



To: US EPA

Date: 08-19-20

RE: Comments For EPA EIS for the Columbia and Snake River TMDL's

These comments are from the Yakima County Farm Bureau (YCFB). YCFB is a grass roots organization with 3100 members consisting of farmers and ranchers with operations both large and small as well as other folks with interest in agriculture affairs in Yakima and Klickitat Counties.

The YCFB as a matter of principle is in favor of Hydroelectric power and totally opposed to breaching any Columbia River or Snake River dams. The YCFB believes that these dams should remain in operation for their entire physical life span and that they are much more valuable intact than breached, for a multitude of reasons. (Please refer to our second attachment)

The YCFB believes that the facts show that breaching the Lower Snake River Dams would negatively impact efforts to reduce the region's carbon foot print. If the region is going to be able to withstand a loss of fossil fuel based electrical generation due to artificial restraints on carbon emissions while at the same time move towards electric mobile transportation, then we simply can't afford to lose ANY renewable energy sources, much less one that provides abundant clean power such as Hydropower. Breaching dams at this stage would create a catastrophic loss of power to our grid just when all the renewables become more critical.

The life cycle of salmon varies between species but the bulk of them spend a much greater portion of their life span in the ocean than in fresh water. As the concern for environmental conditions intensifies, it is wise to consider that what happens to the salmon in the ocean proportional to the time they spend there as very impactful. As atmospheric carbon dioxide levels have come under scrutiny for influencing ocean conditions with regards to how salmon prosper in the ocean, the argument in favor of retaining all renewable, non-carbon based

electric power generation becomes much stronger. Similarly, the trend towards electric mobile transportation is also strengthening. That electricity to power our future cars, trucks and trains must also be accounted for. Our power grid and its renewable portion of it the generating capacity will be more in demand than ever to accommodate CO2 emission reductions. All at a time when the generating base is about to be drastically diminished because of the amount of electricity created by carbon based sources in the first place.

Currently, our power from Hydroelectric sources accounts for slightly less than 50% of the total generated. Wind accounts for about 9% with Solar at about 1%. Coal and other carbon based capacities account for the balance at about 40%.

It is imperative to fully consider the potential reductions to our electric generation base as a whole in the discussions of breaching any hydro power producing dams: The argument that breaching the Lower Snake River Dams only reduces our capacity by a mere 5% may appear acceptable but not when one realizes that an additional 40% of the production, that of the carbon base generation is already on the "chopping block"! The risk to our power security is not a mere 5% as in the discussion about breaching the Lower Snake River Dams nor is it just the 40% lost due to our carbon based power contribution being eliminated, rather it is a combination amounting to a staggering and untenable 45% percent loss of electric production.

With regards to the water temperature of the Snake and Columbia River the YCFB believes that though these rivers have warmer water than optimum at times during the summer that it is not out of line with what the temperature would be in natural free flowing conditions. Further, the YCFB believes that for extended periods of time the impounded water condition fosters lower overall water temperatures and thus causes a delaying effect to a seasonal temperature spike that would occur sooner under natural free flowing conditions.

The YCFB notes that the Washington State Department of Ecology has chosen or is proposing water temperature targets that are *lower* than the actual temperature of water from either river as it enters Washington State. Thus, the arbitrary limit is unrealistic and impossible to attain. The YCFB believes that Washington and Oregon must create reasonable limits for temperatures and recognize the vital resource both economically and environmentally that our hydroelectric dams provide the citizens of the region.

There is great debate as to what water temperatures were prior to the construction of the Columbia River System (CRS). There is less conjecture as to what the Snake River's water temperatures were prior to the construction of the Lower Snake River Dams. Those temperature records are revealing and illustrate that low summer flows of a natural stream that winds through a naturally hot dry region will greatly increase its temperature.

The YCFB is fully aware that impounded waters will stratify with respect to temperature with colder water deeper in the water body and warmer water at the surface. The EPA has correctly found that the impounding of water on the CRS delay the temperature rise compared to a natural running reach because the high air temperature found in the region during summer can't reach the deeper water behind each dam.

With the impoundment of water behind the dams and the stratification of colder water at the lower depths of the water column the opportunity to create Cold Water Refuges (CWR) exists. A CWR is a structure where pumps move water from lower (colder) regions of the water body behind our reservoirs upward to certain areas at the surface of the body or in other instances utilize the colder water on fish ladders for the salmon to provide a sanctuary and resting place for them during less than favorable warm season water temperatures in the River System.

Another mitigation tool that is gaining traction is the Salmon Cannon. The combination of the Cannon and a CWR to entice the upward migrating fish to these lifting devices may prove very useful.

The YCFB believes that our once successful salmon hatchery programs must be revitalized to bolster the fishery as well. The South Resident Orcas (Orcas) population increase and fall parallels the rise and fall of the hatchery fish and the State of Washington and other interests would do well to heed that fact. It has become popular on the I-5 corridor to divert attention away from the Puget Sound where so many real threats exist for the Orcas and chose to demonize the four Lower Snake River Dams, particularly when in 2016, the NOAA Fisheries under the Obama Administration assigned the threat to these marine mammals from these dams as low.

Improved regulation of the harvest of Salmon must also be "on the table". For far too long, the United States has allowed foreign interests unregulated access to our coastal areas to the detriment of the Salmon and other fish. Beyond that, our own commercial and sport fishing interests have to reduce harvests to allow

a sustainable fishery. The YCFB believes that an endangered species should not be in a “can” much less “on sale” on a grocery store shelf while Billions of dollars are invested towards mitigation of salmon habitat as well as also ensuring the highest possible fish passage survival rates at our hydroelectric dams.

The YCFB believes that the depredation of salmon must also be addressed before their populations can be stabilized. Predator reduction is simply the only recourse. The control of Cormorants has provided some success, but that needs to be pursued more aggressively and our society must make a choice with respect to the other major salmon predators: To deal with species such as Terns, Seals and Sea Lions or continue to lose vast quantities of salmon and fail to substantially increase fish runs.

The spilling of water from the dams has been used extensively and is expected to be utilized to a greater degree to control water temperature and salmon survival. The YCFB believes that there is a limit to the amount that can be spilled and help fish. That is because excessive spillage is very detrimental to fish due to dissolved gases created by the action. The water that is spilled also is not available to generate power either and that is a loss for renewable energy.

The breaching of dams is a poor tool to save various fish species when many other options exist that have been or are already about to be implemented to improve their survival without damaging our electric generation capacity, transportation system and regional economy. With the planned reductions in CO2 emissions simultaneously reducing our supply of electricity and placing added burdens on the grid by electrifying our transportation, to consider dam breaching is not simply bordering upon insanity, it is insane.

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