Improving Stream Habitat in South Fork Little Butte and Neil Creeks
by Lance Wyss

Editors note: For this cover story we wanted to draw attention to work that’s going on in the Little Butte Creek watershed and also one of our many valued partners. The following article highlights the experiences and perspectives of a relative newcomer to the Rogue Basin and points the way to future collaboration in areas of mutual focus.

The Freshwater Trust (TFT) was busy over the past summer completing three large wood projects in Bear and Little Butte Creek basins, building on the momentum of two successful projects built in 2015. TFT currently has an agreement with US Bureau of Reclamation, who funds a series of restoration actions in five reaches of the Little Butte and Bear Creek drainages. These “recovery reaches” were identified within the 2012 Biological Opinion, with habitat quotas attributed to each. Large wood structures provide an immediate solution to habitat degradation, each providing plenty of winter cover for salmonids over the next couple of decades. With support from River Design Group and local engineer Joey Howard, TFT has now supervised the installation of over 120 large wood structures covering almost two and a half miles of stream.

With the 2016 in-stream work period ending in September, fall became the time for annual monitoring visits. Together with Katelyn Detweiler, TFT’s local monitoring coordinator, we recently completed as-built surveys on these freshly installed projects. The highlights were seeing adult fall Chinook Salmon digging redds and river otters chasing their breakfast! For me, it is especially gratifying to observe multiple fish species making quick use of the extra cover. Beaver activity has also increased around these projects, perhaps inspired by the spike in engineering!

With winter now in full force, I’m preparing for revegetation of these projects. TFT recently hired local practitioners Lomakatsi, Strauss Ecological Services, and M&M Services to remove noxious weeds and plant a diverse mix of native trees and shrubs. Apart from helping stabilize wood structures, mature riparian plantings will ensure wood jams are

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Notes from the Executive Director’s Desk

Those of you who have known me for awhile have surely heard me say, “I’m just a fisheries biologist.” Never have I felt more like “just a fisheries biologist” than the past 24 months. These last two years have been exciting, challenging, frustrating (at times), and always humbling.

After a year of organizing and another of planning, I think RRWC is ready to start implementing. I mean really implementing. Reaching out to landowners and working with partners to achieve the kinds of the “on the ground” impact in our watersheds that will make everyone that was wondering, “Why would four watershed councils merge?” to instead say, “Why didn’t they do it sooner?”

To make sure we hit our stride in developing and implementing projects, here are our New Year’s Resolutions:

- Stampede into Elk Creek and provide juvenile salmon places to rest in the winter and grow large over the summer.
- Stop the moving dirt in upper Grave Creek and the lower Jumpoff Joe Creek system by restoring streamside forests and installing large wood jams.
- Give Coho Salmon and steelhead in Little Butte Creek new places to roam and places to “cool their fins” by removing fish passage barriers.
- Grab the “bull by the horns” and show the communities in Bear Creek that they can manage their properties in ways that improve water quality and help their streams recover long lost steelhead and salmon populations.

With these improvements in water quality, fish passage, stream and streamside habitat quality, our watersheds will be much, much healthier. And youngsters will be able to splash along the creeks that run through Eagle Point, Grants Pass, and Medford again.

Please help us make it happen:

- Talk to your friends and neighbors about RRWC.
- Become a Friend of RRWC or make a donation.
- Volunteer at an RRWC event or work party.
- Contact us with project ideas.

Every little action helps us address the bumps and bruises our watershed has endured over the past decades. And a healthier watershed will lead to healthier communities.

...and from the Board Chair

I’ve just started reading a book by Thomas J. Friedman titled, Thank You for Being Late. I recommend the positive aspect of its thesis to everyone to reflect upon as we head toward the new year. He postulates that everyone is experiencing the heavy winds of technology, globalization, and climate change forces that are moving so rapidly that just keeping up leaves little time for pause and reflection on what these changes mean to ourselves and our environment.

After the long road to effect our organizational merger and subsequent building of internal structure, policy, and staffing, RRWC stands at the doorway of our future. After my own reflection on what this means, my first personal resolution is to find more time and circumstances for patience, compassion, the virtue of reflection, and thought. Added to that is a resolution to attempt to form deeper and better connections with all I interact with in order to build a better Rogue River Basin community based on shared regional values.

I hope you will also take some time to pause and get your bearings for the times to come. Here’s wishing everyone finds more time for reflection and better ways to link hands and share thoughts.
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restocked in a more historical manner, protecting water quality and riparian habitat beyond the life of these installations.

As TFT moves forward with projects in the years to come, our intent is to connect projects with those of our partners so our combined efforts become more contiguous and meaningful. As a relatively new Rogue resident, I’ve quickly come to appreciate the role RRWC plays advancing restoration here. With the opportunities I have as a TFT project manager, I can only look forward to TFT and RRWC partnering more in the future.

Lance Wyss is Restoration Project Manager for The Freshwater Trust. Lance started with TFT (Ashland Office) this past year, bringing four years of project management experience and over a decade of knowledge as a fish and wildlife biologist to the Rogue River watershed.

