

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

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Modesto and Turlock Irrigation Districts )	
New Don Pedro Project )	P-2299-060

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**CALIFORNIA RIVERS RESTORATION FUND, TUOLUMNE RIVER  
PRESERVATION TRUST, FRIENDS OF THE RIVER AND CALIFORNIA TROUT'S  
COMMENTS ON COMMISSION STAFF'S PRELIMINARY ANALYSIS OF THE  
TUOLUMNE RIVER FISHERIES STUDY PLAN FOR THE NEW DON PEDRO  
HYDROELECTRIC PROJECT (FERC NO. P-2299)**

The California Rivers Restoration Fund, Tuolumne River Preservation Trust, Friends of the River, and California Trout (collectively, "Conservation Groups") provide these comments on the Commission Staff's preliminary analysis (*see* e-Library no. 20070619-0175 (June 15, 2007) of the Tuolumne River Fisheries Study Plan submitted by the Modesto and Turlock Irrigation Districts (collectively, "Districts") (*see* e-Library no. 20070320-5018 (Mar. 20, 2007)). These comments follow, and incorporate by reference, the comments regarding the Districts' Study Plan which we filed on June 19, 2007 (*see* e-Library no. 20070619-5027).

At the outset we wish to express our objection to Staff's preliminary recommendation that the Tuolumne River Technical Advisory Committee (TRTAC) is the venue to resolve many of the outstanding study issues. For example, under recommendations for the Instream Flows, Habitat Restoration, Fry Survival, and Steelhead Presence/Protection, Staff recommends that details for the studies be worked out through the TRTAC. For reasons stated in our July 25, 2005 (e-Library no. 20050725-5060) and September 25, 2006 comments (*see* e-Library no. 20060925-5040), TRTAC, as presently convened, is not an effective forum for timely resolution of study issues. While we do not object in principle to the TRTAC as a forum for oversight of restoration projects, review of monitoring results, and discussion of fisheries-related issues, substantial changes must be made to its operation in order to make it an effective element of the fish management program. More fundamentally, the Preliminary Staff Analysis does not establish a schedule or procedure for the Commission's review and approval of modifications of the Fisheries Study Plan.

The TRTAC was established by the 1995 Settlement Agreement:

"The Management Committee is comprised of management representatives of MID, TID, CDFG, FWS, and the City. Their role is to oversee all TAC activities, to request and receive recommendations from the TAC, and to make policy decisions. The

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Management Committee will be responsible for resolving all issues elevated to it by the TAC. The Management Committee shall operate by consensus.

Under the direction of the Management Committee, the TAC will coordinate, by consensus, flow and non-flow measures for the fishery, monitoring activities, develop adaptive management strategies, and oversee their implementation. Any substantive disagreements among the TAC participants shall be elevated to the Management Committee for timely resolution.”

1995 Agreement, ¶ 14. The TRTAC is not recognized in the 1996 Order (*see* 76 FERC ¶ 61,117) amending the 1964 License (31 FPC 510).

To date the TRTAC essentially has been facilitated and organized by the Districts, and as a result has not consistently provided a fair and objective forum for discussion and decision. The lack of an objective, independent facilitator is compounded by the fact that there are no formal process or communication protocols for the TRTAC meetings. There are no procedures for taking or approving meeting minutes, developing or approving the agenda, resolving disputes, confidentiality, participants’ conduct, etc. We strongly disagree with the Districts’ claims that problems with the TRTAC are new, or that providing for neutrally facilitated meetings would allow “resource agencies to dictate the decisions of the TRTAC.” Turlock and Modesto Irrigation Districts’ Response to Comments, e-Library no. 20050823-5055, p. 3 (Aug. 23, 2005). If the TRTAC is going to be continued through relicensing, and especially if it is going to serve an integral role in developing the details of the Fisheries Study Plan, then several reforms are necessary. Among other things, a written agenda must be distributed well in advance of each TRTAC meeting, and an accurate record of meeting results must be kept and published to report consent (or disagreement) on each agenda item within a short period following each meeting.

The Districts refused to provide the TRTAC an opportunity to review or provide comment on the 10-year Fisheries Report prior to filing it with the Commission. Further, the Districts have not acted to implement *any* reform of the TRTAC process since we first filed comments requesting reform two years ago. Given the Districts’ inaction, we reiterate our request that the Commission direct the Districts to establish protocols, in consultation with agencies and other existing members and other interested stakeholders.

