Lemhi Ranchers: Welcome home Chinook salmon!

Largest Chinook run since 1960 coincides with tour of fish habitat improvement projects

By Steve Stuebner

Salmon River Chinook runs returned with a vengeance to the Lemhi River this year. More than 750 Chinook returned to their birth waters to spawn a new generation, the most since 1960.

Ranchers who raise cattle along the banks of the Lemhi River were excited to see the fish come back. They've been partners working with the Idaho Department of Fish and Game, the Governor's Office of Species Conservation and a host of other agencies to improve fish habitat for Chinook salmon, steelhead and resident fish.

It seemed like a perfect time to host a tour of recent fish-improvement projects in the Lemhi Valley. The tour was co-sponsored by the Idaho Cattle Association, the Idaho Rangeland Resource Commission and the Governor's Office of Species Conservation, which oversees the Upper Salmon Basin Watershed Project.

More than 750 Chinook salmon returned to the Lemhi River in the fall of 2014. Ranchers welcomed them home with improved fish habitat and fish passage conditions on their private lands along the river.

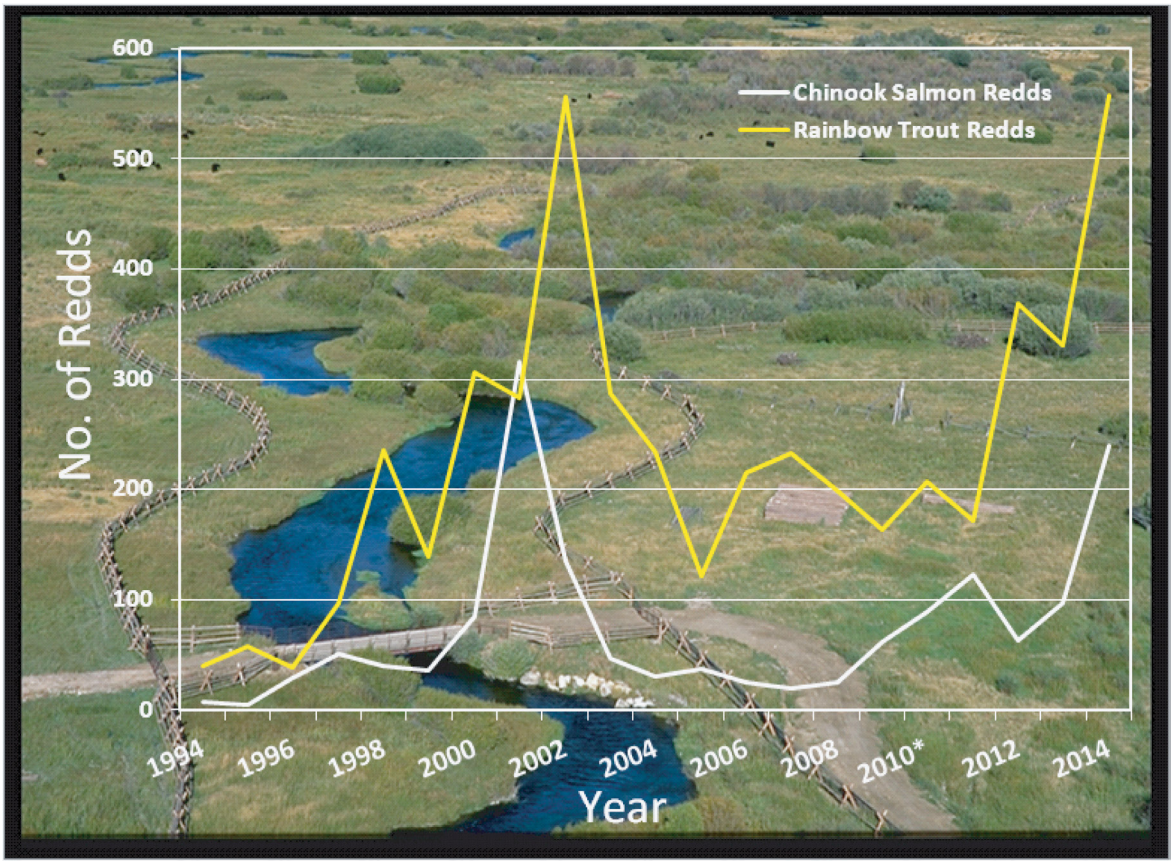
Lemhi ranchers have been working on a multitude of projects to improve fish habitat since Snake River salmon were protected under the Endangered Species Act in the early 1990s. Idaho Fish and Game officials are pleased with the results so far.

