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Amber Villalobos
State Water Resources Control Board
Water Quality Certification Program
P.O. Box 2000
Sacramento, CA 95812-2000

Sent via e-mail to: avillalobos@waterboards.ca.gov

Dear Ms. Villalobos:

American Whitewater appreciates having the opportunity to provide comment on the California State Water Resources Control Board's CEQA Section 15063(g) Informal Consultation for the McCloud-Pit Hydroelectric Project. The McCloud River is a special place, providing a resource that is very important to our members. Our organization was a key participant in FERC relicensing negotiations for the McCloud-Pit Hydroelectric Project (FERC #2106).

American Whitewater ("AW") is a national non-profit 501(c)(3) river conservation organization founded in 1954. We have over 5,500 members and 100 locally-based affiliate clubs, and represent the conservation interests of whitewater enthusiasts across the nation. American Whitewater's mission is to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely. A significant percentage of American Whitewater members reside in California and regularly recreate on the McCloud and Pit Rivers when conditions allow.

The twenty-five mile stretch of the McCloud River from McCloud Dam to Lake Shasta is one of the best intermediate level wilderness boating opportunities in California. The Class III and occasional Class IV rapids put this river within the skill level of most of the paddling public. Most of the land surrounding the McCloud River is private, and as a result, the only way for most people to experience the entirety of this amazing river is via kayak or raft. Unfortunately, the effects of the McCloud-Pit Hydroelectric project have made paddling opportunities few and far between on the McCloud River. Flows on the river are regularly either not high enough to boat on or are too erratic to safely enjoy. Additionally, there is a very limited window when flows are in the appropriate range and access is available to the Ah Di Nah put-in. AW sought improvements to recreational opportunities in the new FERC license for this project, and we continue to do so via the CEQA process.



The Narrows on the Lower McCloud.

A. Background

From the outset of the relicensing proceeding for the McCloud-Pit Project, AW took the approach of integrating the needs of whitewater recreation with flows for aquatic resource protection and project operations. Our experience in other FERC relicensing proceedings has led us to the conclusion that flows that restore the snowmelt recession limb combined with higher base flows, which increase habitat and minimize flow fluctuations, will also meet our interest of improving whitewater recreation opportunities. In most instances, this integrated approach provides a far better outcome than providing discrete recreation flow events.

In 2006, AW became extremely concerned when Foothill Yellow-legged Frog (“FYLF”) egg masses were desiccated as a result of operations of the Poe Hydroelectric Project (FERC #2107) on the North Fork Feather River. Flows downstream of the dam receded too quickly following a high magnitude spill event. Monitoring showed that 46 of 89 FYLF egg masses identified during surveys were desiccated when project flows dropped from 2,000 cfs to less than 200 cfs in less than 2 days.

Another mass mortality of FYLF egg masses occurred on the Poe reach of the North Fork Feather River between June 27 and June 30, 2011 when flows dropped from over 2,000 cfs to 114 cfs. This event resulted in the stranding of almost the entire cohort of egg masses on the Poe reach for that year being stranded. AW joined the California

Sport Fishing Association in filing a letter with FERC on July 29, 2011,¹ describing the event, and recommending immediate protocols to avoid such a drop and long-term measures for inclusion in the pending project license. Shortly after that letter was filed, PG&E began to review flow recession rates after high magnitude events at projects throughout its entire system.

Over the past few years, AW has worked with academic and agency experts to gather scientific evidence and develop a conceptual model of flow changes that are protective of a variety of aquatic resources, particularly FYLF, during the spring snowmelt recession period.

In American Whitewater's May 26th, 2009 comments on PG&E's Draft License Application for the McCloud-Pit Project, we described the importance of minimizing the magnitude of flow fluctuations during Spring.² We highlighted the fact that while a considerable amount of time and expense is typically devoted to habitat modeling, this effort generally addresses steady-state flow conditions. At that time, little work had been done to analyze the effects on aquatic species of rapidly changing flows, including examining specifically the rate of transitioning from spill events down to base flows.

B. New Information About Recession Rates

Since filing our 2009 comments, studies have examined the connection between declines in FYLF populations and flows on regulated rivers.³ The magnitude of the drop in flow that led to the stranding events on the North Fork Feather in 2006 and 2011 is extremely rare in unregulated rivers. Working with researchers from University of California, Davis,⁴ we have been able to determine that natural rates of change during the spring snowmelt recession in unimpaired watersheds are very consistent. By analyzing unimpaired watersheds across California, researchers found that recession rates on unimpaired streams vary between 5% and 8% per day. In snowmelt-driven hydrologic systems, frogs and other aquatic organisms have cued into this very stable and consistent snowmelt recession rate, which occurs at a very biologically important time of the year. By laying their eggs at a depth typically between 1 and 2 feet, FYLF create a high likelihood that their egg masses will make it through their 14 to 21 day incubation period without being dewatered by receding snowmelt flows.