We request Commission Staff’s participation in TRTAC going forward. We understand that the Commission has begun to allow Staff to participate in technical advisory committees in other proceedings and believe such participation is critical if we are to avoid circumstance where fisheries studies under the original license will continue into the relicensing. Such a circumstance is simply unacceptable and inconsistent with the Commission’s obligations under Federal Power Act section 10(a), to condition licenses so as to assure that “the project ... shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the

use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for other beneficial public uses ...” 16 U.S.C. § 803(a).

We request that the Commission convene a technical meeting pursuant to the Commission’s Rules of Practice and Procedure, *see* 18 C.F.R. § 385.601, to discuss and resolve disputed issues regarding the Study Plan. Rule 601 provides that the Commission “may convene a conference of the participants in a proceeding at any time for any purpose related to the conduct or disposition of the proceeding, including submission and consideration of offers of settlement or the use of alternative dispute resolution procedures.” While the TRTAC, following the reforms discussed above, may be able to resolve details of some of the studies, it would be very useful for Staff and the parties to meet to clarify Staff’s preliminary conclusions, narrow points of disagreement between Staff and the parties, discuss reforms for TRTAC, and establish the process for finalizing the Study Plan.

Article 58 requires that the Districts develop and implement “monitoring frequencies and methods ... agreeable among...” them and the California Department of Fish and Game and U.S. Fish and Wildlife Service. It also requires that any “disagreements regarding the conduct of these studies, not resolved among the Licensees and consulted entities,” shall be filed with the Commission for “determination.” The Preliminary Staff Analysis should be amended to specify whether Staff is proposing to add TRTAC to the list of consulted entities in Article 58; and in any event, the schedule and other requirements for the completion of the modifications to the Study Plan or referral to the Commission for determination.

Further, Ordering Paragraph (G) of the 1996 Order provides that the Commission will determine, based on the 10-Year Report, whether “to require further monitoring studies and changes in project structures and operations....” The Preliminary Staff Analysis does not appear to require, reject, or even consider any changes in project structures or operations.

## SPECIFIC COMMENTS

### INSTREAM FLOW SCHEDULE

#### *Pulse Flow Tests*

**“Staff’s Conclusion – We conclude that the Districts continue monitoring smolt production and adult escapement to further develop the relationship between production and flow. In particular, more smolt production data are needed for high flow years, which would likely necessitate the Districts releasing more water than required during the period of study (roughly April to May). ... Staff believes the Districts should develop a study that tests moderately high flow conditions**

**(> 4,000 cfs average Modesto flow during April-May) at least once during the next four years to produce smolt production data for high flow conditions. The Districts need to include in their pulse flow tests, an analysis of more effective timing of spring pulse flows, such as the possibility of making the time of pulse flows dependent on water year type instead of releasing them at the same time every year regardless of river conditions.”**

We agree with Staff’s preliminary conclusion that the Districts should study moderately highflow conditions. However, we disagree with Staff’s preliminary recommendation that the District test one high flow in the next four years because this provides an unreasonably limited dataset. The Commission should require the Districts to test population response to an appropriate range in timing, duration, and magnitude of flows, from 1,500 to 4,500 cfs for 30, 60, and 90 days during the next four years. The water necessary for such tests should be in addition to existing instream flow releases and should not reduce summer flows.

### *Coded Wire Tag Studies*

**“the option to do more CWT studies should remain on the table and [be] discussed further at future [TRTAC] meetings.”**

We believe coded wire tag (CWT) studies would provide useful information if properly designed. However, the Commission should require the Districts to revise the Study Plan to include CWT studies at flows greater than 4,000 cfs. These data are important because they will document how downstream migrating fish relate to higher flows.

### *Rotary Screw Trap Procedures*

**“Staff concludes that the RST procedures must be modified if meaningful results are to be obtained ... the Districts need to work with the TRTAC to revise RST deployment and calibration to ensure that useful data are collected.”**

We agree with Staff’s preliminary conclusion that the Districts’ current RST procedures should be modified. The Districts’ Study Plan includes paired Rotary Screw Trap (RST) studies, but it only commits to four years of study (2007-2011). The Districts state that “[i]t is likely that RST monitoring would be continued after 2011 during formal relicensing to provide ongoing data...” This time period is too short to meaningfully interpret inter-annual variability. This may result in a statistically weak investigation. The Commission should require the Districts to modify RST procedures, and should provide specific recommendations for doing so.

