{This correspondence has received epost address and this statement editing only}

02/26/2021

Dear H&N Reporter Mr. Schwartz:

Herewith is a copy of my 02/22/2021 letter for H&N Editor T. Trainor, that today in another letter for you, I promised that I would try and forward.

Thank you for processing this correspondence.

Respectfully yours,

Danny Hull

----- Forwarded Message ------

Subject: Danny Hull's 02/22/2021 Letter for the Editor

Date: Mon, 22 Feb 2021 14:35:01 -0700

From: Danny Hull

To:

Dear H&N Editor T. Trainor:

Herewith is a copy of my current 02/22/2021 letter for the H&N, along with references.

Respectfully yours,

Danny Hull, B.S. Biology 02/22/2021

Per climate change, how to have most our Klamath River Basin fish, agriculture, water conservation, and clean renewable hydroelectric power? Answer: Adequate federally owned dams. A recent hose assembly (https://www.whooshh.com/) that automatically sorts upriver migrating fish and/or transports them over dams, is safe and cost effective for fish.

I'm not surprised that BOR seeks to optimize sucker reproduction with irrigation diversion flow-adjusted Upper Klamath Lake (UKL) levels and Link River Dam. Before maximum water el. 4,146.2' Link River Dam's 1921 construction as primarily a diversion dam, Link River's minimum UKL-derived water flow, was per Link River's natural Putnam's Point el. 4,137.8' reef in Link River, that was artificially removed, reportedly in 1917. From 3/13/2001 H&N: Klamath Lake ... elevations set at maximum ... of 4,143.3' ... and minimum ... of 4,137.0' ... to protect diked riparian property.... Recall removal of Chiloquin City Sprague River Dam for upriver spawning run access for suckers (https://www.fws.gov/cno/pdf/BiOps/FWS-BiOp-Klamath-Project-Operation-VI508.pdf pg 92) that wouldn't ascend the dam fish ladder? I suspect nonnative fish species, especially catfish, prey on local suckers. Species extinction naturally happens, like bison naturally emit biocycle greenhouse gas methane.

"The Lost River sucker historically occurred in Upper Klamath Lake ... and its tributaries and the Lost River watershed, Tule Lake, Lower Klamath Lake, and Sheepy Lake Shortnose suckers historically occurred throughout Upper Klamath Lake and its tributaries The present distribution of both species includes Upper Klamath Lake and its tributaries ..., Clear Lake Reservoir and its tributaries ..., Tule Lake and Lost River up to Anderson-Rose Dam ..., and the Klamath River downstream of Iron Gate Reservoir (USFWS 1993). Shortnose suckers occur in Gerber Reservoir and its tributaries, but Lost River suckers do not." (12/2018 Lower Klamath Project License Surrender DEIR pg 3-220) Gerber Reservoir Dam impounds the historically seasonal Miller Creek.

Post Script: "maximum water el. 4,146.2" may be found of the "Details" tab @ https://www.usbr.gov/projects/index.php?id=172 Reclamation/Projects & Facilities/Dams /Link River Diversion Dam:

"reportedly in 1917" is derived from "USGS Staff -- Published Research US Geological Survey 2004

<u>The History of Recent Limnological Changes and Human Impact on Upper Klamath Lake, Oregon</u> "pg

155;

"The Lost River sucker historically occurred in . . . the Klamath River downstream of Iron Gate Reservoir (USFWS 1993)." is derived from DRAFT • DECEMBER 2018 Environmental Impact Report for the Lower Klamath Project License Surrender Volume I (copied herewith of "Ca Waterboard EIR for Lower Klam Project License Surrender vol 1.pdf");

"el. 4,137.8' reef "is derived from J.C. Boyle's "50 Years on the Klamath", and from Herald & News, and "Klamath Lake ... riparian property...." is derived from Herald & News:

Lewis Ferber Wildlife Service tries to circumvent Klamath River Compact

• By Lewis Furber Herald & News Mar 13, 2001

John C. Boyle was head construction engineer and later vice-president of California Oregon Power Company (COPCO), later named Pacific Power and Light (PP&L). He built Link River Dam and most of the dams on the Klamath River. He had his detailed engineering surveys as well as complete access to all the company contracts and negotiations.

In his book, "50 Years on the Klamath," he writes, "Link River, which is about one mile in length heads in the Upper Klamath Lake and flows into Lake Ewauna. It is entirely within the city limits of Klamath Falls. The headwater originally flowed over a natural reef approximately 4,137.8 feet above sea level."

The "mullets," now called Lost River and shortnose suckers, did just fine at that elevation. This reef controlled the elevation of Upper Klamath Lake since ancient times (probably about 6,600 to 7,000 years ago when Mount Mazama erupted with 42 times the force of Mount St. Helens and formed Crater Lake. The earthquakes accompanying this cataclysm changed the topography of this area).

