

New Upper Truckee River channel being tested

By Kathryn Reed

With the Upper Truckee River being about two weeks out from reaching its peak flow and the river well beyond its banks, it is too soon to completely assess what worked and what didn't in regards to the new channel near Lake Tahoe Airport.

It will likely be mid-July before officials are able to access all areas, with work not being able to start until mid-August.

The river hit 979 cubic feet per second on June 4. The channel was designed to handle 375 cfs. The winter storms and subsequent runoff are equivalent to a 10-year storm – as in, this amount of water will occur once every 10 years.

“For the most part the project has been a success. Part of the goal was to increase floodplain inundation and frequency,” Theresa Cody, restoration hydrologist with the U.S. Forest Service, told *Lake Tahoe News*. “The project was meant to overbank, to do so about every year or two.”



This is a view of the northern tie-in of the new channel of the Upper Truckee River in August 2016 after construction was completed. Photo/USFS

In a perfect situation, restoration work like what the U.S. Forest Service did would have a couple years to settle in and for vegetation to grow to stabilize the bank before being tested by massive water flows.

Mother Nature, though, doesn't always cooperate.

Lahontan Regional Water Quality Control Board is the main overseer of the project because this state agency is tasked with maintaining water quality for the public.

"The storm water runoff really changed things out there, but we don't have a good handle on what changed," Doug Smith, supervising engineering geologist with the Lahontan Water Quality Control Board, said. "We don't know the full extent

(of damage) because it is flooded. I've sent them a couple letters saying that things didn't go as planned and to get them to work on some plans. Last (month) I sent a lengthy technical comment letter on the interim plan. It was just a comment letter, not a fine or citation."

With the water everywhere, even looking like it might reach the runways at Lake Tahoe Airport, in some ways it appears like the project failed. Just the opposite is true; the bank breaching is a good thing and is what would occur if humans never messed with the river.

To reach the runways the river would have to rise at least another foot; this would likely happen in a 50-year storm.



This is what the new channel of the Upper Truckee River looks like now from nearly the same spot as the above photo. Photo/USFS

The purpose of the project was to restore the river channel to what it was like before it had been straightened in places decades ago and meadows degraded by years of grazing.

Two-thirds of the work is on USFS land, while one-third is owned by the California Tahoe Conservancy.

The banks were eroding, carrying unwanted sediment to Lake Tahoe. The steepness of the banks was not allowing the river's water to overflow into the meadows. This then affected plant and animal life.

Last summer the last 1,000 feet of the 7,340-foot channel was built. What is known is that between 50 and 100 feet of bank in that section has eroded. Rock armoring will be put there this construction season to stabilize the area. In some spots the vegetation did not survive, so that will be replanted as well.

This summer the Forest Service plans to do more monitoring than originally planned. Geomorphic, wildlife and geological assessments will be done. Seeing how the **mussel relocation** worked will also be analyzed. Aerial images will be taken to get a different perspective.

The multi-year project was supposed to be completed last fall, but October storms prevented that from happening. The upstream portion of the former channel did not get completely filled in.

"We underestimated the amount of dirt we would need to backfill the full former channel. The largest lesson learned is we should have included a larger contingency to make sure we had enough dirt. At the end of the season we ran short on backfill material," Cody said.

This means there is water collecting in the back channel.

"The bottom line is they were not able to finish as planned," Smith told *Lake Tahoe News*. "We need to see if the original permitted design or a different design needs to be implemented out there. That will be determined down the road. The Forest Service and us agreed the restoration project on the Upper

Truckee River is very important and it needs to be done for the long haul and it needs to be done right.”

The price tag was \$7 million for this project. That was before the winter storms. Most of the money came from the Southern Nevada Public Lands Management Act.