



Photos courtesy of Clearwater District.

WASHINGTON CREEK BRIDGE SPANS REPLACE UNDER-SIZED CULVERTS ON CAMP 60 ROAD

By Steve Stuebner

The Clearwater Soil and Water Conservation District recently spearheaded a water-quality partnership project with PotlatchDeltic and the Nez Perce-Clearwater National Forest that led to the installation of two, large clear-span bridges over Washington Creek on Forest Road #246, also known as the Camp 60 Road.

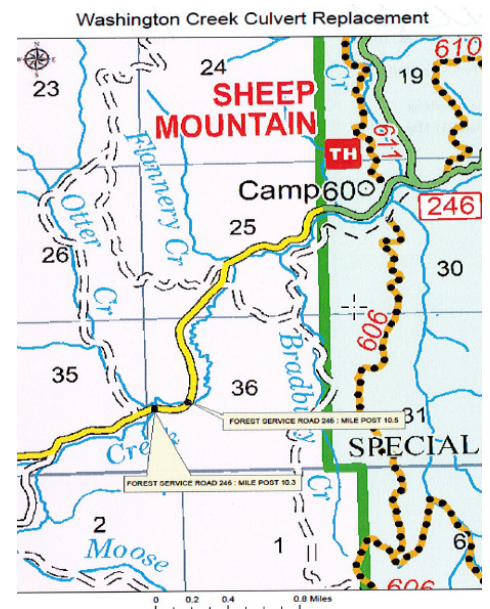
The Camp 60 Road is a popular cost-share forest road that was developed by the Forest Service and Potlatch back in the day. It's used to access forest management activities and to provide access for recreation, officials said.

The bridges replaced undersized 60-inch culverts – set up next to each other in parallel – at two creek-crossings, where there have been multiple flooding issues that led to road erosion and damage, said Tim Roehr, Business Manager for the Clearwater SWCD.

"It had been a problem area for years," Roehr said. "Every time it flooded, they added more culverts."

The project was funded with a \$246,590 EPA/DEQ Section 319 grant. Matching funds were provided by PotlatchDeltic, totaling \$193,260. PotlatchDeltic provided a cash match of \$146,878, and an in-kind match of \$46,382 for planning, permitting and construction supervision, according to figures provided by the Clearwater SWCD.

The Nez Perce-Clearwater National Forests did the environmental clearance work for the project through a categorical exclusion and provided input on the project design. The Forest Service is the lead agency on the cost-share road in terms of maintenance responsibilities, officials said. The Forest Service's share of the project was determined to be 75% based on land ownership past the bridge.



Locator map

As such, the Forest Service reimbursed PotlatchDeltic \$119,435 for their work that benefited National Forest System lands. This funding was available through retained receipts resulting from Nez Perce-Clearwater National Forests stewardship timber sales. Water quality improvement efforts, under which this bridge project qualifies, is one type of project eligible for these funds, officials said.

Jake King, road construction manager for PotlatchDeltic, said he was pleased with the way the project turned out. King oversaw the construction aspect of the project for the timber company.

"I think it turned out great," King said. "Those wooden bridges are some the prettiest bridges you'll see out there in the forest."

"Those creek-crossings were a real problem," added Travis Mechling, a former engineer for the Nez Perce-Clearwater National Forest who now works for the Army Corps of Engineers. "On multiple occasions, Washington Creek was over-topping the road and causing damage."

the project was funded in late 2016, starting the planning process for design and engineering. At the same time, the Forest Service worked on environmental clearances through the NEPA process.

"We work on a lot of projects together with the Forest Service, Idaho Department of Lands, Potlatch and DEQ, we work together so often and so well, but funding is always the big thing in trying to get all of these conservation projects completed," Roehr said.

Interestingly, Annie Connor, retired Forest Service Hydrologist, now the Clearwater SWCD Project Manager worked as a Forest Service hydrologist on the Washington Creek Bridges project in the very early stages over 10 years ago.



Each time stream runoff overwhelmed the culverts, road maintenance crews added another culvert, officials said. Photo courtesy of Clearwater District.



Old culverts on Washington Creek. Photo courtesy of Clearwater District.

The project had been on the drawing board for years. Annie Connor, Clearwater SWCD project manager, remembers working on solutions to the undersized culverts as a hydrologist for the Nez Perce-Clearwater National Forest going back at least 10 years ago or more.

In 2015, the Clearwater SWCD applied for the 319 grant, and it received word that

Mark Sellet, water quality analyst for DEQ in Lewiston, said he was glad to see the project funded through the 319 program, knowing that it can be challenging to get worthy projects funded because of stiff competition. All of the conservation districts in the Clearwater region typically apply for projects, and a broad-based committee reviews project applications and ranks them.

