

**Bum Creek instream Restoration 2017**  
**Prepared by Brian Jenkins**  
**Executive Director, Smith River Watershed Council**

**Problems:**

Instream Process:

- Loss of streambottom substrates due to past land use practices.
  - Lack of habitat for aquatic insects/ aquatic food base
  - Lack of spawning habitat for salmonids
- Low summer flows with higher than ideal temperatures.
- High winter flows with little refuge habitat for fish and amphibians

**Work Accomplished:**

14 large wood structures were placed by excavator in Bum Creek. 197 pieces of large wood averaging 14 pieces per structure. Onsite materials were also incorporated into structures where prudent: 5 boulders, 1 large rootwad and 10 riparian alders. Roseburg Resources, having no operations planned for this area in the near future asked us to tank trap the road and address drainage issue where appropriate. BLM hydrologist John Colby identified 5 intermittent streams, where the road restricted water drainage and sediment transport. At these locations fill was removed and the crossing was graded appropriately. All excavator entrance corridors have been mulched with certified weed free straw and seeded with certified weed free grass seed provided by the BLM. Corridors will be planted with conifers and newly formed in-channel sand beds will be planted with willow stakes in the spring of 2018 by SRWC, BLM and Trout Unlimited.

**Results:**

Large wood throughout the reach has been increased through direct addition. We expect this area to respond very well. Previous bedrock dominated areas will fill in with substrate from the recently logged areas adjacent to the project. We have found that hillslope disturbance, closely timed with instream placements allows for rapid filling with substrate from the disturbed areas. As the bedload increases floodplain connectivity will increase as well. The broad floodplain of upper Bum Creek should provide excellent overwintering habitat for juvenile salmonids. Increased gravel deposition will increase available spawning habitat for adult salmon steelhead and trout.

**Lessons Learned:**

Generally instream material placement is started near headwater streams and progresses downstream. The conventional wisdom is that upstream placements will slow water velocities, decreasing hydraulic forces on structures below. Many structures had already been placed downstream of our area in previous years. The low gradient and broad floodplain allowed these structures raise the water level creating saturated soils that limited our access in areas. Soils that were formerly unsaturated, now are saturated to the point of impeding equipment access. The same result was found in 2015 where placements had made previously used excavator corridors impassable.

**Project Expenses:**

Land Use Permit	Douglas County Planning	\$165
Timber Salvage	Blue Ridge Timber	\$3,440
Log Transport	JM Co	\$3,325
Excavator Placements	Ben Herr excavating	\$12,300
SRWC Project Management	SRWC (62hrs @ \$28.07/hr) (569mi @ \$0.535/mi)	\$2,044.76
Post Project Reporting	SRWC	\$200
Indirect Expenses	SRWC	\$570

**Project Funding:**

Umpqua Fishing Derby:	\$7,000
Western Native trout Initiative	\$3,000
OWEB	\$10,000
BLM (SRWC payroll and travel)	\$2,044.76
<b>Cash Total:</b>	<b>\$22,044.76</b>

BLM Donated Trees 42 @ \$300	\$12,600
RRC Donated Trees 155 @ \$200	\$31,000
RRC Boulders and rootwad 6@ \$35	\$210
RRC Alders 10 @ \$100	\$1,000
ODFW Payroll and Travel	\$908
BLM Payroll and Travel	\$1,708
RRC Payroll and Travel	\$881
<b>Inkind Total:</b>	<b>\$48,307</b>
<b>Total Project Cost:</b>	<b>\$70,351.76</b>

Tree planting has been scheduled for March 21<sup>st</sup> and 22<sup>nd</sup>. Totals for this aspect of the project will be included in subsequent monitoring reports.



**Site 8 Pre Treatment**



**Site 8 Post Treatment**





**Site 9 Pre Treatment**



**Site 9 Post Treatment**





**Site 14 pre-treatment**



**Site 14 post-treatment**