Conservation the Idaho Way

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# Lava project addresses safety, reduces recreation impacts and erosion

# LAVA PROJECT ADDRESSES SAFETY, REDUCES RECREATION IMPACTS, EROSION ON PORTNEUF RIVER

By Steve Stuebner

Tubing the Portneuf River in Lava Hot Springs is a super popular activity. On a warm, sunny day, there might be at least 650 people tubing the river. Multiply that number by 90 for the three-month summer season, and you might have close to 60,000 tubers floating the river each year.

Tube-rental shops line main street next to Lava Hot Springs. A recent Reader's Choice article in *USA Today* ranked the Portneuf River as the No. 1 best tubing location among the Top 10 tubing rivers in America.

*The new trail, almost complete!*

Up to now, public access facilities at the tubing put-in have been primitive -- scores of user-created trails have been created by barefoot or sandal-clad tubers in swimsuits who are in a rush to launch their tubes in the river, so they can float through a series of rapids and waterfalls, and take a shuttle back to do it all over again, and again.

The tubers created a lot of erosion on the steep, user-created trails, and it wasn't very safe, either.

"The tubers were kind of like a big herd of livestock, trying to reach the river however they could, and they'd carry all of this sediment into the river as they went and damaged the streambank and the vegetation as well," says Cali Johnson, administrator of the Portneuf Soil and Water Conservation District.


*Signs were installed*

"The tubing rental places charge by the hour, so people are in a rush to float the river as many times as possible," added Allan Johnson, an engineer for the Idaho Soil and Water Conservation Commission. "If it's a busy day, you might only get to float it two times because of all the people trying to get into the river at once. People would get frustrated and try to find another way to the river, trampling the vegetation and creating another trail that would carry erosion into the river.

"When people go down there to tube the river this summer, I think they'll be thrilled about the changes."

In the fall of 2016, the Portneuf SWCD solved the erosion issues by building a new, properly engineered trail at a more sustainable gradient that takes tubers down to the river from the main parking area. Four river access points were created and 600 feet of riparian fencing was installed to direct tubers to the river launch locations. In addition, the project involved building a floating dock for access and an observation deck.

The Portneuf SWCD applied for a $100,000 Idaho Department of Parks and Recreation grant to finance the lion's share of the project. George Hitz, water quality resource conservationist for the Idaho Soil and Water Conservation Commission, and Chris Banks, formerly a principal of Conservation Basics and now with the Commission, assisted with the grant application. Allan Johnson developed the engineering drawings for the whole project.

Cali Johnson said the Portneuf SWCD had been trying to obtain Section 319 grant funds from the Idaho Department of Environmental Quality to finance the construction of a well-designed river access trail, but after several failed attempts (the project never scored high enough), they decided to try for the IDPR grant.

"With George's and Chris' help, we got the grant," she said.

Other project funders included the Lava Foundation, the property owner, with a $25,000 contribution, and the city of Lava Hot Springs provided another $20,000.

Kit Tillotson, owner of KT Excavation, based in Lava Hot Springs, was the winning bidder and the construction contractor. Tillotson also is a long-time board member of the Portneuf SWCD, so he

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## *TRAIL PROJECT, cont. from Page 2*

abstained from voting on any decisions regarding the project and stayed out of discussions regarding the planning for the project. But as a hometown resident of Lava Hot Springs, he enjoyed working on it.

"I wanted to bid on it and do the job," Tillotson said. "We've always talked about Lava Hot Springs as being world class, and this project makes it world

*Construction in progress*

class. The tubing traffic is unbelievable down there in the summer, and now they've got some really great access that's sustainable down to the river with the new trail. It'll be really safe for people to get in and out. It's going to benefit the entire community."

"It's pretty neat that KT Excavation could do the job for us because Kit Tillotson has put his heart and soul into conservation projects in southeast Idaho as a longtime supervisor and former vice-chairman of the Portneuf SWCD," said Teri Murrison, administrator of the Conservation Commission.

"We were glad to lend a hand with our staff, assisting on the project and making this important improvement for the Portneuf River, the tubers and the tubing businesses in the community."

The project will prevent an estimated 45-50 tons of sediment from entering the river each year, Cali Johnson said. The new river trail starts at the main parking lot in Lava Hot Springs and leads down to the new access points along the Portneuf River. Much of the challenging work occurred in the engineering and construction of the trail on the steep riverbank and in installing the floating dock, officials said.

Allan Johnson said he designed the log-crib construction and large boulders to build up the base on the steep hillsides for an 8-foot-wide trail. "We used large wood, big juniper trees 12 inches diameter for the log cribs," he said. "We used the log cribs and woody debris to stabilize the soil and hold that in place with the logs. That saved on how much rock we needed."