Link River Dam was completed by Copco in 1921 to add storage to the Klamath Lake with contract lake elevations set at maximum elevation of 4,143.3 feet above sea level and minimum elevation of 4,137.0 feet to equal 6.3 feet storage. The maximum level was set to protect diked riparian lake property from the year-round artificial flood stage created by the dam.

Quoting from John Boyle's book: "The volume of water in the lake at elevation 4,137 feet was computed at 463,000 acre feet (dead storage). The volume of the lake with open water surface at 4,143.3 feet was computed at 880,000 acre feet (live storage 417,000 acre feet). Water covering swamp and overflowed land would add about 132,900 acre feet to live storage making a total of 549,000 acre feet."

On Jan. 31, 1956, the old contract of Feb. 24, 1917, for the Link River Dam was extended until 2006. Shortly thereafter, a formal treaty called the Klamath River Compact was negotiated between the states of Oregon and California, and ratified by the U. S. Congress April 17, 1957. It set the priorities for use of the Upper Klamath Lake water stored by Link River Dam. Domestic water is first, and irrigation water second. All other uses have lower priority.

Now the U.S. Fish and Wildlife Service is attempting to circumvent the Compact treaty by using the Endangered Species Act. It has listed a "biological opinion" that suckers are endangered in order to grab control of the stored water in the Upper Klamath Basin and use it for a purpose that was not intended.

Sprague River dam was completed in 1918 by the United States Indian Service just above the confluence of the Sprague and Williamson Rivers near the town of Chiloquin (without a decent fish ladder even for trout). It is owned by the Bureau of Indian Affairs and is used by the Modoc Point Irrigation District. This dam blocked 95 percent of the suckers' principal spawning stream for Upper Klamath Lake. They now make do with the short section of Sprague River below the dam and a short section of Williamson River suitable for spawning below the confluence. Luckily, they live for 30 to 40 years.

In the Salmon and Steelhead Feasibility Study, April 1966, by John Fortune, Jr. and Art Gerlach of the Oregon State Game Commission, and C.J. Hanel, California Oregon Power Co., it is stated on page 80, "The fish ladders on (Sprague River) dam are impassible." That is for salmon and steelhead. How could a sucker be expected to do better?

I understand the Klamath Tribe has a fish hatchery above the dam near the old Bray Lumber Co. mill site. I wonder why they are not stocking a hundred thousand or so suckers every year in Sprague River? Is it because they know they are not really endangered? The annual run should be going next month, a good time to be collecting a big batch of eggs and easily solve the problem, if there really is one.

Does Upper Klamath Lake need to be kept high to dilute pollution for suckers? The rainbow trout are doing fine. They are caught all around the lake including in Link River within the city limits. Several companies are gathering blue-green algae from the lake and selling it for human consumption worldwide.

Clear Lake Dam was built by the U.S. Bureau of Reclamation in 1910 at the head of Lost River to hold back water so Tule Lake could be dried up, and for irrigation by Horsefly Irrigation District on the west side of Langell Valley. Man-made Clear Lake has a healthy population of so-called "endangered" suckers despite almost drying up during several dry years.

The Lost River Diversion (Horseshoe Dam/Wilson Reser-voir) was completed early in 1912 by the U.S. Bureau of Recla-mation. It diverts water to irrigate some of the east side of the Klamath Project. Also that year the Lost

River Diversion Canal was built from Horseshoe Dam to the Klamath River. It was used early on to expedite the drying up of Tule Lake. Last year USBR flowed water out of Clear Lake (over the vigorous protest of Langel Valley irrigators) through the Lost River Diversion Canal and down the Klamath River for salmon in the lower river. This was water that was never historically available for Klamath River Salmon.

In 1925 Gerber Dam was completed on Miller Creek, a principal tributary of Lost River. The reservoir was built to store water for irrigating the east side of Langell Valley. Gerber Reservoir also has a healthy population of suckers despite almost going dry in 1992. On Oct. 27, 1922, when Tule Lake was mostly dried up, a grateful nation awarded to qualified Word War I veterans, by the drawing of lots, family-sized irrigated homesteads. In those days 80 irrigated acres would support a farm family.

As the lake bed irrigation system was further developed, more homesteads were awarded. The last drawings, for World War II veterans, were on March I, 1948 and on Feb. 23, 1949. I put my name in but was not lucky. The town of Tulelake and fertile irrigated family farms now sit on Lost River sucker and shortnose sucker habitat.

Who wants to trade back?

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Mozilla Thunderbird makes it easy to share large files over email.

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