

Using Native Plant Materials for Habitat Restoration

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Native Plants and Integrated Weed Management

You've got a really good handle on the weeds at a site... Now what?

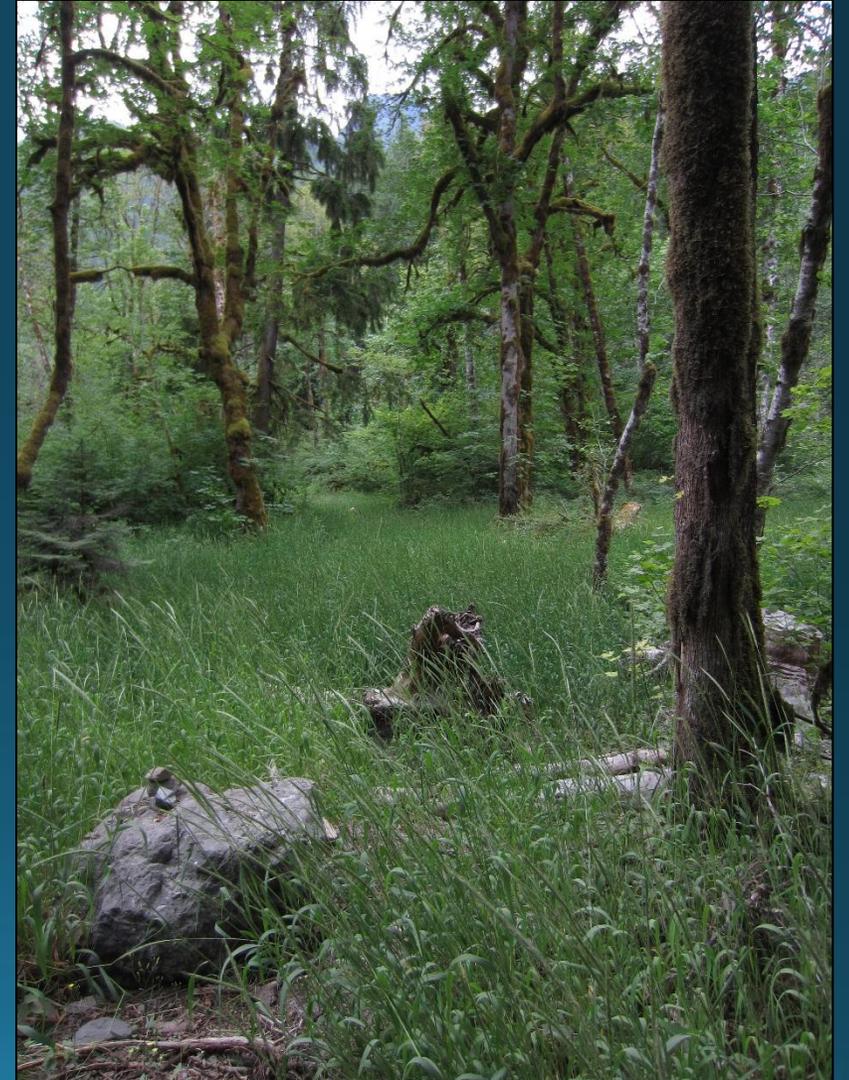
- Passive revegetation means the site is left to recover on its own. This may be all that's needed in many situations.
- Active revegetation with native plants can help keep a site from being re-invaded and/or keep weed numbers low.
- Revegetation with native plants can improve habitat for a variety of wildlife.
- Revegetation can reduce erosion.



How do I decide what plants to use?

Identify what your goals are for the site.

- Improve wildlife habitat = include plants that wildlife utilize and/or plants that will improve the physical conditions of a location.
- Exclude weeds = include plants that will establish quickly and are good competitors.
- Reduce erosion = include plants that will establish quickly and form dense cover.
- Do you want the plants you use to serve as a “placeholder” while your treatment site recovers, or is your goal for those plants to be a longer term component of the community?



How do I decide what plants to use?

Determine what plants have a good chance of surviving at a particular location.