Many 319 projects focus on improving water quality in streams and tributaries that have existing degradation issues such as sediment, temperature, phosphorous or e-coli issues, and require a Total Maximum Daily Load (TMDL) plan to address those issues.

But that's not the case with Washington Creek, Sellet said. "It's actually in good shape. It's meeting all of the beneficial uses," he said. "This project will benefit bull trout and resident fish."

The bridge projects will reduce the potential of 1,278 tons of sediment entering Washington Creek or an annual sediment load reduction of 51.12 tons per year, according to the 319 report.

"If there had been a mass failure because of those old culverts getting overwhelmed with sediment and water flows, it would have been catastrophic," Sellet said. "So it was important to get this project done."

According to the Nez Perce-Clearwater analysis, by replacing the undersized culverts with the clear-span bridges, they connected 10 miles of open fish habitat downstream with six miles of habitat upstream. Washington Creek is located



This bridge has stylish wooden abutments designed by a Nez Perce-Clearwater National Forests engineer. Here, they set a prefabricated bridge deck to complete the crossing. Photo courtesy of Clearwater District.

above Dworkshak Reservoir, so there are no ocean-going steelhead or salmon in that area. The stream is a tributary of the North Fork of the Clearwater River. After a long tumble down the canyon wall, it enters the North Fork at the well-known Washington Creek Campground.

Washington Creek supports west-slope native cutthroat trout, redband trout and other resident fish and aquatic life.

“The replacement of the two, undersized culvert crossings on Washington Creek with two clear-spanning bridges will have immediate and long-lasting positive effects on the aquatic organisms of Washington Creek and the greater North Fork of the Clearwater River,” Roehr said.

The construction contractor also did a little fish habitat-improvement work as part of the project.

“The structure replacement project will also have positive impacts on water quality, sediment reduction, aquatic organism passage, and the available aquatic in-stream sediment-reduction habitat,” he said. “The channel restoration at this first site incorporated large woody debris in the bank and channel to create roughness, local scour and holding cover for native west-slope cutthroat trout, redband trout and other aquatic organisms.”

The construction project occurred in the fall of 2018, between August and November, during low-flow conditions as per normal permitting requirements. L&S Construction, based in Kendrick, was the contractor. Potlatch does a lot of bridge work with L&S, King said.

“They’re the experts in this area. Everything went really smooth,” he said.

The bridge decks were made out of steel. They were custom-built and prefabricated by Big R Bridges, a subsidiary of Contech Engineered Solutions, in Colorado.

The two bridge locations are one-quarter-mile apart on the Camp 60 road, just below the Sheep Mountain trailhead. First, the contractor had to remove the old culverts, excavate the site, and de-water the areas where they build the bridge abutments. At the upstream location, they pulled out three 60” culverts, a 72-inch culvert and a 24 inch culvert, affirming Roehr’s earlier comment about treating the undersized culvert problem by adding more culverts.

The upper bridge design called for the installation of wooden abutments prior to placing the bridge deck. That bridge span is 44 feet long and 18 feet wide.

The second bridge was built with concrete abutments. It’s 68 feet long and 18 feet

wide. L&S used two excavators working side-by-side to lift that bridge deck into place.

“I’m really happy with how it turned out,” said Travis Mechling, the Forest Service engineer.

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The steel bridge decks were custom-built and prefabricated by Big R Bridges, a subsidiary of Contech Engineered Solutions in Colorado. Photo courtesy of Clearwater District.



The underside of one of the completed bridges.
Photo courtesy of Clearwater District.

"They did a super job on the bridge construction," added Roehr. "That project is going to have big benefits for many years into the future."

Steve Stuebner is a regular contributor to *Conservation the Idaho Way*.

Corrections

We printed a few errors in our April/May 2020 issue, *Partners Reduce Mud, Improve Water Quality on Camas Prairie Waterways*. Our apologies to the Idaho District and the landowner.

The landowner quoted should be John Schumacher, the Idaho District Board member is Elaine Sonnen, and the road is Greencreek. The article focused primarily on the efforts of our employee Eileen Rowan to apply for the grant, however it was the result of a collaborative team effort by Eileen, Stefanie Hays, Lizzy Mack, and Elaine Sonnen. "Cattle feeding concrete pads" are referred to by the District as "heavy use pads" and are not typically cleaned with a backhoe. Finally, the District has informed us that Mr. Schumacher says that his operation was not "saved by the project" and that he was not "about ready to sell the ranch".

Our normal proofing protocol (getting approval from those quoted, staff, partners, and districts) was truncated in our rush to comply with the Stay at Home Order in the early days of the Coronavirus crisis. We regret any confusion or consternation caused.

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