The Districts’ Study Plan does not include increased RST calibration studies that are needed to estimate total abundance. The Commission should require the Districts to revise the

Study Plan to include such studies. The results of calibration studies can be highly variable and many test replicates are needed to compute accurate population estimates.

The Districts' Study Plan does not include RST operations protocol to improve accuracy. The Commission should require the Districts to develop an operations protocol, which would increase consistency between catches so that comparability between years is improved.

As discussed above, reforms at TRTAC are needed before it can provide an effective forum for developing appropriate RST procedures.

### *Acoustic Tracking*

**“The proposed acoustic tracking study to assess response to flow is part of the same tracking study being used to assess predation on smolts ... and will provide useful information to flow-related studies as well as the predation study.”**

We agree with Staff that an acoustic tracking study will provide useful information related to flow-related studies. However, we disagree that the Districts' current study proposal is adequate. Staff should provide specific recommendations to the Districts for the acoustic tracking studies to assist them in distinguishing between a smolt with an implanted transmitter and a predator with a transmitted smolt in its stomach. For example, a recapture effort could be employed as part of this study to provide conclusive evidence as to which fish is being tracked. The Commission should require the Districts to increase the number of fish tagged and the number of stationary receivers used. At least 100 fish should be tagged for each release and stationary receivers should be placed at the boundaries of likely mortality sources (e.g., captured mine pits and special run pools).

### *Fry Survival Study*

**“Staff supports these studies and believes they should provide useful information.”**

We support the fry survival studies subject to the modifications requested below.

## **HABITAT RESTORATION**

**“Staff's Conclusion – the Districts' plan includes the studies that staff considered necessary to address questions regarding the success of the habitat restoration. The details of individual studies are not provided, but we would expect these to be worked out with the TRTAC. Staff's biggest concern is whether some of these studies are of sufficient duration to provide adequate data. The Districts need to clarify their intentions with regard to completing the remaining restoration projects. With respect to additional studies that the agencies suggest need to be**

**undertaken by the Districts, there should be a limit particularly with regard to correcting problems created by past mining practices that are not directly the result of project operations.”**

We do not understand Staff’s comment that the “Districts need to clarify their intentions with regard to completing the remaining restoration projects.” The Commission should require the Districts to provide assurance that it will comply with the non-flow restoration required by the 1995 Agreement and Article 58 of its license. This should include providing a description of how it will obtain funding to complete the key restoration projects.

We disagree that the Districts’ current Study Plan provides adequate studies to determine the success of habitat restoration. The Districts’ Study Plan does not provide for effectiveness monitoring of completed restoration projects. Evaluating population trends in the Tuolumne River requires that all restoration projects be evaluated to ensure that the intended results were achieved. The Commission should require the Districts to undertake effectiveness monitoring for completed restoration projects.

We also are concerned that the Districts’ Study Plan does not include a sufficient number of years of egg survival studies to demonstrate a statistically significant response. The Districts’ studies are budgeted for only two years, 2007 and 2008. If eggs are not available in 2007, then they would implement only one year of study. This may be inadequate considering that the quality of spawning habitat conditions can be highly variable between years due to changes in turbidity, water temperature, egg viability, base flows, flood scour, and redd superimposition rates. The Commission should require the Districts to revise the Study Plan to increase the number of years of egg survival studies.

We are concerned that the Districts’ Study Plan does not include restoring a substantial amount of annually inundated and well vegetated floodplain. These are outstanding mitigation requirements for previously identified, direct effects of the project. The Commission should require the Districts to revise the Study Plan to study appropriate mitigation for project impacts on the floodplain.

