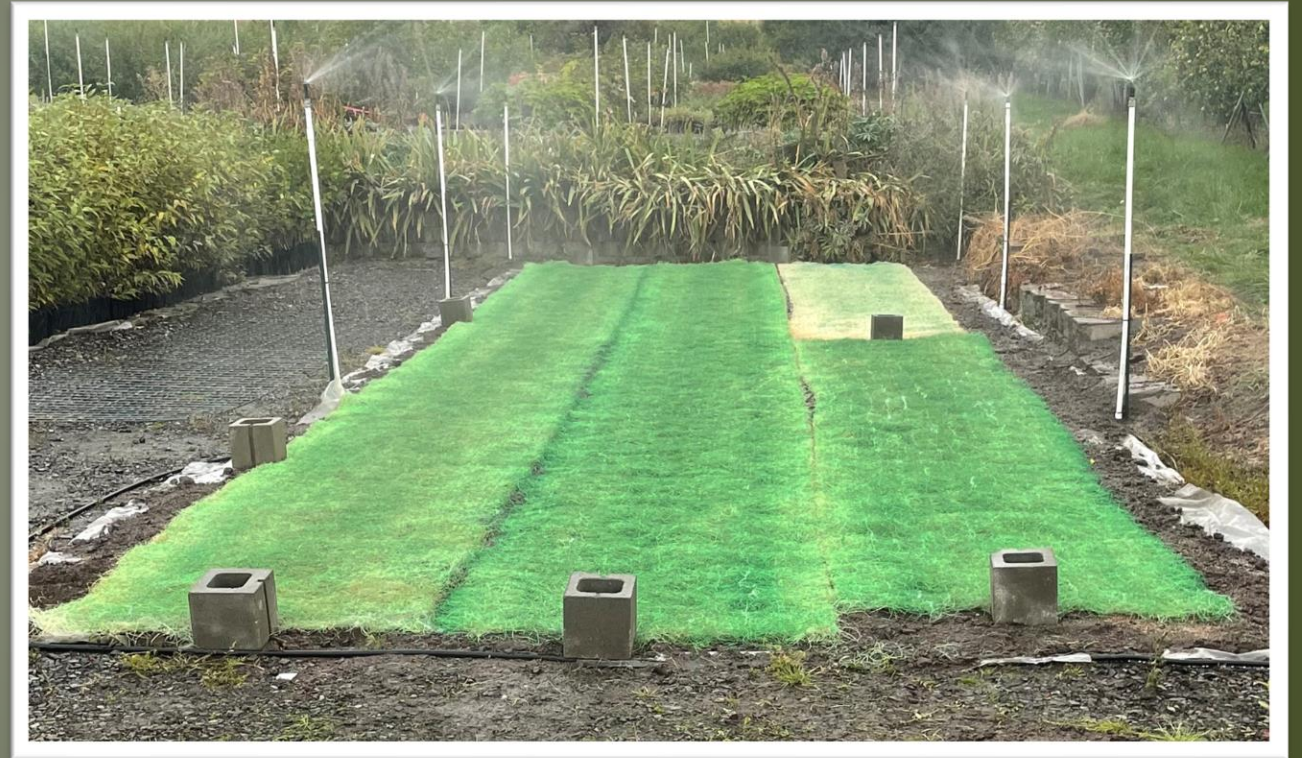
# Seeding - Technique

- SEED-TO-SOIL CONTACT
- Seed should ideally be covered with approx.  $\frac{1}{4}$ " of soil



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- Sites on slopes should be hydroseeded or covered with erosion control blankets



# Watering During Establishment

- How much to water during establishment?
  - It Depends on rainfall, seed mix, soils, location, etc....
  - You have to monitor soil moisture regularly
- Germination
  - Soils should stay moist on the surface consistently until seedlings emerge
  - Water for short bursts, frequently
- Early growth
  - Water as needed to maintain moisture several inches deep, around the height of the grasses
  - Water less frequently, and longer, to push moisture down deep



# Weeds During Establishment

- This will be an issue and is CRITICAL for success.
- Weeds may be grassy (cheatgrass or lawn grasses), broadleaf (mustards or tumbleweeds, or both)
- Approach depends on the type of weed, and quantity
- Annual weeds
  - Cheatgrass, mustards, and rye are annuals, stop them from producing seeds, and your perennial species will eventually push them out



# Weeds During Establishment

- Annual weeds
  - Low densities can be hand pulled
  - Broadleaf weeds can be selectively sprayed out of grass stands
  - High densities indicate that the weed seedbank wasn't properly depleted
- Perennial weeds
  - Dandelions can be hand pulled or spot sprayed, as well as other noxious weeds
  - Mowing won't cut it
- Weed control during establishment is **CRITICAL!**



# Maintenance

- Keep 'em tall! Mowing stresses plants and more water is needed for recovery
- Taller blades shade and keep root system/soils cooler
- Reduce your expectations in the heat of summer
- No fertilizer needed!
- Less foot traffic please
- Water weekly or bi-weekly, or not at all with native grasses





# Final Thoughts

- The type of ground cover you choose should be based on your goals and maintenance style
- Watered may be needed during establishment, and should be based on monitoring soil moisture
- Weed control will be critical during the first year
- Long-term maintenance needs is minimal
  - The selection of higher moisture needs plants will likely require long-term irrigation.
- Difficulty of establishment ranking

Fine leaf fescues = Warm-season Grasses  
< Wildflowers < Native Grasses



# Final Questions??

Mel Asher – [mel@derbycanyonnatives.com](mailto:mel@derbycanyonnatives.com)

[www.derbycanyonnatives.com](http://www.derbycanyonnatives.com)

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