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RECREATION AND CONSERVATION OFFICE

In Sept., Oct., and Nov. 2009 on-the-ground construction was conducted on site at the Simmons Creek Restoration Project. Eleven (11) Minor Structures, three (3) Major Structures and one (1) hardened crossing were constructed using a combination of contracted work crew labor and contracted heavy machinery.

Hancock Forest Management conducted road grading and filling to help prepare the road for construction. Hancock also provided the logs, at least 3600 lineal feet, from other sites, and transported them to the project site. They were piled into log decks along the dirt road that parallels Simmons Ck. The WCC DNR crew cut and marked the logs for specific structures. Aquatic Contracting distributed the logs to the structure sites.

The following is the list of structures that were completed in 2009:

Minor Structures: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 27c

Major Structures: 26, 27a, 27b,

Work completed by the contractor, Aquatic Contracting, included:

- Mobilization and demobilization
- Distribution of logs and rocks to structure locations
- Sloping of banks (1.25 : 1) at some Minor Structures
- Installation of the rock hardened livestock crossing
- Installation of Major Structures 26, 27a, 27b

Work completed by the DNR WCC crew included:

- Installation of Minor Structures: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 27c
  For each structure this included digging log and fabric trenches, cutting logs to size, wrapping and clamping cable, drilling rebar pins into logs, driving wooden stakes and duckbills into ground, seeding, mulching, laying erosion control fabric, backfilling, and placing rocks.
- Repair of livestock exclusion fence that was opened for construction
- General clean-up of site

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## Planting Completed in 2009

After construction, revegetation work was initiated to assist in pinning down erosion control blanket, and providing channel roughness, bank stability, and future shade. Native conifers were planted along the top of the stream banks and various species of willows and other native plant materials were planted at each of the structures and between structures throughout the project area.

**Conifers** - A total of 180 Ponderosa Pines and 200 Douglas Fir seedlings were planted in 2009. Seedlings were purchased from Lava Nursery as 1-1 plants. Nate Putnam, Forester with Hancock, recommended planting mostly Ponderosa Pines in the lower elevation portions of the project area around structures 10-13. Because this area is lower in elevation, it has a tendency to be a frost pocket where cold air settles. Additionally, the area soil is saturated more often and PPs are more tolerant of having wet roots than are DFs. Sam Smith was hired to assist with conifer planting. He used an auger to dig planting holes.

For 2010, there are a few remaining holes to be filled (<20), and the upper reaches of the project area could also use more conifers (50-70).

**Livestakes** - Endemic willow species were preferred to purchased nursery stock due to the challenging environmental conditions at the site (hot, very dry summers, cold winters, and minimal moisture overall).

*Collection* - The majority of the livestakes were collected around the Simmons Creek project site. A total of about 3300 native willows, including Pacific, Sitka and other native willows were collected along Simmons Creek downstream from the project area. Collection occurred roughly a ½ mile downstream of the Simmons Creek culverts under Brewer Road in areas flagged by UCD as well as along Brewer Rd, downstream of the 2009 project area. A total of about 500 Aspen livestakes were also collected in the area north of the livestock crossing and upstream of structure 19. About 300 Black Cottonwood livestakes were collected at the USFS Cottonwood Grove at the Wind River Work Center. These cuttings were taken from a Packwood area nursery stock and stored in a UCD plastic barrel (from Trash Rodeo events) with at least 1 foot of water until they were planted. About 40 livestakes were brought to Simmons Creek from the Anderson/Pearson Project on Trout Lake Creek. Planting stock was collected around Underwood Conservation District RCO 07-1722 R Simmons Creek Voucher 8 Progress Report

Trout Lake and included blue elderberry, rosa rugosa, red osier dogwood and native willows. Victor Heredia of Evergreen Landscaping was contracted for the on-site livestake collection and planting. His crew of 3-5 people worked at the site between November 9<sup>th</sup> and November 20<sup>th</sup>, 2009.

*Planting* - Between 150 and 300 livestakes were planted at each structure. Rebar planting tools were used to plant livestakes 1-1½ feet deep. Some of the tools belong to UCD, some were borrowed from MCFEG. Livestakes were used to bolster the metal staples and help pin down the edges of erosion control fabric. After pinning, as many livestakes as possible were placed within the ordinary high water mark at the structures. Livestakes were clipped at about six inches above the soil. If the clipped portion was long enough, it was replanted.

Between 50 and 100 livestakes were planted between each structure along the channel (depending on distance between structures) within the ordinary high water mark. Cottonwoods were only planted along the channel, not in structures. Areas staged for 2010 construction were not planted. More planting is needed especially between structures 17, 18 and 19. This area should be planted as soon as soil is soft enough to plant (after two big rains), and before water is present in the channel.