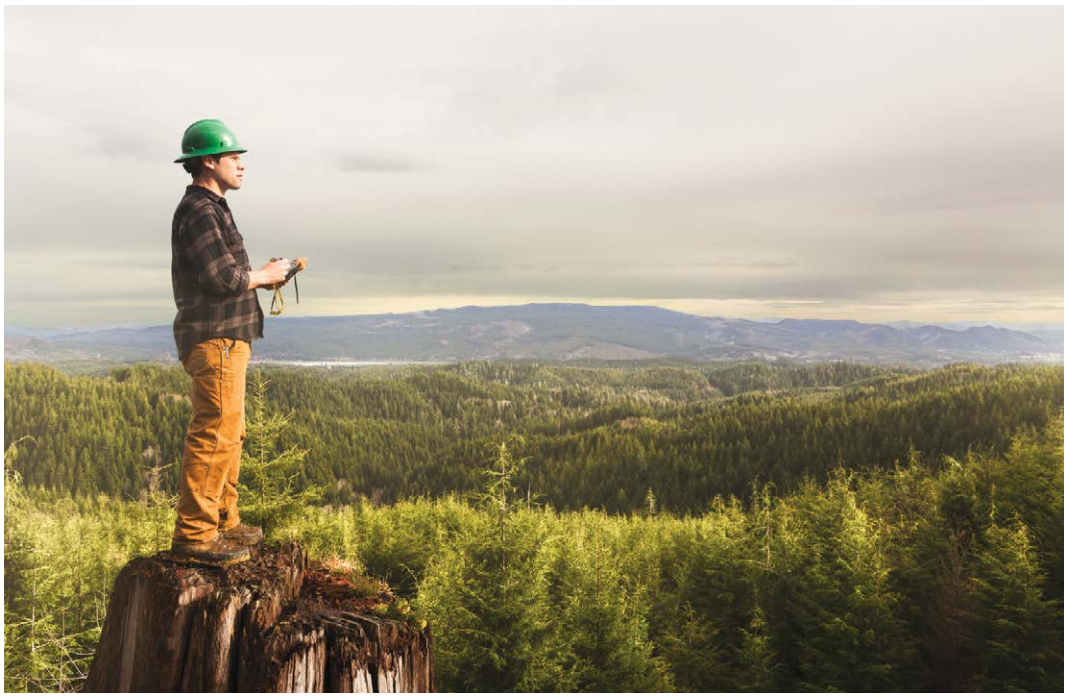
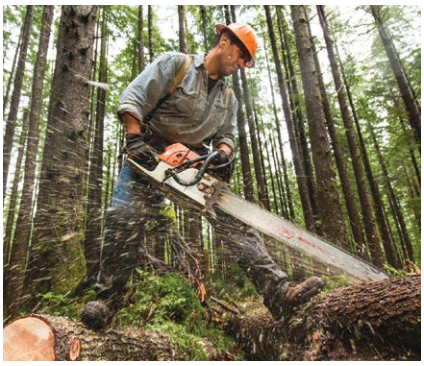
The Nature Conservancy
Washington

The Ellsworth Experiment





RESEARCH AND COLLABORATION OPPORTUNITIES

All of the pretreatment monitoring data is archived and available for research collaborations. As of 2016 the first "round" of active management (forest thinning, road decommissioning and repair) following the experimental design is nearing completion. The Conservancy is interested in developing partnerships and collaborations to facilitate re-measurement of the Ellsworth Monitoring Network for some or all of the biological and physical responses.

At 3,330 hectares, the Ellsworth Creek Preserve in the Willapa Hills protects some of the largest remnants of coastal old-growth forest in southwest Washington. Towering forests of western red cedar, Sitka spruce, western hemlock and Douglas-fir support a number of endangered and threatened species, as well as coastal cutthroat trout, chum and coho salmon. But the preserve doesn't just protect old-growth forest; the preserve is predominately young, dense forests that have been heavily managed for timber production. At Ellsworth, the Conservancy is testing the assumption that proper, ecosystem-scale management and long time periods can restore the ecological characteristics of late-successional forest landscapes.

THE CORE QUESTIONS

Within the greater Ellsworth Preserve, 2,040 ha encompassing an entire drainage basin are dedicated to adaptive management and experimental monitoring. Through the Ellsworth Creek Adaptive Management Study , the Conservancy is testing 3 major questions:

- Can ecosystems resembling those in naturally occurring late successional forest be restored from plantation forests?
- Can a resource management system be devised to accelerate ecosystem recovery in a young-managed forest landscape?
- Can a young managed forest landscape be restored cost effectively?

THE EXPERIMENT

These questions are being addressed through landscape scale experimental treatments following an unbalanced randomized blocked design in which the following restoration pathways are replicated across eight experimental subbasins.

