



PACIFIC RIVERS FREE FLOW

Volume

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Season

FALL

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BOARD CHAIR UPDATE

Mike Morrison – Board Chair



Since the Spring Issue of Free Flow Pacific Rivers has been actively pursuing its mission with work on a number of fronts. I can report that we are pleased with the progress we are making both on the organizational side and the project side.

You will read in this edition of Free Flow about a couple of folks that are making big contributions to the rebuilding effort. Sophie Koh has stepped up her commitment with new responsibilities and a well-earned new job title. Consultant Don Elder is lending to Pacific Rivers the benefit of his vast experience in the world of environmental non-profits and has proved to be a committed and inspirational leader.

We are also pleased to announce that you – our supporters – “stepped up to the plate” and made generous gifts that allowed us to meet our goal of matching the \$8000 that the Board members had pledged to the challenge.

Shane Anderson’s latest film – “The Lost Salmon” – has been completed. It is a powerful and beautiful film that tells the story of the genetic distinctions between spring run salmon and other salmon runs and sounds the alarm on the critical risks spring run salmon face along the entire Pacific Northwest coast. We hope to bring the film to you in the near future, either by way of local screenings or online presentations. Look for notices over the next couple of months.

On the project front, we continue to work with the North Umpqua Coalition to eliminate the summer steelhead hatchery program from the North Umpqua River. We are convinced that the best (and perhaps only) way to return these iconic fish to any semblance of abundance is to prioritize the resiliency of wild fish and help them by eliminating the competition from the far less robust hatchery fish. Following a coordinated and concerted effort by the Coalition members, the Oregon Fish and Wildlife Commission voted to end the summer steelhead hatchery program on the North Umpqua. Douglas County and others sued the Commission and succeeded in obtaining a temporary order leaving the hatchery program in place pending a trial. No trial date has been set. We will continue to monitor the litigation and keep you informed.

Once again, Pacific Rivers led the way to accomplish snorkel surveys of juvenile salmonids in the Canton Creek and Steamboat watersheds. Led by Professor Charley Dewberry, the dive crews – including students from the Phoenix School in Roseburg – conducted in-stream counts. As these streams (in or adjacent to the Frank and Jeanne Moore Wild Steelhead Sanctuary) provide cold water refuge for summer steelhead, the data can assist in developing management plans that will be critical for summer steelhead as the climate warms. Dr. Dewberry will prepare a written report of the findings which we will report on in the next issue of Free Flow. We also plan to post it on the Pacific Rivers website and will let you know when that has been done.

Pacific Rivers has also been part of coalitions that are writing to elected officials to press policies important to our mission. On August 17, 2022 a large group including Pacific Rivers wrote Senator Patty Murray and Governor Inslee to both acknowledge their leadership in seeking solutions to the imperative to remove the lower Snake River dams. The same coalition wrote that same day to Senator Maria Cantwell thanking her for her leadership on renewable energy solutions and to urge her to join with Sen. Murray and Gov. Inslee to press for equitable solutions to the removal of the dams. In August we also signed on to a letter (along with over 125 environmental organizations and responsible businesses) to press the British Columbia government to extend permanent protection to the Skagit River headwaters.

Pacific Rivers is also active with the Forest Carbon Coalition. In fact, Board member Bryan Lessley has been named to the Coalition's Legislative Subcommittee, which is tasked with drafting and introducing comprehensive federal legislation to address climate change and forest carbon solutions.

Thank you all for your solid and ongoing support. Together, we are making real progress in the important and satisfying effort to protect and restore healthy watersheds.

