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Comments: Comments on the USFS Twisp River Restoration Draft EA

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This project is badly needed and the recommended actions hopefully will carefully and adaptively proceed. The no-action alternative is out of the question given the fire-fuel loading in the project area. But from my point of view two overarching issues exist with the draft EA.

First is the issue of using heavy mechanical logging in the forested landscapes of the project area. Twisp River uplands are dominated by overstocked young trees (<10 in dbh, mostly dfir) laddering around widely spaced older trees (20+ in dbh, dfir and ponderosa), much of it on steep slopes (the prescription maps in the EA apparently are model outcomes that are not data-based at the stand level and don't seem clearly produced in relation to slope and aspect). The plan appears to count on contracting mechanical logging operations to substantially reduce the overstock but commercially harvesting large trees up to 30 in dbh (matrix thin); the contractor would also have to pile and burn the residual wood (and then someone, presumably the FS has to do the under-burning later). This only works if there is enough commercial timber to make the effort worthwhile to logging contactors. This won't leave much of a forest in these stands because there are so few trees > 30 in dbh, owing to the legacy of previous logging operations. Those few big trees are iconic but will be killed by overstock-driven wildfire. Moreover, owing to the steep slopes, the impact on soils will be substantial (resorting to sky-lining or helo logging seems absurd given the lack of merchantable timber) a fact that is not emphasized in the EA. A better solution is to mechanically thin (or masticate) and log on moderate slopes, as may be accessible without additional road building, coupled with overstock thinning (bottom up approach) by hand on the steep slopes. But, in any case, I suggest limiting the log sales to trees < 20 in dbh to insure a multi-canopy, wildlife-friendly, esthetic and fire safe forest… which is the goal of the project. Unfortunately, this more ecologically valid approach, likely will not make logging contracts worthwhile on much of the project terrain. The final EA needs to anticipate this problem, articulate it clearly and be honest about what is financially possible and what's not. This will require better data from on-the-ground surveys to clearly determine stand characteristics and proper thinning application. A good start would be a digital elevation map at 1m+ accuracy for the entire project area overlain by actual data quantifying stand characteristics (density by species, size distribution - again, from site surveys).

To be clear, take a look at the area from Tuckaway Road off Newby Creek to the crest of the ridge. I think that almost all of that area, violates the criteria for matrix over story thinning as it is classified in the EA. Indeed, some property owners (me included) have used a true bottom up prescription in the lower elevation portions of this area with DNR cooperative funding to take out all trees less than 8 inches dbh by hand, piling and burning the boughs and leaving the boles on the ground (because it is too steep to get them out safely without winching or sky-lining). That has probably left too many trees per acre as given in the EA, but none-the-less all the bigger trees are standing with substantially reduced ladder fuel and enough canopy openings to stimulate growth of trees and ground cover; the outcome is a more healthy stand and with attributes favoring wildlife.

I suggest that the EA is done well enough to proceed to phase 1 (with the exception of the >30 in dbh exclusion from sale - reduce that to 20 in) but make it clear that on-the-ground surveys and public consultation will occur before finalizing thinning prescriptions, controlled burning strategies and bidding contracts. In other words, plan the action based on the EA methodology but revise prescriptions per survey data and in cognizance with slope and aspect to curtail runoff generation. If this is done well in phase 1, the next phases will come with less controversy.

Second, the draft EA is does not present a monitoring and evaluation plan to demonstrate success of the project (return on investment in context of ecosystem services). Conforming to standardized timber harvest bmps is included in the EA but this project needs more than that. Water quantity and quality should be key metrics, especially since the Twisp River is deemed in the EA (and other management documents) as impaired by deposition of fine sediments and lack of drift wood. The USGS has a sophisticated discharge monitoring system in the Methow that should be augmented as needed to produce pre- and post-project data on water and materials flux above and below the Twisp project area including Little Bridge and Poorman Creeks. Although it is well known that fish populations are substantially influenced by out of basin bottlenecks (dams, harvest, ocean conditions), it would be great to show that the project actually contributed toward recovery of ESA listed fishes since it is a project objective. Is there a monitoring and evaluation plan for that? Indeed, the efficacy of aquatic habitat restoration is too often left out of consideration in favor of assuming "build it and they will come." On the other hand, efficacy of beaver dam analogs has been demonstrated in the John Day River by slowing channel degradation and thereby enhancing salmon production. But the jury is out on engineered log jams (ELJs): a recent report showed that ELJs produced no advantage to salmon over control sites in the Methow River (I have sent that report to Gene Shull). Studies on the Entiat River and elsewhere have shown that salmon do quickly populate scour pools created by ELJs, apparently without depopulating other habitats; but, no-one has demonstrated that these very expensive and un-naturally invasive projects have value in increasing salmon survival or increasing returns of adult salmon.
I suggest that the EA needs to present a responsive monitoring and evaluation program for the aquatic and riparian actions and done so in relation to quantifying impacts of the schedule and intensity of project-mediated changes in the uplands.

Finally, I must say that I personally am opposed to heavy mechanical equipment beating the hell out of the landscapes from the river thalweg to the ridge tops. I think that you will get substantial push back on this project unless you are more transparent about mechanical manipulation of this otherwise fairly pristine landscape. Dozer lines on all the ridge tops and feller-bunchers and forwarders working on steep slopes just does not work for me (alternatively, hand crews do work). The scars left 50-100 years ago by dozers and skidders are only now recovering (try walking a ridge line in the project area and not finding an old dozer line). Tree tipping, root wad dumping, ELJs and rock hardening actions slammed un-naturally into relatively pristine streams and rivers are anathema to me as a life-long river ecologist. Moreover I wonder about the necessity of enormously expensive wood augmentation at all; walking up the steep gradient tributaries in the recent-fire zone, such as Eagle or War Creek, it's easy to see tons of boles in frequent natural log jams (and many more boles standing dead along the stream corridor) just waiting for the big flush to the river downstream that will undoubtedly eventuate sooner than later.

That said, please understand that I think the project is a good one and I applaud you for your initiative, hard work and objectivity. Those of us that live along the Twisp are well aware of the fire fuel around us and it must be reduced before it ignites wildly. We need to work together to get there and the draft EA is a good start. But, given the scope of the project and the pandemic, you have not obtained enough input from stake holders to get the support you will need to fund the project and obtain public endorsement. Revise the project per comments in this go around and conduct some post-pandemic workshops before going ahead with phase 1 as suggested above. I would be pleased to walk around with you along the Twisp River and fire-wise uplands on my property in comparison with adjacent FS lands (these landscapes are part of phase 2).