"We're making some really good progress in the last 20 years," says Paddy Murphy, IDFG program coordinator. "I think we're leaps and bounds ahead of where we thought we would be. And we couldn't do it without the landowners, couldn't do it without the irrigators. Almost all of the spawning habitat for chinook salmon and steelhead is on private property."

"This right here is Big Springs Creek," adds Carl Lufkin, manager of the Little Eight Mile Ranch near Leadore. "Over 600 rainbow redds were counted in this stream. This summer, there were over 750 chinook salmon that migrated through here. Huge number compared to years past."

"The important thing that we'd like people to understand is, ranchers are equally or more concerned about all of the species here than anyone," Lufkin says. "And I think the results that we're getting here show that we're getting that done."

Indeed, a graph of rainbow trout and chinook salmon redd counts shows favorable conditions in 2014 that are similar to other peak years in the early 2000s. The spawning counts mean that a higher number of juvenile fish will migrate to the ocean over the next couple of years. If good spring runoff conditions exist for the juvenile out-migration, that should lead to more adult fish returning to the Lemhi in the next 3-5 years. All of that is good news for a species that's been in decline.



"Redds" are fish nests carved into the gravel by rainbow trout, Chinook salmon and other fish species. Idaho Fish and Game employees conduct annual redd counts to track fish population trends.

In the tour, Murphy explained that restoring water flows and improving fish passage into the side streams in the Lemhi River watershed is one of the high priorities for improving fish runs, particularly resident fish and steelhead.

"In the Lemhi, for example, we have 10-15 tributaries where we are actively working on reconnect for fishery benefit," Murphy says. "Bohannon Creek is a perfect example of that."

Nikos Monoyios, the owner of the Eagle Valley Ranch with Val Brackett, has conserved water on Bohannon Creek to benefit steelhead and resident fish. They converted an open irrigation ditch to a buried pipeline, doubling the amount of water in the creek. The project also saved water for irrigating hay crops.

"There's 11,000 feet of pipe buried in the ground, and in the process, we eliminated two diversions on Bohannon Creek, and we screened two other diversions for the fish," Monoyios explains. "So, the bottom line this was a very significant project with Idaho Fish and Game that has had a significant impact on the amount of water that stays in Bohannon Creek."

The Bonneville Power Administration provided cost-share funds for the pipeline project via the Idaho Fish Accord. "In the last 2-3 years, we have seen very tangible evidence that all this effort has been successful," Monoyios says. "I believe this year, there were more than 35 redds, spawning grounds for steelhead trout, on the lower part of Bohannon Creek."

Nikos Monoyios and Val Brackett, owners of the Eagle Valley Ranch, have made multiple improvements to fish habitat on their ranch and donated a big conservation easement to the Lemhi Regional Land Trust.

Eagle Valley Ranch converted an open irrigation ditch to an 11,000-foot buried pipeline, doubling the amount of water in Bohannon Creek, a key tributary for steelhead and resident fish.

Monoyios and Brackett run a cow-calf operation with black angus cattle. Their ranch covers over 6,000 acres of deeded ground. Eagle Valley Ranch also donated a 5,000-acre conservation easement to the Lemhi Regional Land Trust to preserve the ranch, open space and scenic views.

"It was the first easement for the land trust, and it was incredibly significant because it's the size of a watershed," notes Kristin Troy, executive director of the Lemhi Regional Land Trust. "It was an incredible gift, really, to the public."

"We are very committed to the work as private landowners for preserving both the cattle and other cultural nature of the valley, which is important because it provides good jobs for people and keeps the economy going, and at the same time, we do projects that are beneficial to wildlife and fish," Monoyios says.

The Monoyios family also is donating an 800-acre conservation easement to the Lemhi Regional Land Trust along 2.5 miles of the Lemhi River. Idaho Fish and Game plans a large fish-restoration project in that area. That enhancement project could help create more spawning habitat for Chinook salmon, which spawn primarily in the main-stem Lemhi River, and for resident fish.

"We hope the project we are planning on the Lemhi River will allow it to form some side channels, allow the water to slow down, and create places where chinook salmon and other fish can spawn or rear their young," Monoyios says.

