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Re: Yuba River Biological Opinion for the U.S. Army Corps of Engineers

Dear Mr. Thom, Ms. Marcinkevage, and Ms. McBride,

It has been more than a year since the Ninth Circuit Federal Court of Appeals mandated that the National Marine Fisheries Service (NMFS) reassess its legally flawed 2014 Yuba River Biological Opinion (BO) and concurrence. At this moment NMFS is faced with a crucial decision: whether to reinitiate consultation and issue a new BO to the U.S. Army Corps of Engineers (USACE or “Corps”) that protects the Yuba River watershed's threatened fish species, or to stand by the fatally flawed 2014 opinions.

The South Yuba River Citizens League (SYRCL), Friends of the River, and their undersigned coalition partners urge NMFS to reassert its authority and take the long overdue action needed to ensure that Yuba River salmon, steelhead, and green sturgeon can survive, recover to delisted Endangered Species Act (ESA) status, and become self-sustaining, healthy populations. **NMFS must fulfill its ESA obligations, rescind the 2014 opinions, and issue a new Biological Opinion to the USACE for its actions in the Yuba River watershed.**

## **I. Introduction.**

The South Yuba River Citizens League (SYRCL) was founded in 1983 by grassroots activists determined to protect the South Yuba River from dams. Ultimately, SYRCL won permanent protections for 39 miles of the South Yuba River under California’s Wild and Scenic Rivers Act. Today, SYRCL unites the community to protect and restore the Yuba River watershed. With 37 years of achievements, 3,500 members and 1,300 active volunteers, SYRCL is doing great things for the Yuba River watershed.

SYRCL’s *Yuba Salmon Now* Campaign envisions a day when wild salmon swim freely from the summit to the sea— liberated from the threat of extinction and restored to their ecological prominence in our natural heritage—and once again provide jobs, world-renowned fishing, and a source of healthy food. Through advocacy, science, restoration, and education

programs, SYRCL leads a comprehensive effort to recover salmon, steelhead, and green sturgeon populations within the Yuba River watershed. Today, SYRCL is working to rehabilitate more than 250 acres of floodplain and side channel habitat for juvenile salmonids. In addition, SYRCL sends hundreds of local students each year on a rafting or hiking expedition to learn about salmon and the Yuba River watershed. Finally, SYRCL advocates for higher river flows, habitat restoration, fish passage over dams, and gravel augmentation with federal, state, and local agencies. SYRCL writes to NMFS to fulfill these campaign objectives and further sustainable and holistic watershed-wide management of threatened fisheries.

SYRCL's efforts in the *Yuba Salmon Now* campaign are strengthened by many other organizations, representing a wide array of interests and diverse stakeholders.

Friends of the River is a non-profit organization founded in 1973 and has more than 3,000 members dedicated to the protection, preservation, and restoration of California's rivers, streams, and aquatic ecosystems. Friends of the River advocates to protect the remaining free flowing rivers in California and advances innovative water solutions that are more environmentally sound, economically efficient and yield meaningful amounts of water for all Californians. Friends of the River's members hike, boat, fish, and swim in the Yuba River watershed, and are therefore invested in the protection of threatened fisheries for all who live there.

SYRCL, Friends of the River, and the other organizations signed below believe that a focus on restoration of wild salmon, steelhead, and green sturgeon populations in the Yuba River watershed is a sound approach to improving broader ecosystem benefits. Wild salmon, steelhead, and green sturgeon populations depend on diverse and healthy aquatic, riparian, and floodplain habitats. Restoration and enhancement of these habitats benefit all other native species and the ecosystem on which they depend. Additionally, abundant wild salmon populations with access to diverse habitats provide the benefit of supplying dispersed marine-derived nutrients that augment ecosystem productivity (Gende *et al.* 2002), as well as enormous economic benefit to human communities (FishBio 2014).

A new Biological Opinion from NMFS on the lower Yuba River is critically needed for the following reasons:

- The dramatic decrease in fish populations in the Yuba River watershed since 2010 (Poxon and Bratovich 2020).
- No additional environmental protections or required increased flows from any other regulatory process since 2014.
- The existential threat of climate change will make conditions worse for the entire watershed and the animals and people who live there (California Fourth Climate Change Assessment 2018).
- Green sturgeon were confirmed to spawn in the lower Yuba River since the 2014 BO was issued, and therefore need to be considered.

