The East Fork (EF) Millicoma River is the largest tributary to the Millicoma River in the Coos River basin and has the potential to provide important habitat to fall chinook, chum, coho, steelhead, and cutthroat, among other important aquatic species. Unfortunately, historic land practices such as splash damming, stream channel realignment, log skidding, and stream cleaning degraded the quality of stream habitats throughout the basin and impeded fish passage to the upper reaches of the EF Millicoma River. Originally, two trestle bridges spanned the EF Millicoma River at Mile 7 on the Weyerhaeuser Allegany Mainline, where a tight meander bend crossed under the mainline twice within 500 feet due to a resistant ridgeline. When the road was rebuilt in 1958, this ridgeline was blasted to create the “Bypass Chute” that channelized the entire flow of the EF Millicoma River, and the two trestle bridges were buried with fill from the blasted ridge. This channelization reduced the effective stream reach from the 0.6 mile “Oxbow” to under 0.1 miles, over which the river drops roughly 20 feet in elevation. Since 1958, increased streamflow velocities over the stepped bedrock chutes substantially impeded adult salmonid passage and truncated all juvenile passage through the chute to the 16 miles of habitat upstream of the Oxbow.

Collaborations between CoosWA, Weyerhaeuser, and Oregon Department of Fish & Wildlife (ODFW) began in 2006, and then in 2008 and 2012, CoosWA was awarded two Oregon Watershed Enhancement Board (OWEB) technical assistance grants to analyze project alternatives to improve passage through this reach. From these, the Oxbow Reconnection project was developed, where the two historic bridges would be replaced, the Bypass Chute would be filled in, and the EF Millicoma River would be diverted back through the 0.6 mile historic channel that has been essentially unused since 1958. This plan would reconnect 0.6 miles of original habitat to the EF Millicoma River and change the channel grade from 6% over nearly 200 feet to under 1% over 0.6 miles. McGee Engineering was tasked to develop the bridge designs, as well as engineer a channel plug for the Bypass Chute that would withstand forces of the high flows that are present in this EF Millicoma system.
West Coast Contractors constructed both bridges from April to July 2016, just in time for the start of the In-Water Work period. LBA Contract Cutting then began moving 60,000 cubic yards of earth from under the newly constructed bridges and placing it in the Bypass Chute to construct the engineered channel plug. On August 23, 2016, the entire flow of the EF Millicoma River was diverted into the Oxbow. Prior to that, water pumps were running for 24 hours to pre-wet the Oxbow and establish a baseflow downstream of the project site to assist with fish salvage during the reconnection. Nearly 30 volunteers from CoosWA, ODFW, Weyerhaeuser, Bureau of Land Management (BLM), US Fish & Wildlife Service (USFWS), and Coos Soil & Water Conservation District (Coos SWCD) were on site the morning of the 23rd, ready to help with fish salvage in the Bypass Chute and downstream of the project site where there was a drop in streamflow down to the established baseflow after flow was cut off from the Bypass Chute and diverted into the Oxbow. The entire EF Millicoma River was reconnected freely flowing through the Oxbow after 38 hours. LBA Contract Cutting continued to work hard, and all construction was completed by September 14, 2016.

FUTURE PLANS

CoosWA and ODFW teamed up to develop a monitoring program for a minimum of 6 years that will evaluate the effectiveness of this oxbow reconnection. There is a long history of spawning data throughout the basin with 2 standard OASIS surveys reaches above and below the project site. In the upcoming years, crews will conduct spawning and snorkel surveys above and below the oxbow site to determine if there has been a shift in adult salmonid distribution basin wide. Along side the monitoring efforts, CoosWA is working on basin-wide restoration for the EF Millicoma basin within-stream habitat, road sediment reduction, and fish passage improvement projects developed throughout the entire EF Millicoma basin based on recent habitat and road surveys and assessments. CoosWA will implement the first phase of these restoration projects the 2017 summer with the uppermost reach of in-stream habitat restoration and fish passage improvements in the upper reaches of the basin.

PROJECT PARTNERS

Special thanks to our contractors!
West Coast Contractors
LBA Contract Cutting, Inc.
Coos Bay Timber Operators
Bandon Concrete
Dave Strain

Check out our website for timelapse videos of the project!
www.cooswatershed.org/evnts