All the Best,
Mike Morrison





*Students from the Phoenix School conduct in-stream counts of juvenile salmonids.
Photos: Audrey Squires*



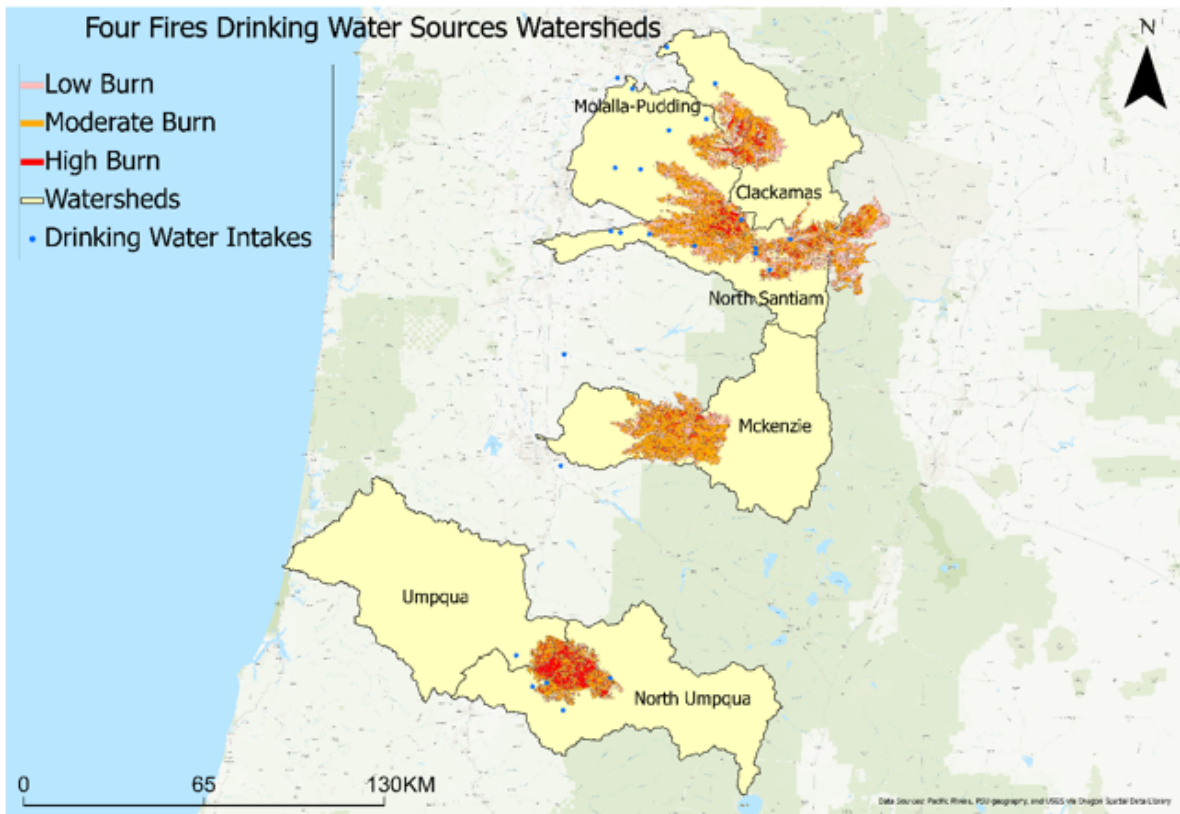
OREGON WILDFIRES IMPACTS TO DRINKING WATER SYSTEMS

Rick George – Board Member



Pacific Rivers and Portland State University, with funding from the Lazar Foundation, teamed up to assess the impacts and risks of wildfires on drinking water. This initial study provides new and important information that will help to better prepare for and protect drinking water supplies from the impacts of future wildfires. It is our sincere hope that this assessment will contribute to improvements in protecting drinking water and systems – and the people served. We at Pacific Rivers are humbled and saddened by the severity and breadth of impacts to people, to water supplies and to livelihoods.

Four of Oregon's most devastating 2020 wildfires were analyzed – the Riverside Fire in the Clackamas River and Mollala-Pudding watersheds, the Beachie Creek Fire in the North Santiam and Mollala-Pudding rivers watersheds, the Holiday Farm Fire in the McKenzie River watershed, and the Archie Creek Fire in the North Umpqua watershed. Combined these fires resulted in loss of life, destruction of over 4000 structures, the evacuation of over a quarter million people and losses of power and water supplies. Fire suppression alone cost over \$133 million.



The four 2020 Oregon fires that affected watershed drinking water supply systems.