- **Passive Restoration:** Forest stands left to develop without management intervention and all roads will be removed.
- **Active Restoration:** Forest stands actively thinned to promote forest growth and the development of structural complexity. An appropriate road system maintained.
- **Control:** Forest stands initially left to develop without management intervention; an appropriate road system maintained to allow for potential changes to management operations.

learn more >

The Ellsworth Experiment

THE MONITORING NETWORK

During 2005 and 2006 the Conservancy installed and measured an extensive monitoring network of key biological and physical responses. Measurements were completed prior to implementation of the first active forest thinning treatments in 2008. The Ellsworth monitoring network includes:

FOREST STRUCTURE AND VEGETATION

0.1 ha permanent plots, 28 plots per subbasin / 224 total plots

FOREST BIRDS

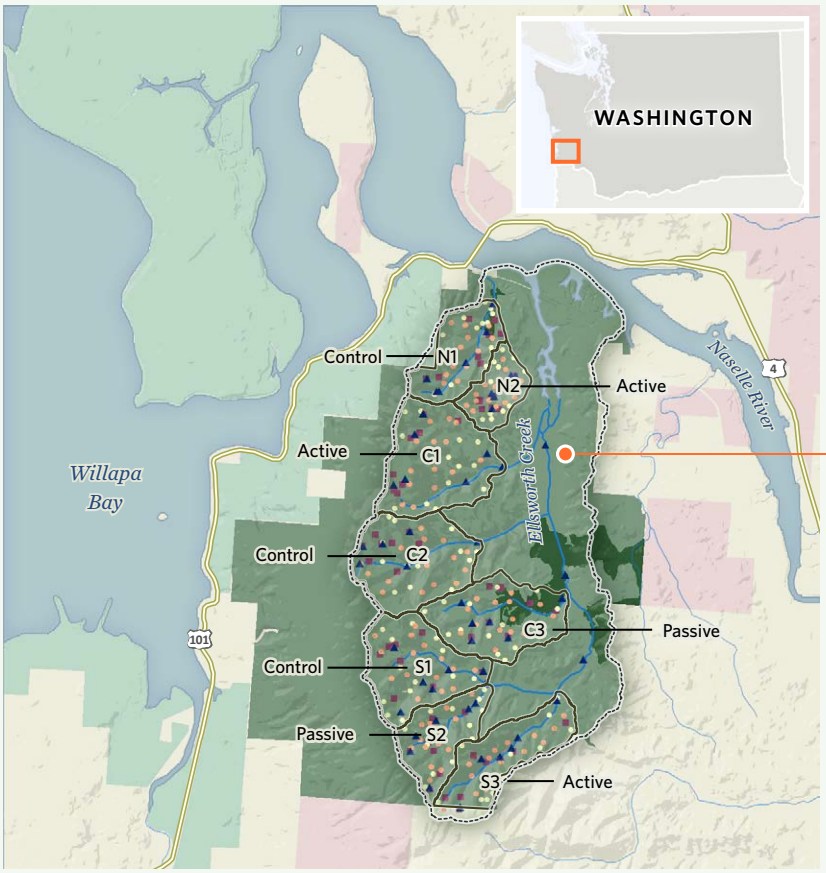
Variable circular plot counts with 4 breeding season visits, 15 plots per subbasin / 120 total plots

STREAM HABITAT AND MACROINVERTEBRATES

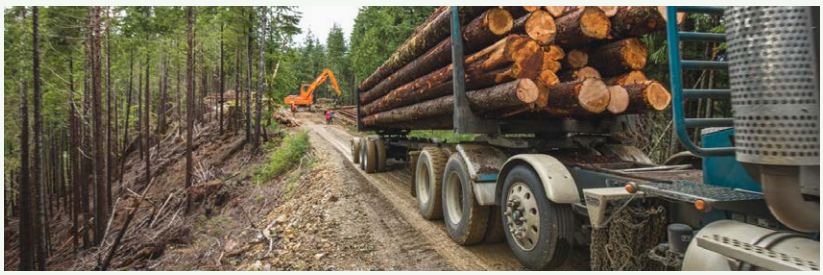
Physical habitat and macroinvertebrate surveys in 7 stream reaches per subbasin (at least 3 in fish bearing waters) / 56 total reaches

STREAM AMPHIBIANS

Stream spotlight surveys in 8 reaches per subbasin / 64 reaches total



Towering forests of western red cedar, Sitka spruce, western hemlock, and Douglas-fir support a number of endangered and threatened species, as well as coastal cutthroat trout, chum, and coho salmon.



3,330

HECTARES

in the Ellsworth Creek Preserve, in the Willapa Hills

NATURE CONSERVANCY PROPERTY

Ellsworth Creek Preserve

LEGEND

- Ellsworth Creek Watershed
- Ellsworth Creek Experimental Basin
- Ellsworth Creek Old Growth Stands
- Stream Reaches
- Vegetation Plots
- Bird Plots
- Amphibian Reaches
- The Nature Conservancy
- Willapa National Wildlife Refuge
- State Land
- Stream
- Road
- Highway

TO LEARN MORE, please contact our Conservancy scientists. The Nature Conservancy is very interested in developing science partnerships and collaborations to build upon the foundation of the Ellsworth Experiment. Contact details below.

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Washington

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