A federal highway engineer was involved in signing off on the IDPR grant and a Section 404 permit was required from the Army Corps of Engineers because of the in-stream work and wetlands disturbance. Johnson took care of that application through the Lava Hot Springs Foundation as the project owner. The federal engineer also brought up the possibility of needing a surface water protection plan, but since the project involved disturbing less than 1 acre, a plan wasn't required. Even so, Tillotson had all of the proper erosion control measures installed during project construction.

Driving four piers into place for the 11-foot by 19-foot floating dock in the Portneuf River was one of the most challenging aspects of the construction project, Tillotson said. "The piers had to be sunk four feet into the river bed, and the bottom of that riverbed is travertine rock. I wasn't sure how tough it was going to be to drive them in," he said.

He placed them with a vibrating attachment on a backhoe. Before placing them, he fashioned points at the bottom of the piers to help them penetrate the rock, kind of like sharpening a pencil. "It all worked out pretty slick," he said. "They went right in without too much trouble."

The floating dock will rise and fall with the river level.

Tillotson also had to set the log cribs, large base rock and rock retaining walls on a steep slope next to the river to create a solid base for the foot trails. That took skill and patience to get things right. "It came together real well," he said.

In rebuilding the river access points, they re-sloped the ramps at a more sustainable angle and topped the trails with a permeable road mix for the best surfacing. "You want a durable surface for the trail, and that road mix will set up hard as concrete," Allan Johnson said. "Pea gravel wouldn't compact and it'd spill into the river."

They also placed erosion fabric across the hillsides, reclaimed the river bank and reseeded it. A new concrete observation deck with a railing was built above the trail for the general public to watch the tubers float downriver.

The project is mostly complete, but Tillotson said there are a couple more days of work involved to finish everything. In early April, weather-permitting, he expects to complete the erosion-control work, including hydroseeding, and building a ramp from the trail to the floating dock.

Another benefit of the project is that emergency medical crews will be able to access the river much better at the access points in the event of an accident. One of the ramps will allow an ambulance to back down close to the river, where paramedics could get quick access if needed.

"The project really turned out great," said Cali Johnson. "Kit did an excellent job. Everything went really smooth, and it all came together pretty fast."

Allan Johnson said it was a bit unusual for him to be engineering an observation deck and a riverside trail, but at the base level, he used similar techniques that he uses in restoring streams for stabilizing the trail. "It was a good project. I'm looking forward to seeing it when people are using it this summer," he said.

"I like the project in the respect that it shows how districts can do joint work together with cities on the conservation of soils," Tillotson said. "That's a good thing."

*Steve Stuebner writes about conservation projects for the Conservation Commission on a regular basis.*

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# SHELTON JOINS STAFF IN NORTH IDAHO

Brad Shelton of Rathdrum, Idaho, has joined the Commission staff and will begin working out of the Coeur d'Alene office in late February.

"We're excited to have Brad join our team. He has a strong background in agriculture and natural resources. He was born and raised in Rathdrum, so he has lots of local knowledge and a strong desire to bring his expertise home," said Commission engineer Bill Lillibridge.

Shelton worked on the family ranch in Council and has a BS in Rangeland Ecology and Management from the University of Idaho. He's led volunteers on riparian and upland restoration projects, and is certified by BLM and NRCS in the proper functioning and condition of streams.

"I'm looking forward to working with the Commission and bringing my knowledge and skills from the private industry to benefit the projects and people of North Idaho," says Shelton.

He comes from private industry, working as a rangeland management specialist in Belgrade, Montana, where he consulted with landowners and government agencies on soil conservation practices, grazing management plans, grazing permitting processes, mine reclamation, permitting processes for oil and gas, conservation plans, wildlife habitat restoration, and more.

Brad has developed large scale invasive weed management plans for landowners and Native American tribes throughout the western US. He's also worked with multi-agency interdisciplinary teams on a variety of natural resource issues in several western states.

He's a Idahoan, native born and raised in the Panhandle who enjoys all the outdoor actives North Idaho has to offer. In his spare time he loves to be out on Pend

Orellie Lake trolling for large trout or in the timber chasing elk.

*Welcome, Brad!*

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## FY 2017 Commission Meeting Schedule*

No Regular Meetings are planned to be held in **February** or **March**.

**April 20**, 8:00 am, Idaho Water Center, Boise

**May 11**, 8:00 am , Idaho Water Center, Boise

**June 15**, 8:00 am, Idaho Water Center, - Boise

*Please confirm meetings before attending by reviewing agendas posted at www.swc.idaho.gov or by calling 208-258-4752.



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