The coalition requests that NMFS immediately re-initiate consultation with the Corps. Further, the coalition requests an opportunity, through meetings and/or comments, to provide additional information and data to inform the new Biological Opinion.

## **II. History and Current Status of Threatened Species in the Yuba River Watershed.**

The Yuba River watershed is home to three Federally threatened, anadromous fish species: Central Valley (CV) Spring-run Chinook salmon (listed 11/15/1999), California Central Valley (CCV) steelhead (listed 10/17/1997), and southern distinct population segment (DPS) green sturgeon (listed 6/6/2006). Historically, these fish had access to all three forks of the Yuba River only impeded by natural barriers high in the watershed (North Fork: Up to the mouth of Salmon Creek; Middle Fork: Falls one mile upstream of juncture with the North Fork; South Fork: Falls 0.5 miles downstream of Humbug Creek; Yoshiyama *et al.* 2001). Today, Daguerre Point Dam (river mile 11.5) blocks passage of green sturgeon and Englebright Dam (river mile 23.9) blocks passage of Chinook salmon and steelhead. The lower Yuba River is designated critical habitat for all three species (NOAA 2005, NOAA 2009).

In 1998, the United States Fish and Wildlife Service's Anadromous Fish Restoration Program aimed to double natural production of CV Chinook salmon (USFWS 2001). A major basis of recovery efforts for salmonids listed under the ESA is that there is a strong relationship between freshwater rearing and spawning habitat quantity and quality and salmonid abundance (Roni *et al.* 2014). This is a key component of recovery plans and BOs for salmon and steelhead. Because of this assumption, the following remains critical: restoring rearing and spawning habitats, restoring volitional passage of anadromous fish above Englebright Dam, implementing sustainable flows that inundate key habitat features, and managing the watershed holistically.

### **A. Status of Central Valley Spring-run Chinook in the Yuba River Watershed.**

Spring-run Chinook salmon were historically the largest salmon run in the Central Valley with numbers ranging up to 1 million (+/- 500,000) returning adults annually (Yoshiyama *et al.* 1998) and 15% of those entering the Yuba River watershed (Yoshiyama *et al.* 2001). Annual abundance within the Yuba River has decreased dramatically due to legacy impacts of hydraulic mining (Yoshiyama *et al.* 2001), severing of habitat with the construction of Englebright Dam (Petts 1984), mixing of wild Yuba fish with hatchery strays from the Feather River Hatchery (Sturrock and Johnson 2013), and poor flow management. A recent update on fish counts from the Daguerre Point Dam VAKI Riverwatcher camera array suggests that from 2015 to 2019, an average of only 439 Spring-run Chinook salmon ascended the fish ladders (Poxon and Bratovich 2020).<sup>1</sup> These low abundances come years after the drought in California from 2012 to 2016, one of the most extreme periods of drought in recent California history.

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<sup>1</sup> Please note that data from 2016 and 2017 is not included in this average estimate as there was insufficient data to separate the Chinook salmon counts by run; however, those years saw a total of 1,888 and 1,644 total Chinook, respectively. These are the second and third lowest total counts since the installation of the camera system in 2004.

## **B. Status of California Central Valley Steelhead in the Yuba River Watershed.**

It is difficult to estimate the historic population size of CCV steelhead. By some estimates, historic populations of CCV steelhead may have ranged from 1 to 2 million returning adults annually (McEwan 2002), while more conservative estimates put the population in the 50,000-100,000 range (Moyle *et al.* 2017). The population of CCV steelhead have significantly declined due to the construction of rim dams across California which have eliminated 80% of CCV steelhead historic range (Lindley *et al.* 2006), and other anthropogenic disturbances. Current annual returns across the entire Central Valley are estimated to be about 4,600 adult steelhead returning annually (Moyle *et al.* 2017).

Lindley *et al.* (2006) estimate that there were historically 1,215.5 km of steelhead habitat in the Yuba River watershed and that Englebright Dam severs 75.01-99.0% of that habitat. Consequently, the returns to the lower Yuba River have dropped. The Daguerre Point Dam VAKI Riverwatcher cameras identify *Oncorhynchus mykiss* to species but do not distinguish steelhead from nonanadromous rainbow trout. Instead, by using 16 inches as a size metric to identify steelhead, LYR CCV steelhead population size can be estimated. From 2004 to 2016 (the extent of available data), an average of 217 steelhead were counted by the cameras, but during the drought from 2012 to 2016, an average of *only 91 were counted* (VAKI Data).