The Holiday Farm Fire along the Wild and Scenic McKenzie River burned through the towns of Vida, Leaburg and Nimrod and destroyed 75% of the community of Blue River. In the Santiam River watershed the communities of Lyons, Mill City and Gates were heavily damaged. Along the Clackamas River the Riverside Fire destroyed 57 homes and burned into the communities of Colton and Estacada (a Portland area community with a population of nearly 4,000). Along the Wild and Scenic North Umpqua River the Archie Creek Fire destroyed 109 homes, including the home of longtime Pacific Rivers supporters the late Frank and Jeanne Moore, caused extensive damage to the famous Steamboat Inn and impacted 100,000 people include a longtime Pacific Rivers Board member.

In short, these fires and the ones we've experienced just before and since have been devastating. And though forests have evolved with fire, as our Portland State Colleagues so aptly stated in their report, "(a)s wildfires become more frequent in the western United States as climate change-induced warmer and drier summers are projected, Oregonians need to learn lessons from the September 2020 fires and prepare for better futures." We at Pacific Rives hope this report can contribute to changes in forest management and to adding resiliency to our infrastructure to better prepare for these foreseeable natural disasters.



*Damage from the Archie Creek Fire in 2020.
Photo: ODOT*

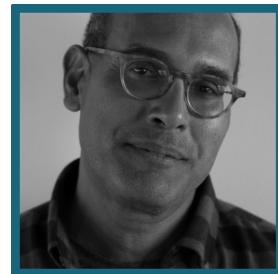
The report demonstrates that wildfires impact both water quality and quantity. And impacts to the infrastructure – the collection, delivery and treatment systems – of community and residential water supply systems can disrupt water supplies and in some cases create hazardous toxic chemical releases into the water supplies. Illustrating the complexity and severity of the impacts to drinking water supplies, the report includes the demonstrable impacts even to groundwater drinking water supplies from wildfires.

The report makes clear that our existing water supplies and infrastructure are extremely vulnerable to the impacts of wildfires. Changes will not be easy, inexpensive or quick. However, improvements in pre-fire management of forests and ecosystems that include decreasing the extent of industrial monoculture forests should be implemented. Increasing the full protections of riparian vegetation and encouraging and protecting the pre and post fire accumulation of in-stream wood and structure helps to capture sediment before it reaches drinking water supply systems. And improvements in fire fighting and post-fire management should include limiting the use of fire fighting chemicals to decrease the likelihood of incorporation into water supplies, and limiting the areal extent and watershed-specific areas of post-fire salvage logging. Roads also play a large role in post-fire sediment delivery to water supplies. Decreasing pre-fire road densities and limiting new road developments are both recommended.

You can find the full report in the "Our Work" section of the Pacific Rivers website, under "Reports".

DRIVE FOR REMOVAL OF LOWER SNAKE RIVER DAMS HEATS UP

Cassius Scott – Board Member



The drive for the removal of the four Lower Snake River Dams (LSRD) has heated up with the release in July and August 2022 of multiple studies regarding the impact the dams have had on dwindling salmon and steelhead populations and the best way to remedy this problem going forward that looks at the input from all the involved parties.



*The Columbia River Basin.
Map: USACE*

Salmon River. Along its route the Snake River drains almost all of Idaho and parts of Oregon, Washington and Utah. At Lewiston, Idaho the Snake turns west through the Palouse Hills of Southeastern Washington and converges with the Columbia River at the Tri-Cities region in Washington. The Snake River between Lewiston, Idaho and Tri-Cities is known as the Lower Snake River.

The dams' removal has long been sought after by a coalition of Native American tribes, conservationists, and fish and river advocacy groups as the best way to preserve and replenish these stocks. Opposition to removal comes from the Bonneville Power Authority (BPA) which oversees the dams, as well as a coalition of farmers, ranchers and cities that derive benefits from hydroelectric production, irrigation, recreation and crop transport via the dams and their associated locks.

