

## Western Native Trout Initiative Project Completion Report

**Project Number: F14AC00129-0002-FH10 (Mod 1)**

**Project Title: Yankee Run Creek LWD Restoration Project**

**Grantee Organization: Coquille Watershed Association**

**Contact Person: Kelly Miles**

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**USFWS Region 1 – Oregon (southwest coastal)**

**Sub-Basin: Coquille River HUC 4 - 17100305**

**Focus Sub-Watershed: North Fork Coquille River HUC 5 - 1710030504**

**Project Map Coordinates (decimal degrees) Lat: 43 07 54.27N Long: 124 01 36.77W**

**Land Ownership: Public (BLM)/Private (Campbell Global)**

**Project Start Date: June 30, 2014**

**Project End Date: (Instream) September 15, 2017**



*CWA Program Manager Dawn Weekly standing near old-growth trees at Yankee Run Creek – September 2014*

## **WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**

### **Background:**

Yankee Run Creek and Right Fork Yankee Run Creek lie within the East Fork Coquille River Watershed in southwestern coastal Oregon, and are important spawning and rearing areas for Chinook and Oregon coast coho salmon, steelhead and cutthroat trout, and Pacific Lamprey. The project area is occupied and designated as critical habitat for Oregon coastal coho, a threatened species under the Endangered Species Act. Overwintering habitat is a major limiting factor in the Coquille Basin, and trout habitat assessments were conducted by BLM and ODFW, as well as consulting ODFW Aquatic Habitat Inventories, which determined that fish habitations in Yankee Run include a lack of channel complexity, incised channels, lack of off-channel rearing habitat, areas of bed rock substrate, lack of pools, low volume of instream wood and lack of key pieces of instream wood. The factors contributing to these conditions are historical stream cleaning, road construction and past logging practices. This project will return key pieces of instream wood to improve vital habitat for the recovery and health of native fish species.

The Coquille Watershed Association (CWA) proposed to place approximately 238 logs to build 47 logjam sites over 2.25 miles in Yankee Run Creek and Right Fork Yankee Run Creek on BLM and Campbell Global lands. A large portion of the logs will be taken from nearby BLM land, and there are also approximately 25 logs donated by Plum Creek Timber, 25 purchased from East Fork Lumber Co. and 10 donated from Campbell Global that will be transported to the sites by local contractors. The sites were mapped in GPS and structures will be designed by BLM and ODFW fish biologists. The placement of logs will be conducted done with an excavator by local contractors. After installation is complete, the project sites will be seeded and planted with native species for rehabilitation.

The placement of these logs will provide improved gravel recruitment, sediment traps, shelter for juveniles, nutrient cycling, improved species migration patterns, increased pool depth and complexity, and increased wood attributes all associated with cooler water temperatures. The proposed stream reaches are low gradient with high potential for trout habitat. The Yankee Run drainage area has a good source of spawning sized gravel material, so the low gradient and gravel recruitment make Yankee Run an excellent candidate for restoration to improve fish habitat.

### **Species Present:**

Coastal Cutthroat Trout - rated as "high" concern in 4 of 7 categories by WNTI  
 Resident Rainbow Trout  
 Steelhead Trout (Oregon Coast DPS)  
 Coho Salmon (Oregon Coast ESU)  
 Chinook Salmon (Oregon Coast ESU)  
 Pacific Lamprey (Listed as Species of Concern, USFWS)  
 Brook Lamprey

### **Cooperators and Funding Received for the Yankee Run Creek LWD Project:**

<b>Partners</b>	<b>Cash</b>	<b>In-Kind</b>
BLM - Cash, trees, technical assistance	\$12,800	\$12,715
USFWS - Cash	\$25,000	
ODFW - Technical assistance		\$2,734
Plum Creek Timber – Logs, staff		\$7,810
Campbell Global - Logs, cash	\$2,000	\$2,000
Western Native Trout Initiative - Cash	\$12,000	
Oregon Watershed Enhancement Board - Cash	\$65,808	
CWA Technical Advisory Committee & Board – Pre-Imp, Review, Design & Approval		\$2,135
Lone Rock Timber/Juniper Properties, logs		\$625
<b>Budget Totals</b>	<b>\$117,608</b>	<b>\$28,019</b>

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### **Instream Work Accomplished Summer/Fall 2014:**

As of the time of this final report, all the instream activities have been completed. Site rehabilitation and planting will take place in early 2015, and the CWA will apprise the WNTI of the riparian activities after they have been completed for the OWEB final report.