At the next stop on the tour, the group visited a project that restored water to Big Timber Creek. Rancher Merrill Beyeler explains.

Big Timber Creek with restored perennial flows after a bridge replaced an old culvert, creating an open environment for fish to spawn.

Beyeler Ranches LLC moved their point of diversion from Big Timber Creek to the main-stem Lemhi River to restore flows to the creek via the Idaho Water Resources Board's Water Transactions Program.

"This is Big Timber Creek right here," explains Beyeler, owner of Beyeler Ranches LLC. "For over 100 years, 150 years, there was no water in Timber Creek at this time of year. As ranchers, we wanted to look at some ways to reconnect these tributaries to the main stem of the Lemhi River. And we thought, what if we release this water and let it run to the main-stem Lemhi River, and then we pump water from the main stem of the Lemhi River, back to our field?"

Through the Idaho Water Resources Board's Water Transaction Program, the ranchers moved their point of diversion from Big Timber Creek to the Lemhi River, while retaining their full water right. That allows Big Timber Creek to retain its flows year-round without being diverted for irrigation.

Once the flows were restored to Big Timber Creek, the juvenile fish responded surprisingly well. "One of the really interesting things, is you would think that having a creek disconnected from the Lemhi all of that genetic material would be lost," Beyeler says. "But the very first year that we reconnected it, they had done some PIT-tagging of fish in Big Timber Creek. And one of those fish moved out of Big Timber Creek, down the Lemhi, and pinged every PIT way station all the way to the Pacific Ocean. So I think that was a great win not only for ranching but for our environment."

Steelhead also spawned in Big Timber Creek for the first time in a century.

"Well, that's one of those things that kind of makes you smile inside. Because that's important. That's part of who we are in agriculture. We just like to see things work and function properly. And that's part of this whole landscape, you know. If we lose part of this, we lose the whole of it."

A 2,350-acre conservation easement purchased by the BPA and managed by The Nature Conservancy also assists in bringing Big Timber Creek and other key tributaries back to life. Under terms of the easement, the fish habitat improvements must be maintained in perpetuity.

Spawning areas for salmon has expanded by at least three-fold because of the creek-reconnect projects such as what occurred on Big Timber Creek, Beyeler says. He credits a long list of project partners for helping make it possible. "Working together, we've made some really nice things happen," he says with a smile.

Idaho Fish and Game crews get ready to PIT-tag salmon smolts in the Lemhi River. PIT-tags provide vital information about fish location and survival during their life cycle. Below, a microchip is inserted into a smolt.

A key cornerstone of the fish habitat work along the Lemhi River are the many fish screens that prevent fish from swimming into irrigation diversions. The fish screens are built by local employees at the Idaho Fish and Game office in Salmon. It's a program that's been in place since the early 1990s and continues to this day.

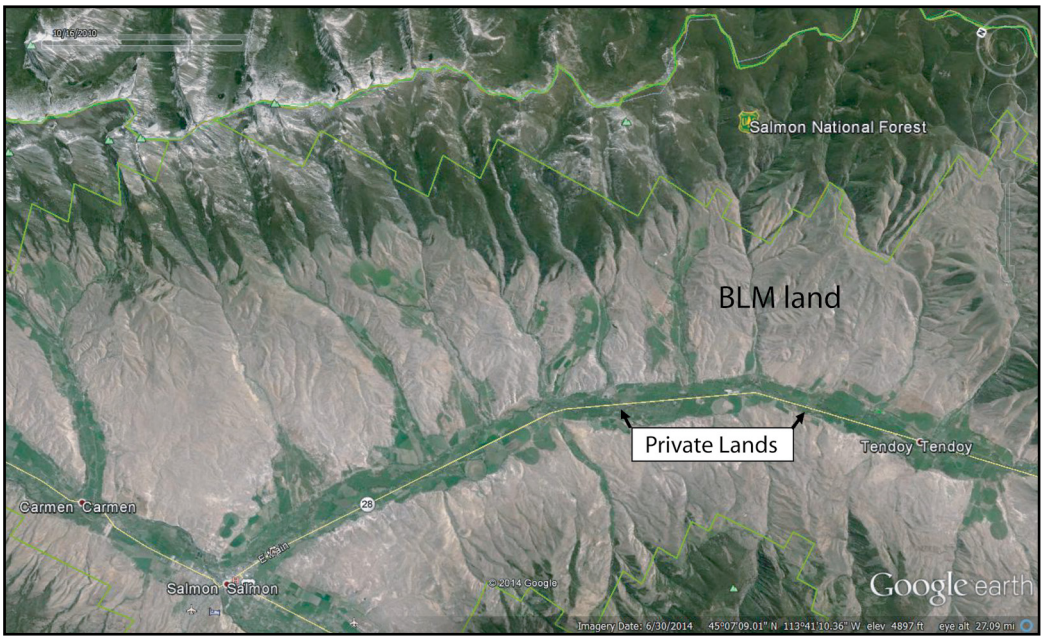
"It's a big program. We have over 100 fish screens in the Lemhi Basin," Murphy explains. "The fish come downstream, they hit these rotary drum screens, they rotate with the flow, water continuously goes through the screen itself, and there's a submerged PVC pipe that takes them back to the river."

