

Large wood in the creek

Love it and leave it

BY ELIZABETH MURPHY

In January, the National Marine Fisheries Service released its draft of the Southern Oregon Northern California Coho Recovery Plan (<http://swr.nmfs.noaa.gov/recovery/>). This document addressed the status of coho salmon in the Middle Rogue/Applegate Rivers and detailed limitations and threats to recovery. According to the assessment, coho in this part of the Rogue basin are at high risk of extinction. As detailed by the plan, the Applegate Valley, though limited by some steep gradient and mountainous terrain, does contain many important coho tributaries, which have high value and high potential for fish habitat recovery. Tributaries listed include Slate, Cheney, Murphy, Thompson, Beaver, and Williams creeks.

Nonetheless, these important fish-bearing streams are threatened by limited fish-habitat conditions, such as low flow, increased temperature, limited shade from riparian trees lining the creek, altered sediment supply and limited floodplain and channel complexity and connectivity, to name a few. One important factor in these limitations is the absence of large wood along many miles of these tributaries.

Large wood in the creek has important hydrological and ecological functions. It slows water, creates deep pools, stabilizes banks, contributes nutrients to the stream, and provides important habitat for coho and other fish species. In addition, contrary to popular belief, large wood in the creek and on the floodplain can actually reduce the severity of flood events.

The presence of large wood and root wads causes scouring of pools, important for holding fish, and deposition of gravel beds, which are vital for spawning. Additionally, the shade and cover offered by wood and root wads in the creek provide cooler summer water temperatures and protection from predators. For these reasons, large wood is vital to promoting, protecting, and restoring salmon in the Applegate Valley. Looking at the stream from a fish-eye view offers an amazing perspective on the depleted habitat and food resources of a seemingly beautiful stream. A little large wood can go a long way.

Because of these ecological benefits, public and private stream restoration projects have placed large wood in streams across much of Oregon. In the Applegate Valley, the Williams Creek Watershed Council has implemented many of these projects along Williams Creek and its tributaries over the last decade. Hundreds of donated standing dead and hazard trees have been placed within the waters of the creeks in the Williams Creek watershed for habitat improvements and bank stabilization. Numerous other Applegate Valley landowners have used large wood as a bioengineering tool for bank stabilization. In contrast to using hardened boulders or concrete to address bank erosion, large wood provides added habitat benefits for fish, such as reduced flood severity due to increased channel roughness.

So what can you do to promote fish habitat in Applegate Valley tributaries?

For starters, leave it! If wood falls

in the creek, don't remove it without a good reason. It might look messy at first, but after realizing all the benefits it holds, these fallen logs become more and more appealing. If

you need technical assistance or advice, call the watershed council to come take a look.

Enhance riparian areas to provide the potential for large-wood recruitment in the future. One reason for the absence of large wood is the removal of conifers from riparian forests in agricultural and urban areas. Replanting these species not only provides the important water-cooling benefits of streamside shade vital to improving fish habitat, but also offers wood for the next generation of fallen logs. Contact the Applegate Watershed Council for more information about its ongoing riparian restoration program.

Add it! If you don't see a stick of large wood in the creek that runs through your property, consider getting involved in restoration. If you have a bank stabilization project, consider using wood instead of hardened materials like rock or concrete. The Williams Creek and Applegate River Watershed Councils offer the resources to assess the benefits of specific large-wood projects and to make these projects a reality when appropriate.

Finally, learn more about the steps you can take to improve fish habitat



A large-wood installation on the west fork of Williams Creek. Photo by Chas Rogers.

across the Applegate Valley. The Williams Creek and Applegate Valley Watershed Councils will be offering a large-wood information session and field tour in November, highlighting the successful work of the Williams Creek Watershed Council over the last decade. We will hold an informative presentation about instream large-wood projects on Friday, November 2, from 6 - 8 pm (location to be announced) and a field tour of Williams Creek projects on Sunday, November 4, from 1 - 4:30 pm.

To learn more about large-wood projects in your area, receive technical assistance, assess the habitat conditions of your stream, or attend the large-wood workshops, please contact Ea Murphy, Applegate Partnership and Watershed Council riparian program manager, at riparianprogram@arwc.org or 541-890-8458.