- Make a list of native plants already present at or close to the treatment site.
- Which one's will meet your goals for the location?
- Which ones have been successfully used for restoration before?
 - Easy to collect
 - Easy to propagate
 - Seed stores well
 - Good survival when outplanted



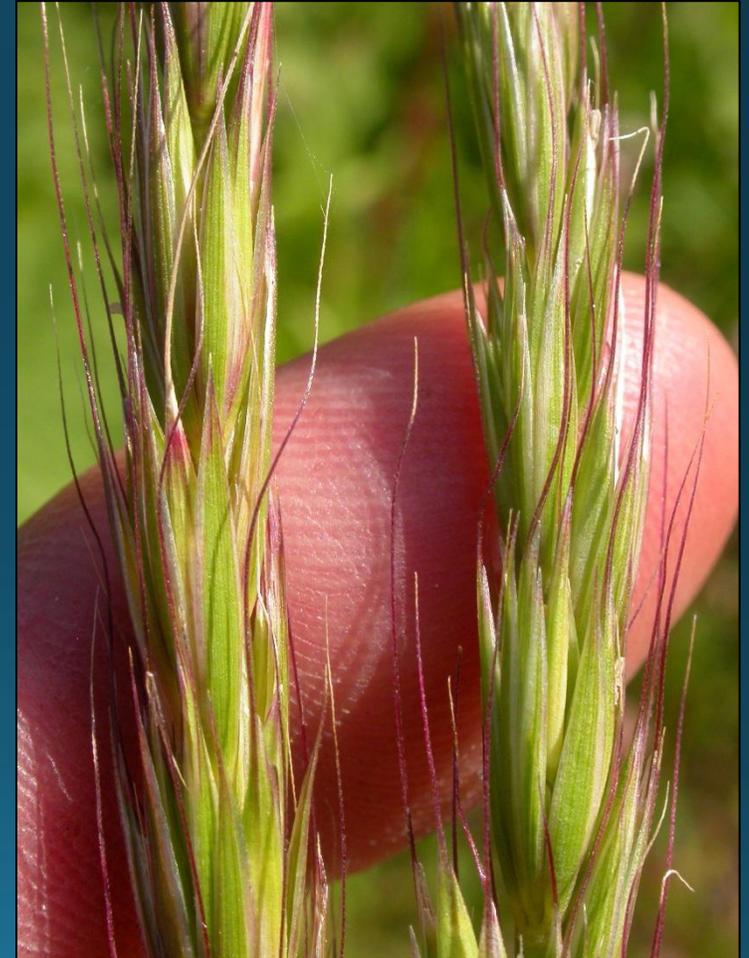
What Kinds of Native Plant Materials are Available?



Seed: Where Do I Get it and How Do I Know if it's Right for My Site?

One option is to purchase from a retailer:

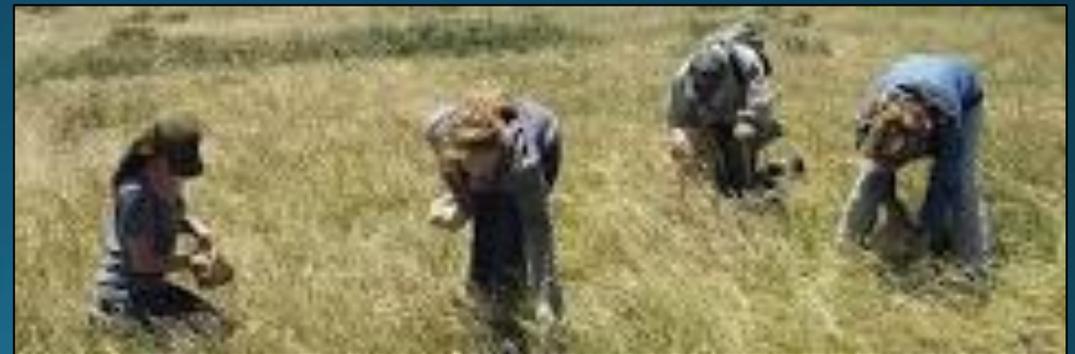
- Relatively inexpensive.
- Often the origin of the seed is unknown.
- May be maladapted for conditions in western WA.
- Successful establishment less likely, but potential for polluting the local gene pool is an even bigger problem.



Seed: Where Do I Get it and How Do I Know if it's Right for My Site?

Seed can be wild collected locally.