We are concerned that the Districts’ Study Plan does not include the use of flow management to reduce redd superimposition. Instead, the Districts will focus on spawning habitat restoration to reduce redd superimposition. However, the U.S. Fish and Wildlife Service and National Marine Fisheries Service have commented that it is necessary to demonstrate that redd superimposition affects smolt production or adult recruitment, before implementing management actions to control redd superimposition. Flows and restoration funds should be focused on factors, such as juvenile survival, that are most likely to improve adult recruitment. The Commission should require the Districts to revise the Study Plan to study the impact of redd superimposition on smolt production and adult recruitment.

We are concerned that the Districts' Study Plan, while it includes an evaluation of restoration effectiveness using metrics of juvenile and smolt production with RSTs and adult recruitment, does not address escapement or adult age analyses which also are needed to estimate adult recruitment. The Commission should require the Districts to revise the Study Plan to include escapement and adult age analyses.

### **FRY SURVIVAL**

**“Staff’s Conclusion – The Districts have made some changes in their RST study from previous years but likely need to modify their RST study further to achieve desired results ... The Districts need to modify their study plan and techniques to ensure that they produce useful and defensible data from the RST study. ... The Districts and Agencies disagree on whether high winter flow results in movement of fry that is beneficial to their survival and ultimately adult production. They should agree prior to the completion of these studies how the study results will be analyzed to address this question to minimize future disagreements in the interpretation of results.”**

We agree with Staff’s preliminary conclusion that RST procedures need to be improved in order to obtain useful and defensible data. As described above, the Commission should require the Districts to revise the Study Plan to include increased RST calibration studies, which are needed to estimate total abundance. The results of calibration studies can be highly variable and many test replicates are needed to compute accurate population estimates.

The Commission should require the Districts to revise the Study Plan to require snorkeling rather than seining to monitor fry movement. Seining is inadequate because capture rates are affected by habitat complexity (i.e., habitat quality) and flow rates. The Commission should require the Districts to monitor fry health.

We support the Micro-Chemical Analysis of Otoliths Collected from Annual Escapement Surveys. However, it is not clear to us who would carry this out. The annual carcass surveys are performed by the California Department of Fish and Game (DFG). FERC has no ability to require DFG to collect otoliths and we have not seen any indication from DFG whether they are willing to undertake this effort. The Commission should require the Districts to cooperate with DFG to complete this work.

### **STEELHEAD PRESENCE/PROTECTION**

**“Staff’s Conclusion – Except for not including in their analysis a consideration of data from nearby rivers, the Districts’ plan addresses most of the items we identified to begin a meaningful analysis of the status of *O. mykiss* in the system. If these studies document the presence of a steelhead trout population in the Tuolumne River, further analysis should be defined to determine what protective**

**measures (e.g., flows, temperature, habitat, passage, etc.) are needed. ... The plan should be revised to include a comparison with results (e.g., return rates and population status) from nearby rivers. With regard to the limiting factor analysis, it is suggested that it might be better for the TRTAC or one of its members (e.g., California Department of Fish and Game or National Marine Fisheries Service) to take the lead on the limiting factor analysis using data generated by the Districts and others.”**

We agree with Staff’s preliminary conclusion that the Districts’ should broaden the Study Plan to include in the analysis a consideration of data from nearby rivers. There is a greater effort to study steelhead on nearby rivers that would provide useful data on the Tuolumne River, such as counting weirs and more efficient rotary screw trap stations on the Stanislaus and Mokelumne rivers. The Commission should require the Districts to revise the Study Plan to include determination of the abundance of adult and juvenile fish at specific intervals throughout the year, not just during the summer. The Commission should require the Districts to expand the Study Plan to evaluate conditions that affect the success of smolt outmigration and adult upmigration.

### **PREDATOR CONTROL**

**“Staff’s Conclusion – The Districts’ plan provides a variety of studies that adequately address the needs identified by staff.”**

We disagree with Staff’s preliminary conclusion that the proposed predator control studies are adequate. The Districts’ Study Plan includes conducting predation studies over a wide range of flows. The Districts propose to compare low (~ 400 cfs) and high (> 2,500 cfs) flows under the existing flow schedule. However, the study period will be limited to no more than 10 days. In comments on the Districts’ Draft Study Plan the agencies recommended that the studies be conducted for a sufficiently long period to both detect the response of the fish (e.g., variations in migration rates and predation rates) and evaluate the full range of environmental conditions (e.g., fluctuations in water temperature and turbidity).