In early 2014, the BLM, ODFW, Campbell Global and the CWA worked on design, approval and acquiring needed permits and notifications to place 238 logs over 47 sites in 2.25 miles of stream along both BLM and Campbell Global lands. Contractor Jensen's Tree Service performed the cutting of the 69 trees on BLM lands, and the trees were then bucked to predetermined lengths to meet the log requirements. Contractor JM Inc., moved a self-loader in and transported the logs to the sites as needed based on length and design. Once the BLM logs were in place, the self loader then hauled in the purchased logs. The final stage for log placement was contracted to Jensen's Tree Service, and they brought in 3 differently- sized excavators to work with the various wood and stream sizes, and also to have the least impact to the riparian/access areas. The smaller excavator was needed in the upper reach of the BLM sites. The contractor utilized the remaining two excavators to maneuver logs in areas of steep banks to reduce the ground impact of one excavator tracking back and forth for each log, and having the two excavators also improved the handling of the larger logs. We found ourselves amidst fire season and were required to obtain fire waivers which the CWA and contractors worked with CFPA to obtain. Sites have been seeded and the ditches and roads removed of debris. The CWA crew will return to do additional planting, seeding and mulching with native weed-free seed and trees provided by BLM, and locally purchased certified weed-free mulch.

Post-project reviews and monitoring will consist of periodic site visits by ODFW Habitat Restoration Biologists and/or BLM Fish Biologists. Site evaluations on structure stability (log jams intact and recruiting woody debris) and resulting desired conditions (increased complex pools, riffle habitat, and habitat) will be monitored for 3 years after completion by the CWA. This information will be submitted in post-project monitoring reports. If funding and/or technical assistance is available in the future, fish counts will be conducted.

### **Changes/Lessons Learned:**

Due to recent updates to the County's Flood Plain map, sites 1-3 now fell in the FEMA zone. This was reviewed with landowners, biologists and the County. The County required a flood plain certification that would have cost around \$1,200., and with the budgets already approved we had to drop the first four sites, so we simply added wood to the other sites. The original site designs estimated DBH's for all logs 16"-30". The BLM logs fit that profile, however the logs from timber sales with Plum Creek and Campbell Global fell short, so the CWA Program Manager and ODFW biologist were able to work with a local mill to purchase old growth logs reclaimed from burn units. The logs were shorter than the 50' intended but had DBH's 21"-46". Both BLM & ODFW biologists and site designers approved of the use of a minimum of 35' in length with the larger DBH logs on sites 4-14 where ACW was 20'.

Site 39 was adjusted due to the steepness of the bank and lack of access for the excavator and moved to an upstream area below the culvert to improve gravel retention, cover and complexity.

Sites 34-38 were along the road on a steep bank and not accessible by excavator. Placement of wood was by rolling logs down the bank and adjusting with a choker when possible. Many of the logs planned on these sites were windthrow logs, so the excavator attempted to pull the tree with rootwad attached so the rootwad would slide into creek. When unable to do so the log was cut from the rootwad and pulled into the stream.

Sites 11-14 were adjusted to take advantage of better access points. Site 13 was relocated to where Site 12 was originally selected, and Site 12 was shifted down stream approximately 50 yards. Log numbers were also adjusted to 5 each on both Sites 12 & 13, with 2 additional logs on Site 11 and 4 additional logs on Site 14.

Sites 1-3 were dropped due to the County requiring a Flood Plain certification.

Lessons Learned: Flexibility in scheduling with contractors, adaptability to weather conditions and wildlife restrictions.

## **WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**

### **Project Implementaion specifics:**

TRS:28s 11w section 9,16,17,&20

Total stream miles(derived from LiDAR imagery): 2.17

BLM stream miles: 1.01

Campbell Global (Menasha) stream miles: 1.16

Total sites: 44 (originally 47)

BLM sites: 25

Campbell Global sites: 19

Total logs placed: 239 (originallly 217)

Total Key pieces: 234

Logs placed on BLM: 125 (originally 116)

Key piece logs: (125)

Logs placed on Campbell Global: 114 (originally 101)

Key piece logs: (109)

BLM Cut Trees: 69 =119 logs + broken pieces and tops

Total purchased logs: 95 (80f/EFL & 15f/Lone Rock management)

Donated: \*6

On-site logs: 19 (consisted of wind throw trees/logs on-site and access areas)

\*Both East Fork Lumber and Lone Rock Timber Management donated these logs

**Outreach/Education:** The CWA engages in ongoing educational and outreach events with the local schools through the Native Species Center at Powers High School and the “Go Native!” program at Bandon High School, where the students propagate native shrubs and trees for our instream, wetland and riparian projects. The students will take part in riparian planting field days on Yankee Run Creek in early 2015, and we hope we are lucky enough to spot some trout!



**WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**

**Yankee Run Instream pre-photos:**

Sites Y-21-4 through Y-32-6, Yankee Run & Right Fork Yankee Run, August-September 2013

Yankee Run: Channel, substrate, gravel bed, canopy & creek conditions:



Right Fork Yankee Run: Areas needing pool development & LWD:



BLM stand from which some of the logs will be taken:



Large logs staged for placement:





**WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**  
**Yankee Run Instream people & equipment photos, August-September 2014:**



Randy & Nick – Equipment operator for Jensen’s Tree Service (JTS)



Dawn/CWA undoing chain used to lift log across bank



Randy & Nick/JTS – working 2 excavators



Nick/BLM, Randy/JTS



Nick/BLM



Nick/JTS patiently waiting to get Randy’s next log



**WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**  
**Yankee Run Instream people & equipment photos, August-September 2014:**



Jeff/ODFW



5 excavators were used on-site



Local aquatic resident



Randy/JTS – Delicately maneuvering for placement



Randy/JTS



Randy/JTS



**WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**  
**Yankee Run Instream people & equipment photos, August-September 2014:**



Randy & Nick/JTS - working 2 excavators



Nick/BLM directing placement



Randy & Nick/JTS - working 2 excavators



Randy/JTS



Randy helping Nick thread logs through the trees to the creek



The group assessing their work



**WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**  
**Yankee Run Instream people & equipment photos, August-September 2014:**



Randy/JTS & Kurt/CWA prepping equipment



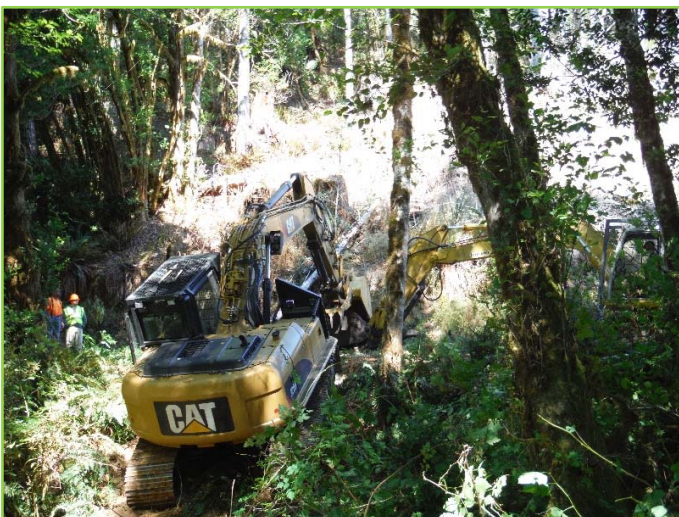
Nick/JTS cutting a blowdown for placement



Randy/JTS & Nick/BLM discussing placement of next log



Randy/JTS reaching over bank



Randy & Nick/JTS using the buddy system to get out without tearing up the road. Nick/BLM observing



**WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**  
**Yankee Run Instream people & equipment photos, August-September 2014:**



Self-loader unloading purchased logs



Excavator had a grinder head to mulch limbs



Jake/CWA moving debris from the road



Sediment controls were placed throughout the project



Example Site Before



Example Site After



**WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**

**Instream implementation photos, August-September 2014:** Site 47 is the farthest upstream structure and Site 4 is the furthest downstream



Site 4



Site 5



Site 9



Site 12



Site 14



Site 15



**WNTI Project Completion Report - Yankee Run Creek LWD Restoration Project**  
Instream implementation photos, August-September 2014:



