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Organization:

Title:

Comments: Gold Creek NEPA Response 4/6/2020

TO: Ms. Patricia Garvey-Darda, Project Manager

Please consider the following comments during your evaluation of the Gold Creek Bull Trout Rescue Program:

1. I have owned property in Gold Creek Valley since the early 1970s, and am familiar with the issues related to the decreasing bull trout population in Gold Creek and other parts of the upper Yakima River system. I have also reviewed the current studies and proposals directed toward restoration of the bull trout population in that system.

2. I believe the means proposed to get bull trout past the Keechelus dam (or any alternative plan to reestablish fish access around the dam) is essential and should be the primary focus of the whole project. Also, I believe that not enough importance has been given to the impact of climate change on the future effectiveness of Gold Creek as a bull trout spawning stream. All meteorological projections that I have seen for the upper Yakima basin point to a continuing atmospheric temperature rise and earlier melting of the annual snow accumulation. Under those conditions water assets of the upper Yakima basin would be expected to drain earlier in the season, and Gold Creek would likewise be expected to sink further into its gravel bed creating an increasingly difficult spawning route for fish. In my view no amount of surface and upper bed modification, short of creating a "hardened trough" for the creek from its northern-most reaches to the vicinity of Gold Creek Pond or Keechelus Lake could be expected to provide the fish with a reliable spawning route.

3. The proposed surface modifications to Gold Creek intended to create continuous surface flow might work for a few years, but in my view, with climate change looming over us, it would be an expensive gamble and only a temporary solution. Furthermore, I believe the hypotheses suggested to justify the filling of Gold Creek Pond and Heli's Pond are overly simplistic and based upon insufficient/incomplete field data. As has been pointed out in many papers and reports, the causes for stream dewatering in Gold Creek valley are manifold: Highway construction, farming irrigation needs, heavy logging, recreational land development, climate change, gold, silver and gravel mining, etc. Time has marched on, and both the societal and natural uses of the valley continue to change. Mining of the high-quality gravel found in the valley created Gold Creek Pond which changed Gold Creek's stream hydrology, but also created the location for one of the most beautiful and heavily-used recreational sites in the Cascades. A century or more of logging in the valley impacted long reaches of the stream, but also opened up popular recreation areas for cross-country skiing, hiking, new cabin communities, spectacular picnicking sites, etc.

4. These new land uses have brought their own support requirements: parking areas, ADA trails, flood control structures and reservoirs for fire-fighting needs, to name a few. Both Gold Creek Pond and Heli's Pond have been declared important forest-fire-fighting water resources by the Snoqualmie Pass Fire Chief, and Heli's Pond also forms an integral part of the flood protection system developed for the Ski Tur Valley Homeowners Association.

5. The Navy uses Gold Creek valley as part of a military flight training route through the Cascades to practice low-level radar-avoidance flight tactics. Quite regularly (many times per week) they fly at high speed through the valley just a few hundred feet above the ground and well within the territory of our eagles, owls, marbled murrelets and other resident bird species; and in my opinion, a bird-aircraft collision is just a matter of time. Such a disaster and the ensuing forest fire would require all available surface water resources in the valley.

6. The proposed plan to anchor large woody debris in the stream bed in an attempt to re-establish continuous surface water channels for fish has some unaddressed dangers, my opinion. The selected locations for several of these structures are quite near creek-side cabins in our community. During spring flooding and seasonal Chinooks I have seen large trees that were torn from the banks upstream riding the flood waters down to Keechelus Lake. Occasionally these derelicts will broach by lodging against protrusions in the stream bed and deflect the stream flow laterally. If a stream deflection like this were caused by the anchored woody debris it could easily devastate cabins and access roads in our community. This broaching phenomenon has been observed along the stream in many locations, often starting a new "braid" in the pattern. My concern is that by

placing permanent fixtures in the stream near to our cabins, the possibility of a costly flooding event could be greatly increased.

7. Alta Mountain is located a few miles north of our cabin community on the eastern side of the valley. Its geology and location are such that it has historically generated avalanches that reach Gold Creek, disrupting its flow. One of these avalanches occurred several years ago with such force that its debris was projected across the creek and up the opposite (western) side of the valley, temporarily damming Gold Creek. While unpredictable, it seems to me that events of this type should be taken into account when characterizing downstream flow and dewatering actions.

8. The longer-range impacts of climate change in our region beg an administrative decision as to whether Gold Creek is still an appropriate bull trout spawning location. Perhaps funds in the program now held for in-stream work might better be used to ensure that the design of the Keechelus Lake fish passage system is indeed working effectively. It is the link to the lower Yakima River and other spawning channels that future generations of Gold Creek bull trout may need for their survival.

I'd be happy to chat with you personally about any of the points above. Please don't hesitate to call or email if you have any questions. Thank you.