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11 November 2021

United States Fish and Wildlife Service
1936 California Ave, Klamath Falls, OR 97601

Project Review Committee and Environmental Assessment Team (Stantec),

As the Executive Director of Klamath Irrigation District, a quasi-municipal corporation formed under Oregon Revised Statute 545 by popular vote in 1917, representing over 1,200 agricultural producers and an additional 1,800 water users, I submit this objection to the Draft Environmental Assessment developed by Stantec for the Wetland Restoration on Upper Klamath Lake, National Wildlife Refuge Barnes Unit, Agency Lake Units, and Adjacent Lands.

The Klamath Irrigation District promotes the conservation of water, soil, and other natural resources; we establish strong partnerships with organizations dedicated to environmental restoration and enhancement projects across the Upper Klamath Basin. The Klamath Irrigation District values our stakeholders, partners, and neighbors who work towards ecological restoration projects improving wildlife habitats.

Klamath Irrigation District patrons, staff, and Directors appreciate the intent to improve water quality and habitat for the endangered C'waam and Kaptu species. It is clear USFWS spent a great deal of time and effort looking at how this action, combined with other actions, could potentially improve water quality in a small area over time. This effort is greatly appreciated and efforts such as this are likely needed for several species reliant upon the Upper Klamath Lake, to include humans.

We have spoken with several members of the community, including stakeholders whom we do not represent, about this project. Many stakeholders who support this project were unaware of the affects presented below as the USFWS roll-out of this project and the scientific analysis provided by Stantec failed to go into the sufficient depth required to fully understand the second and third order effects of the decision to breach the dikes allowing water to freely flow into the Barnes-Agency lands.

In reviewing the proposal and Environmental Assessment, our primary concern arises from the impact it has for the entire Upper Klamath Lake system. The additional lands that will be placed under shallow water will likely improve some aquatic and wildfowl habitat; however, the evaporation from open water and evapotranspiration (ET) from plants will be much greater in this area than is currently observed. Initial analysis indicates more than 50% of the increased storage created by this project will be lost to ET, with 27,000 to 46,000 acre-feet of water loss. This amount of loss is more than the water-right holders within the Klamath Project received in 2021; this amount is more

than the full-water right and combined need of Shasta View Irrigation District, Malin Irrigation District, Enterprise Irrigation District, Sunnyside Irrigation District, Poe Valley Improvement District, and Pine Grove Irrigation District to which we are contractually obligated to deliver irrigation water from Upper Klamath Lake. With a Net Storage Capacity of 63,400, it appears 46,050 will be lost to evaporation annually. (See Table 1)

Table 1: Estimated minimum and maximum ET and storage within A-B project area under selected seasonal and water level conditions

Calculation:	ET in acre-feet		Storage capacity (acre-feet)		Net storage capacity (acre-feet)	
Water level condition:	**Low**	**High**	**Low**	**High**	**Low**	**High**
High water	10,600	19,100	16,900	73,100	6,370	54,000
Receding	9,300	16,100	12,200	50,600	2,920	34,500
Low water	893	1,220	14,800	27,300	13,900	26,100
Filling	6,550	9,630	26,300	73,100	19,800	63,400
Annual total range	27,343	46,050				

Note: Net storage volume calculated by subtracting ET from storage volume for corresponding minimum and maximum conditions

This loss of water to evaporation exacerbates water shortage issues for the Tule Lake and Lower Klamath National Wildlife Refuges. In 2020 and 2021, the lack of water on these refuges has changed the Pacific Flyway, injured wildlife on both private and public lands, eliminated aquatic habitat for endangered C'waam and Kaptu in the Tule Lake Sumps, impacted shallow domestic wells, in addition to creating socioeconomic and mental health issues in the community.

Second, the Environmental Assessment appears to ignore multi-year effects on endangered species needs. The charts provided in Appendix A of the USFWS Environmental Assessment present changes in lake levels which are misleading and missing critical data related to the endangered C'waam and Kaptu, impacts to downriver flows, and impacts to other water users.