- Better for small projects.
- Over collecting can cause resource damage.
- Can be very time consuming and expensive, but seed is available the same season it's collected.
- Seed of some species can be challenging to collect, or viable material difficult to recognize or obtain.
- Plants will be adapted to local conditions and genetically appropriate.



Seed: Where Do I Get it and How Do I Know if it's Right for My Site?

Seed Increase: Best of both worlds?

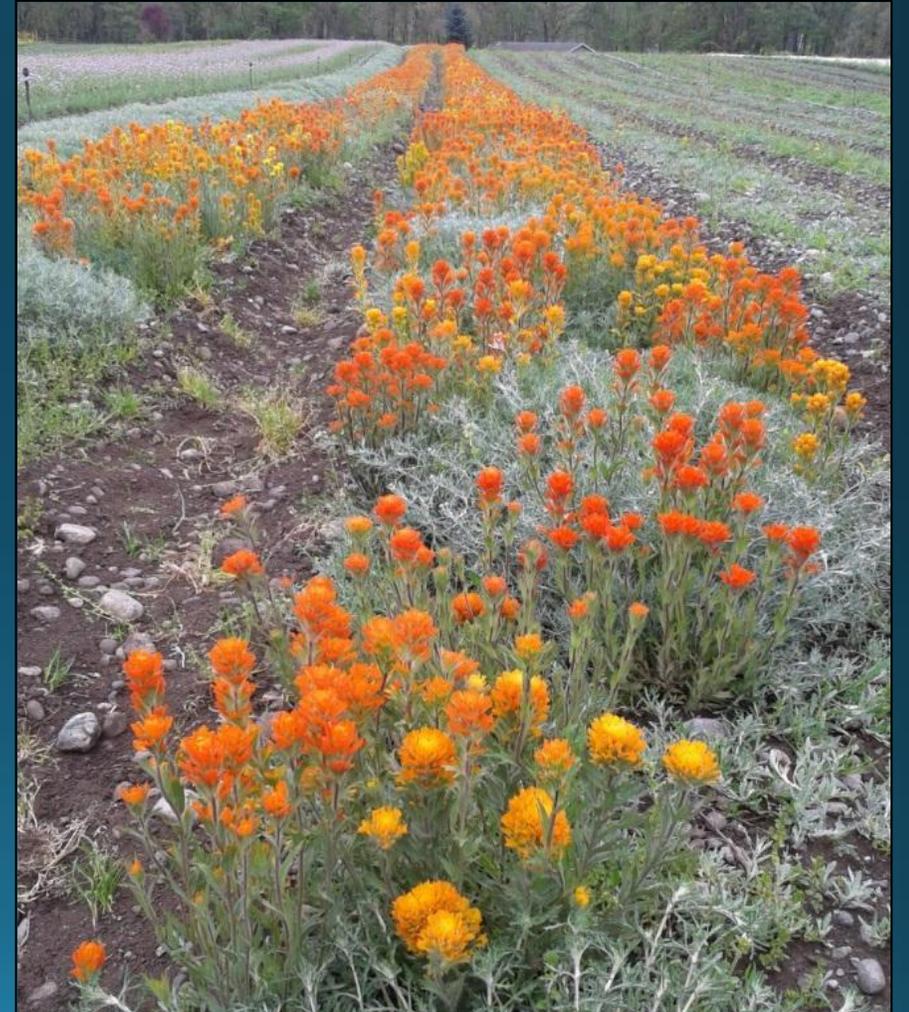
- A small amount of seed is wild collected, which is then sown in production fields. Seed is harvested from plants grown from wild collected seed.
- Seed increase is typically done in facilities dedicated to this type of work.
- Harvested seed will be adapted to local conditions and genetically appropriate .



Seed: Where Do I Get it and How Do I Know if it's Right for My Site?

Seed Increase: Best of both worlds?

- Requires planning well in advance. A *minimum* of two years from deciding you want seed of a particular species to having seed from increase in hand.
- Seed increase can be expensive, but the larger the quantity produced, the lower the cost....
- Opportunities to pool our resources?



Seed: Where Do I Get it and How Do I Know if it's Right for My Site?