## **C. Status of Southern Distinct Population Segment (sDPS) Green Sturgeon in the Yuba River Watershed.**

The sDPS Green Sturgeon are understudied, long-lived fish that reach sexual maturity at 15 years old. While they spend most of their lives in marine and estuarine environments, they rely on freshwaters for spawning and rearing of young juveniles. Due to a lack of distinction between species and population segments during historic harvest, there is no reliable historic population estimate. An estimate of the total population size in 2015 was only 17,548, of which only 2,106 were sexually mature adults (Mora *et al.* 2018). Annual run size into the Sacramento River drainage was found to be between 336 and 1,236 individuals between 2010 and 2015 (Mora *et al.* 2018).

In 2018, California Department of Fish and Wildlife recorded sDPS green sturgeon spawning in the lower Yuba River for the first time just below Daguerre Point Dam (CDFW 2019). This highlights the importance of the Yuba River watershed for the continued persistence of this species, and as such, NMFS listed the Yuba River as critical habitat for sDPS green sturgeon during the five-year review of their recovery plan (NMFS 2018). The updated recovery plan lists regulatory mechanisms of sturgeon passage improvement at DPD as inadequate and that they have “contributed significantly to the decline of sDPS green sturgeon” (NMFS 2018). Volitional passage past Daguerre Point Dam, either through redesigned fish ladders or through the decommissioning of the dam and redesign of its water diversions, will open up an additional 12.4 miles of river habitat for spawning adult sDPS green sturgeon and rearing juveniles.

### **III. The New Biological Opinion is Urgent and Critical to the Future Health and Survival of Yuba River Watershed Fisheries.**

There is no dispute that the USACE Yuba River dams and some USACE permitted actions by the Yuba County Water Agency (YCWA) and Hallwood Irrigation Company and Cordua Irrigation District are harming the Yuba's threatened fisheries. They are clinging precariously to survival. As noted above, the harm has been described in detail in four Biological Opinions. Scientists with NMFS, the U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife have also known for decades what actions the USACE should take to ensure its dams and permitted activities do not jeopardize the survival or recovery of Yuba's threatened fish. NMFS' 2012 BO did an excellent job of laying out for the USACE the actions it should take to comply with the ESA. Unfortunately, NMFS replaced the 2012 opinion with the flawed and inadequate 2014 opinions.

Nowhere is the USACE's deviation from past NMFS' BOs more apparent than in the Corps' Yuba River Ecosystem Restoration Project. As NMFS is well aware, the Project began as a Fish Passage Improvement Project and was included in three NMFS BOs. Spurred by these BOs, the USACE proposed and received authorization and funding from Congress to study the feasibility of a fish passage improvement project. Although NMFS eliminated the project as a condition in the 2014 opinion, NMFS' expectation was that the USACE would carry it through.

Unfortunately, the USACE ignored input from NMFS, the California Department of Fish and Wildlife, Congressman John Garamendi, fishing organizations, coalition member organizations, Native American tribes, many members of the public, and the edict from Congress funding a fish passage investigation. Instead, the USACE eliminated any fish passage improvements from the Yuba River Ecosystem Restoration Project.

Re-initiation of consultation is now long overdue. As the 2012 BO found, the USACE has discretion, and the responsibility, to minimize environmental effects through Corps-funded actions and by imposing terms and conditions in its various contracts, easements, and licenses. This requires consultation with NMFS.

NMFS is also aware that the USACE has not complied with the conditions in the 2014 BO and that this noncompliance is harming protected fish species. The USACE has not operated and maintained the Daguerre Point Dam fish ladders as required. The ladders have been clogged and broken for months on end in the last decade, impeding or preventing fish from migrating upstream to spawn (Yuba RMT Reports, especially 2018-2020).

