

Stillaguamish Big Trees Project

Project Summary

The Stillaguamish Big Trees Project approaches conifer reforestation at the watershed scale. Conifers provide year round cover which significantly attenuates river temperature fluctuations.

In the near term, intensive site preparation suppresses invasive plants; this allows for native vegetation regeneration and facilitates the establishment of 'big tree' conifer supplementation plantings.

The longer term goal of a canopy dominated by conifers in both forks of the Stilly within 100 feet of the river addresses water temperatures exceeding acceptable TMDLs (total maximum daily limits) for salmonids.

The long-lived conifer trees will develop relatively shallow but vastly expansive root systems which help stabilize river banks and reduce erosion.

A restored conifer forest along the Stillaguamish River will continue to provide benefits beyond the lifespan of the trees. Mature conifer trees that fall and are 'recruited' into streams can create decay resistant in-stream habitat features that can last for 100s if not 1,000s of years.

Trees Planted

- Douglas Fir (*Pseudotsuga menziesii*)
- Grand Fir (*Abies grandis*)
- Shore Pine (*Pinus contorta*)
- Sitka Spruce (*Picea sitchensis*)
- Western Hemlock (*Tsuga heterophylla*)
- Western Redcedar (*Thuja plicata*)
- Western White Pine (*Pinus monticola*)

The 'big trees' used to augment the floodplain forest are grown in 5-7 gallon pots and are up to 7 feet tall. In contrast to the more commonly planted tree size, grown in 1-2 gallon pots and only 1.5-2 feet tall, the larger trees:

- Are planted with more space in between, allowing more acreage to be planted with the same number of trees.
- Can compete more effectively with fast growing invasives like reed canary grass and Himalayan blackberry
- Have more mature root systems for water and nutrient uptake
- Put on significant growth in the first few growing seasons, often up to 3feet in one season
- Are more resistant to and resilient towards grazing and other damage



Project Location

Project site distribution along the North Fork begins at the confluence in Arlington to as far as Oso, and on the South Fork from the confluence as far as Granite Falls.

There are a total of 16 Big Trees Project sites along the Stillaguamish River.

Accomplishments (updated October 2011)

- **South Fork Stillaguamish project**
 - Completed Summer 2011
 - 47 acres along 4.6 miles of river planted
 - Over 6700 native conifer trees planted

South Fork Stillaguamish Big Trees Project - Final Report

- Project Report and Appendices A-C (913 KB PDF download)
- Appendix D (864 KB PDF download)
- Appendix E (1.4 MB PDF download)

North Fork Stillaguamish project

- Continues through 2012
- Over 7.5 acres planted to-date

Watershed

Stillaguamish River

Key Project Partners

- Landowners
- Snohomish County Parks
- Snohomish County Road Maintenance
- The Stillaguamish Tribe
- Stilly-Snohomish Fisheries Enhancement Task Force
- Washington Conservation Corps

Funding Sources

Grant funds were awarded by the Washington State Department of Ecology under the Centennial Clean Water Fund from the EPA.

Contact

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