Unfortunately, in many regulated river systems, flows drop much faster than 8% per day or more than 1 foot over the three week incubation period necessary for FYLF egg masses. The McCloud River below McCloud Dam is no exception. It has been the assertion by many in this relicensing that FYLF, which have only been found to occur in the lower reaches of the McCloud River, are too far down in the system to be affected by project flow fluctuations. The surveys conducted during relicensing demonstrate that this

¹ FERC eLibrary, Accession No. 20110729-5200.

² See AW comments on Draft License Application, FERC eLibrary, 20090526-5305, pp. 5-8.

³ See Kupferberg, S. J., W. Palen, A. J. Lind, Bobzein, S., Catenazzi, A. Drennan, J., and Power, M. 2012. Population Declines, and Range-Wide Losses of California River-Breeding Frogs. *Conservation Biology* 26: 513-524. See also Yarnell, S. M., Viers, J. H., and Mount, J. F. 2010. Ecology and Management of the Spring Snowmelt Recession. *BioScience* 60:114-127.

⁴ Yarnell and others.

assertion is incorrect.⁵ FYLF surveys conducted in 2008 clearly showed that some egg masses were nearly stranded when flows dropped from 1050 cfs down to 650 cfs over the course of 7 days.⁶

We believe that the ramping rate measures contained in the Forest Service's 4(e) Condition 19 and FERC's analysis of this condition do not take into account the most current science in regards to ramping rates, and more specifically spring snowmelt recession flows. We note that we also believe our recommendation filed in our alternative condition to USFS on March 30th 2010 is also inadequate to be fully protective of Foothill Yellow-Legged frogs and other biota. In that filing we recommended that stage, rather than flow, be the measurement for ramping rate compliance. While we still believe that this would have been an improvement over historic operations, it is our recommendation that the SWRCB require a ramping rate from spill events below 1000 cfs that are no more than 8% per day. This requirement is consistent with requirements that have been agreed to by PG&E for the Drum Spaulding project on the Yuba River, Nevada Irrigation District on the Middle Fork Yuba, and Placer County Water Agency on the Rubicon and Middle Fork American Rivers.

C. Quantify Recreation Needs

The impacts of the McCloud-Pit Project on the beneficial uses of canoeing and rafting have not been fully evaluated. In order to adequately quantify and describe the impact, the actual number of days where the river is boatable needs to be assessed. The number of boating days for previous years of project operations should be compared to the number of days that would be available under unregulated conditions. This should also be quantified for the proposed license, and should be extended to any future alternative flow conditions that may be considered. Additionally, flow is not the only factor that determines whether a river is boatable. Accessing the river is also an important factor, and we expect to see an assessment of access points on the river that considers whether roads are passable during times when the river has enough flow to support boating.

D. Anadromous Fish

American Whitewater provided comment on flows for anadromous fish in our September 28, 2010 comments to FERC on the Draft Environmental Impact Statement,⁷ where we supported efforts as outlined in NMFS's Draft Recovery Plan⁸ for the reintroduction of salmonids to the McCloud River. Unfortunately, FERC rejected the idea of addressing the issue of anadromous fish reintroduction in their final EIS, and we support the SWRCB in doing the necessary analysis towards creating conditions that will make reintroduction, as outlined in the Recovery Plan, a viable option. We request that

⁵ See AW comments on Draft License Application, FERC eLibrary 20090526-5305, pp. 5-8.

⁶ *Id.* at pp. 5-6. See Technical Memorandum 29, *Second Year Foothill Yellow-legged Frog Visual Encounter Surveys and Breeding Habitat Assessment in the Lower McCloud River*, page 13.

⁷ See AW comments on Draft Environmental Impact Statement, FERC eLibrary 20100928-5404.

⁸ See *The Public Draft 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 Central Valley Steelhead*, October 2009. See pp. 159-160 for discussion of the McCloud.

the 401 Water Quality Certification include a clause to re-open the certification in conjunction with the NEPA process when a long-term reintroduction plan is being considered.

Thank you for your consideration of our comments and requests. We look forward to continuing to be involved in the CEQA process for the Water Quality Certification for the McCloud-Pit Hydroelectric Project.

Sincerely,

A handwritten signature in black ink that reads "Dave Steindorf". The signature is written in a cursive style with a long, sweeping tail on the letter "f".

Dave Steindorf
California Stewardship Director