The Snake is the 13th longest river in the U.S. at 1,078 miles and supplies 30% of the Columbia River's flow. Its headwaters begin in Wyoming's Teton Range and from there the river flows west into Southeastern Idaho and through the Snake River Plain. It then flows west across Southern Idaho turning northwest at Twin Falls, then flowing north along the Oregon Idaho border. The Snake then flows through Hells Canyon where it picks up the

Overall, there are 15 dams on the Snake River. There are four dams with locks on the LSR. From west to east they are the Ice Harbor Dam and Locks (opened 1955), Lower Monumental Dam and Locks (opened 1961), Little Goose Dam and Locks (opened 1963) and the Lower Granite Dam and Locks (opened 1975). The four LSRD are federally owned and operated by the Bonneville Power Authority (BPA). The dams produce 900 aMV(average Millivolts) and 3033 MV at peak capacity of clean hydroelectric power. In relative terms, this is about 3-4% of the projected energy needs of the region.



Little Goose Dam on the Snake River.

Eastern Washington and Western Idaho are large wheat-producing regions. Approximately 10% of the total U.S wheat production comes from this area. Although there is railroad and truck transport available the dams and locks on the LSR allow barges to operate between Lewiston, Idaho out to the Pacific Ocean as a commercially cheaper alternative. One barge can carry the wheat of 35 rail cars or 135 trucks. Roughly 60% of the wheat export from Eastern Washington and Western Idaho is via barges.

But these dams take a heavy toll on the Snake River's anadromous fish. Before the dams it was estimated that 14-16 million salmon and steelhead returned to the Columbia system each year to spawn, including the Snake River. Now the fish return at 1% of that level despite fish ladders on the LSRD and hatchery production. The LSR has 5 anadromous fish listed on the Endangered Species Act (ESA): spring, summer and fall Chinook, sockeye and steelhead. Fish populations have continued to decline due to multiple factors including drought, global warming, deteriorating ocean conditions, pollution and agricultural runoff, but scientists think the four dams on the Lower Snake are a major factor. Despite fish ladders the four LSRD block any significant migration into the upper Snake and its tributaries preventing salmon and steelhead from accessing 6,000 miles of spawning habitat. At the dams, fish ladders only allow limited migration upstream and significant predation occurs in the slack water near the dams.

Native American tribes were forced to give up millions of acres in the Columbia River Basin (CRB) but legally have retained their traditional fishing rights. Following litigation in the 1990s, the federal government is required by law to maintain the salmon and steelhead populations in the Columbia River and its tributaries so that tribes can fish in "the usual and accustomed places". Thus far, upwards of 17 billion dollars has been spent by the government on salmon and steelhead restoration in the CRB primarily via hatcheries with very little improvement in fish stocks. In 2017 only 10,000 Chinook returned to the upper Snake spawning grounds. Tribal councils have protested the dams since they were first built and now may have a legal case for dam removal. In July 2022, NOAA released a draft report stating that one or more of the LSRD must be breached to protect and increase the anadromous fish populations in the CRB and to prevent extinction. This report was done in concert with the Nez Perce tribe, U.S. Fish and Wildlife, and the state of Oregon.



Ice Harbor Dam on the Snake River.

Also, in July 2022, BPA released their own study done by the environmental consulting firm E3 on how to mitigate the loss of hydroelectric production if the four LSRD were breached. It states that replacing the hydroelectric production of the four LSRD could cost anywhere from 11.2 to 19.6 billion dollars. That translates into increased local consumer electric bills of \$100–200 dollars per year or roughly a 10–15% yearly increase. The hydroelectric production could be replaced by wind turbines, solar and perhaps small modular nuclear reactors as they become available.

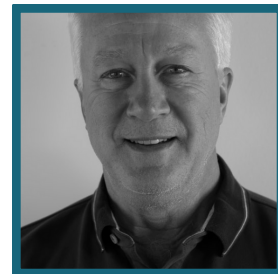
In December 2021, U.S. Rep. Mike Simpson, R-ID, released his Columbia Basin Initiative. His recommendations were for breaching the four LSRD but also upgrading the irrigation, transportation and electricity production of the region. The cost for this is estimated at 33.5 billion dollars but it was felt that continuing to do nothing would lead to salmon and steelhead extinction in 15–20 years even with ongoing multi-billion dollar expenditures for salmon protection that are showing very little return on investment.

