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June 15, 2007

Ms. Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

Re: Don Pedro Project No. 2299-057, License Articles 57 & 58 Fishery Monitoring Program

Dear Secretary Bose:

The Turlock Irrigation District and Modesto Irrigation District (“Districts”), licensees of the Don Pedro Project, file this response to the California Department of Fish and Game’s (CDFG) letter dated May 23, 2007. The CDFG Letter “re-iterates and clarifies various [CDFG] comments provided to the Federal Energy Regulatory Commission [Commission] since July 25, 2005.” This letter provides a response to CDFG’s most recent submittal, and supplements the responses previously filed by the Districts.<sup>1</sup>

Flow and Model Issues

CDFG’s flow-related arguments are based upon the premise that “Evidence collected to date strongly suggests that elevated winter and spring flow levels in the Tuolumne River, over longer durations, provide both individual, and cumulative (winter and spring flows combined) smolt out-migration production benefits.” (Footnote 2, CDFG Letter.) While the Districts fully recognize that flow is an important aspect for salmon, the CDFG uses a subset of its San Joaquin Fall-run Chinook Salmon Population Model (Final Draft 11-18-2005) as support for its extremely high flow recommendations. As previously discussed (Districts’ Enclosure H to their March 20, 2007 filing and Attachment 1) CDFG had a review performed of its model. Four out of five reviewers found fundamental flaws with CDFG’s model. The following are representative quotes from Peer Reviewers #2, #3, #4, and #5 to supplement those submitted in the earlier filing:

- “*Is the model adequate?* No. The population model has many flaws. The model in no way validates or confirms the importance of Vernalis flow.” (Peer Review #2, p. 2.)

<sup>1</sup> The Districts have previously addressed CDFG’s comments, including, but not limited to, the Districts’ August 23, 2005 response to the July 25, 2005 comments of CDFG (and others), the Districts’ December 21, 2005 response to the November 22, 2005 comments of CDFG (and others), and the Districts’ March 20, 2007 filing, which included a technical response jointly prepared by fishery biologists for the Districts and the City and County of San Francisco to the March 5, 2007, comments of CDFG (and others).

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- **“By only including Vernalis flow and hatchery augmentation, there is no way of evaluating other alternatives like Delta exports or ocean harvest. This basic mistake suggests either that the author has either a very biased perspective, or has little experience with resource management modeling.” (Peer Review #2, p. 5.)**
- **“There is no statistical reliability to the model.” (Peer Review #2, p. 7.)**
- **“The strong correlation between flow and adult returns does not necessarily imply causality. For example, the high abundance during the mid-1980’s (Fig. 1) was a coast wide-phenomena seen from California to BC. It is widely acknowledged as a period of high-marine survival. Flow may have an important influence on Chinook production during some periods, but it is overstating the case to say that production is largely driven by flow.” (Peer Review #2, p. 9.)**
- **“...the strength of the conclusion that spring flows are the key determinant of salmon production is not substantiated by the data.” (Peer Review #2, p. 11.)**
- **“I strongly disagree with the conclusion that this model provides a tool to predict the amount of flow required to meet the doubling goal. The modeling effort violates many basic modeling approaches and biological principles and is deficient on all fronts (structure, parameter estimation, uncertainty analysis, policy evaluation).” (Peer Review #2, p. 12.)**
- **“In short, I find that most of the assumptions and conclusions are either not supported by the data or cannot be supported by the analyses. As a consequence I find the model to be unsuited for the purposes to which it has been put.” (Peer Review #3, p. 14.)**
- **“The model does not provide evidence that spring flow is important. The model was built under that assumption. Be clear that the data were analyzed and the author concluded that flow was important. It is not a model result.” (Peer Review #4, p. 10.)**
- **“...the Reviewer . . . does not see the model as a stand alone tool to provide long-term flow recommendations.” (Peer Review #5, p. 5.)**
- **“The reviewer is not convinced that Delta exports play no role as noted numerous times in the report.” (Peer Review #5, p. 2.)**
- **“In a complex system such as the San Joaquin River, Delta, San Francisco Bay, and Pacific Ocean, it may be difficult to identify the actual limiting factors – which may vary appreciably in space and time. That is, in any given year river flow, ocean conditions, tributary conditions (flow, habitat, and/or, temperature, predation), Delta export, and/or other factors may be individually a dominant factor or present a combination of stressors.” (Peer Review #5, p. 6.)**

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Based upon the reviewers comments quoted above, it is clear that the CDFG model is not at a level of development to be used as the basis for justifying any flow changes in the Tuolumne River.