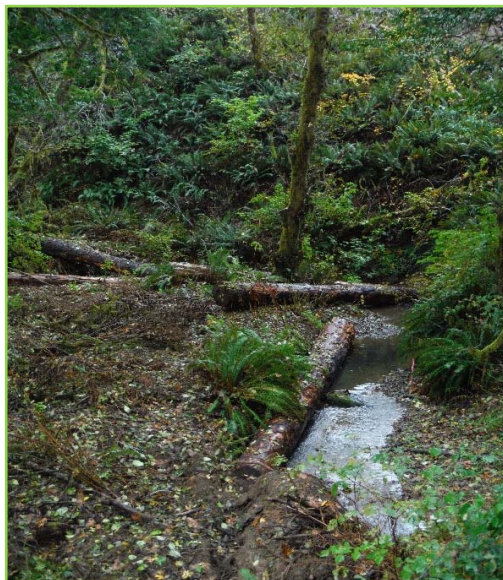
Site 19



Site 21



Site 26



Site 32



Site 42



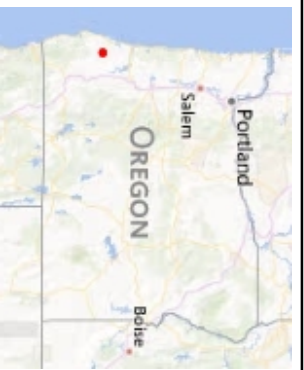
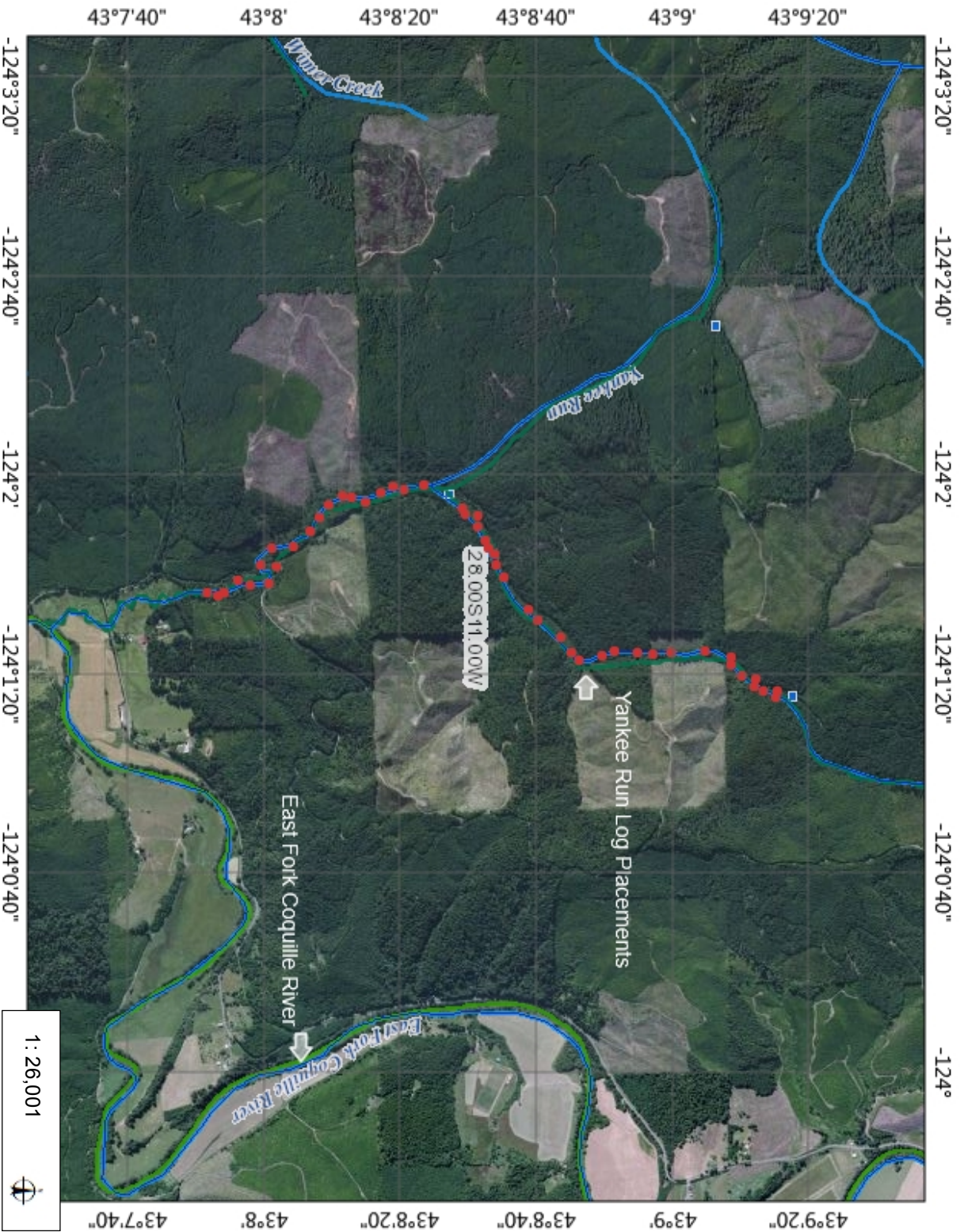
Site 46



Site 47



# Yankee Run Instream Restoration



- Legend**
- Anadromous Fish Distribution
  - Coho Salmon Distribution (2012)
  - Spawning
  - Rearing
  - Migration
  - Unknown
  - - Historical
  - Sections
  - Township Range
  - BLM Projects Points
  - Unknown
  - Fish Passage
  - Riparian
  - Roads
  - Upland
  - Wetland
  - Rivers (1:100k) (Framework)
  - States & Provinces
  - Other States and Provinces
  - Oregon

**Notes**

Coquille Watershed Association,  
October 2013

0.8  
0  
0.41  
0.8 Miles  
WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
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