In August 2022, Washington Governor Jay Inslee and U.S. Rep. Patty Murray, D-Wash. released their joint LSRD Benefit Replacement Report. They sought input from all the involved parties. The report advocates for the replacement and mitigation of the benefits of the LSRD before decommissioning and breaching the dams, stating that “Replacement strategies for electricity generation, transportation, agriculture, irrigation, recreation must all be pursued”.

If major structural changes are not made very soon we will be looking at extinctions of critically important and endangered runs of salmon and steelhead in the CRB. Breaching the four Lower Snake River Dams would cost between 10–30 billion dollars and would need to be approved by Congress. It would be the largest dam removal project in U.S. history. It should commence as soon as possible.

REP. DEFAZIO PUSHES FOR EXPANDED ROGUE RIVER WILD & SCENIC PROTECTIONS

Rick George – Board Member



Oregon's Rep. Peter DeFazio dug a figurative oar deep in the current of Oregon rivers in 1988. Just one year after he was first elected in 1987, Rep. DeFazio played a key role in passing the Oregon Omnibus Wild and Scenic Rivers Act – the largest single act of river protection of any state outside of Alaska. Over 40 new rivers were protected in perpetuity from dams and other serious impacts to water quality, fish and wild river recreation.

The Rogue was one of the original national Wild and Scenic Rivers when the act was first passed by Congress in 1968, protecting 84.5 river miles. Since then another 119 miles have been protected in this lower river section, and in 1988 40 river miles were protected in the upper Rogue River where it magically bursts out from the volcanic rocks at the base of the caldera that contains Crater Lake.

Now, after seeing first-hand the impacts of logging, road building and fires in the Rogue River – outside the current Wild and Scenic boundaries – the senior Oregon representative in Congress is digging deep with both oars. He's introduced the Wild Rogue Conservation and Recreation Enhancement Act to add even more protections to this iconic Oregon river. A testimony to his vision, the new legislation would protect over 100,000 acres of tributary salmon spawning and headwater fish habitat.

And even in this difficult climate of few and far-between bipartisanship in Congress, he thinks he can pass it.

"I recently had the honor of enjoying a day on the Rogue, thanks to our friends at the Rogue Riverkeeper, Cascadia Wildlands, and KS Wild. We floated alongside an area that will be protected under the Wild Rogue Conservation and Recreation Enhancement Act. I've long been committed to the conservation and protection of Oregon's most iconic areas and the Rogue River is a precious watershed that demands protection...."



*Representative Peter DeFazio and others floating on the Rogue River.
Photo: Peter DeFazio*

"...I will be doing everything in my power to pass this bill which would protect critical salmon habitat, boost the local outdoor recreation economy, reduce risk of severe wildfire, and ensure that more of Oregon's most ecologically sensitive areas are preserved for the enjoyment of current and future generations," said Representative Peter DeFazio.

Rep. DeFazio announced recently that he will retire from Congress at the end of this term. His leadership, class and stature will be sorely missed. Congressional approval of his Wild Rogue Conservation and Recreation Enhancement Act would be a beautiful and fitting tribute to Rep. DeFazio's legacy and love of the world famous wild Rogue River. Thank you Rep. DeFazio for your service and commitment to our nation and to our wild rivers and salmon.

CREATION STORY I

Shaunna McCovey – Board Member



Reprinted with permission of Shaunna McCovey from her book of poetry titled "The Smokehouse Boys"

It began upriver
at Katamiin
where the people
danced themselves
into existence,

danced themselves
right out of the ground
into this world
of love
and hope
and loss,
and love
and hope
and loss,

and love...



The Klamath river.