The Districts’ Study Plan includes conducting predation studies on largemouth bass. However, the Districts do not propose to study any other common fish predators such as striped bass or Sacramento pikeminnow. They will use angling, electrofishing, or seining in the downstream portions of the river, but it is unclear whether all habitat types will be surveyed. The Commission should require the Districts to use other means of capturing potential predators that are not effectively captured with electrofishing (e.g., gill nets to capture striped bass and Sacramento pikeminnow). Seining is unlikely to be effective for capturing predators.

The Districts’ Study Plan proposes to use acoustic tags to quantify smolt predation rates. We generally support the use of acoustic tags. However, we believe that the Districts

propose to tag too few fish and use too few stationary receivers, which will not identify critical habitat locations. The Commission should require that the Districts increase the number of fish to be tagged and the number of stationary receivers.

The Districts' Study Plan does not propose to use paired RST studies to evaluate the effects of predation on juvenile survival in the Tuolumne River. Instead, the Districts will use RST studies to document juvenile movement relative to flow and turbidity, but without linking downstream movement to juvenile survival. The Commission should require that the Districts use RSTs to better evaluate the effects of predation.

## **RIVER TEMPERATURE**

**“Staff’s Conclusion – The Districts’ plan includes the elements that we determined were most necessary; i.e., continued development of a thermal model for the Tuolumne River so that the flow-temperature relationship can be better understood, and an analysis of how conditions in the delta might affect the success of any measures taken to improve thermal conditions in the Tuolumne.”**

We support the Districts development of a thermal model and its analysis of the effect of delta conditions on thermal conditions in the Tuolumne. We further support the Districts' Study Plan proposal to use of paired RST studies to determine how flow and temperature affect the survival and production of smolts. However, we continue to believe the Districts' existing Study Plan omits critical study elements.

The Districts' Study Plan does not propose to use of escapement and age analyses to determine how flow and temperature affect adult recruitment. We support the agencies' comments on the Districts' Draft Study Plan, which recommended the trend analyses of adult recruitment should be continued because adult recruitment is a direct measure of our goal to improve adult production and because the data base is relatively long-term compared to juvenile survival studies.

The Districts' Study Plan calls for the use of acoustic tag studies to determine how flow and temperature affect smolt survival. However, the 3-year study period proposed by the Districts is too short and uses too few fish and receivers to evaluate adequately the importance of temperature.

The Districts' Study Plan does not include any fish health studies. Fish health studies are needed to identify the mechanism by which water temperatures affect juvenile survival so that flow management and habitat restoration can target those mechanisms. For example, food limitations could be ameliorated by increasing floodplain inundation during the rearing period, whereas contamination problems could be improved by controlling agricultural return flows.

## CONCLUSION

Thank you for considering these comments. The Conservation Groups look forward to working with Commission Staff, Districts, agencies, and other stakeholders to develop a robust study plan which will provide adequate data on which to base a minimum flow schedule and other non-flow mitigation measures adequate to protect Tuolumne River fisheries. To this end we request that Staff amend its Preliminary Analysis to specify whether Staff is proposing to add TRTAC to the list of consulted entities in Article 58; and in any event, the schedule and other requirements for the completion of the modifications to the Study Plan or referral to the Commission for determination. We further request that Staff amend the Preliminary Analysis to clarify whether it will require, reject, or consider any changes in project structures or operations consistent with Ordering Paragraph G of the 1996 Order.

Respectfully submitted,



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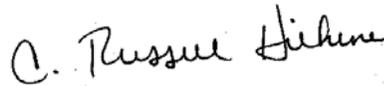
**CERTIFICATION OF SERVICE**

**Modesto and Turlock Irrigation Districts, New Don Pedro Project (P-2299-060)**

I hereby certify that I have this day served the foregoing document, "CALIFORNIA RIVERS RESTORATION FUND, TUOLUMNE RIVER PRESERVATION TRUST, FRIENDS OF THE RIVER AND CALIFORNIA TROUT'S COMMENTS ON COMMISSION STAFF'S PRELIMINARY ANALYSIS OF THE TUOLUMNE RIVER FISHERIES STUDY PLAN FOR THE NEW DON PEDRO HYDROELECTRIC PROJECT (FERC NO. P-2299)," upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated: July 16, 2007

By:



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