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Public Comments Processing
Attn: Docket No. FWS–R8–ES-2011–0097
Division of Policy and Directives Management
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To Whom It May Concern,

These comments were formulated on behalf of the Resighini Rancheria, a federally recognized Tribe located at the top of the Klamath River estuary about three miles above its convergence with the Pacific Ocean. Since the Resighini Rancheria members rely on the river for sustenance, as they have since time immemorial, the success or failure of the Klamath Basin Restoration Agreement (KBRA) and Klamath Hydropower Settlement Agreement (KHSA) will have profound and long-lasting impact on them. The reason these comments on Critical Habitat for Lost River suckers (*Deltistes luxatus*) and shortnose sucker (*Chasmistes brevirostris*) are being offered is because these fish are the indicator species of Upper Klamath Basin ecological health and because restoration of the lakes and marshes that support them is also necessary to restore lower Klamath River water quality and to prevent the decline and extinction of salmon.

The Critical Habitat proposal (Federal Register /Vol. 76, No. 235, 12/7/2011) constitutes Jeopardy for both sucker species with only 27% of the habitat recommended in the original U.S. Fish and Wildlife Service (USFWS 1993) Recovery Plan. The omission of Critical Habitat in Siskiyou County is clearly political and in conjunction with implementation of the KBRA. These comments are relatively brief, but there is a great deal of supporting documentation within numerous documents the Resighini Rancheria has filed with the Department of Interior (DOI) regarding the Klamath Hydropower Project Facilities Removal Draft Environment Impact Statement and Environmental Impact Report (DEIS/DEIR) (Resighini Rancheria 2011a, 2011b, Higgins 2011a, 2011b). These comments characterize prospects for sucker species survival with the implementation of the KBRA and they are attached as appendices to these comments as supporting information for Critical Habitat recommendations.

Upper Klamath Lake: Wetland Research Consortium (WRC 2009) demonstrated that marshes have algicidal properties. Marsh restoration is the only way that Upper Klamath Lake water quality problems can be remediated. The USFWS revised Critical Habitat needs to include a complete marsh perimeter around the lake to arrest blue-green algae blooms and restore the ecological balance of the lake. The KBRA and its high priority for water storage for delivery to the Klamath Irrigation Project have caused marsh restoration to be subverted. Land subsidence created a need to add substrate at an appropriate grade to restore marsh function, but instead subsided areas are being traded for additional water storage. USFWS acknowledges that the endangered sucker populations in Upper Klamath Lake are declining between 10 to 20 percent a year. The Native Fish expert Panel (Buchanan et al. 2010) for the KBRA also expressed grave concern about Upper Klamath Lake suckers, if rapid restoration actions were not implemented.

USGS (Sullivan et al. 2010) has noted that the biomass from Upper Klamath Lake by itself can shut down dissolved oxygen in the Keno Reservoir downstream for weeks a year. The Chinook Expert Panel (Goodwin et al. 2010) convened to assess KBRA prospects of success said that not enough was being done to abate nutrients at their source in the Upper Klamath Basin and that the Keno Reservoir would likely continue suffer from persistent anoxia. Thus, Upper Klamath Lake algae suppression is also necessary for sucker recovery in the Keno Reservoir reach, where they formerly thrived, and for salmon recovery and successful Upper Basin re-introduction.

Keno Reservoir/Lower Klamath Lake: USFWS needs to designate Lower Klamath Lake as Critical Habitat as recommended by NRC (2004). In addition, ecological function needs to be restored in the Keno Reservoir reach and it too needs to be designated Critical Habitat. Dredging and diking have separated the marshes and floodplain from the Klamath River, which is helping promote anoxia. Instead of the U.S. Bureau of Reclamation (BOR) managing this reach as it has been since 1966, as recommended in the KHSR, acquisitions or easements are needed to re-connect marshes and floodplains to clean up the water.

Both Lytle (2000) and Mayer (2005) proved that running more agricultural tailwater in the Upper Klamath through marshes could filter nutrients and improve water quality. Lower Klamath Lake was historically the water purification and water storage system for the Klamath River and that ecological function needs to be restored to shift the hydrology and water quality back towards their normal historic range of variability.

Lower Lost River/Tule Lake: The lower Lost River is no longer functional habitat for spawning and rearing (Shively et al. 2000). This is historic habitat needs to have marshes adjacent to the stream restored and the flood plain reconnected as well as fish passage remedied. Since there are more than 1,000 each of Lost River and shortnose suckers in Tule Lake, restoration of Lower Lost River spawning habitat needs to be part of a viable Recovery Plan. Snyder-Conn et al. (1999) characterized Tule Lake as a refuge area for Lost River and shortnose suckers and noted good condition and low disease rate there. Thus Tule Lake was considered a place where suckers could be taken in the event of

problems in other ecosystems. The fact that Tule Lake is not listed as Critical Habitat is a gross omission. The population is one of the last remnants outside Clear Lake and Upper Klamath Lake. Suckers in Tule Lake were present when the species was listed, and are present today, therefore, USFWS and DOI must list Tule Lake as Critical Habitat to comply with protection requirements that prevent populations from being lost in a "significant portion of its range" (SPOIR).

The Amendment to the April, 2008, Formal Consultation on the Bureau of Reclamation's Proposed Klamath Project Operations from 2008 to 2018 (Service File 8-10-08-F-070070) is very alarming in that it envisioned moving the entire populations of both species of endangered sucker fish out of Tule Lake in anticipation of it being dried up in 2010, which was not an extreme drought year. The fact that the USFWS violated its own Biological Opinion in 2009 and was allowing lake levels of both Tule Sump B and Clear Lake to fall below agreed upon levels is in fact Jeopardy in that it puts two out of three of these populations at risk.

Clear Lake: While it is good for suckers that the height of the impoundment at the outlet of Clear Lake has been raised to increase lake volume, the USFWS (2009) allowing lake levels to drop below BO designations poses a threat to the population there. If water levels drop too low during severe cold, anoxia may develop under the ice if suckers become too crowded. Grazing should also be disallowed in the bed of Clear Lake on the National Wildlife Refuge. Critical Habitat designated above on U.S. Forest Service land also needs to have very restricted grazing levels.

If the USFWS stays with its current Critical Habitat designation, sucker extinction in the next 50 years is highly likely. Please consider the above recommendations.

Sincerely,

A handwritten signature in black ink, appearing to read 'Patrick Higgins', with a stylized flourish extending from the end.

Patrick Higgins
Consulting Fisheries Biologist

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