

December 2, 2015

U.S. Army Corps of Engineers, Sacramento District
Attn: Michael Fong, CESP-K-PD-RP
1325 J Street
Sacramento, CA 95814-2922

Re: Scope of the Yuba River Ecosystem Restoration Feasibility Study

Dear Mr. Fong,

As a coalition of conservation and fishing organizations, we recognize the uniquely important restoration opportunities on the Yuba River, and we welcome the Yuba River Ecosystem Restoration Feasibility Study that the U.S. Army Corps of Engineers (USACE) has initiated with the Yuba County Water Agency (YCWA) as a local cost share partner. Eight of our organizations sent a letter to Col. Farrell in March offering congratulations on the completion of a Reconnaissance Report, providing information on what should be included in the Feasibility Study, and requesting a meeting. While we are disappointed that no meeting was offered, we are determined to work with the USACE and YCWA to help ensure the completion of a study that will lead to successful actions on the Yuba River.

Many of us have participated in the public scoping meetings recently provided by USACE and YCWA, and the comments contained in this letter pertain to some of the key issues and opportunities that should be included in the study and the proposed Draft Environmental Impact Report (EIR) and Environmental Impact Statement (EIS) documents as compliant with NEPA and CEQA. Additional recommendations and detail will be submitted by several signatory groups in separate comment letters. Our intention is to support the USACE in producing a study that yields scientifically sound results, broad support among stakeholders, and a solid basis for project success. We have four general comments, as follows in bold, and some specific comments within each category.

1. Recovery of abundant and diverse salmon and steelhead populations should be a priority for ecosystem restoration in the Yuba River watershed.

Our diverse coalition believes that a focus on restoration of wild salmon and steelhead populations in the Yuba River watershed is a sound approach to improving broader ecosystem benefits. Wild salmon and steelhead 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).

The Feasibility Study should advance ecosystem restoration actions on the Yuba River that are scientifically sound and respond to strong public interest in recovery of three threatened fish species: Central Valley spring-run Chinook salmon, Central Valley steelhead trout and the southern population of green sturgeon. We point to the 18 actions for the Yuba River that were identified by the National Marine Fisheries Service (NMFS 2012) in the Recovery Plan for Central Valley Spring-run Chinook salmon and steelhead trout. For many of these recovery actions, the Feasibility Study process is a critical opportunity to refine descriptions, analyze alternatives and provide leadership and funding for implementation of projects that are designed to achieve biological targets and metrics. The result of such a feasibility study would be coordinated recovery of threatened fish populations and great improvement to ecosystem health for the Yuba River.

We also urge the USACE and YCWA to consider the ecosystem benefits of increased abundance of wild fall-run Chinook when evaluating potential measures. Fall-run Chinook are the most abundant form of salmon in the Central Valley and yet are greatly depressed compared to historic levels. The Yuba River comprises greater than 10% of the total salmon population in the Central Valley and yet there is the opportunity to greatly expand the total population of wild Yuba River salmon, thus contributing markedly to wild salmon abundance regionally.

2. The study should focus primarily on improving fish passage at the two structures for which the USACE is directly responsible: Englebright Dam and Daguerre Point Dam.

Since construction in 1941, Englebright Dam has completely blocked fish passage to habitats in the upper Yuba River watershed. We expect the USACE to develop through this Feasibility Study credible information regarding alternatives for fish passage at Englebright Dam. Although the Yuba Salmon Forum has generated substantial useful information, we urge the USACE to go beyond simply accepting preliminary conclusions of others, and to independently investigate fish passage alternatives.

Recognizing that the USACE includes some of the most talented and experienced engineers in the world, the feasibility study should include a thorough description of how salmon and steelhead could pass to and from the upper Yuba River watershed through volitional means (not by truck). We encourage the project team to draw on ingenuity and new ideas as well as existing information to develop alternatives that best characterize long-term and sustainable options for volitional fish passage. It is not acceptable to dismiss all volitional fish passage concepts because of mercury and sediment management, flooding risk, cost or even biological issues; rather, these issues should be seen as challenges to solve.