Under Section 10 of the 1995 FERC Settlement Agreement (FSA), CDFG along with all of the other signatories agreed that the Districts were not responsible for factors impacting salmon production on the Tuolumne River that were outside of their control, including "Delta export operations, commercial and sport salmon harvest, land use activities on non-District owned lands within the Tuolumne River riparian corridor, and riparian diversions below La Grange Dam." While CDFG's May 23, 2007 letter acknowledges factors outside of the Districts' control as including "Delta pumping, ocean harvest, and channel morphology," CDFG argues that those "are not principal factors affecting adult salmon abundance in the Tuolumne River." (Footnote 3, CDFG letter.) As revealed by the CDFG model peer reviewers, CDFG has structured its model so that outside factors, such as Delta export operations, ocean harvest, ocean conditions, and density dependent factors, are effectively excluded from the model's analysis and only flow and hatchery augmentation are emphasized. CDFG also discounts the relative importance of fry outmigration as a factor influencing adult salmon abundance in the San Joaquin Basin. CDFG apparently realizes that under Section 10 of the 1995 FSA, it agreed that no additional measures would be required after 10 years if the 1995 FSA goals were not achieved because of factors outside the control of the Districts. However, CDFG admits that its recommended increased Project flows are intended to mitigate for numerous factors both within and downstream of the Tuolumne River that are outside the control of the Districts (CDFG Letter Item 1h).

#### Temperature

CDFG asserts (CDFG Letter Items 1e and 1f) that "excessively warm spring water temperature impairment" exists in the Tuolumne River. While temperature is an important issue, such impairment has not been demonstrated for the Tuolumne River (tributary to the San Joaquin River). CDFG also does not seem to consider temperature in the San Joaquin River, which is subject to factors outside of the Districts' control.

#### Salmon Population Numbers

CDFG reiterates its November 22, 2005 comment concerning discussion leading to the Commission's 1964 Order. In that discussion, reference was made to an average annual escapement of 40,000 spawning fall-run Chinook salmon. The Districts addressed that issue in their December 21, 2005 *Response to Additional Comments on the 2005 Ten Year Summary Report*. However, since CDFG has again raised this issue, the Districts provide these further comments.

- In a 1965 decision, by the 9<sup>th</sup> Circuit Court of Appeals, it was noted that the Tuolumne River fall-run Chinook salmon "run was only five hundred in 1961, two hundred fifty in 1962 and one hundred in 1963." (345 F.2d 917, 927 (1965).) This demonstrates the runs were in decline prior to the construction of the project. In recognition of this fact, the Commission in its May 6, 1964 Order amending Order No. 420, concluded that, "... this [New Don Pedro] project will greatly relieve an existing situation in which the fish would soon be destroyed if the project were not built." (31 FPC Reports at 1130 (1964).)

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- The 40,000 average spawner number referenced by CDFG is not a relevant number, as it was based upon the inclusions of runs prior to 1950, particularly the extremely large 1940 and 1944 runs. (345 F.2d at 927.) Those atypical runs included in the average must be viewed as an exception in nature, and not as the norm. There is also no way to verify the accuracy of most other large CDFG run estimates prior to the early 1960's.
- The San Joaquin River, the Delta, and the Tuolumne River are all highly altered from their conditions that existed in the early 1940's. The Tuolumne River suffered extensive destruction of the river channel as a direct result of extensive in-channel mining for gold, sand, and gravel. Flows were effectively cut off (in all but the wettest years) from the Upper San Joaquin River, which produces essentially the same unimpaired runoff as the Tuolumne River (about 32% of the basin total) following the construction of the federal Friant project in the 1940's. The federal and state Delta water export facilities began operation in 1951 and 1968, respectively. These projects substantially altered the flow regime in the Lower San Joaquin River and the Delta, thereby reducing the rearing benefits and survival of San Joaquin Basin juvenile salmon in their journey to the Pacific Ocean.

Rainbow Trout

CDFG's claim regarding rainbow trout "production lost due to Project operations" is not applicable. The very low summer flows that CDFG recommended to the Commission in the original licensing proceeding insured little or no production of trout in the lower Tuolumne River, as trout were considered to be predators of juvenile salmon. The 1996 FERC Order has already succeeded in providing improved and more consistent habitat conditions for trout in the Tuolumne River as presented in the 2005 Ten Year Summary Report. The Districts believe the appropriate focus should be on rainbow trout in general, rather than only the anadromous life form<sup>2</sup>.

Restoration and Monitoring

When the 1995 FERC Settlement Agreement (FSA) was developed, the signatories agreed to work together in good faith to implement its provisions. In addition to the responsibilities of the licensees under the FSA, the agreement also assigned specific duties to the other participants including:

- "CDFG and FWS will actively pursue funding from various sources to assist in completion of the 10 priority projects selected by the TAC." (1995 FSA, Section 12(g)(3).)
- "The parties agree that nothing herein is intended to prevent any of the parties from seeking funds or financial assistance from third parties for the funding of non-flow options and the parties are encouraged to seek and to cooperate in obtaining such outside funding." (1995 FSA, Section 12(g)(4).)

