

Tribes eye salmon cannon for Grand Coulee Dam passage

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Todd Deligan, vice president of Whooshh Innovations, encourages Jovan Mercado, of Omak, to place a sponge into the salmon cannon during a demonstration at Chief Joseph Hatchery on May 13. The transport system was designed to quickly and safely move salmon from one pool of water to another.



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BRIDGEPORT — Some call it a fish cannon.

But the technology demonstrated for Colville Tribal officials at a First Salmon Ceremony on May 13 is more like an enclosed water slide, but soft and flexible, and designed to go uphill instead of down.

“We actually want it to look very boring,” said Todd Deligan, vice president of Whooshh Innovations, a Bellevue company that has developed this system for transporting fish — or fruit — hundreds of feet without damaging them.

Regardless of what you call it, the technology is already being used to move live fish hundreds of feet from one pool of water to another in seconds. And company and tribal officials expressed hope that one day, it will be used to shoot salmon and other migratory fish over Chief Joseph and Grand Coulee dams.

Tribes say the two dams block salmon and steelhead from over 1,100 miles of their traditional habitat, and that up to four million fish once harvested and consumed every year by native people are no longer being produced.

There’s a renewed effort to bring salmon back to those rivers and streams.

Five inland tribes have formed the Upper Columbia United Tribes, and are pushing to include fish passage in the new Columbia River Treaty — an agreement on use of the river’s resources between the U.S. and Canada which is up for renewal. The group, which includes representatives from the Confederated Tribes of the Colville Reservation and four other tribes, is also looking into a variety of methods to provide that passage, including the Whooshh technology.

“In our minds, we know we can do it,” Deligan told Colville tribal leaders who gathered for the salmon ceremony at Chief Joseph Hatchery last week. But, he added, “We have to take a step-by-step approach.”

Deligan said tests so far have produced positive results. A Pacific Northwest Laboratory study that tested a 40-foot tube and a 250-foot tube made by Whooshh showed the method is at least equal to trapping and hauling fish, he said. The company is now building a 1,100-foot system over Rosa Dam on the Yakima River to test moving five species of fish over the longer distance, and to follow fish through spawning and egg stages.

Deligan said spawning fish are naturally attracted to the cannon through a series of ladder-like structures.

And the Whooshh system is both cheaper and easier for the environment than traditional fish ladders, he said. “We don’t need the massive amounts of concrete. We can have temporary or permanent systems.”

Randy Friedlander, director of the Colville Tribal Fish and Wildlife Department, said the tribes are looking at purchasing a portable system to make it easier on their biologists, who now spend time hauling fish one at a time, from rivers to shores.

He said it could be used at a weir in the Okanogan, where salmon are captured, hauled to shore in a sack known as a boot and brought to the Chief Joseph Hatchery for broodstock. And it could be used for salmon captured for harvest on the tribe's fishing boat on the Columbia River.

But before it can be considered for use as fish passage at Chief Joseph or Grand Coulee dams, biologists will have to determine if fish habitat is still suitable above the dams, and what other steps might be necessary before a plan can be developed.

"There's a lot of work to find out if it's even feasible, and affordable," he said, adding, "It's pretty exciting, though."

For kids who had gathered for the First Salmon Ceremony earlier in the day, the Whooshh demonstration was anything but boring.

Deligan stood at the cannon's mouth and offered up soaking wet sponges, which he called Sponge Bobs. The children held them up to the mouth of the contraption, which sucked them from their hands. Then, everyone watched in awe as the sponges got sucked to the other side of the parking lot in seconds.

In the background, Chief Joseph Dam loomed. "If you really want us to get a lot of fish up that kind of distance, that's not a problem," Deligan promised. "So you let us know."