It is time for NMFS to fulfill its obligations. This includes consultation with the USACE on all of the Corps' actions on the Yuba River that affect threatened fish species, including maintenance at Englebright and Daguerre Point Dams and the issuance of permits and easements to YCWA, Hallwood Irrigation Company and Cordua Irrigation District, and the issuance of a new BO that complies with the ESA. Anything less will likely result in renewed litigation before the Ninth Circuit Court of Appeals, and potentially dire consequences for the Yuba's salmon, steelhead, and green sturgeon.

Additionally, reinitiating consultation now with the USACE may enable NMFS to craft a watershed-wide solution to the many harms inflicted on the Yuba's threatened fish by USACE

and YCWA projects. NMFS is in the process of drafting a BO for all hydropower operations in the Yuba and Bear River watersheds, spanning four hydropower projects – including YCWA's license to operate the Yuba River Development Project. Conditions in the BO for new hydropower licenses must be coordinated with conditions in a new USACE BO on Daguerre Point and Englebright Dams so that responsibilities for offsetting the harm these two agencies cause will be *appropriately proportioned and truly protect fisheries in the Yuba River watershed*.

#### **IV. Recommended Actions for the new Biological Opinion.**

Through hydropower relicensing proceedings, multiple comment and public action letters as well as hundreds of meetings, this coalition has put forth substantive recommendations to NMFS for mitigation and actions on the lower Yuba River. A few of those actions are repeated below, but this list is not exhaustive. SYRCL, Friends of the River and signatories welcome a formal opportunity to provide additional detail and evidence to support a plethora of necessary mitigation actions in a new Opinion.

##### **A. Take Action to Improve Fish Passage in the Yuba River Watershed.**

Englebright Dam on the lower Yuba River has monumental and costly impacts on threatened fisheries. NMFS scientists conclude that Spring-run Chinook salmon will not recover from the high risk of extinction without providing access to the upper three forks of the Yuba, which includes over 90% of their historic habitat within the Yuba River watershed (e.g., stated recently in published NMFS draft rule, “Proposed Designation of Nonessential Experimental Population of Central Valley Spring-Run Chinook Salmon in the Upper Yuba River Upstream of Englebright Dam, California”, 85 Fed. Reg. 79980). Central Valley steelhead have also been brought to the brink of extinction due to dams blocking access to 90% of their spawning habitat. Below Englebright Dam, Daguerre Point Dam also presents a significant impediment to already threatened fisheries. The fish passage that is present is not always functional and does not allow any passage for threatened green sturgeon.

##### **i. Englebright Dam.**

As stated in a 2015 letter from SYRCL to USACE, signatories would like to remind NMFS that reports generated by the Yuba Salmon Forum have evaluated fish passage improvements at Englebright Dam. The reports addressed concerns such as sediment accumulation and economic feasibility and identified at least two options for dam removal or modification (Yuba Salmon Forum, 2013. Assessment of Infrastructure and Related Items to Support Anadromous Fish Passage to the Yuba River Watershed, Prepared by MWH for the Yuba Salmon Forum). Signatories request that NMFS complete the analysis of volitional passage at Englebright Dam in a new Biological Opinion, addressing the issues identified in these reports, and that NMFS more definitively and formally describe in a new Biological Opinion the actions necessary to achieve effective fish passage past Englebright Dam to the upper Yuba River watershed.



## **ii. Daguerre Point Dam.**

Daguerre Point Dam's placement, size, and design is especially harmful to fish and humans alike. The existing fish passage at Daguerre Point Dam impedes migration of salmon and steelhead near the end of their 200-mile journey to spawn and is difficult and expensive to maintain. Daguerre Point Dam is also a complete barrier to the threatened green sturgeon. Additionally, the 25-foot dam causes human fatalities almost annually due to its ogee, or low-head, design. The Dam's main benefit, to support irrigation diversions, can be easily replaced. Removing Daguerre Point Dam, while maintaining water supply, will open up 12 miles of habitat for federally threatened green sturgeon and other fish that are confined below.