In Figure 1 below, Reclamation's analysis on the impact to the endangered C'waam and Kaptu species illustrates the changes in lake elevation over time given both the U.S. Bureau of Reclamation's Interim Operations Plan (IOP) and the anticipated impact from the USFWS Barnes Agency project. 2010 is one of seven years where the Klamath Project would be prohibited from irrigating or delayed in starting the irrigation season devastating the economic engine of the Klamath Basin.

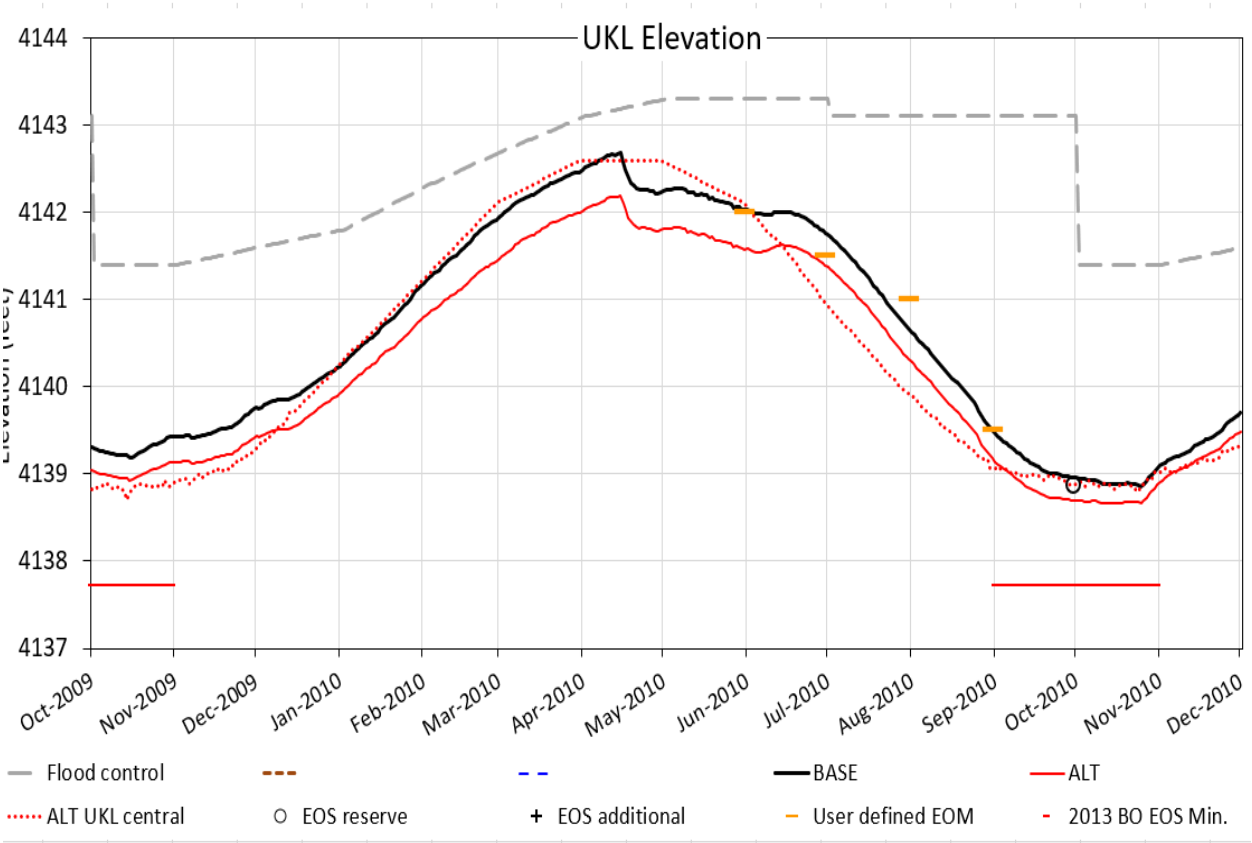

Figure 1 Reclamation's analysis of the USFWS Barnes Agency Project on UKL levels in 2010

