Data Submitted (UTC 11): 4/10/2020 7:00:00 AM
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Comments: To: Michelle Capp, District Ranger

Okanogan-Wenatchee National Forest

Cle Elum Ranger District

From: Bill Ehinger

Subject: Comments Regarding the Gold Creek Valley Restoration Project

Let me begin by saying how excited I was to learn that the Gold Creek Valley Restoration Project had moved forward and had done so with such collaboration, and with well-developed scientific and ecologically based design concepts. I fully support the project moving forward with some modified version of the presented design concepts. The emphasis in coming to that final design should be on maximizing ecological aquatic connectivity and restoration, first and foremost. Then secondly consider fitting into that design, where ecologically appropriate, recreational facilities of a much more limited scale; modified in size and location, which doesn[rsquo]t impeded the restoration of the functions of the stream, floodplain or wetlands. Specifically, the facilities do not confine or constrain the redesigned floodplain or impede or alter the movement of surface stream flow, newly constructed wetland flowpaths, nor alter the movement of shallow groundwater. This should be the metric for evaluating recreational facilities in this setting.

The staff of the Forest Service, WA DFW, Yakama Nation, Conservation NW, Kittitas Conservation Trust, Mountains to Sound Greenway, Bureau of Reclamation, USFWS, Cascade Land Conservancy, Sierra Club, Forterra, Natural System Design and the private landowners in the Gold Creek Valley should all take great pride in the work that has come together in developing this project proposal. Many scientists and interested parties have labored, some for several decades, to collect water quality and flow data to understand the aquatic and riparian environments, examine historical records, and organize labor parties to restore native plants, reduce noxious weeds, encourage healthy soil development and save stranded bull trout; all the while encouraging the public to enjoy and experience this incredible setting!

In addition, the public has made enormous investments in large aquatic and terrestrial connectivity bridges for the I-90 Gold Creek crossing, and made substantial land acquisitions for habitat connectivity by conservation groups such as Forterra, using USFWS funds. While all of this work has gone on upstream, downstream and all around Gold Creek Pond, the [ldquo]elephant in the room[rdquo] in terms of hydrologic disruptions in achieving a [ldquo]properly functioning stream[rdquo] with restored aquatic connectivity and habitat for bull trout has been the ponds: Gold Creek Pond and Heli[rsquo]s Pond. I state this for the record, not because you or the cooperators

I[rsquo]ve identified above are not aware of this, but because others may look at this project and object to any action which alters these ponds, and how they have been used in the past. These ponds and their associated grading, consisting of soil and rock berms around their perimeters, and over simplified inflow and outflows are disrupting the hydrology of the valley including the stream and wetlands, and preventing the achievement of a functioning aquatic environment for bull trout. They[rsquo]ve dewatered the main Gold Creek stream channel and elevated water temperatures beyond levels sustainable for bull trout survival. The Gold Creek Pond intercepts extremely cold groundwater, all summer long, and then discharges it as surface flow in a [ldquo]ditch[rdquo] into Gold Creek at temperatures well above the State of Washington and the Okanogan-Wenatchee National Forest water quality standards.

As a professional hydrologist myself, who worked in Gold Creek and Gold Creek Pond for over 20 years hydrology I can say with strong confidence that the pond and the associated day-use facilities must be extensively modified to achieve the purpose of this project. I[rsquo]ve collected years of water temperature data in the stream and pond, evaluated stream and stream channel functions, inventoried aquatic habitats, observed streamflow regimes (both low summer flow and flood stages), and evaluated the effects of the recreation facilities on the stream and wetland. Those experiences have taught me that the size and capacities of the Gold Creek Day-Use facilities, such as parking areas, and restroom must be reduced significantly, and relocated to the east side of the valley bottom as their current configuration bisects natural flow paths and disrupts water from reaching the wetland complex south of the existing parking area.

Modifying the Gold Creek pond and day use facilities, while critically important hydrologically for bull trout, also plays another critically important ecological role. The wetland and upland forested habitats which would be restored under the proposal are critically important linkages for wildlife species to high elevation habitats in the headwaters of Gold Creek. High elevation linkage corridors are a limiting factor in the Upper Yakima River watershed. The purpose of the I-90 Wildlife bridges at Gold Creek were to provide the infrastructure which would allow this connectivity to occur between lower elevation habitats to high elevation habitats. This level of financial investment by the public in bridges over 1000 feet in length, along with the conservation land acquisitions, both for the explicit purposes of achieving these ecological connections, is extremely rare in our country as well as across the globe. In addition, it is my understanding that the US Forest Service made commitments to the WA Department of Transportation at the time these connectivity bridges were funded and built that the USFS would manage the adjacent lands to protect the effectiveness of these wildlife crossing structures. These points should be kept in mind when considering others comments which may suggest retaining the day-use area in its present configuration, or any discussions regarding facility sizes or locations (roads, parking and restroom) in such a rare and valuable habitat linkage zone.