As stated in the 2015 letter from SYRCL to USACE,

*“Removal of Daguerre Point Dam is an alternative that should be diligently explored [and required as mitigation for impacts to fisheries, especially green sturgeon] in this [new Biological Opinion] Feasibility Study. The dam removal option has been described in a recent study by NMFS (Gathard Engineering Consulting 2014). New damless diversion projects on large rivers (e.g. Sacramento River at Red Bluff, Yellowstone River at Buffalo Rapids and Rogue River at Savage Rapids) should be studied for applicability to a multi-benefits solution at Daguerre Point on the Yuba River. A damless diversion facility could potentially contribute to habitat restoration, flood protection, water supply reliability, public safety, and recreation. Such a multi-benefits solution involving dam removal would require careful integration with floodplain habitat and flood management projects.”*

Signatories request that NMFS complete the analysis of fish passage at Daguerre Point Dam in a new Biological Opinion, addressing the issues identified by SYRCL in 2015, and more definitively and formally describe in a new Biological Opinion the actions necessary to achieve effective and legally sufficient fish passage for all threatened native fish species at Daguerre Point Dam, including necessity and feasibility of dam modification or implementation of a damless diversion facility.

### **B. Improve Community and Recreational Safety in the Lower Yuba.**

Daguerre Point and Englebright dams are aging USACE debris-control dams that pose a potential safety risk to downstream disadvantaged rural communities, especially in the face of climate change. The dams have escaped any climate change analysis and environmental mitigation by being excluded from the scope of both the FERC relicensing process and the USACE Yuba River Ecosystem Restoration Study. The status of the dams' Endangered Species Act compliance has been in litigation for over a decade. Further regulatory oversight and action are needed by NMFS to ensure the health and safety of all who live in and below the Yuba River watershed.

Additionally, management and infrastructure improvements at both Dams could provide recreational and economic opportunities for surrounding communities. For example, a whitewater park as part of Daguerre Point Dam construction could offer an economic boon to the

local economy due to its close proximity to urban areas such as Marysville, Yuba City, Roseville, and Sacramento (e.g., Boise Whitewater Park, *see also* American Whitewater “The Economic Impacts of River Recreation” 2021).

## **V. Request for Inclusion in the Consultation Process.**

It may be that, for all the reasons stated above, NMFS has already decided that it will reinitiate consultation with the USACE and draft a new Yuba River BO. If that is the case, SYRCL, Friends of the River, and other signatories request that their representatives be included in the consultation process. In the previous consultation resulting in the 2014 opinions, environmental stakeholders were shut out, while YCWA, PG&E, and staff of Congressmen Garamendi and Herger took part in several meetings with NMFS and the USACE. This was an inequitable process that did not give all invested stakeholders a voice in the process.

In the interest of administrative parity and effectiveness, we request that if agency representatives are meeting with NMFS, that our representatives also be included in the meetings so that the discussions include all interested stakeholders. Further, if other stakeholders such as the Association of California Water Agencies or YCWA are allowed to submit comments on a draft BO or concurrence, we request that we be allowed to submit such comments as well. SYRCL and Friends of the River, sometimes under the aegis of the Foothills Water Network, have invested much of their time, effort, and resources over the past two decades advocating for protections for Yuba River's threatened fish species and have as much at stake in this process as any other stakeholder.

If NMFS and the USACE have already initiated consultation, we request that NMFS convene a virtual stakeholder meeting so that we may convey our concerns and discuss how we can assist the process. Alternatively, if NMFS and the USACE have not yet begun consultation, we look forward to reading the status report you file with Judge Mendez on January 29, 2021 to learn what progress you have made to comply with the Ninth Circuit's mandate.

## **VI. Conclusion.**

In closing, SYRCL, Friends of the River, and their coalition partners urge NMFS and the USACE to comply with their ESA obligations, reinitiate consultation with the USACE, include coalition representatives in the process, and issue a new Biological Opinion on the lower Yuba River.

This action is long overdue and critically urgent because of continuing dramatic decline of threatened keystone fisheries, perpetual litigation and resulting delay in implementing protective mitigation measures or adaptive flow management, and the increasing impacts of climate change in the Yuba River watershed. Additionally, the new Biological Opinion should be coordinated with the other ESA consultation occurring for the hydropower licenses and require measures that are proportionally attributed to various parties, necessary to restore the Yuba River ecosystem, and ensure that the survival and recovery of threatened Yuba River fish are no longer in jeopardy.

We thank you in advance for your consideration of these requests and look forward to hearing from you.



Sincerely,



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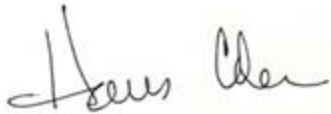
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