- Blue Wild Rye (*Elymus glaucus*)
 - Production cost: \$11,000 for 2000 lbs of seed. This is enough to seed more than 165 acres.
- Sea Blush (*Plectritis congesta*)
 - Cost to collect 3 oz of seed: \$2250
 - Cost to grow approximately 18 lbs of seed over three years: \$4,000
- Harsh paintbrush (*Castilleja hispida*)
 - Cost to collect 1 oz of seed: \$750
 - Cost to grow approximately 5 lbs of seed over 3 years: \$6000

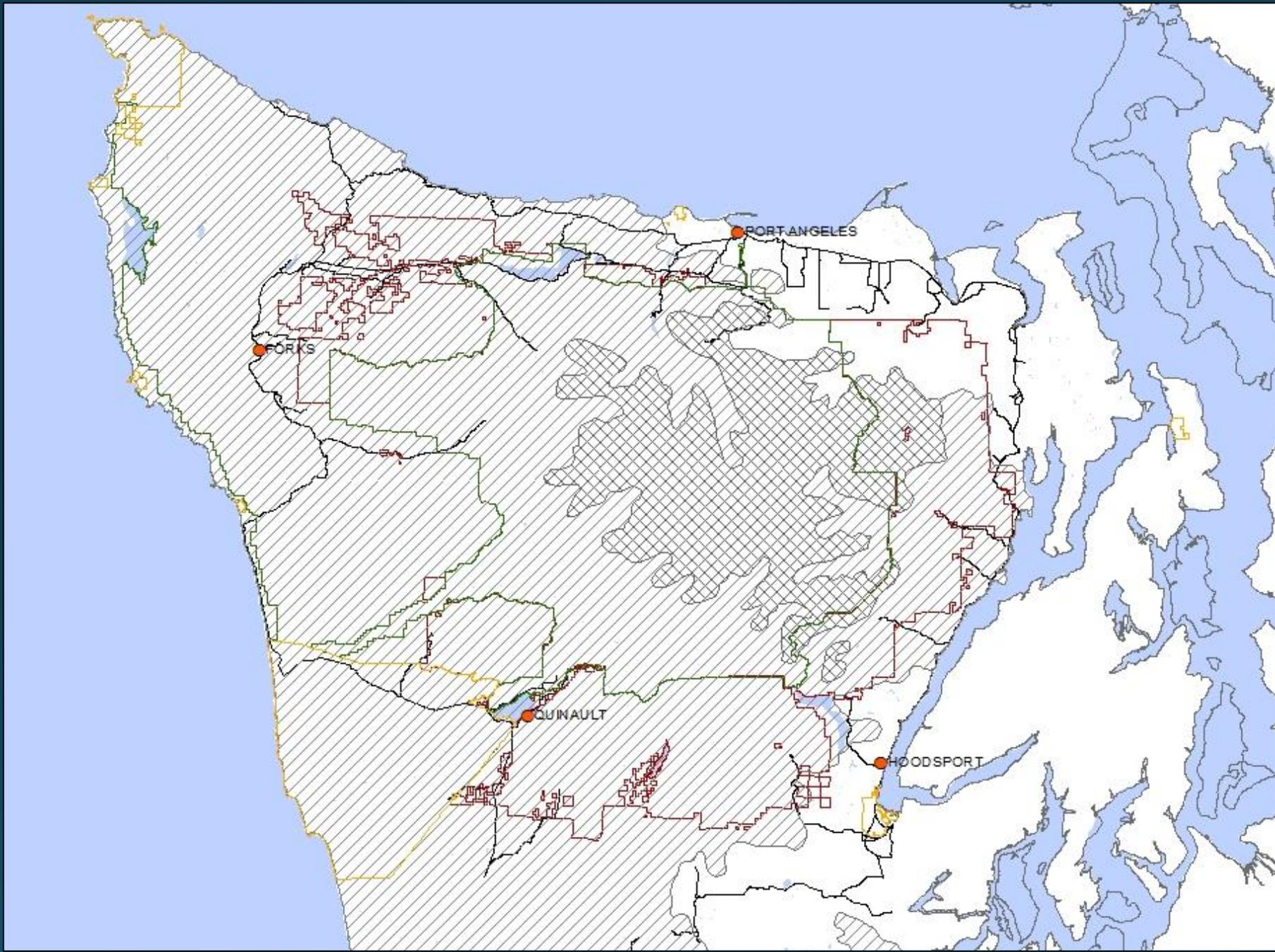


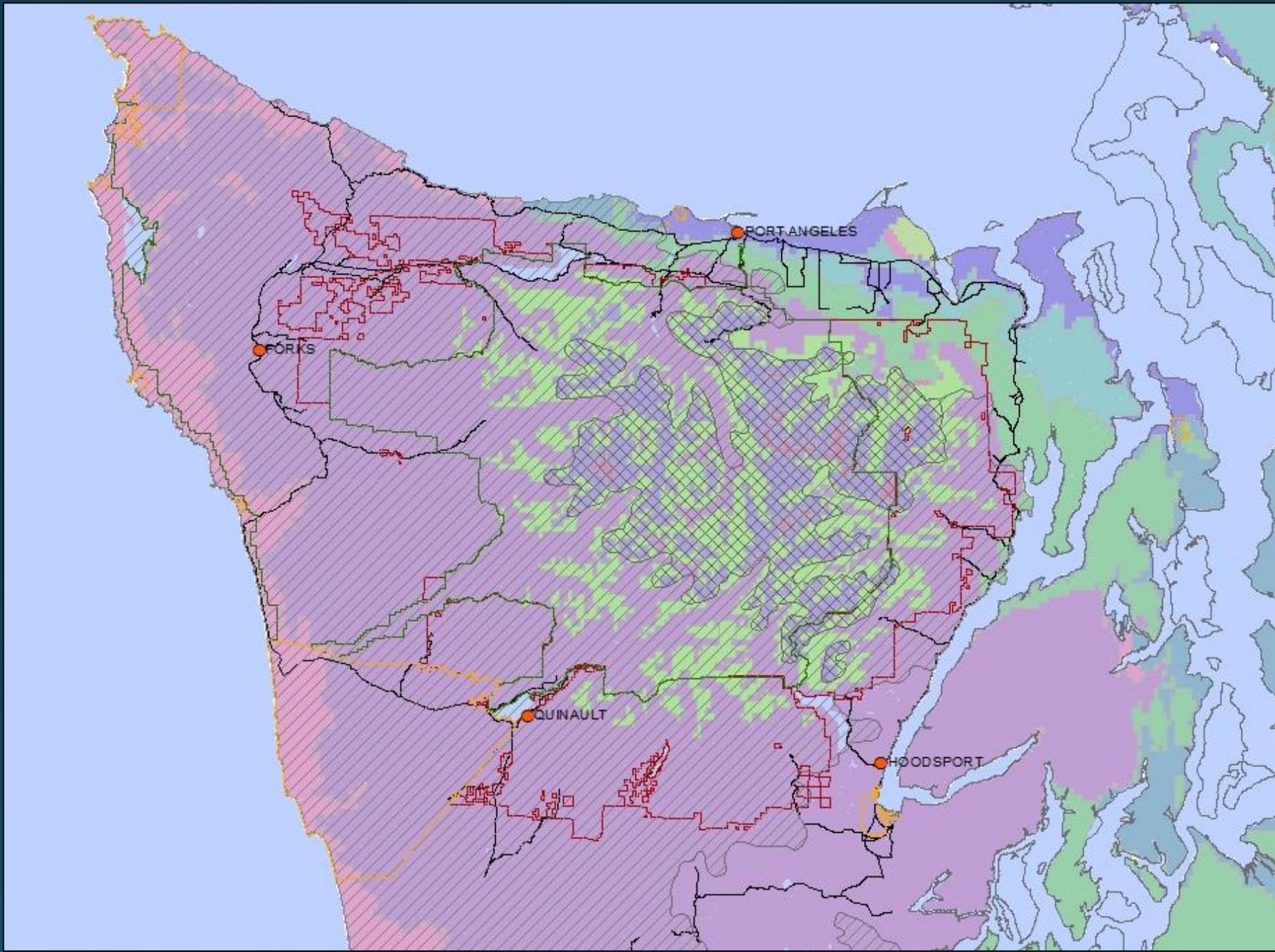
Shared Seed Zones on the Olympic Peninsula