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<sup>2</sup> CDFG cited their 1996 Steelhead Plan which primarily called for a hatchery on the Tuolumne River producing up to 20,000 yearling steelhead annually.

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- “If, at the end of the first 10 years of this agreement, the CDFG finds that it is necessary and appropriate to continue monitoring spawning escapement for the remainder of this agreement, it will do so to the extent possible.” (1995 FSA, Section 13, second “a”.)

In accordance with Section 12 of the FSA, the Turlock Irrigation District (TID), on behalf of the Tuolumne River Technical Advisory Committee (TRTAC), has submitted several grant applications for restoration projects and monitoring. These applications (primarily to CALFED and the Anadromous Fish Restoration Program – an element of the Central Valley Project Improvement Act) have resulted in nearly \$10 million of grant money expended to restore portions of the Tuolumne River channel as discussed in the 2005 Ten Year Summary Report.

In 2003, CALFED approved TID’s \$4.4 million grant application to fund gravel additions and monitoring within the lower Tuolumne River spawning reach (CDFG Grant No. ERP-02-P29) as one of the 10 priority projects selected by the TRTAC. Subsequent to the approval, TID identified an alternative that would provide more gravel additions to the river with the approved funding, and filed an amendment for authorization to proceed. However, implementation of the grant has been delayed pending a resolution of the amendment request. The responsibility for funding and administration of the grant was then transferred to CDFG in 2006. Despite numerous attempts by TID to obtain amendment approval, CDFG has failed to respond to its requests. For example, as recent as May 2007, consideration of the amendment was scheduled at the designated committee, then without notice or explanation CDFG pulled the item from the agenda. This is inconsistent with Section 12(g) of the FSA.

In addition, the TID submitted another application on behalf of the TRTAC for a CALFED grant to fund specific restoration project and related river-wide monitoring over a three-year period. After an extensive grant review process, a \$2.4 million grant was awarded in September 2005 (CDFG Grant No. ERP-04-S04)<sup>3</sup>. As described in the March 20, 2007 revised Tuolumne River Fisheries Study Plan, a significant number of the monitoring activities over three years, including CDFG spawning surveys and operation of the lower rotary screw trap (RST), would be paid for with this grant. The Districts believe CDFG has been delaying implementation of the grant for non-substantive reasons. Section 2 of the CDFG Letter states “The Licensee’s (sic) funding of key monitoring elements should include:” (a) RST monitoring throughout the entire juvenile salmonid migratory period; (b) fall adult escapement and age analyses conducted by CDFG, and (c) juvenile salmonid survival studies via use of coded wire and/or acoustic tags. It appears CDFG is withholding CALFED awarded funds because CDFG feels the Districts should pay for all monitoring activities even if outside funding is available. The Districts’ view this CDFG position, as well as CDFG’s request that the Districts fund CDFG spawning surveys, as inconsistent with the FSA, and specifically contrary to the Section 13 provision that CDFG would fund its spawning surveys after 10 years<sup>4</sup>.

In reviewing the CDFG recommendations, we respectfully request the Commission take into consideration the CDFG’s obligations under the FSA.

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<sup>3</sup> By agreement, \$400,000 of the monitoring grant was shifted to the above gravel addition grant.  
<sup>4</sup> Even if CDFG funds are not available, the monitoring grant specifically included funding to pay CDFG to conduct three years of spawning surveys.

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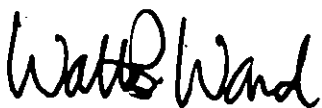
The Districts agree with the CDFG statement (CDFG Letter Item 2d) that seining is not a "population estimation tool". However, as previously addressed in the Districts' August 23, 2005 comments at page 13, seining is a well-established and valid sampling method used as an indicator of rearing juvenile salmon abundance, size, and distribution that is widely employed in Central California fishery monitoring<sup>5</sup> – seining has been successfully used in Tuolumne River study program for the past 25 years.

We appreciate the Commission's consideration of all of our comments. The Tuolumne River Fisheries Study Plan submitted on March 20, 2007 satisfies the requests of the Commission staff. Therefore the Districts respectfully request that the Commission approve the Study Plan so this vital work can commence without further delay.

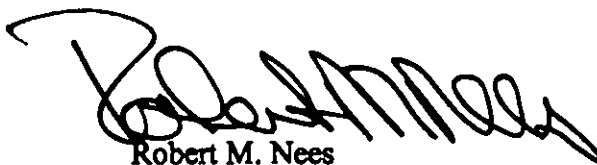
Sincerely,

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<sup>5</sup>For example, seining is regularly performed in juvenile salmon monitoring at nearly 50 sites within the Bay-Delta system as part of the Interagency Ecological Program (IEP); the CDFG is a member of that program. The IEP seining program began in 1976 and now includes at least eight seining sites on the San Joaquin River from the Tuolumne River downstream to Stockton.