Looking Ahead into 2017…

F-O-C-U-S-!

Our contention is that you have to have focus if you want to achieve success.

After wrapping up a year-long strategic planning effort, Rogue River Watershed Council is poised to concentrate our activities in areas that are most likely to respond positively to stewardship activities. Through this saturation (develop as many projects as possible in the reach and address the most critical factors limiting watershed health), RRWC believes that water quality, habitat quality, and the natural processes that support wildlife, recreation, and community benefits will improve the most.

Elk Creek flows into the Rogue not too far upstream of the city of Shady Cove. Coho Salmon abound in the tributaries of Elk Creek throughout the year despite an alarming lack of deep pools and overhead cover. RRWC is working to encourage the formation of good over-summering and over-wintering habitat for juvenile salmon there (deep pools, side channels, and log jams).

In the middle Rogue, two stream reaches seem poised to benefit from focused stewardship. RRWC will be reaching out to private landowners along Quartz Creek, in the lower Jumpoff Joe watershed, and a reach of upper Grave Creek to address poor water temperature, make streambanks more stable (streamside forest restoration), provide overhead cover, and create pools (log jam installation).

RRWC is already planning to work with a series of landowners and water rights holders in Salt Creek (Little Butte Creek) to improve fish passage at nine diversion structures. We would also like to increase instream flows, decrease the amount of irrigation flows that return to the stream network, decrease livestock contact with the creek, and restore streamside forests throughout Little Butte Creek to make the water temperatures, bacteria levels, and associated pollutants in this important salmon producing stream more tolerable for wildlife and the public.

Upper Bear Creek (Neil, Ashland, and Wagner Creeks in particular) offers a great opportunity to create positive watershed health conditions for community and wildlife benefit. RRWC will be working with the rural (and urban) residents along this section of the Bear Creek system to develop contiguous reaches of stewardship focused on improving water quality (livestock management, instream flow, and streamside forest restoration) and fish passage.

As RRWC makes progress on these limiting factors along these stream reaches, we will take our results, lessons learned, and partnerships to the next tier of priority areas within our 1.6 million-acre watershed.
I love this time of year. And not because of the holidays. The giving and all – too expensive. For me, it’s about two things: floods and fish. Love ’em. Let’s start with fish – spawning fish, that is.

Fall Chinook Salmon kick off the fall/winter spawning season in October and are primarily mainstem and large stream spawners but will spawn in smaller tributaries as flows allow. Coho Salmon are next in line, spawning primarily in small and medium sized streams beginning around Thanksgiving and usually concluding by early January. And don’t forget summer steelhead who wait for rain, then sneak into small, sometimes ephemeral, streams to make hay between Christmas and early March. All these fish, especially Coho and steelhead, are dependent on high flow to access their preferred spawning habitats. Get it? High stream flows make habitat accessible to fish. In fact, a few years ago most Coho waited until late February to spawn as that’s when the first high flows occurred that year – remarkable!

Moreover, though maligned by infrastructure managers and streamside landowners, high flows are critically important for stream channel maintenance and function. High flows recruit spawning gravels from floodplains and streambanks, recruit woody material from healthy riparian areas and create pools and side channels – all components of healthy fish habitat. And it’s exactly these kinds of features that provide juvenile fishes refuge during flood events.

So, for those of you who’ve been texting while reading, it’s like this: fish like water and sometimes lots of it. Get it now?
Will Water Quality Measure Up?

WISE (Water for Irrigation, Stream, and Economy) is a regional water management and infrastructure modernization project designed to improve the health of the Bear Creek and Little Butte Creek watersheds. This fall, Rogue River Watershed Council (RRWC) and partners completed the first year of baseline monitoring for the WISE Effectiveness Monitoring Project, which is designed to measure how effective watershed restoration activities are at improving water quality in these two watersheds.

Water quality data collected prior to construction of restoration projects are referred to as “baseline” data. This baseline data will serve as a “yardstick” against which future changes in water quality can be measured. Upon the completion of this three-year baseline monitoring phase, we will be able to describe general water quality conditions in Little Butte and Bear Creeks. Subsequent WISE Effectiveness Monitoring phases include construction monitoring and post-project monitoring. Water quality data following project implementation will be compared against “baseline” to describe trends and effectiveness.

Our monitoring program consists of three components: continuous data sensors that record temperature, pH, dissolved oxygen, conductivity, and turbidity every fifteen minutes; periodic grab samples for E. coli and nutrients; and summer visual algae surveys. The “Year 1 Baseline Water Quality Report,” to be published later this winter, showcases the distribution and seasonal and daily variations of the data relative to standards and criteria. The figures here are a sneak preview of the charts in the final data report.

The data collected so far indicate that Little Butte Creek and Bear Creek are both water quality limited for bacteria, total phosphorus, temperature, pH, and dissolved oxygen. Water quality was generally poorest during the irrigation season, and downstream sites generally had poorer water quality than the upstream sites. Continued monitoring will allow investigators to note changing data trends and gather an on-going picture of water quality in these creeks.