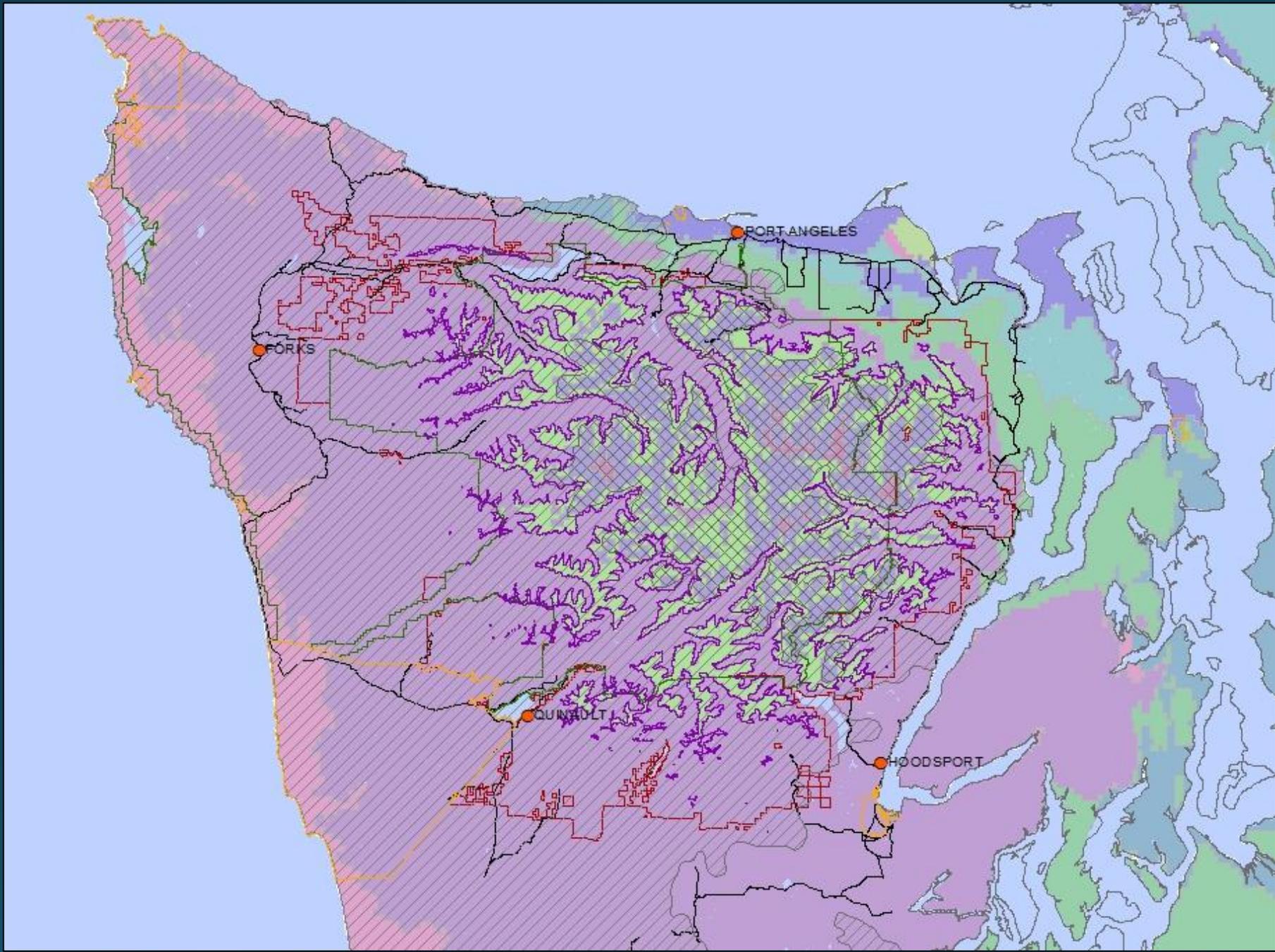
- Seed zones are areas that are similar enough in climate and ecology that limiting movement of seed to within its zone of origin should help minimize maladaptation.
- Many different ways to identify seed zones. The Forest Service in OR and WA are moving towards using the system described in:

Bower, A.D.; St. Clair, J.B.; and Erickson, V. 2014. Generalized provisional seed zones for native plants. Ecological Applications. 24 (5): 913 – 919.











Questions?