COMMENTS
Pre-Application Document
Merced River Hydroelectric Project
Docket No. P-2179-042
Applicant: Merced Irrigation District.

Filed by:
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Ms. Kimberly Bose
Secretary, Federal Energy Regulatory Commission

Dear Ms. Bose:

Thank you for the opportunity to submit comments on behalf of the California Sportfishing Protection Alliance (CSPA) regarding the Pre-Application Document (PAD) for the relicensing of the Merced Irrigation District's Merced River Hydroelectric Project.

Need for Information Regarding Irrigation Deliveries

CSPA has already submitted scoping comments on this project (Accession # 20090202-5022). As a general matter, CSPA finds that, just as the licensee proposes to inappropriately limit the geographic scope of the project as it is considered in the relicensing, the scope of the information presented in the PAD has also been limited geographically. Thus, the PAD fails to present sufficient information and detail about the effects of the project, most notably in the Merced River downstream of McSwain Dam, and to an even greater degree downstream of Crocker-Huffman Dam.

In addition, on page ES-1, the PAD states: "Water Supply Highest Priority." Licensee, on page 2.1.3 of the PAD, describes its interests in the relicensing: part of its relicensing goal is a new license that "preserves and enhances the value of Merced ID's Project as both a source of power and consumptive water, and maintains a robust, economically competitive Project." However, on the same page, licensee states: "Merced ID's interest is to not confuse the Relicensing by addressing Merced ID's facilities, features and operations that are non-Project related, and, therefore, outside of FERC's jurisdiction under Relicensing."

As also discussed in our scoping comments, CSPA maintains that, far from being "confusing," discussion and understanding of all aspects of MID operations are essential to understanding project effects on aquatic resources, and to best meeting MID's interests when it comes to the development of PM&E measures (particularly in light of the declared "Water Supply Highest Priority"). The jurisdictional reach of FERC is far less clear than the PAD makes it out to be, and cannot simply be assumed in limiting up-front information: indeed, the very purpose of a Pre-Application Document under the Integrated Licensing Process is to be comprehensive, not limiting, in the gathering and presentation of information that may have a bearing on the ILP and also on the associated National Environmental Policy Act review process.

The compliance point for instream flow releases from the Project to the Merced River is 23.6 miles downstream of the Project at Shaffer Bridge near Cressey. A lot can and does happen in those 23.6 miles. However, a large amount of detail regarding the Merced River in this long stretch of river is lacking. On page 7.2-24, in addition to MID irrigation diversions, seven additional diversions are listed, with a combined maximum, under the Cowell Agreement, of 250 cfs. However, the timing (daily to seasonal) of these diversions by locations is not specified. The presence or absence of fish screens is not stated. Moreover, the PAD states there are estimated to be 170 diversions between McSwain Dam and the confluence of the Merced with the San Joaquin, including smaller diversions between McSwain Dam and Shaffer Bridge. Further, there are numerous return flows that enter the river between Crocker-Huffman Dam and Shaffer Bridge, in some cases sufficient to meet a significant part of the instream flow requirement (see hydrology data, PAD Appendix G) at Shaffer Bridge.

The overriding purpose of the minimum instream flow requirement downstream of the Project is to protect and preserve aquatic resources in the Merced River. There is no way to evaluate the effectiveness of the flow requirements in the absence of specific knowledge of other activities that take place in and around the river, and particularly of those that take place upstream of the compliance point.

All available diversion data should be gathered for the Cowell diverters and for any other known diverters to the degree possible, especially those upstream of Shaffer Bridge. This should include amount of diversions, duration and timing (season, when during the day, patterns, etc.), and general operating principles. If a solid dataset cannot be assembled for the Cowell diverters, licensee should begin gaging those diversions immediately. Where complete data is not available for smaller diversions, those diversions should be estimated or synthesized, with clear statements about how the information was assembled and the rationale for how it was done. Return flows should also be treated in the same fashion, gaged where data is available, and synthesized where data is absent.