The Feasibility Study should thoroughly investigate alternatives for fish passage which involve the removal or lowering of Englebright Dam. The report from the Yuba Salmon Forum on fish passage infrastructure (MWH 2013) evaluated two options for dam removal or modification, each with a certain set of assumptions, and those assumptions included the removal of sediment in Englebright Reservoir through pumping the sediment slurry to locations a significant distance from the reservoir and at much greater elevation. At the most recent Yuba Salmon Forum Plenary meeting (April 2014),

the dam lowering alternative (also called “notch and ladder”) was identified as one that required additional analysis, but no additional study has been conducted. Dam removal alternatives should also be investigated in the Feasibility Study. New and valuable information for investigating the feasibility of removing or modifying Englebright Dam, and restoring migration of anadromous salmonids to the upper Yuba River watershed can be found in reports listed under References below.

Regarding alternatives for Englebright Dam removal or lowering, we expect the Feasibility Study to address the following questions: What would the costs be for lost hydropower generation? What would the costs and benefits be for recreation including economic impacts to the existing marina operation at Englebright Reservoir? What short and long-term dam safety and ecosystem risks and costs are associated with maintaining, removing, or modifying the dam? How much sediment can be permanently or temporarily stored or passed downstream from Englebright Reservoir without significantly harming aquatic habitat or increasing flood risk? How can sediment be removed from Englebright Reservoir at lower cost than previously described? What is the best method for adult volitional fish passage at Englebright Dam? What is the expected survivorship for juvenile fish passing over the Englebright Dam or through existing hydropower facilities? How could an integrated design of dam modification and fish passage facilities maximize cost-benefit? How would various alternatives be impacted by expected climate change trends for hydrology and water temperature?

Daguerre Point Dam involves a host of problems that should be resolved in any project resulting from the Feasibility Study. Problems include delays in migration of adult salmon and steelhead, increased predation on juvenile salmon and steelhead, impacts to juvenile fish from associated diversion structures, total blockage of migration for green sturgeon, impaired river recreation and deaths to humans from drowning. While there may be cost-effective alternatives for improving fish passage by renovating the old fish ladders, we urge the USACE to develop and evaluate alternatives that could provide a multi-benefits solution that permanently resolves issues for threatened fish, complements habitat restoration actions, reduces the environmental impacts associated with water diversions, enhances recreation and protects public safety. Removal of Daguerre Point Dam is an alternative that should be diligently explored in this Feasibility Study. As a starting place, the dam removal option has been described in a recent study by NMFS (Gathard Engineering Consulting 2014). Further, 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 evaluated for applicability to a multi-benefits solution at Daguerre Point on the Yuba River.

3. The Feasibility Study should consider all reasonable means by which habitat may be improved in the lower Yuba River, including restoration of historic floodplain areas within the Yuba Goldfields.

We applaud the long list of preliminary measures for habitat restoration in the Lower Yuba River that have been presented in public scoping meetings, and we urge USACE and YCWA to think even more boldly about options to expand and improve healthy riparian and floodplain habitat. Following the initial impacts from historic hydraulic mining debris, dredger mining activity in the lower Yuba River led to the disconnection of most of the historic floodplain, and the creation of what is called the Yuba

Goldfields. Restoration planning documents for the lower Yuba River (PWA 2004, cbec et al. 2010, and cbec 2013) describe options for habitat restoration which include floodplain enhancement and also re-connection of portions of the historic floodplain. The Feasibility Study should investigate options to expand floodplain habitat beyond the existing confines of dredge tailings (training walls) and levees.

Experts agree that the quantity and quality of juvenile rearing habitat is one of the most important factors limiting Yuba salmon populations. One of the most promising opportunities to improve juvenile rearing habitat may be topographic modifications to increase the area and frequency of inundation in locations such as the Teichert Plant near Hallwood in the north Goldfields (cbec 2014). Further, there is evidence of methods that could be used to successfully restore large areas of riparian habitat from barren gravel bars (SYRCL 2013). Additionally, the Feasibility Study should identify ways to integrate restoration actions with the efforts by the Three Rivers Levee Improvement Authority (TRLIA) to improve flood protection in the Goldfields (TRLIA 2015). TRLIA's project options have different consequences for aquatic habitat restoration opportunities on the lower Yuba River.

4. The Feasibility Study process should use all pertinent existing information, and include adequate consultation of experts and stakeholders.

Many of us have long participated in the Yuba Salmon Forum, a diverse stakeholder group with a purpose to identify and seek to achieve actions that contribute to recovery goals for salmonid populations in the Yuba River watershed. We support the continuation of stakeholder involvement in planning projects and look to the USACE study and DEIR review process to include this important involvement of local stakeholders.

