

Images Script

Restore a Habitat II

Page 1 Major disturbances are a natural occurrence in the Westside Lowland Forest ecosystem.

- This image shows the old growth forest that once surrounded Mount Saint Helens. The force of the volcanic explosion destroyed that forest (notice the logs lying down in the direction of the blast).
- If you look closely you can see that the forest has already begun to grow back. Plants have incredible capacity for rejuvenation and seeds, roots and tiny pockets protected from the blast immediately began to grow again.
- What are other examples of major disturbance that occur to the Westside Lowland Forest? (flooding, landslides, fire, clear-cut logging)

Page 2 This is evidence of the Westside Lowland Forest growing back.

- These 2-3 year-old red alder trees, which are no more than 4-6 foot tall are evidence of the Westside Lowland Forest growing back.
- They sprouted from seeds that flew to the ground from distant trees. Look at how closely they naturally grow together.
- They are often called the ‘soldiers’ of the forest, marching right in after a major disturbance. They play an important role in helping to improve soil fertility by adding nutrients to the soil as they have a unique ability to ‘fix nitrogen’ from the air into the soil..
- Red alders also offer habitat by providing seed, shelter, shade and woody debris for animals and other plants.

Page 3 Red alders grow very fast. As they grow taller and taller they provide shade and mulch which encourages other deciduous trees and shrubs such as bigleaf maple, bitter cherry and red elder, to grow along with them.

- This series of events that occurs when plant species replace other plant species as a forest grows back after a major disturbance is called ‘plant succession’.
- The stage of rejuvenation shown in this image of a forest after a major disturbance is called ‘early-succession’.
- Other fast-growing trees and shrubs will grow as well, adding more nutrients to the soil, and providing additional habitat.
- Red alder and other deciduous stands of fast-growing trees are evidence of early-succession.

Page 4 Eventually seed from slower-growing conifer trees arrive on winged seeds and begin to root in the moist, nutrient-rich soil under the partial-shade canopy of the early succession forest.

- This photo shows evergreen conifer trees growing under the protective canopy of an early-succession, red alder forest.
- Eventually the conifers will grow taller than the red alders, shading them out along with many other early-succession trees and shrubs which thrive in sun but die in the shade.
- This image shows a “mid-succession” forest. In a few years this forest will look like the next image.

Page 5 This is a forest that has grown back from clear-cut logging which occurred about 40-60 years ago.

- The forest plant community has a mix of deciduous trees and evergreen conifer trees.
- One can see that the evergreen conifers are growing taller than the deciduous trees.
- This forest is in “late mid-succession”.

Page 6 Over time, evergreen conifers continue to replace the deciduous trees resulting in a canopy of primarily evergreen conifer trees.

- This forest is in late-succession and well on its way to being a climax old growth forest (a forest that is more than 200 years old).
- Look closely to see the few remnant stands of the early-succession forest trees visible in this photograph.