The orange bars on this chart indicate the USFWS minimum lake levels for Upper Klamath Lake given in their most recent Biological Opinion for Upper Klamath Lake. The black line shows what the lake level would look during the water year like given Reclamation's current IOP if it were in effect since 1981. The solid redline shows the impact of the Barns-Agency project were to have taken place given the same exact conditions. Please note that with the Barnes Agency project, Reclamation is unable to maintain the minimum lake elevations for the C'waam and Kaptu as designated by the USFWS biological opinion for Upper Klamath Lake, and would result in NO irrigation water from Upper Klamath Lake without the threat of take of an endangered species, similar to 2021 in violation of many Reclamation contracts. The affect of this project must result in yet another ESA consultation process, increasing costs for all Federal, State, and local governments with the majority of the burden on farmers and ranchers in the Klamath Basin.

A similar occurrence is observed given the 2020 conditions shown in Figure 2. The orange dotted line added to this graph demonstrate the actual conditions as they were executed under Reclamation's modified IOP. The reduced lake elevations with the USFWS Barnes Agency project conflict with USFWS's minimum lake level demands in their Biological Opinion for Upper Klamath Lake.

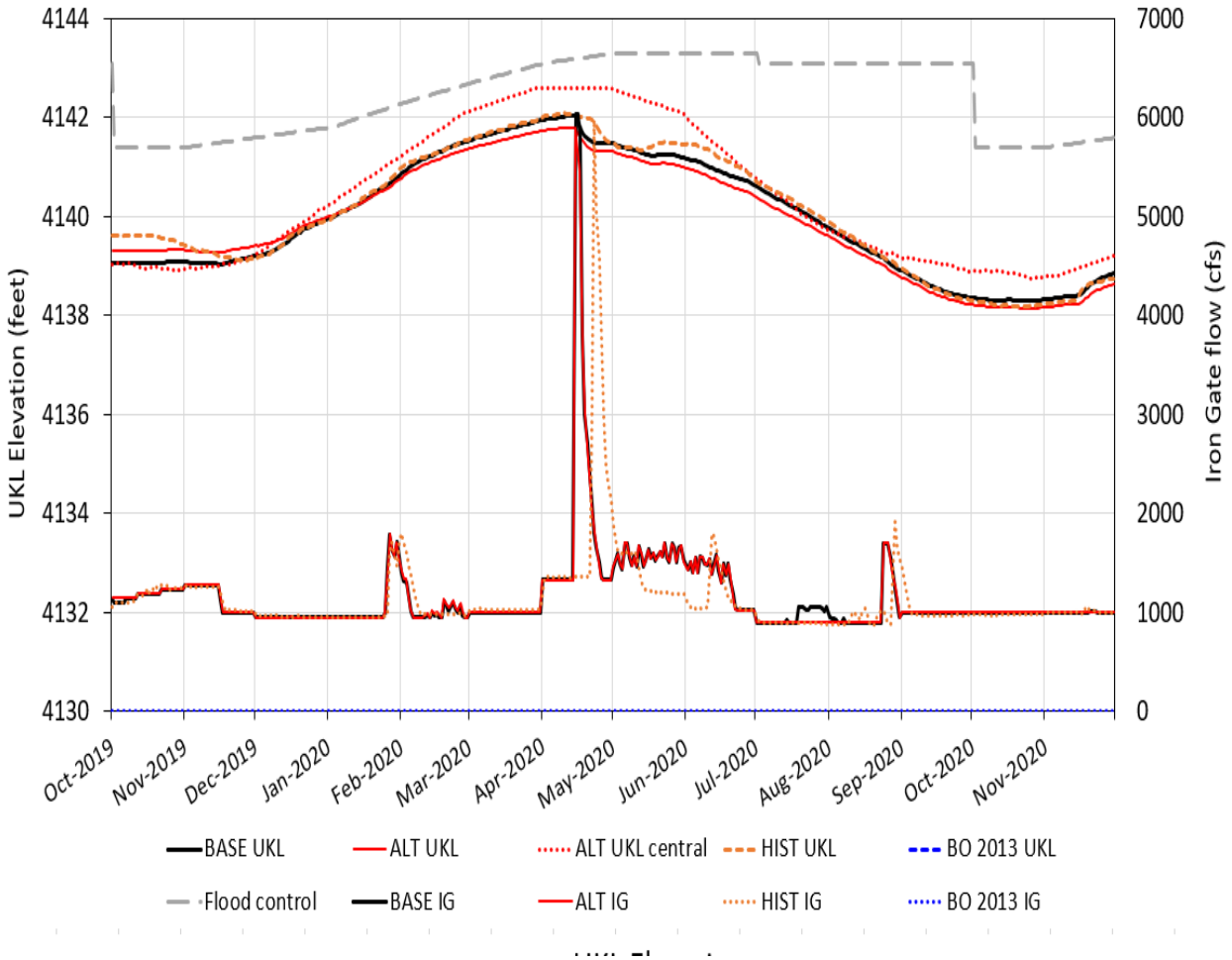

Figure 2 Reclamation's assessment of the USFWS Barnes-Agency Project on UKL levels in 2020

Under the IOP, a 30-year analysis of this project indicates up to 7 additional years of irrigation delayed starts beyond 1 June. Crops are best irrigated in the spring for the best yield and reduced water consumption. Water delivered too late to crops unnecessarily increases water use and water demand. Although Reclamation's analysis of the plan indicates, on average, the Klamath Project will lose 1,000 acre-feet of water each year (with a maximum anticipated loss of 21,000 acre-feet), the analysis indicates the Klamath River below Keno will loose on average 37,000 acre-feet of water per year (with a range of loss between 4,000 and 75,000 acre feet.) See Figure 3.