Water Balance/Operations Model

More specific information regarding downstream diversions than is presented in the PAD is particularly needed to inform licensee-proposed Water Balance/Operations Model study proposal (2.2). It appears from licensee's strawman proposal that licensee simply

proposes to use a block, general estimate for the agricultural diversions downstream of the project, with no ability to adjust or change the inputs. In order to accurately characterize what happens in the river, and also to account for human-caused variability, the model must have flexibility in adjusting those inputs.

The model must be extended downstream at least to the compliance point at Shaffer Bridge. The fact that this is somewhat more difficult, or that some may find it "confusing," does not relieve the licensee of the obligation to assist relicensing participants in understanding the actual effects in the Merced River of project instream flow releases. This is implicitly recognized in the placement of the compliance point at Cressey, and not simply at McSwain Reservoir, Merced Falls, or some other point in between.

In addition, licensee proposes an input to its proposed water balance model that will estimate flows required by the Vernalis Adaptive Management Plan. Since the future of the VAMP flows is unknown, and since something is likely to replace the VAMP flow requirements in the next several years, the water balance model should also leave San Joaquin water quality flows as a variable that can be input by the model user.

In general, the water balance model must have transparent operating rules that are clear and agreed to by those relicensing participants who have the technical ability to understand them.

The National Marine Fisheries Service should be added as an agency with jurisdiction over the area to be studied

Water Temperature Model

The Water Temperature Model as proposed in licensee's strawman study 2.4 also limits the study area so that the downstream-most extent of the study is Crocker-Huffman Dam, though there is a caveat in the PAD that the study area may be extended under unspecified circumstances. Clearly, the area of greatest concern for water temperature, both for keeping water not too cold or too hot in the spring, and not too hot in the summer and fall, is the Merced River downstream of Crocker-Huffman Dam, since Crocker-Huffman is the present upstream limit for anadromous fish.

The temperature model should absolutely be extended downstream at least as far as Shaffer Bridge. We recommend that the model be extended downstream to the confluence of the Merced with the San Joaquin River, at least during critical spring and fall periods, when anadromous salmonids in specific lifestages are likely to be rearing or migrating through the lower river.

Licensee proposes to modify an existing model previously developed. This model is on a six hour timestep, which in itself makes its use problematic, especially in sensitive areas that are at sublethal or close to lethal levels for salmonids.

Moreover, there is insufficient information presented in the PAD that addresses whether sufficient data is available for use in calibrating the existing model. While the PAD presents hourly water temperature data for the period from October 1999 through January 1, 2003, the PAD does not present hourly flow data for the same period, and also does not appear to present appropriate hourly meteorological data for the period (not only ambient temperature, but wind, solar radiation and other). It is difficult to understand if actual data exists to calibrate the model, or if licensees propose to synthesize part of the data in order to calibrate the model. Synthesis of calibration data is not acceptable, and does not meet FERC ILP study criteria, which require that study development employ generally accepted scientific practices.

Moreover, it is not clear from the PAD whether there are low water years captured in the proposed calibration dataset, or whether any of those years were examples of unusually hot meteorology. Both of these elements would be important to have included in a temperature model calibration dataset. Complete datasets for all of these elements must be available in order to calibrate a model based on data from 1999-2002.

If sufficient data does not exist to calibrate the water temperature model previously developed by others, licensee must also develop a water temperature monitoring plan to support the development from scratch of a water temperature model for use in the relicensing. In such case, licensee must also propose protocols for the development of ambient temperature data, and gain agreement from relicensing participants that the proposed ambient temperature data development is appropriate. This is a matter that licensee will need to frontload in order to be able to collect data in time to meet ILP deadlines.

The National Marine Fisheries Service should be added as an agency with jurisdiction over the area to be studied.

Maps of the Project

Appendix E does not provide maps of the project area downstream of Crocker-Huffman Dam, even though the PAD at various points provides data for various aspects of the Merced River as far downstream as the confluence with the San Joaquin River. Failure to provide a map of the Merced River downstream of the project simply makes more difficult common reference to geography that is critical in the relicensing process. The river, and the need to consider it, do not go away simply because a map is not provided. Licensee should provide a detailed map of the Merced River from Crocker-Huffman Dam to the San Joaquin River to relicensing participants, and post the map on its website.

Respectfully submitted,

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