As for developed recreation facilities, I recommend the following:

1. Recreational use needs to be significantly reduced to allow for the stream and wetland restoration for Gold Creek[rsquo]s floodplain function, as well as to allow for the development of forested wetland and upland habitats for connectivity linkages. (see next section on discussion of Concepts)
2. Any recreational use in the area need to remain strictly [ldquo]day-use[rdquo]
3. Recreational day-use visitor capacity should be regulated by the project design; limiting the capacity by limiting the numbers of parking spaces.

4. The road from FS Road 4832 to the Gold Creek Day-Use Area should remain unplowed to continue to limit winter use in the area.
5. No additional facilities such as [ldquo]Visitor Centers[rdquo] should be built in the area; not at the present location nor at other seemingly feasible locations in the Gold Creek valley as these would only increase use and potential harassment of bull trout.
6. If due to parking space limitations a proposal is entertained for bussing of recreation visitors into the area, the USFS in conjunction with cooperators will establish limits on the numbers of, and seasons which visitors are allowed into the area to protect bull trout and habitat recovery.
7. There should be a period of time established following construction of the selected pond restoration proposal, potentially up to two years, in which the area will be closed to the general public to allow adequate time for plant establishment.
8. There are no acceptable sites, ecologically, within the Gold Creek valley for expansion or further development of recreational facilities.

DESIGN CONCEPTS A, B and C

Instead of addressing each Concept individually I will select components to highlight within Concepts either as strongly desireable or undesireable from a hydrology restoration standpoint[hellip]. with a few questions for clarifications. From these comments I hope you[rsquo]ll consider designing a preferred alternative.

Questions:

Have any of these concepts factored in, or allow for some level of stream channel dynamics, including sediment delivery and transport, channel migration, etc. or are these considered to be static channels and wetlands once constructed? Reviewing Concepts A and C, while I like the placement and alignment of hydrologic features, they look susceptible to some level of channel changes and adjustment with time. Those are desirable features in this environment, but not necessarily compatible for facilities like trails and overlooks.

Why is there no [ldquo]cross-shading[rdquo] to indicate berm removal along the north side of Gold Creek Pond? I don[rsquo]t know how Concept A gets constructed without portions of that berm being removed.

Is the intent of Concept A to allow for the overbank flows from Gold Creek upstream (north side of pond) which now inundates portions of the private property to enter into the new [ldquo]Floodplain Forest[rdquo] zone in the current pond area? I think that would be a desirable feature but without the berm removal

Limit number of trails. Concept A does a nice job of this but I[rsquo]d recommend Gold Creek Loop Trail be an [ldquo]out and back[rdquo]. There is an [ldquo]out and back[rdquo] currently and it serves the public well and limits the amount of habitat disturbance necessary to support trail construction and maintenance. I[rsquo]d also suggest moving the [ldquo]Pond Overlook[rdquo] in Concept A to the NE corner of the 2 pond complex (near

smaller pond, tucked behind tree clump) as that location is not in as direct a line for potential flood energy. Also shortens an ADA trail segment which appears vulnerable to flooding.

Concept B has too many trails, is too chopped up with ponded area and too few natural flow paths designed into it. Also you can[rsquo]t keep the parking area and bathrooms in the same location as the road leading to them is as much a problem to hydrology as the parking lot itself. That road needs to be pulled out entirely of that location.

So many trails in Concepts C appear in locations where flood flows could compromise their long term sustainability.

Keep constructed wetlands and floodplain forests aligned parallel with the valley floor and flow paths. This allows for upstream overbank flood flows to enter the forested wetlands as they naturally would. Concept A does a nice job of this, even illustrating [ldquo]blue line[rdquo] streams where the habitat features are more linear and capable of receiving waters flowing into them from upstream.

Concept C does this as well allowing the creek itself to enter. That is a concept I support but don[rsquo]t know how the log jam embankment in the existing channel will backwater flood flows upstream and overtime result in a modified channel sinuosity into the Cascade Land Conservancy prop. That result and stream power may compromise the long-term

Need multiple pathways for waters to flow from constructed wetlands and floodplain forests back to Gold Creek.

Concept A does the best job at reconnecting the tributary channels from east side of the valley slope and from up valley areas back into Gold Creek. I[rsquo]d recommend adding even an additional flow path from west wetland toward main channel.

Arrows in flowpaths don[rsquo]t connect to Gold Creek. Is that because there will be no design for surface flow connections. If that is correct, I fully support no constructed surface flow connections to Gold Creek[hellip].

I[rsquo]d recommend designing the use of permeable fill materials in wetland return flow locations, set at a control elevation to allow wetland flow to move subsurface toward Gold Creek.

Parking lot and restrooms need to be moved as far toward the eastside of valley bottom as possible

Even in Concept A they are too far west; located in an existing flowpaths where a 30[rdquo] cmp gets routinely overtopped in the highest flood events. This water is from hillslope runoff and flooding from streams flowing off of the eastside valley slopes.

Consider abandoning the parking lot concept and reconstruct the road leading to the Day Use Area from FS 4832, overwidening it so parking can be accommodated along its shoulder. Then have turnaround keyhole.

I[rsquo]d have to say in reviewing my comment that Concept A is the best platform for beginning with and making modifications as I[rsquo]ve suggested.

Thank you for considering my comments.

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