RRWC is leading this project in partnership with the Jackson Soil & Water Conservation District (JSWCD), Rogue Valley Council of Governments, Jackson County, Jackson County Watermaster (JCWM), Oregon Department of Environmental Quality (ODEQ), and Oregon Department of Water Resources. The project is funded by grants from the Oregon Watershed Enhancement Board, Medford Watershed Commission, JSWCD, and ODEQ.
Species Spotlight

Pacific Lamprey: Wiggle Your Toes in the River — Think Lampreys
by Stewart Reid, Ph.D.

Lampreys begin life as eyelash-sized ammocoetes (larvae), with no eyes or teeth. Ammocoetes burrow in fine sediments, where they are abundant, but rarely seen, and are filter feeders, living on the suspended micro-organisms in the water. They play important roles as water cleaners and bioturbators, or mixers, of bottom sediments. This goes on for five to seven years, with ammocoetes growing to near pencil size. So, when you look at a sandy/silty stream bottom between your toes, think lampreys.

When ready, ammocoetes transform, growing eyes, teeth and a sucker mouth, but they don’t start feeding yet. They swim to sea. There, young lampreys begin to feed, growing up to two and one-half feet. Then, they come back.

Lampreys don’t necessarily return to their birth stream. Instead, they look for any suitable stream, as long as it smells like ammocoetes – the Rogue does. This lets them know that it’s a good place to spawn. In freshwater, adults stop feeding. They swim upstream, then hide under cover to prepare for spawning. This usually takes almost a year, using up body reserves – females shrink a quarter of their length. So, when you look at that rocky pool or undercut bank, think resting lampreys – at any time of year.

In Spring, males and females build shallow nests, or redds, moving and arranging rocks with their mouths. After spawning, adults die, settling on the bottom, contributing rich bodies full of marine nutrients to the rivers in which their young will rear. So when you visit the river, think lampreys and the roles they play.

Dr. Stewart Reid is an independent conservation biologist who lives on Bear Creek and works on fishes throughout the West and into México. He has been working with lampreys for almost twenty years.

RRWC Makes a Media Splash!

In late November, the William and Flora Hewlett Foundation awarded a $50 million grant to the Resources Legacy Fund establishing the “Open Rivers Fund,” a ten-year program designed to support communities across the west in their quest to restore local waterways by removing aging and obsolete dams. Three projects were identified for the initial round of funding, with Rogue River Watershed Council named as one of the recipients for the work we’re planning on a series of dams and obstructions across our 1.64 million acre watershed! After the award was announced, executive director (and fish passage expert) Brian Barr was kept busy fielding reporters’ calls and requests for interviews. Brian was featured in six radio spots on Portland radio stations and talked about the project as a guest on Jefferson Public Radio’s Jefferson Exchange program. RRWC was featured in an online National Geographic article (Google “National Geographic and Open Rivers Fund”) and several websites – from those focusing on philanthropy to fishing – have highlighted the award as well. Check out http://www.hewlett.org/open-rivers-fund-overview-faq/ for a good overview of the program, and http://www.hewlett.org/openriversfund/ for a visual tour of the three inaugural projects.
The Importance of Snow

by Jonas Parker

Editor’s note: This article was submitted well before the heavy early January snowfall.

As a hydrologist, aside from wanting to be somewhere other than my desk, why do I spend time in the winter with my eyes on the mountains? Here’s the great thing about snow: it doesn’t immediately run off the hillslope like rain. Snow gradually melts throughout the spring and summer providing a steady flow of cool water to streams below. Cool water keeps stream health in check and provides a metabolic refugia for juvenile salmonids who prefer stream temperatures <60°F.

Think back to October and the remnants of Typhoon Songda that slammed the region with a deluge. Fifty billion gallons of water fell in the Bear Creek watershed in that storm. Some of that water stuck around as snow (see map), but most of Songda has long since run off to the ocean underscoring the importance of high elevation and otherwise cold temperature refuges for snow.

Collectively, the Wagner, Ashland, and Neil Creek subwatersheds have the bulk of the snow zone acreage in the Bear Creek watershed. Prioritizing restoration here, as the Rogue River Watershed Council has done for this particular watershed, is indeed wise. Tributaries in these subwatersheds are the lifeblood of the larger watershed that they belong to. As we start 2017, let us turn our eyes towards our mountains and cross our fingers that we get snow and a lot of it. It is the snow that will sustain us, the fish, and the streams until the rains return at the end of summer.

Jonas Parker is the district hydrologist for the US Bureau of Land Management based out of Medford.

Upcoming Events Around the Watershed

- **Vegetation removal**: late January; Gilbert Creek, Grants Pass (volunteer event)
- **SiskiyouFilmFest**: Sunday, February 12; Grants Pass High School Performing Arts Center. Stop by and visit us at our “booth”!
- **Carcass toss**: March/April; upper Rogue watershed (volunteer event)
- **Middle Rogue Working Group** meetings: first Monday of the month, Grants Pass
- **Bear Creek Working Group** meetings: second Monday of the month, Central Point

We’ll post more information on our online calendar as details emerge. Call us now if you’re interested in participating!
Support Our Work!

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