IN MEMORIAM: DEANNA SPOONER

Rebecca Daniels – Finance Manager



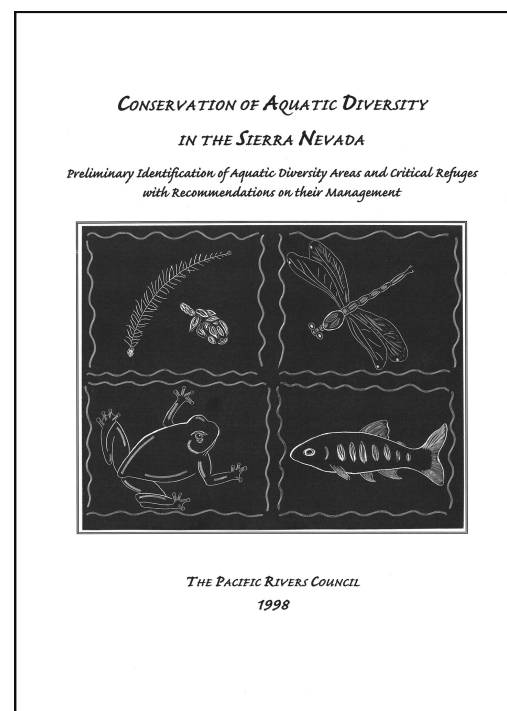
We are saddened to report that Deanna Spooner, who worked for Pacific Rivers for more than 10 years, passed away in late July at the age of 54, after a more than two-decade struggle with cancer. Deanna left Pacific Rivers in 2007, to live in Hawaii, which she loved, and where she continued to work tirelessly on conservation issues, for as long as her health allowed.

As our California policy lead, Deanna fought tirelessly for strong regional aquatic conservation policies across the national forests of the Sierra Nevada and against harmful fish stocking practices at the state level. She was known at our staff meetings as the Frog Queen because of her infectious passion for, and broad expertise in, amphibians, particularly the California red-legged frog.

With Deanna's able assistance, Pacific Rivers developed educational briefing documents as well as technical comments on numerous federal and state-level proposals, many of which became the basis for litigation. In addition to cogently marshaling the best available science, Deanna helped Pacific Rivers push the federal oversight agencies toward more rational economic analysis of critical habitat designation under the Endangered Species Act.

Deanna had the wisdom to align her personal life with her conservation targets -- she managed to live much of her day-to-day life within the boundaries of lands she wished to conserve, whether that was in Hawaii, or on the banks of the North Umpqua River, where she could walk to whitewater runs and deep pools with her father, and fish for legendary summer steelhead.

Deanna was creative, playful, generous, kind and she cared deeply about the well-being of our planet: the rivers and oceans, the amphibians and fish (and mammals too), and the land itself. You left us too soon, Deanna, but we are so grateful for you and your work during your time here. Aloha!



BOARD SPECIAL RECOGNITION

DON ELDER



Don Elder is an Organizational Development Consultant working closely with Pacific Rivers at this time. Before semi-retiring in 2021 he served as founding Executive Director of the Cahaba River Society, as State Development Director for The Nature Conservancy of Alabama, as Program Director then President of River Network, as Major Gifts Director for Western Rivers Conservancy, and as Senior Associate for Training Resources for the Environmental Community. Now, as Principal of Watershed Decisions, he provides strategic planning, campaign planning, fundraising and board development support to conservation and environmental nonprofits. He resides in the Upper Deschutes Watershed in Central Oregon where he enjoys exploring, hiking and fishing.

SOPHIE KOH



Sophie Koh joined Pacific Rivers in 2019 as a summer intern, and has since become Development Associate for the organization. After growing up in Portland, she received her Bachelor of Science from UC Berkeley in Conservation & Resource Studies and has worked at multiple environmental nonprofits along the way. Her passion for the environment is most centered around environmental justice, food systems, and climate change. She brings a wide array of experience to her role at Pacific Rivers in the fields of development, conservation, and administrative work. When not working, Sophie can be found hiking, beach-going, and searching for the best Thai food in town.



THANK YOU FOR YOUR SUPPORT!

We want to thank our many, many supporters for giving us the motivation, ammunition, and yes, funding, to tackle these challenging issues. We could not do it without our contractors, scientists, policymakers, friends and family to be eyes-wide-open and motivating change.

OUR MISSION

The mission of Pacific Rivers is to protect and restore the watershed ecosystems of the West to ensure river health, biodiversity and clean water for present and future generations.

OUR VISION

A future where healthy communities have access to clean, cool drinking water free from chemicals, and people can play in rivers and streams. A future where watersheds that store carbon are resilient to warming temperatures and other effects of climate change and are home to abundant populations of fish and aquatic wildlife.



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