



Reporting Our Progress in Caring for the Land and Serving People

Still Creek Restoration 2013

Zig Zag Ranger District FY 2013 Accomplishment

Mt. Hood National Forest, Region 6

Location

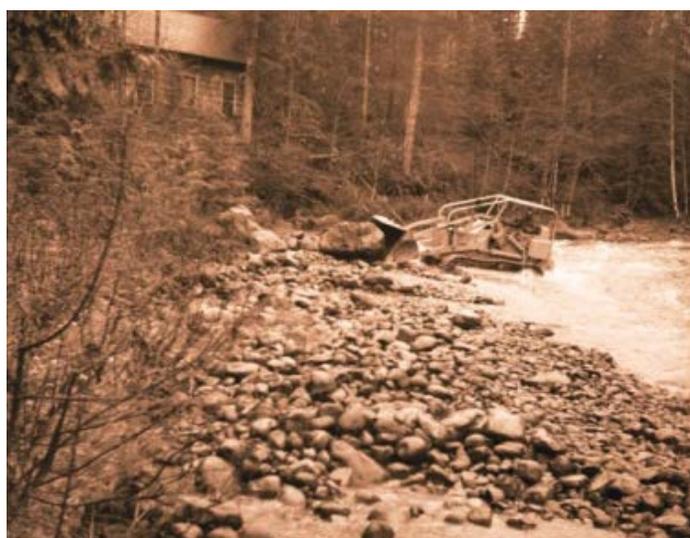
Still Creek is located on the Zigzag Ranger District of the Mt. Hood National Forest in Northwest Oregon near the town of Rhododendron. The watershed area is over 21 square miles and extends about 14 miles from its headwaters on the flank of Mt. Hood to its confluence with the Zigzag River which is a tributary to the Sandy River. Still Creek is designated as critical habitat for threatened lower Columbia River coho, spring Chinook, and winter steelhead and one of two Watershed Restoration Action Plans identified on the Mt. Hood National Forest.

Description

Though still relatively productive, the aquatic and floodplain habitat of Still Creek has been impaired by the legacy effects of land use. Large floods in the 1960's caused flood damage to nearby summer cabins and other infrastructure which resulted in the US Army Corp of Engineers, US Forest Service, and others removing large wood and boulders from the river channel. That work simplified the river corridor and led to increased hydraulic efficiency resulting in high velocities and shear stress within the channel.



Still Creek pre-1964 cleanout



Bulldozer removing wood and boulders from Still Creek main channel. 1964

Overall habitat diversity and complexity was reduced by removing roughness, overhanging cover, and lateral floodplain connectivity. Side channels, meanders, wood jams with scour pools, and pool tail-outs crucial to providing habitat for salmon and steelhead were lost. Past timber harvest along with recreation and road building activities converted floodplain vegetation from conifers to deciduous species reducing natural inputs of large wood.