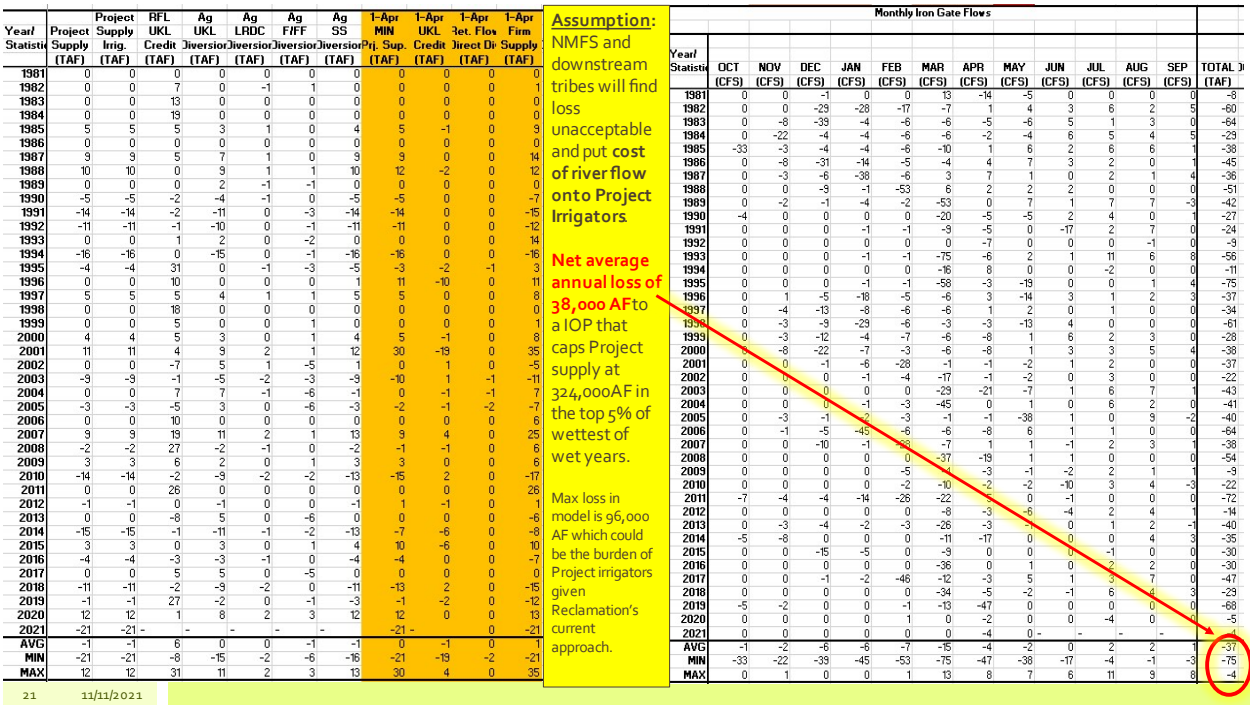

Figure 3 Reclamation's analysis of losses to Upper Klamath Lake supply for the Klamath Project and for the Environmental Water Account for salmonoids and ESA requirements.

Given that the National Marine Fisheries and other downstream interest holders write conflicting Biological Opinions demanding more water from the Upper Klamath Lake system, it is counter intuitive to believe they will accept to pay this cost. It is more likely, during consultation efforts, the burden of this action will be squarely placed upon the shoulders of the Klamath Project irrigators and lawful owners of the water stored in Upper Klamath Lake.

Furthermore, the Environmental Assessment does not address the timing of the breech. The timing greatly influences the initial loss of lake elevation required for USFWS biological opinions. Engineers I've spoken with indicate the best time for this project to occur is at the low water mark (mid-October) requiring the least amount of impact on lake elevation, less erosion, and less shock to the environment. However, the Biological Opinion prohibits the lake from going below an artificially high elevation. Under the best conditions identified by engineers to breach the dike, it creates a negative impact to the minimum lake levels in USFWS biological opinion.

In contrast, environmentalists and fish biologists I have spoken with state the best time to breach the dike is during high-water and during a heavy rain event. Breaching the dike during a while the lake is higher in elevation will have a larger environmental impact, create a greater than 2% change in the lake level, and potentially impact C'waam and Kaptu access to spawning areas.

Klamath Irrigation District adheres to Oregon State law and is the trustee for several water-rights related to the waters available in Upper Klamath Lake. The draft EA does not address how our water rights will be protected, nor what water-rights the USFWS is