All told, Idaho Fish and Game has installed 270 fish screens in the entire Upper Salmon Basin. Fish and Game receives about $1 million a year from the BPA to maintain the program. During the peak of the juvenile fish outmigration, there could be about 500 salmon smolts that go through one fish screen in one night, Murphy says. IDFG employees monitor and maintain the screens during the spring high-water months around the clock to make sure the screens don't get clogged by debris and are operating correctly.

Most of the chinook salmon spawn in the mainstem Lemhi River, and that means they're spawning next to private ranch properties along the way. Ranchers have installed riparian fencing along the river to protect spawning beds from cattle, and federal grazing permits allow ranchers to graze livestock on BLM and Forest Service lands when the fish are spawning. Carl Lufkin explains.

"On this ranch, we have seven miles of the Lemhi River and Big Springs Creek, too," Lufkin says. "We have major spawning of rainbow redds on Big Springs Creek and chinook salmon on the main stem of the Lemhi."

Lufkin raises about 2,000 head of angus cattle on the ranch. Grazing the cattle on federal lands in the summer and fall leave the private land meadows free for fish and wildlife to thrive. "In these bottoms you see below us, wet meadows, we only graze partially in the winter, to keep the cattle away from this habitat right here. The cows are here in the winter, the ground is frozen, the soil is stable, the impact here on these waterways is very little."



Lemhi River ranchers spoke about the importance of grazing on U.S. Forest Service, BLM and state lands during the summer and fall to leave room on private land meadows and riparian areas for salmon and other fish to thrive. Below, Lufkin's cattle graze on Forest Service lands in the late fall.

"The BLM, the Forest Service and the state are critical partners in managing this resource."

Linda Price, Field Manager of the Salmon BLM office, agrees. "In order to reduce the pressure of grazing on the riparian areas, we really need to work together," she says. "The Forest Service lands are at the higher elevations, the BLM permits are in the middle elevations and then we get down to the private land on the lower elevations. If we can keep the cattle moving through all of the elevations at different times of the year, we have the optimum use."

Price says she's impressed with the level of cooperation that exists between ranchers and the public land management agencies in the Salmon area. "I've been around the BLM for 25 years, and I have not seen anywhere else the level of cooperation and working together that we have in this area," Price says. "Everybody comes to the table, willing to work, willing to talk, willing to see what needs to be done to take care of the resources. It's pretty phenomenal."

"I think it's just people here are local family operations and they just feel like it's the right thing to do," Lufkin says.

Another key is that the ranchers try to stay ahead of the curve, and make sure the economic side of their operations are sound, so they can afford to voluntarily tweak things to benefit fish.

The end goal - restoring Chinook salmon runs to the Upper Salmon River Basin streams and tributaries. This is a Chinook that returned to the Sawtooth Hatchery near Stanley. The Lemhi River fish are wild and natural, surviving without hatchery enhancement.

"We really do want to take care of it, and stay in business at the same time. But I think they go hand in hand. Agriculture is the backbone of the economy here."

Important Milestones in the Upper Salmon Basin Watershed Project:

- 265 fish screens installed.
- 50 miles of riparian fencing built.
- More than 30 fish habitat access projects implemented.
- More than 150 irrigation efficiency projects installed.
- Established minimum stream flows at the main Lemhi River diversion to improve fish passage.

Steve Stuebner is the writer and producer of Life on the Range, an educational project sponsored by the Idaho Rangeland Resource Commission. For more information, see www.lifeontherange.org.