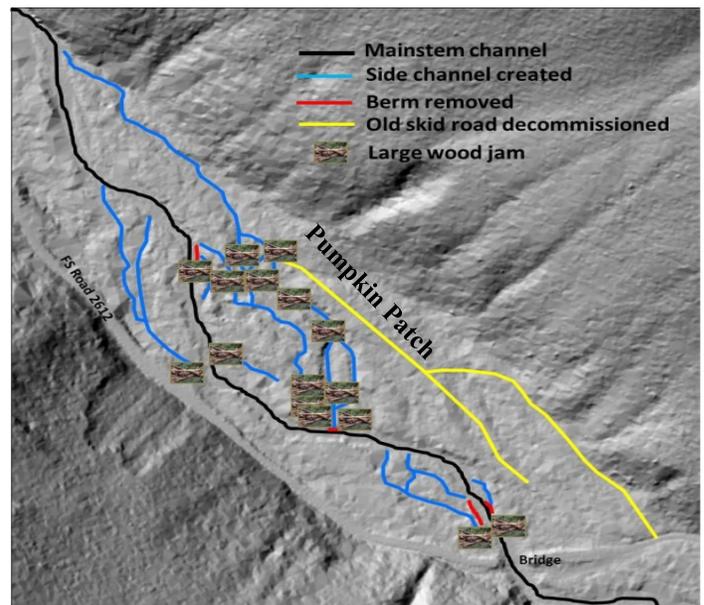
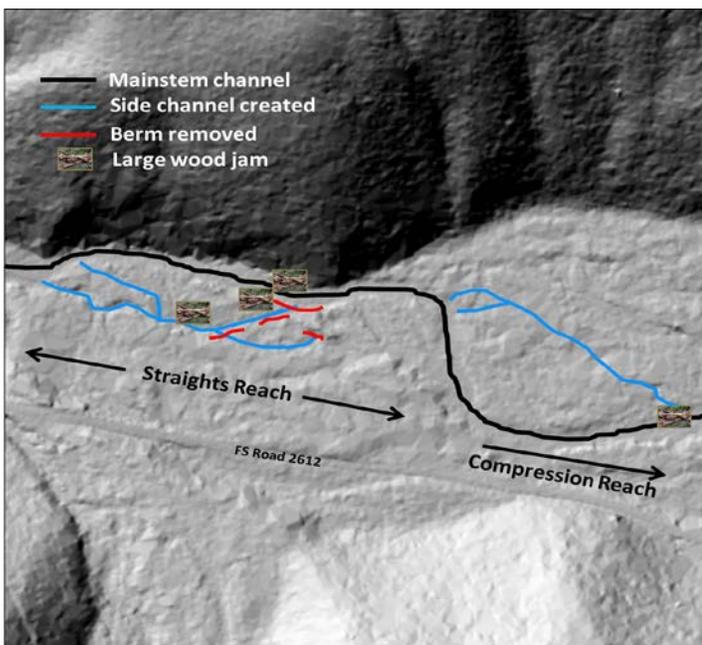
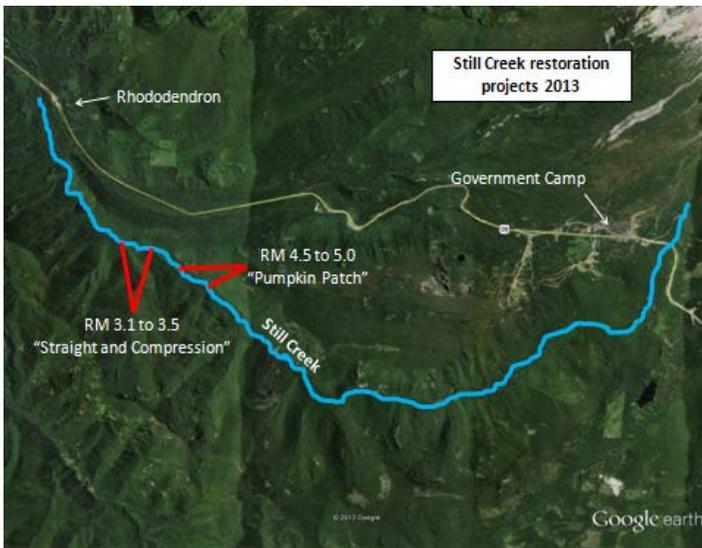


Still Creek post- 1964 cleanout

The long term goal of the Still Creek restoration project is to accelerate the recovery of naturally functioning conditions within stream channels and riparian areas and restore production of juvenile and adult coho salmon, spring Chinook salmon, winter steelhead and cutthroat trout.

This year, the Zigzag Ranger District Aquatics program and our multiple partners completed over a mile of instream and floodplain restoration work as part of a larger phased, multi-year, watershed scale restoration effort in Still Creek.

The 2013 Still Creek “Straights and Compression” and “Pumpkin Patch” restoration spanned from river mile (RM) 3.1 to 5.0 and covered about 75 acres. Project elements included the use of excavators, self-loading log trucks, dump trucks, and log skidders, which constructed channel spanning log jams that raised the bed elevation of the main-stem channel and re-watered the nearby floodplain. The main-stem channel was converted from an entrenched channel of steep riffles and cascades to a series of pool and riffle complexes with high densities of large wood and cover habitat. Large wood was added to the floodplain that increased roughness and enhanced riparian resiliency, berms were removed, and old skid roads were decommissioned.



Accomplishments:

- 350 pieces of large wood installed, creating 20 large wood jams
- 1.21 miles of new side channels created
- 380 feet of berms removed
- 0.31 miles of old skid roads decommissioned and replanted with locally sourced trees and plants
- A total of 0.9 miles of main-stem channel enhanced
- 20 acres of floodplain reconnection
- 750 native Douglas fir and cedars planted





First day of construction. Note the straightness and lack of habitat complexity



During construction, note the change in elevation of the channel and the new pool forming upstream



Post-project, note new side channel and large pool habitat in foreground



Wood jam during early December 5-year flood event

Partnerships and their contributions

- The Freshwater Trust obtained OWEB, WWRI, NFWF Bring Back the Natives funds for contracted equipment to implement the project.
- Sandy River Basin Watershed Council obtained funds from the NFWF Governors Fund for contracted equipment.
- Wilderness Volunteers provided 10 people for 4 days of tree planting and native seed collection.
- ODOT provided in-kind contribution of 15 hours of highway flagging time during the log-haul.
- Clackamas County & Farline Bridge Inc. donated 24 whole trees and delivered them to the site.
- Sandy River Basin Partners collaborated on planning and implementation.



Still Creek side channel with floodplain wood

Total Project Cost: \$85,000

To learn more about the Zigzag Ranger District and the Sandy River Basin Partners go to:
<http://www.sandyriverpartners.org/>