utilizing to increase storage in Upper Klamath Lake. Under Oregon State law, a water right is necessary to store water. We are unaware of any water-right application or water-right permit or certificate currently in place which would allow the storage of water above or separate from what is lawfully stored in Upper Klamath Lake for the sole purpose of irrigation. The farmers and ranchers of the Klamath Project pay 100% of all operations and maintenance costs of the control mechanism to the natural lake. The data provided above indicates this action will cause harm to our patrons and other water-right holders we serve.

This action, as presented, does not bring unity to our community. This action, as presented, does not help our communities work together to solve complex problems. In reviewing recent Oregon Water Resources Department accounting for water in Upper Klamath Lake, the State is assessing all natural evaporation on this natural body of water is the sole burden of the Klamath Project irrigators; nature, USFWS, NMFS, nor any other water user bear the burden of natural evaporation across the natural reservoir. Increasing evaporation creates additional harm to our patrons.

This project, as presented, is anticipated to create damage and harm which we cannot support.

Therefore, we humbly ask for USFWS to reevaluate this project. We believe a detailed environmental impact statement is required, clearly articulating the timing of the breach and mitigating factors which could impact the C'waam and Kaptu. This plan needs to also address the negative impacts on the Klamath Project, how USFWS is going to mitigate the irrational demands of the National Marine Fisheries Service, and how USFWS is going to assist Reclamation be in compliance with Oregon State law and its contractual obligations.

Sincerely,

Gene R. Souza

Gene R. Souza
Executive Director and District Manager
Klamath Irrigation District