The final Feasibility Study must be comprehensive and broadly accepted in order to provide a solid basis for funding and implementation. We note that the Reconnaissance Report did not reference several of the important documents listed below. Also, some have suggested that the USACE may choose to not use valuable sources of existing information in favor of generating needed information through more standard USACE methods. Perhaps unlike rivers elsewhere, a tremendous amount of work has already been done to describe or support analysis of conditions and restoration opportunities on the Yuba River. For example, the Yuba Accord River Management Team has developed LiDAR-based topographic maps and a hydraulic model and the USFWS has funded many restoration planning documents. We encourage the most thorough possible review and use of existing information.

Additionally, we request that local and regional experts, including restoration practitioners and academics, be consulted during the Feasibility Study process. Such experts, as well as other key stakeholders, should be given the opportunity to review and comment on draft reports developed during the Feasibility Study process, as well as contribute to the development of goals and metrics to be used for defining project success. Other Feasibility Study processes, such as the Matilija River Ecosystem Restoration Project (USACE 2004), have used an organizational structure with formalized

involvement of technical experts and local stakeholders, and we urge the USACE to provide a similar structure for the Yuba River Ecosystem Restoration Feasibility Study. Finally, we request that an external independent peer review of the Feasibility Study be conducted in order to ensure that the adequacy and acceptability of study results.

In closing, we appreciate the opportunity to comment on the scope of the Yuba River Ecosystem Restoration Study, as we intend to help the USACE in developing measures that will become successful ecosystem restoration projects on the Yuba River. For this purpose, we also offer our expertise, and our representation of a large portion of the communities of the Yuba River watershed.

We welcome the opportunity to collaborate during the study period. For coordination, clarification or discussion of any technical matters raised in this letter, please contact Gary Reedy, SYRCL's Senior River Scientist (gary@syrcl.org, 530.265.5961 ext. 208).

Sincerely,



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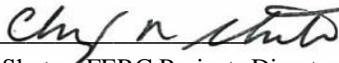


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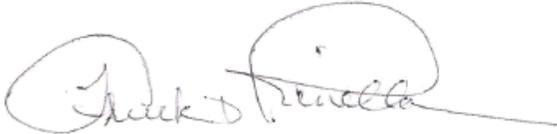


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References:

- Cbec, SYRCL, and McBain and Trush, 2010. Concepts for Rehabilitation of the Parks Bar Reach of the Lower Yuba River. Prepared for the U.S. Fish and Wildlife Service.
- Cbec, 2013. Hydrologic and Geomorphic Analysis to Support Rehabilitation of the Lower Yuba River, Parks Bar to Marysville. Prepared for the U.S. Fish and Wildlife Service.
- Cbec, 2014. Development of Habitat Enhancement Alternatives for Teichert Hallwood Facility and Adjacent Areas, Lower Yuba River. cbec Project #: 12-1034
- FishBio, 2014. Putting a Price Tag on Nature: Part 2. <http://fishbio.com/field-notes/the-fish-report/whats-salmon-worth>
- Gathard Engineering Consulting, 2014. Yuba River Fish Passage Improvement Program. Prepared for the National Marine Fisheries Service.
- Gende, S.M. R.T. Edwards, M.F. Willson, and M.S. Wipfli. 2002. Pacific Salmon in Aquatic and Terrestrial Ecosystems: Pacific salmon subsidize freshwater and terrestrial ecosystems through several pathways, which generates unique management and conservation issues but also provides valuable research opportunities. *BioScience* (2002) 52 (10): 917-928
- R2 Resource Consultants and Stillwater Sciences, 2014. Upper Yuba River Anadromous Salmonid Reintroduction Plan. Prepared for the National Marine Fisheries Service.
- PWA, 2004. Ecosystem Restoration and Flood Hazard Opportunities for the Lower Yuba River. Prepared by Phillip Williams and Associates for the Yuba Feather Workgroup. PWA REF. # 1529
- Stillwater Sciences, 2013. Modeling Sediment Transport Dynamics and Evaluating Flooding Risks in the Yuba and Feather Rivers, California, Following Modifications of Englebright and Daguerre Point Dams, Technical Report. Prepared for the National Marine Fisheries Service.
- USACE, 2004. Matilija Dam Ecosystem Restoration Project. Reports available at www.matilijadam.org/reports.htm
- National Marine Fisheries Service. 2014. Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of California Central Valley Steelhead. California Central Valley Area Office. July 2014.
- TRLIA, 2015. Draft Environmental Impact Report for The Yuba Goldfields 200-year Flood Protection Project. Prepared for the Three Rivers Levee Improvement Authority by AECOM.
- YSF, 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.