Elizabeth "Ea" Murphy
Riparian Program Manager
Applegate Partnership and
Watershed Council
Riparianprogram@arwc.org
541-899-9982

Propagating, planting and partnering

Seventeen years of riparian restoration in the Applegate

BY JANELLE DUNLEVY AND ELIZABETH MURPHY

Since 1994, the Applegate Partnership and Watershed Council (APWC) has worked with hundreds of landowners to restore degraded streamside riparian areas across the valley. Since its formation, many people have dedicated their time, knowledge and hard work to develop APWC's programs across the Applegate Watershed. The late Jan Perttu was one of those dedicated individuals, as several writers so eloquently attest to in this *Applegater* issue.

Over the last 18 years, with funding and partnerships from the Oregon Watershed Enhancement Board (OWEB), nonprofit organizations, and federal agencies, hundreds of thousands of native trees and shrubs have been planted along more than 80 stream miles. Enhanced riparian conditions through these efforts have improved fish habitat, water quality, bank stability, non-point source pollution, and the esthetic appeal of waterways throughout the valley.

Throughout the last decade, the late Tim Franklin was instrumental in ensuring the success of the Watershed Council's Riparian Restoration Program. As an Applegate Valley resident and farmer, he cared deeply about the environmental quality of the Applegate Watershed and dedicated himself to improving native plant communities, water quality, and fish habitat. At Yale Creek Ranch, Tim endeavored to demonstrate through his own management style that ranching does not have to have negative environmental impacts. In addition to serving as



Annual volunteer work party at Provolt Seed Orchard, March 2012.

the riparian program manager, Tim participated in numerous restoration projects including road improvements, fish passage enhancement, water quality monitoring, and youth education programs. He also initiated and administered the Salmon-Safe certification in the Applegate Valley. Tim's training as a watershed scientist was invaluable to the watershed-wide monitoring and assessment efforts completed by APWC over the last decade. His high regard and good relations in the community strengthened partnerships with landowners and high levels of participation in the Riparian Restoration Program. Tim Franklin, who tragically passed away last October, will be greatly missed by all. His efforts to restore and protect the Applegate River Watershed

will not be easily forgotten. The Applegate Partnership and Watershed Council extend its deepest thanks to Tim Franklin and his family for his selfless work in the Applegate over the years.

The Riparian Restoration Program continues the efforts of Jan Perttu, Tim Franklin and other former program managers in 2011-2013 with support from OWEB. Watershed-wide restoration activities include projects on Yale Creek, Quartz Gulch, the Little Applegate River, Forest Creek, Humbug Creek, Williams Creek, and Cheney Creek. Many of the targeted projects are on streams listed as water-quality limited by the Oregon Department of Environmental Quality, and streams that have high potential for fish habitat enhancement. In the 2012-2013 season, additional planting stock and technical assistance will be available to landowners interested in improving riparian conditions. In 2012-2013, the watershed council will also implement targeted restoration efforts along a two-mile contiguous stretch of Thompson Creek with support from Blue Sky Habitat Funds. This work along a significant portion of the creek will go a long way to improving fish habitat conditions in future generations. The watershed council recently hired a new riparian restoration program manager, Elizabeth (Ea) Murphy, to continue these efforts. Ea has worked on restoration projects in southern Oregon for over a decade and holds an MSc in soils and biogeochemistry.

The success of the Applegate

Riparian Restoration Program over the years is also indebted to the volunteer plant propagation crew, formerly led by Applegate resident Hal Macy. According to Tami Jebb, horticulturalist at Sprague Seed Orchard, the Applegate plant propagation program was a model of rural communities taking part in restoration. From 2004 to 2010, the volunteer crew collected seeds and worked with Tami Jebb to grow and maintain thousands of Applegate Valley native plants for use in the Riparian Restoration Program. These efforts amounted to thousands of dollars in savings and allowed the Riparian Restoration Program to considerably expand its planting efforts. At the same time, it offered skills training for Applegate Valley residents in plant propagation techniques and tools. The Riparian Restoration program is currently looking for new volunteers to continue the successful work of the plant propagation program. The Applegate Partnership and Watershed Council will host a plant propagation workshop on Friday, September 14, from 1 - 4:30 pm at the Applegate Library for those interested in learning more about propagating native Applegate Valley plants from seed.

For more information about Applegate riparian restoration, native plant propagation, resources available for Applegate Valley residents, or volunteer opportunities with APWC, please contact Ea Murphy at riparianprogram@arwc.org or 541-890-8458.

Janelle Dunlevy
APWC Coordinator
Elizabeth "Ea" Murphy
APWC Riparian Program Manager
541-899-9982
coordinator@arwc.org